

Aug. 16, 1966

H. A. BARNBY

3,266,910

LIQUID NOURISHMENT DISPENSING PACKAGE

Filed June 12, 1963

2 Sheets-Sheet 1

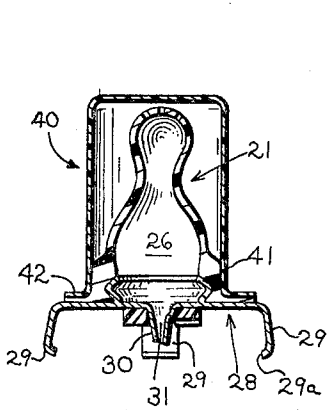


FIG. 3

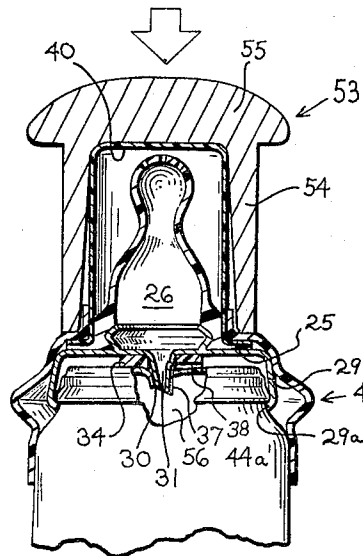


FIG. 5

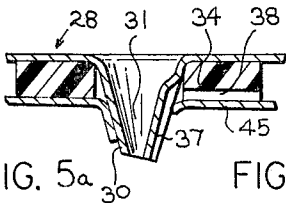


FIG. 5a

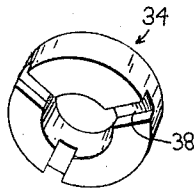


FIG. 5b

FIG. 5c

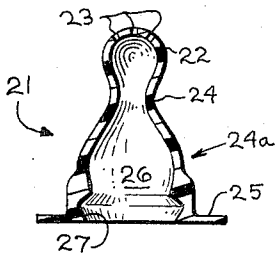
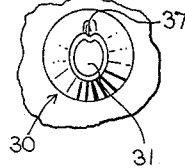


FIG. 1

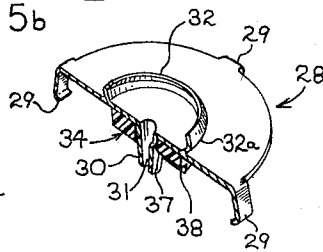


FIG. 2

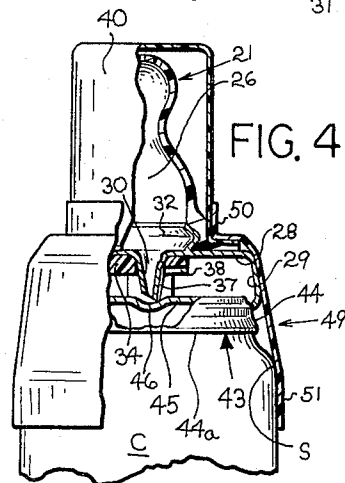


FIG. 4

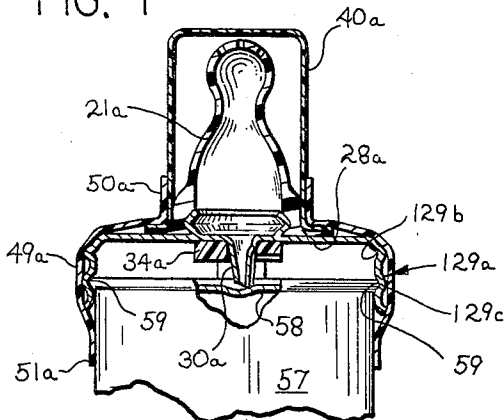


FIG. 6

INVENTOR
HERBERT A. BARNBY
BY *Claron N. White*
and *W. A. Schach*
ATTORNEYS

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H. A. BARNBY

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LIQUID NOURISHMENT DISPENSING PACKAGE

