

July 24, 1934.

A. P. FOX

1,967,931

CONTAINER CLOSURE

Filed May 11, 1932

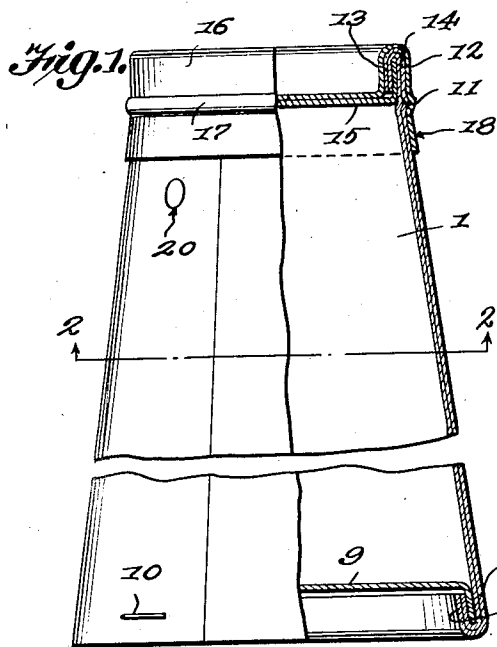
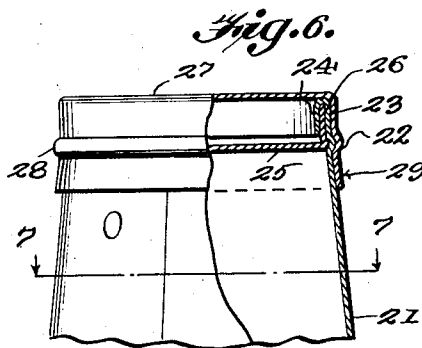
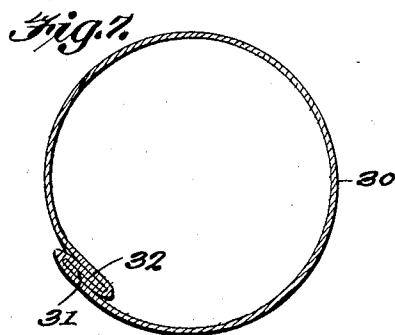


Fig. 5.

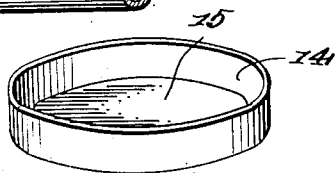


Fig. 2.

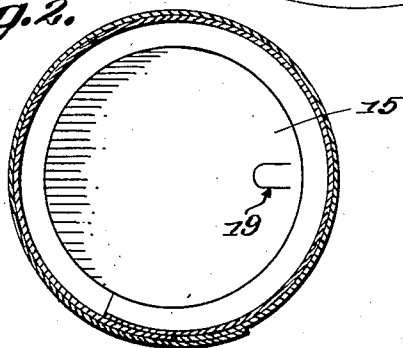
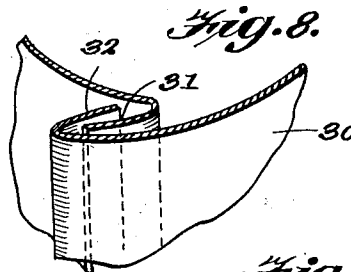


Fig. 10.

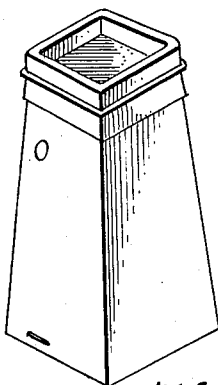
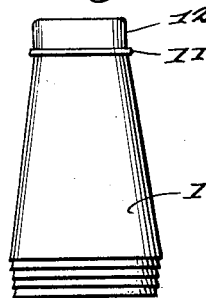


Fig. 11.



Inventor

AUSTEN P. FOX

Fig. 4.

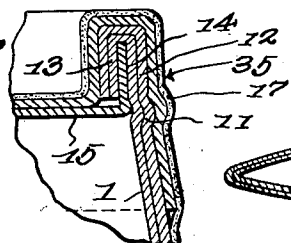
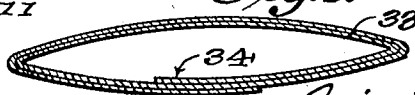


Fig. 9.



