April 27, 1943. A. H. RISCH 2,317,554

BOTTLE PACKAGE

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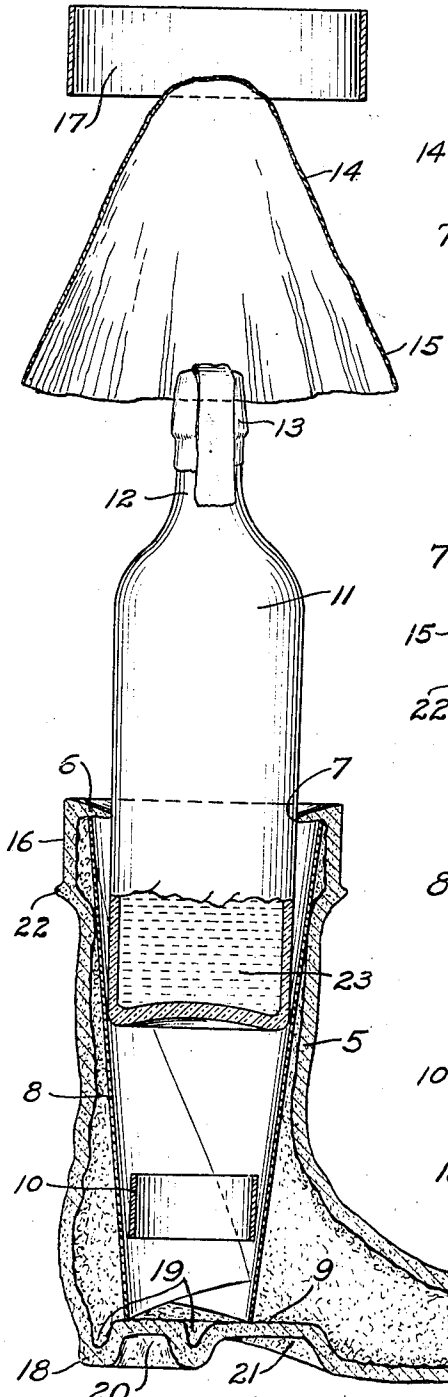


Fig. 2.

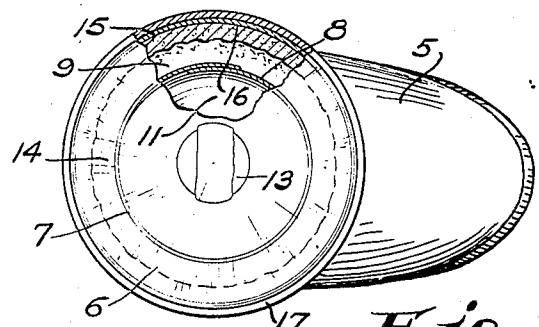


Fig. 3.

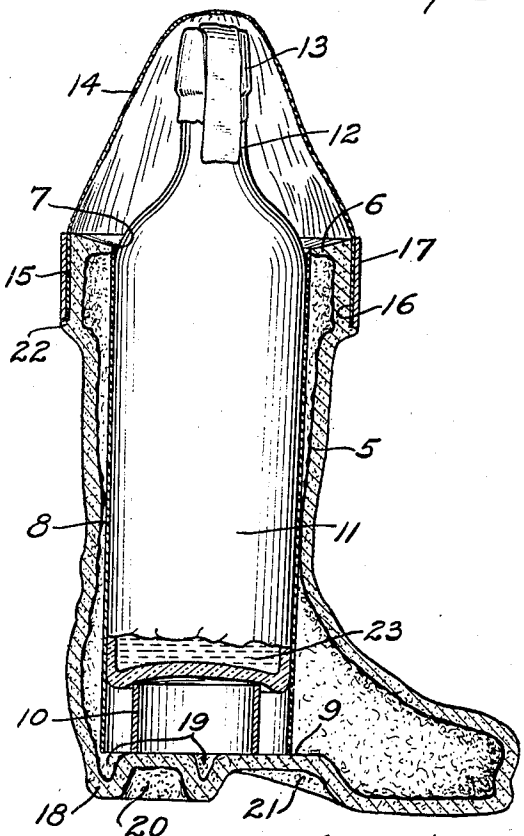


Fig. 1.

