

Dec. 15, 1942.

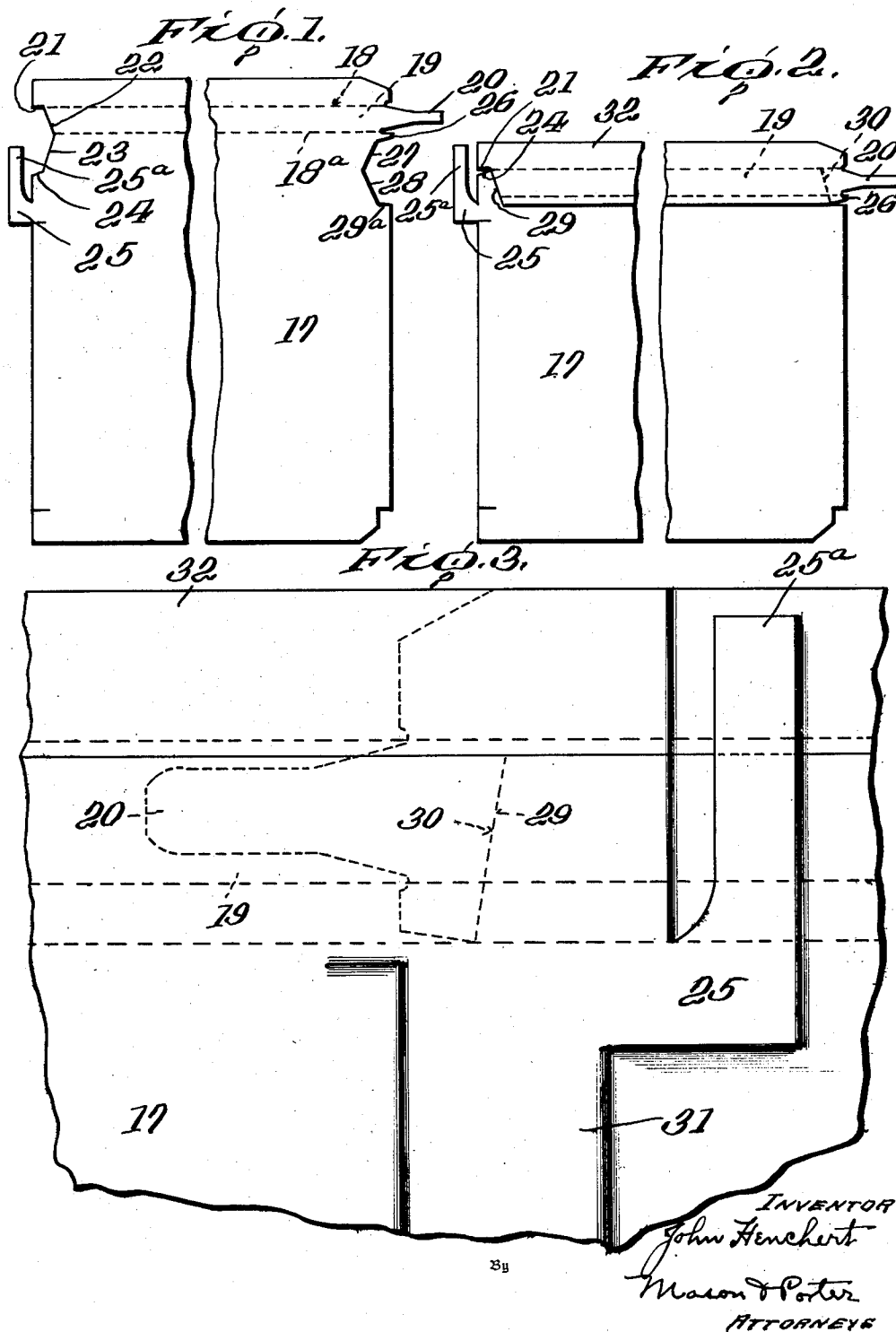
J. HENCHERT

2,305,528

CONTAINER

Filed Jan. 18, 1940

2-Sheets-Sheet 1



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CONTAINER

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2 Sheets-Sheet 2

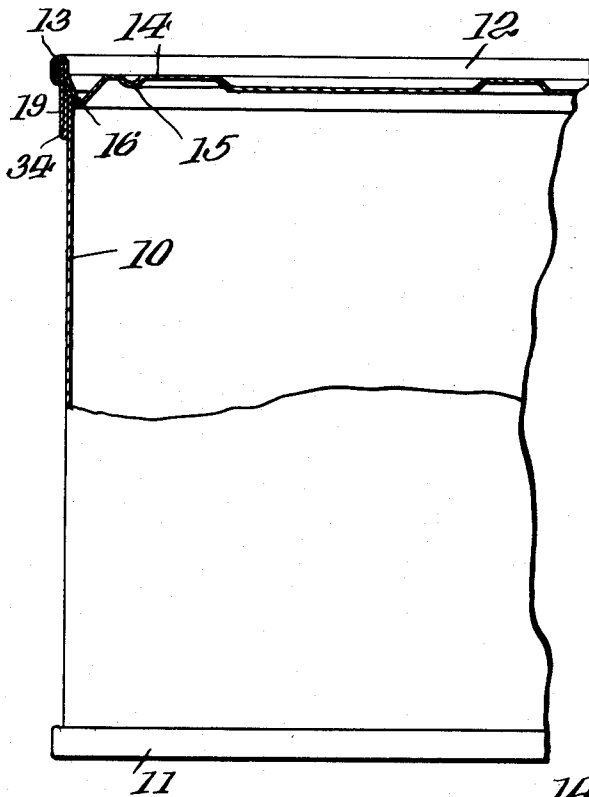


FIG. 4.

FIG. 5.

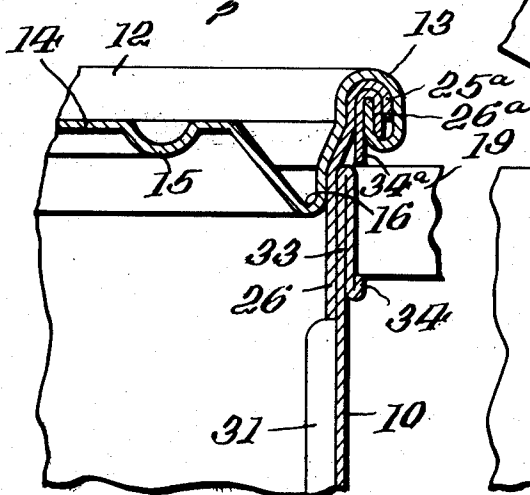
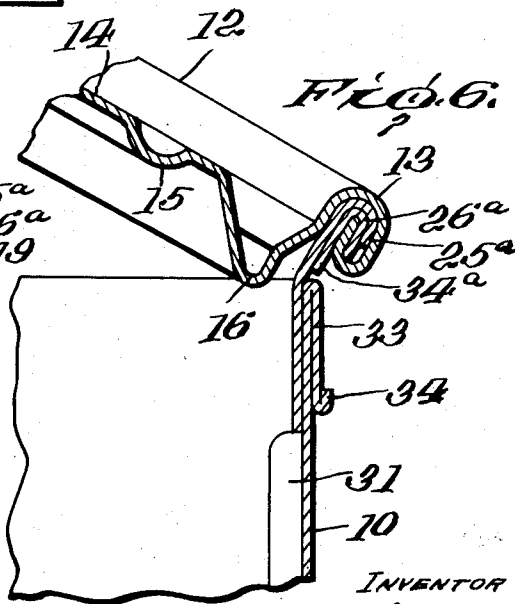


FIG. 6.



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2,305,528

CONTAINER

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2 Claims. (Cl. 220—54)

The present invention relates to new and useful improvements in sheet metal containers, and more particularly to improvements in a sheet metal container which is adapted to be hermetically sealed and which includes a rip or tearing strip for permitting easy opening of the container.

An object of the invention is to provide a container of the above type wherein the rip strip extends entirely around the body wall of the container so that it may be completely removed therefrom, and wherein means integral with the container are provided for connecting the cover to the body portion so that the cover can be hingedly opened after the rip strip is removed.

A further object of the invention is to provide a container of the above type wherein the hinge connection between the cover of the body portion is formed integral with the body wall and the container and independent of the rip strip so as to permit the cover to be hingedly opened after the rip strip is removed.