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2 Sheets-Sheet 2

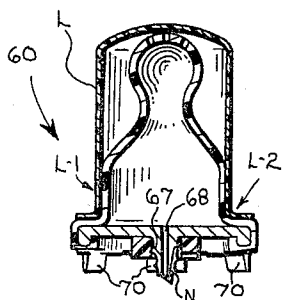


FIG. 9

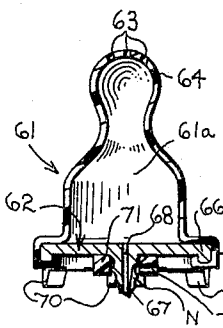


FIG. 7

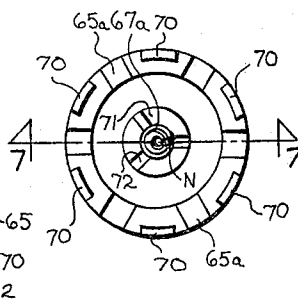


FIG. 8

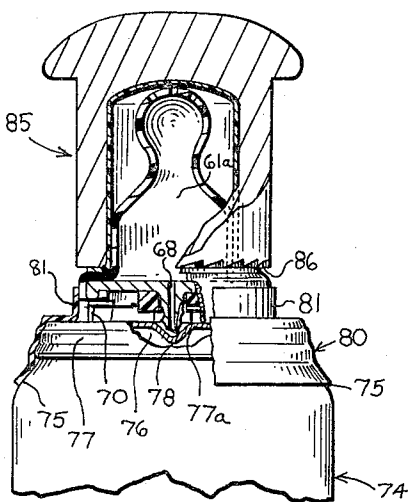


FIG. 10

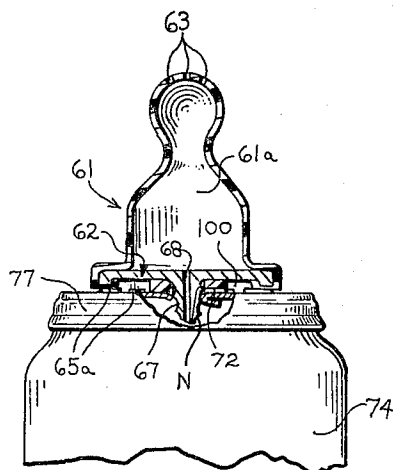


FIG. 11

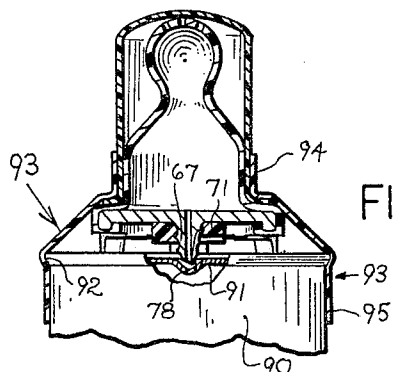


FIG. 12

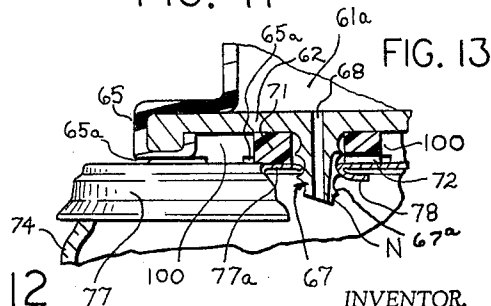


FIG. 13

INVENTOR.
HERBERT A. BARNBY
BY *Claron N. White*
and *W. A. Schach*
ATTORNEYS

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3,266,910

LIQUID NOURISHMENT DISPENSING PACKAGE
Herbert A. Barnby, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Filed June 12, 1963, Ser. No. 287,334
13 Claims. (Cl. 99-171)

The present invention relates to the art of packaging and particularly the packaging of liquids. Even more particularly the present invention relates to a package for a pre-sterilized liquid food product; the package being especially noteworthy by reason of its included integral opening and dispensing features.