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UNITED STATES PATENT OFFICE

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BOTTLE PACKAGE

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5 Claims. (Cl. 229—8)

My present invention relates generally to improvements in the art of protectively packing certain commodities, and relates more specifically to improvements in the construction of packages for liquid filled bottles or the like.

An object of this invention is to provide an improved bottle package wherein a liquid filled glass bottle or the like, is protectively confined and attractively displayed.

It has heretofore been proposed as shown in my copending application Serial No. 367,775, filed November 29, 1940, to utilize an ornamental casing or receptacle formed of moulded pulp and of relatively rigid construction, for the purpose of protectively confining and of attractively displaying batches of relatively granular commodity such as candy, nuts, and the like. In this prior package assemblage, the rigid receptacle was formed to simulate a boot, and a flexible container for the batch of commodity was inserted within the upper open end of the boot and was confined therein by means of a transparent cover sheet which provided a window closure for the batch and was clamped in position by an outer paper ring. While this prior package was commercially satisfactory for its intended purpose, it has been found that a similar pulp receptacle somewhat modified and with some additions, may also be advantageously utilized for the purpose of protectively confining and of attractively displaying liquid filled glass bottles or the like.

It is therefore a more specific object of my present invention to provide an improved package assemblage especially adapted to effectively confine and protect a brittle liquid filled bottle or similar container, and wherein the enwrapped article is still visible for display purposes.

Another specific object of the invention is to provide a new and useful bottle confining receptacle of sturdy and attractive construction and formed of relatively inexpensive material such as moulded fibrous pulp.

A further object of my invention is to provide an improved display package for liquor bottles or the like, wherein the bottle is snugly and safely confined within a dust-proof housing while still being sufficiently visible for merchandising purposes.

Still another specific object of the present invention is to provide an improved package for bottles or the like, which can be manufactured and assembled at moderate cost, and which most effectively protects the brittle object enclosed therein.

These and other specific objects and advantages of the invention, will be apparent from the following detailed description.

A clear conception of the several features constituting the present improvement, and of the mode of constructing and of assembling a bottle package embodying the invention, may be had by referring to the drawing accompanying and forming a part of this specification wherein like reference characters designate the same or similar parts in the various views.

Fig. 1 is a central vertical section through one of the improved bottle packages completely assembled;

Fig. 2 is a similar sectional but exploded view of the same bottle package, showing the several elements thereof separated preparatory to assembly of the structure; and

Fig. 3 is a part sectional top view of the finally assembled package, a portion thereof having been broken away to show normally concealed structure.

Although the invention has been illustrated and described herein as being especially adapted for application to a bottle package wherein a relatively long liquor bottle is confined within an ornamental pulp receptacle simulating a boot, it is not my desire or intention to thereby unnecessarily restrict the scope or utility of the improvement.

Referring to the drawing, the improved bottle package shown therein by way of illustration, comprises in general, a rigid receptacle 5 formed of moulded fibrous pulp to simulate a boot, and having an inwardly projecting integral flange 6 at its upper end defining a circular opening 7; a combined tubular guide and liner element or sheet 8 of paper or the like disposable within the receptacle 5 between the flange 6 and an inner lower but elevated surface 9 of the boot; a bottle support or base ring 10 of somewhat smaller diameter than that of the upper opening 7, formed of cardboard or the like and adapted to rest upon the lower surface 9; a liquid filled glass bottle 11 or the like, having an external diameter slightly less than the diameter of the boot opening 7, and being of such height that when the bottle rests upon the base ring 10 the bottle neck 12 and head 13 will project considerably above the receptacle 5; a thin transparent closure or cover sheet 14 adapted to be positioned over the bottle head 13 with the edge or peripheral portion 15 thereof surrounding the outer annular surface 16 at the upper end of the receptacle 5; and a flexible cardboard cover

clamping ring 17 formed to snugly embrace the edge portion 15 of the sheet 14 and to press the same firmly against the boot surface 16.