A still further object of the invention is to provide a container of the above type wherein the body blank is provided with an integral hinge member extending from one end thereof and wherein this hinge member extends into and is secured by the seam connecting the cover to the body portion so as to permit the cover to be hingedly opened when the rip strip is removed.

The invention still further aims to provide a container of the above type which is simple in construction, which necessitates the employment of a minimum number of cooperating parts, and which permits the container to be reclosed by the cover after the rip strip is removed by means of the hinge connection between the cover and the body portion.

The above and other objects of the invention will in part be obvious and will be hereinafter more fully pointed out.

In the accompanying drawings,

Figure 1 is a fragmentary plan view of the body blank before any folding operations are performed.

Figure 2 is a similar plan view of the body blank of Figure 1 after the folding operations have been performed.

Figure 3 is an enlarged fragmentary view showing the inside of the container in the region of the upper end of the side seam with the hinge member properly positioned.

Figure 4 is a fragmentary side view, partly in section, showing the container with the cover sealed thereon.

Figure 5 is a further enlarged fragmentary sectional view through the hinge connection between the cover and the body portion of the container, showing the cover closed and the rip strip partially removed.

Figure 6 is a view, similar to Figure 5, but showing the rip strip completely removed and the cover in a partially opened position.

Referring more in detail to the accompanying drawings, and particularly to Figure 4, the container is illustrated as including a body portion 10 which may be cylindrical or of any other suitable shape. The usual bottom closing end is secured to the body portion by a double seam 11 or the like, and the upper end of the body portion 10 is closed by a cover 12 which is double seamed thereto, as at 13. The cover is shaped to provide a depressed central portion 14 which has an annular depending strengthening rib 15. The outer edge of the depressed portion 14 of the cover is shaped to provide a depending annular friction wall 16 which cooperates with the inner surface of the body portion 10 and which serves as a reclosing friction wall permitting the container to be reclosed after the rip strip is removed for the initial opening of the hermetically sealed container.

The manner in which the body portion of the container is formed will now be briefly described with respect to Figures 1, 2 and 3 of the accompanying drawings. The body blank 17 is suitably shaped along its vertical edges to provide an interlocking side seam at least through the major central portion thereof while the ends of the side seam are joined by lapping. The upper portion of the body blank 17 is provided with score lines 18, 18a extending entirely across the same and defining the rip strip 19 which has a laterally extending tab portion 20 at one end thereof. At the opposite end of the rip strip 19, the vertical end of the body blank is cut to provide an inwardly extending and substantially horizontal edge 21 below which the body blank is cut to provide a downwardly and inwardly inclined edge 22 extending across the rip strip to a point slightly below the lower score line 18a. From the bottom of the inclined edge 22, the body blank is cut to provide a downwardly and outwardly inclined edge 23 which merges into an outwardly inclined edge portion 24 extending to the adjacent vertical end of the body blank.

Below the cut away portion defined by the edges 21, 22, 23, 24, in this vertical end of the body blank 17, the blank is stamped to provide a projecting arm 25 which extends laterally beyond

the adjacent end of the body blank. The projecting arm 25 includes an upwardly extending portion 25a which provides a hinge member for hingedly connecting the cover 12 to the body portion 10 in a manner to be hereinafter more fully pointed out. At the opposite vertical end of the body blank 17, below the rip strip tab 20, the blank is cut to provide an inwardly inclined edge portion 26 which merges into a downwardly and inwardly inclined edge 27. The inclined edge 27 is substantially parallel to the edge 23 at the opposite end of the blank. From the bottom of the edge 27, the blank is cut to provide a downwardly and outwardly inclined edge 28 which is substantially parallel to the edge 22 at the opposite end of the blank. The bottom of the inclined edge 28 meets a substantially horizontal portion 29a extending outwardly to the adjacent end of the blank.