The invention will be particularly described herein with reference to the ultimately desirable dispensing type package, representative of which is the infant nursing bottle employing a nipple in combination with a container for a liquid food product, usually milk. It will be appreciated, however, particularly after a complete reading and understanding of the features of construction enumerated hereinafter, that the advantages as well as the novel techniques and unique features of construction will be adaptable to a variety of dispensing type product packages.

A variety of nursing nipple constructions and combinations thereof with a host of containers of varying configurations and manners of attachment to nipples are known in the container and packaging art. However, it is unfortunate but the majority of the known constructions require the consumer to sterilize either or all of the container, the dispensing nipple and/or the sterilized liquid food to be fed to the user. Additionally, prior art nipple/container combination constructions envision the consumer himself filling the package from a separately stored quantity or separately prepared quantity of liquid food. All of the foregoing, of course, involves the risk of accidental contamination of the liquid or its dispensing components.

It is believed that the construction embodied in the invention herein described represents the first practical construction permitting the accomplishment of the objects and desired ends enumerated hereinbelow.

It is an object of the present invention to provide a combination package containing a liquid in a pre-sterilized condition; the packaged contents being capable of immediate dispensement by the consumer.

It is additionally an object of the present invention to provide a package of liquid nourishment, which package may be simply and easily transformed into a dispensing utensil by and for the ultimate consumer.

It is additionally an object of the present invention to provide a dispensing nipple/opening tool assembly which can be assembled in operative relationship with an aseptically closed receptacle containing a quantity of pre-sterilized liquid food.

It is still another object of the present invention to provide a package embodying all of the previously enumerated features which can be conveniently utilized by the consumer with a minimum of difficulty and a minimum of contamination hazard to the sterile food contents.

It is also an object of the present invention to provide a package which permits the marketing of liquid food to be carried out in a more expeditious and efficient manner than known heretofore.

It is likewise another object of the present invention to provide a package construction which is capable of easy construction and easy assembly in combination with the pre-sterilized, food-containing receptacle.

It is likewise an object of the present invention to provide a unitary sterile liquid-containing package embodying self-opening features coupled with a dispensing nip-

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ple; all of the package components in contact with or likely to be in contact with food being protected against contamination.

Another principal objective of this invention is the provision of a unitary aseptic package in which liquid nourishment may be hermetically packaged under controlled commercial processing conditions and stored for sale through commercial outlets for direct consumption from the package by babies without necessitating trans-
ferral of the package contents to a nursing bottle or other nursing container.

Another object of the present invention is to provide a unitary package for liquid nourishments in which such foods and the like are stored in hermetically sealed condition and which package is susceptible to dispensing such foods through a component nursing nipple without the necessity of repositioning or other movement or contact with the nursing nipple preparatory to insertion thereof in a baby's mouth.

The foregoing, as well as other objects of the present invention, will become apparent to those skilled in the art from the following detailed description taken in conjunction with the annexed sheets of drawings on which there is presented, for purpose of illustration only, several embodiments of the present invention.

In the drawings:

FIG. 1 is a side sectional view of a nipple embodying a desired configuration in accordance with the present invention.

FIG. 2 is a perspective view, with a portion broken away, of a support member embodying a piercing tool and forming an important element in the package construction in accordance with the present invention.

FIG. 3 is a sectional elevation view of the components of FIGS. 1 and 2 in assembled relationship, together with a protective cover or lid as envisioned by the present invention.

FIG. 4 is a side elevation view, with portions broken away, of a package constructed in accordance with the present invention utilizing in assemblment the components illustrated in FIGS. 1-3.

FIG. 5 is a sectional view, generally similar to that shown in FIG. 4, but wherein the package of the present invention has been opened for dispensement of liquid contents.

FIG. 5a is a somewhat enlarged view of a portion of the construction shown in FIG. 5.

FIG. 5b is a perspective view of a gasket element employed in the construction shown in FIG. 5.

FIG. 5c is an enlarged view of the piercing tool shown in perspective in FIG. 2.

FIG. 6 is a sectional view, generally similar to that shown in FIG. 4, but showing the construction of the present invention assembled in operative dispensing relationship with a tin can, rather than a glass container.