The boot receptacle 5 may be formed in a mould of relatively inexpensive fibrous pulp, and is of approximately the same thickness throughout its entire area. When thus forming the receptacle 5, the outer surface thereof will be relatively smooth and may be coated with a layer of decorative paint or enamel of suitable color, but the interior of the boot will be jagged and rough. In order to maintain the receptacle 5 of approximately uniform thickness and to properly elevate and provide the internal supporting surface 9, the heel 18 is provided with internal depressions 19 and with an external lower indentation 20, and the instep portion of the sole is also provided with a lower indentation 21, as clearly shown in Figs. 1 and 2. This construction obviously produces an approximately horizontal seating surface 9 for the base ring 10; and while the surface 9 is quite rough, the weight of the liquid filled bottle 11 will force the cardboard ring 10 into firm engagement therewith.

The base ring 10 and the clamping ring 17 may be formed of cardboard or the like, by severing rings of proper height from tubes of appropriate diameter; and the base ring 10 should be of such size that it will properly coact with the bottom of a bottle 11 of selected dimensions, while the clamping ring 17 should be formed to snugly embrace the annular boot surface 16. In order to facilitate proper positioning of the clamping ring 17, the rigid receptacle 5 is preferably provided with an integral annular stop bead 22 at the lower end of the upper surface 16, and the opening 7 formed by the inner edge of the upper flange 6 should preferably be of such diameter that it will rather snugly engage the body of the bottle 11. The bottle 11 may be of any selected shape and is ordinarily filled with liquid 23 being sealed at the top; and the combined guide and liner sheet 8 which is interposed between the flange 6 and surface 9 of the receptacle 5, may be formed of paper and assumes an inverted frustro-conical shape as shown in Fig. 2, when it is first inserted within the boot. The cover sheet 14 may be formed of any suitable and relatively tenacious sheet material such as regenerated cellulose or rubber hydro-chloride, and this sheet 14 as well as the ring 17 may be decorated with suitable indicia.

Assembly of the improved bottle package, after the various parts have been properly constructed in the manner above described, is a rather simple expedient. The first step of the packaging operation is the initial insertion of the guide and liner sheet 8 within the rigid outer receptacle 5 in the manner shown in Fig. 2, whereupon a base ring 10 may be dropped into the frustro-conical liner sheet 8 and will be guided centrally of the upper opening 7 upon the base or supporting surface 9. The liquid filled and sealed bottle 11 may thereafter be lowered into the receptacle 5 through the upper opening 7, and as the base portion of the rigid bottle passes downwardly through the guide sheet 8, it will distort this sheet 8 into cylindrical shape as shown in Fig. 1 and the base of the bottle 11 will eventually find a central seating upon the precentered base ring 10. During this bottle descending step, the smooth liner sheet 8 will prevent the bottle from contacting the jagged and rough interior side surfaces of the receptacle 5, and when the bottle 11 has been seated upon the base ring 10, the neck 12 and head 13 of the liquid filled container will project upwardly above the flange 6 a considerable distance. The next and final step of the packing operation is the application and attachment of the transparent cover sheet 14 which may be initially deformed into approximately conical shape as shown in Fig. 2, and thereafter lowered over the bottle head 13 so that the edge portion 15 is disposed in proximity to the annular receptacle surface 16, whereupon the clamping ring 17 may be slid downwardly over the surface 16 and against the stop bead 22. Any projecting portions of the edge of the cover sheet 14 may subsequently be trimmed off, and the bottle 11 will thereafter be snugly but visibly enclosed and thoroughly protected against possible breakage.

From the foregoing detailed description, it will be apparent that the present invention provides an improved bottle package which is simple in construction and highly efficient in actual use. The bottle 11 is thoroughly and protectively confined within the relative rigid container 5, but may still be seen by prospective purchasers through the transparent cover sheet 14; and while the improved package is relatively attractive without added decorations, the aesthetic appearance may be further enhanced and the advertising value increased, by applying additional decorative and advertising matter to the transparent cover sheet 14 and clamping ring 15. The improved formation of the liner sheet 8 is such that it will perform the dual function of centralizing the base ring 10 and the bottle within the boot, and will also prevent the exterior of the bottle from engaging the rough internal surface of the receptacle 5. The specific formation of the lower portion of the receptacle 5 with the depressions 19 and indentations 20, 21, provides for a horizontal seating surface 9 without necessitating undesirable local thickening of the sole portion of the boot, and the component parts of the package can be produced at moderate cost so that the entire package may be moderately priced. The receptacle 5 may be readily formed of relatively inexpensive fibrous pulp, and the liner sheet 8, cover sheet 14 and rings 10, 17 may all be formed of stock material and with ordinary cutting equipment. The invention has proven highly satisfactory in actual commercial use, and the final package besides being highly protective of the goods, is also extremely attractive and provides a very salable novelty.

