Aug. 12, 1941. C. C. CONWAY, JR 2,251,987

CONTAINER

Filed Nov. 7, 1939

Fig. 1.

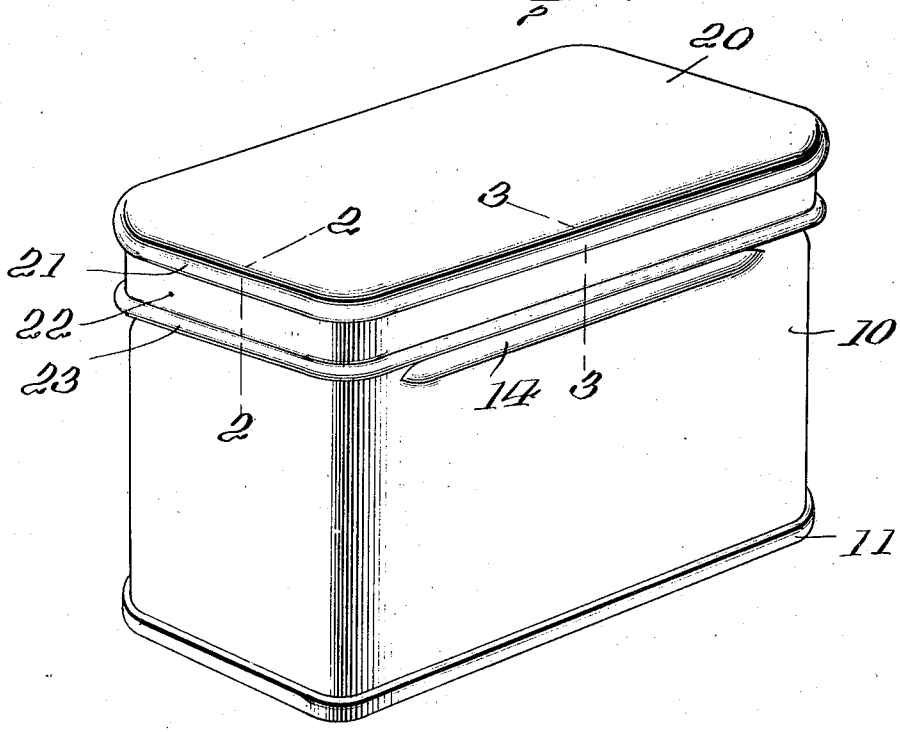


Fig. 2.

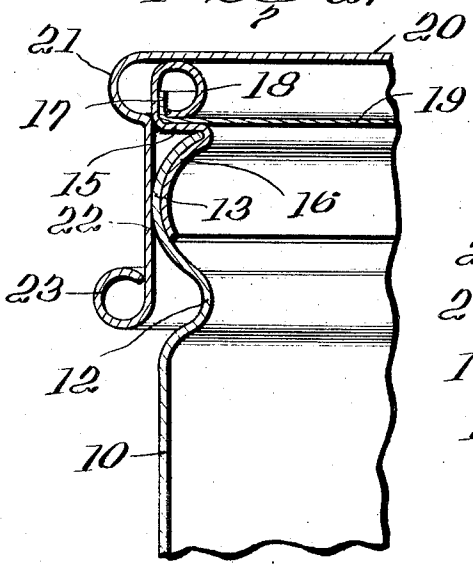
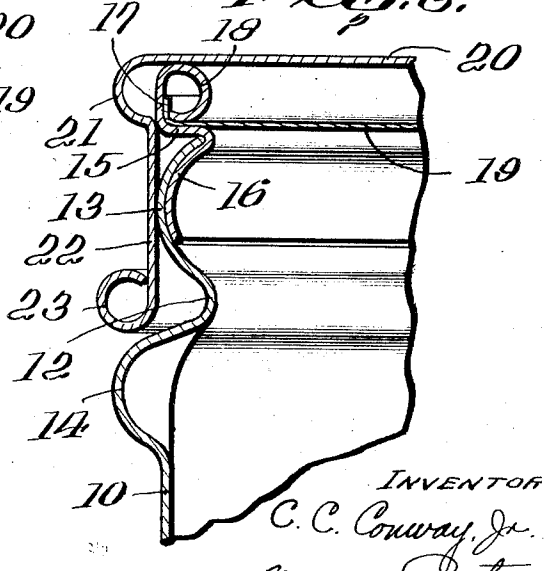


Fig. 3.



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CONTAINER

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3 Claims. (Cl. 220—29)

The present invention relates to new and useful improvements in containers, and more particularly to improvements in a sheet metal container which has a frangible sealing disc secured across one end thereof.

Containers of the above type are often used for holding drugs, powders or the like, and the frangible sealing disc is permanently secured to a ring or frame member. This frame member is fitted within one end of the container. A cover, preferably of the slip type, is provided for the container. This cover extends over the sealing disc and the frame member and includes a depending flange which extends over the outside of the end of the container. Access to the contents of the container is had by removing the slip cover and then rupturing the sealing disc.

An object of the present invention is to provide a container of the above type which is relatively simple in construction and wherein the parts are so constructed that a minimum amount of metal is employed in the construction thereof.

A further object of the invention is to provide a container of the above type wherein the end of the container body and a part of the ring or frame member have single thicknesses of metal which are similarly shaped to provide an interfitting connection therebetween.

A still further object of the invention is to provide a container of the above type wherein the frangible sealing disc is clamped by the ring or frame member and a cover is provided, this cover being adapted to make line contact with the body wall of the container.

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

In the accompanying drawing,

Figure 1 is a perspective view showing the container with the cover applied thereto.