FIG. 7 is a sectional right elevation view of a support member carrying on its upper side a nipple and having underneath an integrally formed piercing tool in accordance with a further embodiment of the present invention.

FIG. 8 is a bottom plan view of the assembly shown in FIG. 7.

FIG. 9 is a sectional view, similar to that of FIG. 7, but showing the incorporation of a protective cover, lid or sheath element in accordance with a preferred embodiment of the present invention.

FIG. 10 is a side elevation view, having portions broken away, of a unitary package constructed and assembled in accordance with a preferred mode of the invention; the package as shown having an auxiliary opening aid in ready position.

FIG. 11 is a sectional view, similar to that of FIG. 10,

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but showing the package after opening, ready for dispensement of liquid contents.

FIG. 12 is a sectional view, generally similar to that of FIG. 10, but showing the unitary opening and dispensing assembly in shipping relationship with, in this case, a tin can container.

FIG. 13 is a fragmentary sectional view, somewhat enlarged, of a part of the assembly of FIG. 11.

The package envisioned by the present invention includes a container for pre-sterilized liquid; the container being aseptically sealed by a hermetic closure and having assembled thereover a piercing tool member having an interior passageway communicating on the other side with a resilient, flexible, nipple-like dispensement element marginally secured to the piercing tool member, whereby the package upon piercement will readily dispense food, liquid or liquid-food via the nipple. The package of the invention particularly envisions a construction utilizing a support plate to which is marginally secured a resilient, flexible, nipple-like member; the support plate including means for locating the assembly in spaced, registering relationship with the closure and requiring a purposeful but not strenuous urging of the assembly against the closure in order to puncture same for converting said package to dispensing condition.

Reference may now be had to the drawings for a more detailed description of the construction features of the package in accordance with the present invention.

In FIG. 1, there is disclosed a nipple member 21 formed of gum rubber. In general, the contour of nipples is well known. Suffice it to say that the nipple has a prominent extending mouth receiving, bulbous portion 22 containing a plurality of perforations 23 therein. The bulbous portion extends smoothly into a neck portion 24, which flares smoothly outwardly to form the base 24a and finally the annular flange portion 25. The nipple 21 is of a generally thinner wall section at the mouth receiving, bulbous portion 22 than at the base portion 24a and the nipple is definitive of a hollow interior 26. The interior of the nipple proximate the base contains an annular cut-away as identified by the reference numeral 27, which forms a means of removable sealing securement to the principal, generally circular, support plate 28, shown in FIG. 2. The support plate is generally disk-like and includes on its outer periphery a plurality, in this case, four, of depending prong-like feet 29, only three of which are shown by reason of the cut-away of the front portion of the support plate. Also depending from the underside of the plate 28 and centrally of the disk is an integral hollow piercing prong 30 which is slightly tapered for easy insertion and bias cut, as shown, for easy rupturing penetration of the closure as described hereinafter. The hollow portion defines a passageway 31. Upstanding oppositely from the piercement prong 30 and spaced radially outwardly therefrom is an upstanding annular ring-like member 32 with a bead-like bulging projection 32a, matching the contour of the interior cut-away 27 of the nipple. This allows the nipple 21 to be securely assembled onto the support plate 28 in the manner shown, for example, in FIG. 3. A generally annular gasket 34 abuttingly surrounds the prong 30. The gasket 34 has a plurality of grooves 38 in its underside which cooperate with vertical notch 37 formed in the prong 30 to provide an air venting function as will be described.

As shown in FIG. 3, most desirably, the assembly of nipple 21 and support plate 28 should include, particularly coextensive with the flange portion 25 of the nipple, a protective sheath, lid or cover member 40 which can, for example, frictionally engage the heavier base portion of the nipple, as at 41, or be removably but adhesively secured to the flange portion of the nipple, as at 42.