By *Irving A. McCallister*
Attorney

UNITED STATES PATENT OFFICE

1,967,931

CONTAINER CLOSURE

Austen P. Fox, New York, N. Y.

Application May 11, 1932, Serial No. 610,659

3 Claims. (Cl. 229—5.5)

This invention relates to containers of the truncated cone or truncated pyramid types, and has particular reference to a paper or cardboard container wherein a tapering body is provided.

5 The container constituting the subject matter of this application is of the general type disclosed in my co-pending applications Serial Number 610,657 and Serial Number 610,658 both filed May 11, 1932.

10 In the present invention, my improvement consists partly in the particular construction of the sealing seam for providing the container body and has for its object the production of a simple and efficient means for providing this connecting
15 seam in such a manner as to completely seal the container against leakage as well as against the entrance of exterior moisture.

A further object of this invention is the production of a simple and efficient end closure for the
20 respective ends of the container.

Other objects and advantages of the present invention will appear throughout the following specification and claims.

In the drawing, Figure 1 is a side elevation
25 partly in section of my improved container;

Figure 2 is a section taken on line 2—2 of Figure 1;

Figure 3 is an enlarged sectional view illustrating the particular type of connecting seam;

30 Figure 4 is an enlarged vertical sectional view of the closure for the mouth of the container;

Figure 5 is a detail perspective view of the end closure members;

Figure 6 is a vertical sectional view partly in
35 section of a modified form of one of the end closures for the receptacles or containers;

Figure 7 is a section taken on line 7—7 of Figure 6;

Figure 8 is a sectional perspective view indicating the manner in which the seams are inter-
40 locked;

Figure 9 is a transverse sectional view illustrating a multiple ply container, and illustrating the overlapping arrangement of the seams or ends
45 of the container to provide the substantially circular body;

Figure 10 is a detail perspective view of the type of container illustrated showing the truncated pyramid design of a rectangular structure;
50 and

Figure 11 is a side elevation illustrating a series of containers arranged in assembled stacked and nested relation.

By referring to the drawing, it will be seen that
55 1 designates the body of the container which may

be made of one or more plies of chemically treated sheets of paper or other similar material. The plies of paper or material may be chemically lined or treated on their inner faces or surfaces, and may be glued together or otherwise fastened in
60 any convenient or acceptable manner known to the trade. The sheets may then be rolled together for the purpose of joining the ends and these ends may be secured by glueing or may be connected in any suitable or desired manner. As
65 shown in Figure 2, the container 1 may comprise a layer or ply of material 2 having an inner layer or ply 3 which is provided with a projecting tongue or strip 4 adapted to overlap the adjoining ends of the ply 2 when the material is rolled for the
70 purpose of producing a substantially circular body. An outer ply 5 may also be employed having a projecting tongue or strip 6 which may overlap the outer face of the abutting and adjoining ends of the material from which the container is constructed. The ends of the ply 2 are adapted to abut as clearly shown in Figure 2, and the tongues 4 and 6 are adapted to overlap with
75 respective joined ends of the container, to provide an efficient seal. As stated above, these 80 tongues 4 and 6 may be glued or otherwise secured to the ply 2 in any suitable or desired manner. It should be further understood that the plies may be multiplied in any suitable or desired number without departing from the spirit of the invention.
85 After the body of the container 1 has been rolled to provide the desired contour or shape, the lower edge is folded inwardly and upwardly to provide the flange 7 for the purpose of receiving the skirt 8 of the bottom closure 9 similar to that previously
90 described in my co-pending applications above mentioned. The skirt 8 may be firmly held in engagement with the flange 7 and the body 1 by means of a suitable fastener or staple 10. The body 1 is provided with a bead 11 and beyond this
95 bead is provided a straight walled mouth 12 which is turned inwardly at its outer extremity to provide a flange 13 spaced from the outer wall thereof to receive the upwardly extending flange 14 of the sealing disc or closure 15.