Figure 2 is an enlarged sectional view taken along the line 2—2 of Figure 1.

Figure 3 is a similarly enlarged sectional view taken along the line 3—3 of Figure 1.

Referring more in detail to the accompanying drawing, the container is illustrated as including a substantially rectangular sheet metal body portion. A bottom closure is suitably secured to the body portion, as by a conventional double seam 11. The body portion 10 is bent inwardly adjacent the top thereof to provide an inward peripheral bead or projection 12. This inward peripheral projection serves to strengthen the body wall. The free end of the body wall above the bead 12 is curved outwardly to provide an outward bead 13. This bead is of the form which presents an outer convex surface and an inner concave surface. The maximum diameter of the outer convex surface is substantially in line with the body wall of the container. The body wall of the container is also provided with an outward strengthening bead 14 which extends along the longitudinal sides of the container just below the peripheral bead 12.

A supporting frame or ring member is provided with a substantially horizontal shoulder portion 15 intermediate the ends thereof. The inner edge of the shoulder portion 15 is bent downwardly to provide a skirt portion 16 which is arcuately curved to provide an outer convex surface and an inner concave surface. This skirt portion is shaped so that the outer convex portion intimately fits the inner concave surface of the bead 13. The skirt portion 16 is sufficiently long so that the outer surface thereof cooperates with the inner surface of the bead 13 to prevent movement of the ring or supporting member in either direction relative to the body wall of the container. The outer edge of the shoulder portion 15 is bent upwardly, as at 17, in a substantially vertical direction and is then curled downwardly and inwardly, as at 18. The portion 18 forms an inward strengthening bead and also serves to clamp the peripheral edge of the frangible sealing disc 19. Thus, the sealing disc is clamped between the bead 18 and the shoulder 15 and the vertical portion 17. The frangible sealing disc 19 may be made of paper or other suitable material.

A cover 20 is provided with a top closing portion extending over the ring or frame member and also over the sealing disc 19. There is provided a laterally extending peripheral bead 21 around the top closing portion of the cover and this peripheral bead 21 terminates in a depending cover flange 22 which fits over the outside of the container and the ring member. The lower edge of the cover flange 22 is outwardly curled, as at 23, to provide a strengthening bead. The cover is applied to the container in such a manner that the top closing portion thereof will abut against the upper edge of the bead 18 on the ring or frame member, and the cover flange 22 makes substantially a line contact with the outer convex surface of the bead 13 at substantially the maximum diameter thereof. The top edge of the cover flange 22 at the point where it merges into the bead 21 contacts with the vertical portion 17 on the ring member so as to aid in properly locating the cover on the container.

From the foregoing description, it will be seen

that a container of extremely simple construction is herewith provided. The interfitting connection between the ring member and the top edge of the container is provided by a single thickness of metal on the body wall and on the ring member, these portions being similarly shaped to provide abutting convex and concave surfaces therebetween which prevent movement of the ring member outwardly or inwardly of the container. Thus, a minimum amount of metal is employed in forming this connection. The frangible sealing disc 19 is secured against the shoulder portion 15 and the vertical portion 17 on the ring member by the inward bead 18. The cover 20 makes substantially a line contact with the outer convex surface of the bead 13 on the body portion and also with the vertical portion 17 on the ring member. Thus, a simple form of slip cover is provided and this cover is prevented from being tilted or otherwise misplaced on the container.

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 upper end thereof curved outwardly to provide an outer convex surface and an open inner concave surface, said body portion having an inward peripheral strengthening bead immediately below the outwardly curved upper end thereof, a supporting member having a substantially horizontal shoulder portion intermediate the ends thereof and a skirt portion depending from said shoulder portion, said skirt portion being shaped to provide an outer convex surface intimately fitting within the concave surface on the body portion whereby to secure the supporting member to the body portion, a frangible sealing disc extending across said supporting member, said supporting member having a portion thereof extended substantially vertically and upwardly from said shoulder portion and curled inwardly to provide a bead for clamping the peripheral edge of said sealing disc, and a cover for the container, said cover having a laterally extending bead around the top thereof and a depending flange contacting with the vertical portion on said supporting member and with the outer convex surface on the body portion at substantially the outermost surface thereof.

2. A container comprising a body portion having the upper end thereof curved outwardly to provide an outer convex surface and an open inner concave surface, a supporting member having a depending skirt portion shaped to provide an outer convex surface intimately fitting within the concave surface on the body portion whereby to secure the supporting member to the body portion, a cover for a container having a depending flange contacting with the outer convex surface on the body portion at substantially the outermost surface thereof, and a frangible sealing disc extending across said supporting member and said supporting member having a beaded portion for engaging and securing the edges of said sealing disc with the beaded portion disposed so that the outer surface thereof does not extend beyond the outermost limits of the convex surface on the body portion whereby to permit proper positioning of the cover.

3. A container comprising a body portion having the upper end thereof curved outwardly to provide an outer convex surface and an open inner concave surface, a supporting member having a substantially horizontal shoulder portion intermediate the ends thereof and a skirt portion depending from said shoulder portion, said skirt portion being shaped to provide an outer convex surface intimately fitting within the concave surface on the body portion whereby to secure the supporting member to the body portion, a frangible sealing disc extending across said supporting member and said supporting member having a portion thereof extending upwardly from said shoulder and curled inwardly to provide a bead for clamping the peripheral edge of said sealing disc, and a cover for the container having a depending flange contacting with the upwardly extending portion on said supporting member and with the outer convex surface on the body portion at substantially the outermost surface thereof.

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