Reference may now be had to FIG. 4, which illustrates the assembling of the unit as shown in FIG. 3 onto a glass container C having a continuous peripheral shoulder S and including in hermetic sealing engagement over its mouth a closure cover 43. The closure cover 43 includes a depending skirt portion 44 engaging the container and a connected horizontal lid portion 45 spanning the mouth of the container. The lid 45 includes a centrally located depression or dimple 46. The assembly as shown in FIG. 3 is positioned on top of the closure lid 45 with the prong-like feet 29 resting on the skirt 44 as shown. The prong 30 of the plate 28 is thus situated registering over the depression 46 in the lid 45. While in this assembled relationship, a connecting tape 49 is wrapped about the assembly with one edge portion 50 embracing and securing the shield 40 and an opposite edge 51 embracing the container C just below the shoulder S. The package, as illustrated in FIG. 4, may thus be marketed through the normal distribution channels. The contents, having been previously introduced and hermetically sealed under sterile conditions, will possess a considerable shelf life both at the retail outlet and on the housewife's shelves.

Upon reaching the ultimate consumer, such as a housewife, the package can be stored until ready for dispensing, for example, to the baby. For this purpose an opening tool is desired. The tool identified by the reference numeral 53 (FIG. 5) is essentially an open-ended cup member having a depending annular skirt 54 of a size to rest on the peripheral flange portion 25 of the nipple 21. The upper end of the tool 53 is contoured smoothly, most preferably as at 55, in order that the package may be easily opened. Thus, the container may be rested on a table, the tool located telescopically over the nipple, as shown in FIG. 5, and the portion 55 struck a firm blow with the butt portion of the hand. This will cause the leg portion 54 to press down on the support plate 28 and transmit the force to the central depending prong 30 which then pierces the depression or nipple 46 of the lid 45, whereby the interior 56 of the container is in fluid communication through the passageway 31 with the interior 26 of the nipple and ultimately its outlet ports 23. The user can then simply remove the tool 53 and rip away the now-deformed tape 49 which has bulged out as shown in FIG. 5. Additionally, the sheath or cover 40 can be removed by hand, whereupon the nipple 21 is exposed for dispensing in the conventional fashion.

The gasket 34, depending feet 29 and the lower beaded terminus 44a of the skirt portion of the lid 44 are cooperatively formed to provide a locking feature of the package during dispensement. Thus, as shown in FIG. 5, the feet portion 29 are crimped at the end as at 29a. This, coupled with the proper thickness of the gasket 34, allows the crimped portion 29a to grasp the bead 44a of the closure skirt 44 in secure fashion. Liquid can easily flow in the manner described, particularly since air replacing withdrawn liquid can proceed through the grooves 38 in the gasket 34, communicating with the notched passageway 37 formed in the exterior surface of prong and thereby entering the constantly increasing headspace within the container C.

FIG. 6 illustrates a generally similar construction to that just described, with the exception that the container for the sterile food is a cylindrical tin can body 57 having a circular end sealing disk 58 crimped peripherally to the body and forming an endless bead 59. To accommodate this sort of construction, the principal support plate 28a has, in place of the depending feet 29, feet 129a having vertically spaced, annular crimps 129b and 129c. To assemble the package, the support plate 28a is lowered onto the can by spreading the feet 129a apart and seating the bead portion of the can 59 in the lowermost bulging or annular crimp 129c. Now, with this construction assembled as described, a tape 49a having upper edge 50a and lower edge 51a is wrapped about the assembly, securing the package in assembling for shipping or market-

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ing. Opening is accomplished in a similar fashion to that illustrated in FIG. 2, excepting that the feet 129a telescopically slip down so that the bead portion 59 occupies the annular crimp 129b formed in legs 129a. It will be appreciated that the gasket 34a, upon insertion of the prong 30a, aids, in cooperation with the annular recess 129b engagement with the bead 59 of the tin can 57, in maintaining a balanced relationship between the components. As described previously, the tape 49a can be removed together with the shield 40a after piercement of the disk 58, in the same manner as described hereinbefore, revealing the nipple ready for dispensing use in conventional fashion.

