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LIQUID CONTAINER FOR BEER OR THE LIKE

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Fig. 1.

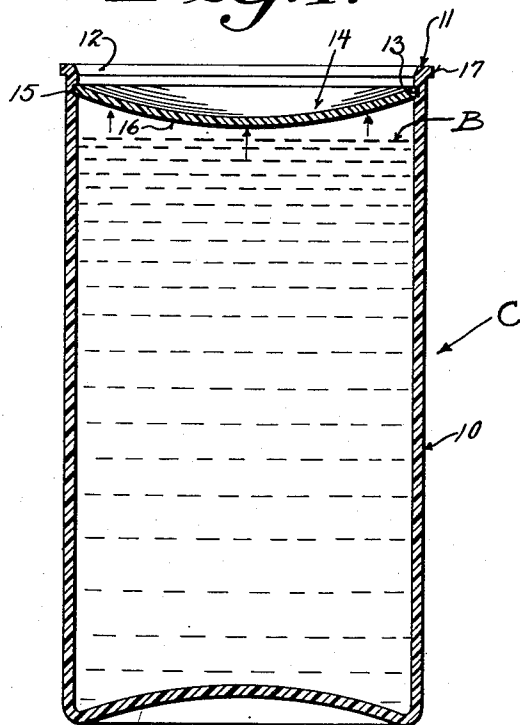


Fig. 2.

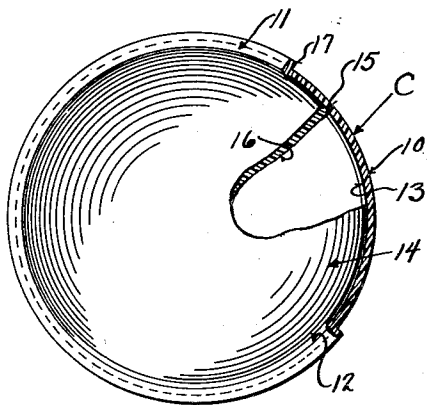
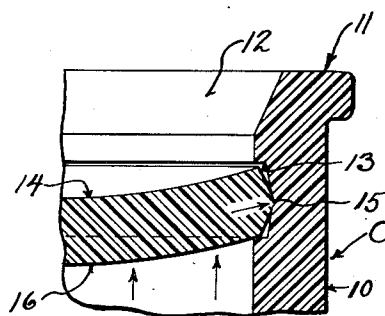


Fig. 3.



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LIQUID CONTAINER FOR BEER OR THE LIKE

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1 Claim. (Cl. 150—0.5)

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This invention appertains to liquid containers and more particularly to containers of the beer can type.

While placing beer and other liquids in cans is desirable in that they require less space than bottles and are not likely to rupture or break during shipping, etc., there has always been a problem particularly in putting beer in cans due to the fact that a considerable internal pressure is built up in the can, and therefore much time and effort must be given to sealing the top and bottom thereof. In addition to using much needed metal, the interior of the cans must be coated to prevent the liquid from absorbing the so-called "tin taste."

There has long been a need for an unbreakable container similar to the tin can, but made of a simpler and cheaper material which nevertheless will maintain the desired pressure seal, and in which the manufacturing problem is practically negligible. In an effort to overcome the above difficulty, various types of plastic containers have been developed, but heretofore this type of container has had the disadvantage of not being able to maintain or withstand the internal pressure. Heat sealing, etc. has not solved this problem in that the methods used are too involved, often expensive and unsatisfactory.

Therefore, a primary object of my invention is to provide a container for beer and other liquids which includes a one-piece molded plastic body and a concavo-convex cover which, when applied to the container body, will effectively seal and prevent the internal gases from escaping.

Another object of my invention is to provide the upper periphery of the container body with an annular sealing groove into which is fitted a concavo-convex cover, whereby internal pressures will force the cover into more intimate contact with the walls of the groove.

A more specific object of my invention is to make the cover of a slightly greater diameter than the interior diameter of the container, so that the cover will snap into the groove.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed and illustrated in the accompanying drawing, in which drawing:

Figure 1 is a side elevational view in section of the container and its associated cover;

Figure 2 is a top plan view of the container and cover, certain parts being shown in section, to illustrate further the details of construction; and

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Figure 3 is an enlarged fragmentary vertical section through the top portion of the container and cover and showing in particular the direction of forces resulting from internal pressures.

Referring to the drawings in detail wherein similar reference characters designate corresponding parts throughout the several views, the letter C generally indicates a container adapted to hold beer B or the like liquid. The container C includes a one-piece molded body 10 which is formed from a special plastic, namely polystyrene, which is noted for its characteristics of strength and non-corrosive qualities. The upper end 11 of the container 10 is provided with a tapered throat 12, and directly below the throat 12 is an annular sealing groove 13.

The container is sealed by utilizing a concavo-convex cover 14 which is of a slightly greater diameter than the interior of the container and may even be slightly greater than the interior of the annular sealing groove 13. The outer periphery of the cover 14 terminates in a V-shaped leading biting edge 15, and when the cover 14 is snapped into the groove 13, the point 15 will bite into the wall of the groove and form a sealing contact therewith. The cover 14 is also molded from the plastic polystyrene, but in this instance it is combined with polyethylene to impart to the cover a certain amount of desired flexibility.

After the container has been filled with the beer B and the cover snapped in place, an internal pressure will build up within the container, and a vertical force will be exerted on the concave surface 16 of the cover 14 in the direction of the arrows in Figures 1 and 3 of the drawing. This pressure will tend to straighten or flatten the curved cover, and a resultant horizontal force will be transmitted to the outer periphery of the cover 14 in the direction of the arrow, Figure 3 of the drawing, causing the point 15 to bite further into the walls of the groove 13.

It should also be noted that the top 11 of the container 10 is formed with the usual annular bead 17 so that conventional type beer openers may be hooked under the bead 17 and the top 14 punctured in the usual manner.

Changes in detail may be made without departing from the spirit or the scope of my invention, but what I claim as new is:

A liquid container for beer and the like including a molded plastic one-piece body having an open top and having its upper periphery formed with a tapered throat entrance, an inter-

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nal annular groove below said tapered throat, a concavo-convex cover having its outer periphery terminating in a V point and received in said groove to close said top portion, said cover having its convex surface facing the interior of the container and having its outer circumference slightly larger than the inner circumference of the container, said annular groove having its inner circumference of approximately the same size as the outer circumference of said cover, whereby, the cover may be snapped into position and pressure exerted on the interior of the cover will serve to further tighten it in the groove.

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