It should be understood that it is not desired to limit this invention to the exact details of construction herein shown and described, for various modifications within the scope of the claims may occur to persons skilled in the art.

I claim:

1. In combination, a bottle, a hollow rigid receptacle for said bottle having an outer annular surface and being provided with an upper integral inwardly directed flange defining an opening of approximately the same diameter as the body of the bottle, a flexible tubular element disposed within said receptacle and providing a liner for the latter, a relatively rigid ring of somewhat smaller diameter than that of said opening resting upon the bottom of said receptacle centrally of said opening and coacting with the bottom of the bottle, a flexible closure sheet disposed over the protruding upper portion of the bottle and coacting with said outer surface, and a retaining collar snugly embracing the edge portions of said sheet and said outer surface.

2. In combination, a bottle, a hollow rigid re-

ceptacle for said bottle having an outer annular upper surface and being provided with an upper integral inwardly directed flange defining an opening of approximately the same diameter as the body of the bottle, a flexible tubular element disposed within said receptacle between said flange and the inner lower surface of the receptacle and providing a smooth liner for the latter, a relatively rigid ring of smaller diameter than that of said opening resting upon said lower lower surface centrally of the opening and coacting with the bottom of the bottle, a flexible closure sheet disposed over the protruding upper portion of the bottle and covering said receptacle opening, and a retaining collar snugly embracing the edge portions of said sheet and said outer receptacle surface.

3. In combination, a bottle, a hollow rigid receptacle for said bottle having an outer annular upper surface and being provided with an upper integral inwardly directed flange defining an opening of approximately the same diameter as the body of the bottle, a flexible tubular element disposed within said receptacle between said flange and the inner lower surface of the receptacle and providing a smooth liner for the latter, said liner being of inverted frustro-conical shape before insertion of said bottle and being distortable to conform with the outer contour of the bottle when the latter is insered within the receptacle, a relatively rigid ring of approximately the same diameter as the lower end of said liner before distortion resting upon said lower receptacle surface and coacting with the bottom of the bottle, a flexible closure sheet disposed over the protruding upper end of the bottle and covering said receptacle opening, and a retaining collar snugly embracing the edge portions of said sheet and said outer receptacle surface.

4. In combination, a bottle, a hollow rigid receptacle for said bottle having an outer annular upper surface and being provided with an upper inwardly directed flange defining an opening of approximately the same diameter as the body of the bottle, the base of said receptacle being irregular but of relatively uniform thickness throughout and having an elevated portion forming a support beneath said opening, a flexible tubular element disposed within said receptacle between said flange and said support to provide a smooth liner for the receptacle, a relatively rigid ring of smaller diameter than said opening resting upon said lower receptacle surface centrally of the opening and coacting with the bottom of the bottle, a flexible closure sheet disposed over the upper protruding end of the bottle and covering said receptacle opening, and a retaining collar snugly embracing the edge portions of said sheet and said outer receptacle surface.

5. In combination, a bottle, a one-piece hollow rigid receptacle for said botle formed of molded pulp and having an outer annular surface and being provided with an upper integral inwardly directed flange defining an opening of approximately the same diameter as the body of the bottle, a tubular element disposed within and spaced from the irregular side walls of said receptacle to provide a smooth liner for the latter, a bottle supporting ring of smaller diameter than said opening resting upon the bottom of said receptacle centrally of said opening and coacting with the bottom of the bottle, a transparent closure sheet disposed over the protruding upper portion of the bottle and coacting with said outer surface, and a retaining collar snugly embracing the edge portions of said sheet and said outer receptacle surface.

ARTHUR H. RISCH.