Referring now to FIG. 7, there is disclosed a construction involving the combination of a nipple 61 and a generally circular support plate 62. The nipple 61 is generally similar in configuration to the nipple 21 shown in FIG. 1, except as described hereinafter. The nipple includes ports or openings 63 in the mouth-engaging bulbous end 64. The flanged portion of the base 65 is wrapped downwardly over and upwardly under a marginal depending skirt 66 formed on the periphery of the plate 62. The underside of the flange port of the nipple contains radial grooves 65a which will ultimately serve as passageways for vent air. The nipple interior is identified by the reference numeral 61a. The plate 62 has formed thereon, integrally and in depending fashion, a prong 67 having external screw threads 67a. The prong includes an interior passageway 68 extending to the upper side of the plate 62, communicating with nipple interior 61a. The prong is also notched as at N in its outer surface, similarly to the notch 37 in prong 30 (FIG. 5c) and for a similar purpose. Most preferably, a plurality of spaced legs 70 (6 are shown) are dependently formed on the flange 65, as shown in FIG. 7. A generally annular gasket 71 surrounds the prong 68 and abuts against the underside of the plate 62. The gasket 71 is grooved as at 72 in the same manner as the gasket 34 shown in FIG. 5b and serves the same purpose, namely, as a passageway for vent air as will be hereinafter described. The assembly shown in FIG. 7 is shown in FIG. 9 having a sheath or cover L telescopically embracing the shoulder portion of the nipple, identified as at L-1. The sheath or cover L may also be secured to the rubber at the base or flange portion, identified by the reference letter L-2. The assembly 60 shown in FIG. 9 is shown in assembled relationship with a sterile food-containing glass container 74 in FIG. 10. The glass container 74 includes an upper shoulder 75 and an upwardly opening mouth 76. A metal closure 77 sealingly spans the mouth, aseptically sealing the previously sterilized and packaged contents within the container. The closure includes a flat lid portion 77a with a central depression or dimple 78. The assembly of FIG. 9 is situated thereover with the threaded prong 67 of the support plate 62 in registry with the dimple 78. It is held spaced just slightly from the indentation by the spaced feet 70, depending integrally from the marginal flange portions 65 of the nipple 61. While held in this position and with sanitary conditions prevailing, the sheath or cover L is situated thereabout, whereupon a suitable tape 80 is wrapped about the peripheral portion of the base of the assembly, as at 81, and extending downwardly to the shoulder portion 75. In addition to holding the entire package in assembled relationship, the tape seals out casual contaminants. It will be appreciated that the container 74 has been previously filled and aseptically closed by the closure 77 in accordance with conventional sterilizing packaging techniques or, for example, as particularly described in my co-pending application, Serial Number 160,203, filed December 18, 1961, now abandoned.

The container 74, having secured thereto by the tape 80, the plate assembly as shown in FIG. 10 may be shipped by the food processor or packer through normal

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marketing channels to the ultimate retail outlet without fear of contamination of the food contained therein. The ultimate consumer can readily open the container for access to the contents utilizing a tool 85, which is generally similar to tool 53 described hereinbefore except for its possessing a serrated contour along its annular bottom edge, as at 86. The serrations are inclined as described and for a purpose as described hereinafter. The tool 85 need only be telescopically situated down over the sheath L with the annular serrated edge resting on the flange area L-2, as shown in FIG. 10. Thence the container resting on a support can be steadied with one hand, while the butt end of the opposite hand is brought firmly down on the curvilinear top portion of the opening tool which will cause the legs or feet 70, formed of rubber as in the case of the nipple, to collapse against such force whereupon the prong 67 will rupture the lid 77a at the indentation portion 78 pushing the latter aside (see FIG. 13). The prong 68, by reason of its external threaded configuration, will not project all the way through as in the case of the bayonet type prong 30 of the embodiment of FIGS. 4 and 5. Rather, the consumer will grasp the tool 85 and rotate it, which will cause the simultaneously exerted downward force to be transmitted through the serrations 86 to the flange portion L-2 and thence, by the compression of the rubber, to the plate member 62 whereupon the outer threaded configuration of the prong 67 will in effect thread itself through the top cover 77a, cinching the plate 62 against the gasket 71 for dispensement of contents. After the assembly has been secured by engagement of screw prongs 67 and the cover plate 77a, the protective sheath L may be removed along with the tape 80, whereupon the package will have the appearance shown in FIG. 11. The central passageway 68 of the prong member 67 will thus be communicating the interior of the container 74 with the interior 61a of the nipple 61. The plate 62 as shown in FIG. 13 is not flush against the lid 77a, but is spaced by the thickness of the gasket 71, leaving an annular chamber 100 as it were. This chamber 100 together with the radial grooves 65a in the underside of the flange, the grooves 72 in the underside of the gasket 70 and the notch N in the threaded prong 68 define a passageway connecting the interior of the container 74 to the outside whereby vent air can enter to replace withdrawn liquid. The size of these cooperating passageways, grooves, etc., are shown somewhat enlarged for clarity, and it should be recognized that they are in fact very small in cross sectional area so that liquid will preferentially flow up the passageway 68 in the prong, leading to the interior of the nipple. This will be aided by the differential pressures. Other venting techniques may, of course, be used.