As shown in Figure 2, the upper portion of the blank is subjected to suitable forming operations. Thus, the blank is folded outwardly and downwardly upon itself along a horizontal line substantially joining the apex between the inclined edges 27, 28 at one end of the blank and the bottom of the inclined edge 23 at the opposite end of the blank. The blank is then formed and folded outwardly and upwardly upon itself substantially along a line joining the apex of the inclined edges 22, 23 with the top of the inclined edge 27 at the opposite end of the blank. After these folding operations, the body blank assumes the position shown in Figure 2 with the rip strip 19 disposed on the outer folded edge of the body blank, and during these folding operations, the arm 25 and the hinge member 25a thereon remain as originally stamped. The inclined edges 22, 23 at one end of the blank become aligned to form a single downwardly and inwardly inclined edge 29 and the inclined edges 27, 28 at the opposite end of the blank become aligned to form a single downwardly and outwardly inclined edge 30, at the opposite end of the blank. These single inclined folded edges 29, 30 are substantially parallel to one another when the upper portion of the blank is folded to the position shown in Figure 2.

The body blank is then shaped to provide the closed container body portion and, as indicated above, it may be of any suitable shape. When the body blank is thus shaped, the edges 29, 30 will abut against one another, as shown in Figure 3. The rip strip tab 20 will be disposed on the outside of the body wall and the arm 25 and hinge member 25a will be disposed on the inside of the body wall. The tab 20 and the hinge member 25 will be disposed on opposite sides of the side seam 31.

After the body blank has been shaped, as indicated above, the side edges positioned and suitably secured together, as shown in Figure 3, the top edge 32 of the body wall is flanged and the cover 12 secured thereto by the double seam 13. The free end of the hinge member 25a extends along the edge portion 32 of the body wall, as shown in Figure 3, so that the hinge member also becomes engaged and folded within the double seam 13, as shown in Figures 5 and 6. When the parts are thus secured together, the friction wall 16 on the cover 12 engages the inner surface of the body wall of the container. There are thus provided inner and outer folded portions 33, 34, respectively, around the upper end of the body portion of the container and these folded portions serve as strengthening

means for the container. The rip strip 19, which is defined by the score lines 18, 18a, is disposed on the outer folded portion 34 so that it can be completely removed from the container when it is desired to open the same.

When it is desired to open the container, the tab 20 on the rip strip 19, which is disposed on the outside of the container, may be engaged by a suitable form of key and entirely removed from the body portion of the container, as shown in Figures 5 and 6. After removal of the rip strip, the hinge member 25a provides a connection between the cover 12 and the body portion 10 so that the cover can be opened by turning the same on the hinge member, as shown in Figure 6. Thus, the container can be reclosed by forcing the cover downwardly so that the friction wall 16 will again engage the inner surface of the body portion of the container. From the foregoing description, it will be seen that the present invention provides a container of the type which includes a cover which is hingedly connected to the body portion. The container can be hermetically sealed and the rip strip extends entirely around the outside of the body wall of the container so that it can be entirely removed when initially opening the sealed container. The container can then be opened by hingedly opening the cover which will pivot about the hinge member 25a. This hinge member may be formed integrally with the body portion of the container so as to eliminate the necessity of employing separate hinge means.

It is to be clearly understood that minor changes in the details of construction and arrangement of parts may be made without departing from the scope of the invention as set forth in the appended claims.

I claim:

1. A container comprising a body portion having the edges thereof secured by an interlocking side seam throughout the major portion thereof but terminating at the ends in a lap seam, score lines extending around the body portion in the region of the lap seam and forming a rip strip which is adapted to be entirely removed in opening the container, a cover secured to the end of said body portion by a double seam, and means providing a hinge member in the form of a laterally projecting substantially right-angled arm integral with the body portion and spaced laterally of said lap seam and secured within said double seam for hingedly connecting the cover to the body portion whereby to permit the cover to be hingedly opened after the rip strip is removed.

2. A container comprising a body wall having an integral reinforcing band extending around the top end thereof and said reinforcing band consisting of a plurality of integral reinforcing layers, a lap seam securing the edges of said reinforcing band and a lock seam securing the remaining portions of the edges of said body wall, upper and lower score lines extending around the outer reinforcing layer and defining a rip strip which is adapted to be entirely removed in opening the container, a cover seamed to the said outer reinforcing layer by a double seam, and a hinge member integral with and disposed inside of the body wall and extending vertically from below the lower score line and beyond the upper score line in lateral spaced relation to said lap seam and secured in the double seam for hingedly connecting the cover to the body wall whereby to permit the cover to be hingedly opened after the rip strip is removed.

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