100 An outer closure cap 16 is fitted over the mouth of the container 1, as shown in Figure 1 and is provided with a suitable bead 17 which is adapted to fit snugly over the bead 11. A skirt 18 is also provided which is adapted to snugly fit against
105 the outer face of the container 1, as shown clearly in Figure 1. The edge of the sealing disc 15 is adapted to snugly fit within the bead 11, as shown. This sealing disc 15 may be provided with a scoring
110 ing 19 to provide a lip or an aperture through

which a tube may be extended if desired. The body of the container may also be provided with a scoring 20 for the purpose of permitting the same to be punched out to allow the insertion of a tube should it be desired.

In Figure 6, there is shown a modified form of the invention wherein a container 21 is employed having a bead 22, and beyond this bead is extended a straight walled mouth 23 having an inturned flange 24. A sealing disc 25 is mounted within this mouth of the receptacle or container 21 and is adapted to rest within the bead 22, as shown. A flange 26 is provided upon the sealing disc 25 and fits between the flange 24 and the outer walls of the mouth of the container as shown. A sealing cap 27 is fitted over the outer end of the container or mouth thereof, and is provided with a bead portion 28 adapted to fit snugly over the bead portion 22 which is also provided with a skirt 29 which rests snugly against the outer face of the container 21 as shown.

In Figures 7 and 8 there is shown a modified form of the invention illustrating a different type of sealing seam therefor. This container 30 is preferably rolled or otherwise shaped to provide the projecting edge 31 of one side fitted within the projecting edge 32 of the opposite side edge of the container, thereby producing an interlocking sealing joint as shown clearly in Figure 8. The faces of these joints may be sealed by means of glue or other suitable fastening means to provide a moisture and air-proof joint.

In Figure 9 there is shown a still further modified form of the invention, illustrating a series of plies of material indicated by the numeral 33, the respective edges 34 of the material being overlapped to extend beyond each other and these edges may be securely glued or fastened to seal and provide an air and moisture-proof joint.

In Figure 10 there is illustrated a different design or type of container illustrating a container which is rectangular in cross section.

In Figure 11 there is illustrated the manner in which the containers may be packed and stacked in nested relation for the purpose of shipping or storing.

By particularly considering Figure 4 which shows clearly an enlarged view of the top cap structure, shown also in Figure 1, it will be seen that there is also illustrated a suitable sealing plastic covering 35 of any suitable or desired type which may be provided by merely dipping the end of the container in a plastic substance and allowing this plastic substance to harden and thereby provide an efficient plastic seal of any suitable or desired material.

It should be understood that certain detail changes in the mechanical construction may be employed without departing from the spirit of the invention so long as these changes fall within the scope of the appended claims.

In producing the container above described the material may be chemically treated in any desired manner or the container may be provided with a chemically treated lining or, if so desired a suitable chemically treated lining may be placed between the plies of papers used in constructing the container. These linings may be transparent or of any desired or any suitable material, and if desired may be placed upon the inner face of the containers.

Having described the invention, what is claimed as new is:—

1. A device of the class described comprising a container having an annular bead formed near one end, and a straight walled mouth above the bead terminating in an inwardly turned flange, a sealing disc seated within said bead and having an outturned flange, the inturned flange of the mouth portion being folded inwardly over the outturned flange of said disc, a cap having a depressed portion fitting against the outer face of said disc and an overhanging side portion provided with a bead adapted to interlock with said first-mentioned bead and also having an extending skirt for abutting against the outer face of said container.

2. A container of the class described comprising a body, having a projecting mouth terminating in an inturned flange, a sealing disc having an outturned flange fitting under said first-mentioned flange, said container provided with a bead for constituting a rest for said sealing disc; a flat closure top for said container having a depending flange provided intermediate the ends thereof with an annular bead adapted to interlock with said first-mentioned bead and also provided with a projecting skirt for contacting against the outer face of said container.

3. A container of the class described comprising a body open at its top and having its walls formed near its top with an outstanding bead defining an internal annular concaved seat, a sealing disc having an outturned flange and also having marginal portions seated in said seat, portions of the walls of the body being folded inwardly to overlie said flange, and a sealing cap fitting over the disc and top of said body and having a depending marginal portion fitting snugly about the container and crimped to engage about the bead and hold the cap in place upon the container.

AUSTEN P. FOX.