FIG. 12 illustrates a package embodying the techniques of the present invention utilizing, in place of a glass container 74, a tin can 90 having an end sealing lid 91 crimped to form a sealing bead with the side wall, as at 92. The nipple 61/support plate 62 assembly is situated over the closure disk 91 with the threaded prong 67 registering with the dimple 78. A tape 93 having parallel edge portions 94 and 95 is secured to embrace respectively the sheath L-1 and the upper portion of the can 90, inclusive of the bead portion 92, to thus securely hold the assembly in place and also serving as a seal against casual contaminants. Feet 70, formed to depend from the peripheral portion of the nipple 61, hold the prong spaced above the dimple 78 centrally formed in the end disk 91. The method of opening the package as shown in FIG. 12 is exactly the same as that described hereinbefore and therefore need not be repeated. Suffice is to say that the package as described containing a quantity of previously sterilized food product is capable of being easily opened since the piercement tool 67 is integrally incorporated into the dispensing assembly and includes a threaded contour for securing the assembly sealingly by gasket 71 to the lid 91, and also the tool 67 includes a

passageway 68 communicating with the fluid-connected dispensing element, namely, the nipple marginally secured to the plate member 28.

The package of the present invention as described hereinbefore can be fabricated of fairly conventional materials of construction. The container is usually formed of glass or metal, usually tin, but may be formed of plastics capable of enduring sterilizing temperatures without deformation. The nipple component is preferably formed of a high-grade gum rubber, although it is possible within the broad aspects of the present invention to utilize plastic or other synthetic materials since the nipple is intended to be used but once; the entire package being what is commonly referred to as a throw-away package once the contents have been emptied therefrom. The support plate, identified by the reference numeral 62 on the one embodiment and by the reference numeral 28 in the embodiments of FIGS. 1-6, is most ideally formed of a metal by reason of its greater strength and ability to transmit the opening force from the flange area to the piercing tool. The tape element 80 (FIG. 10) or 49 (FIG. 4) may be formed of paper, plastic, similar relatively inexpensive material. A transparent material such as cellophane can be used, as can a metallic foil.

The container component of the package of the present invention has been described in the foregoing description in connection with a glass container. It will be realized, however, that a variety of constructional materials may in fact be utilized in the forming of the container. Most desirably, of course, the material should be able to endure exposure to the necessary elevated temperatures for a sufficient period of time as will effect destruction of spoilage organisms normally associated with the food to be packaged. This is of particular pertinence with reference to candidate plastic materials. Tin and aluminum, of course, may be used and a container commonly known as a "tin can" has been illustrated in one or more of the drawings herein.

The gasket surrounding the piercing tool is formed of a resilient, sterilizable rubber material, but in some cases may be simply a flowed-on polyvinyl chloride material.

It will be appreciated that the venting of the container to supply air for withdrawn liquid may be accomplished in one of a variety of ways known in the art, in addition to that disclosed specifically herein.

Modifications may be resorted to without departing from the spirit and scope of the present invention and are intended to be included herein unless such modifications are clearly inopposite to the language of the appended claims.

I claim:

1. A package of nontoxic liquid including easy opening and dispensing features, said package including, in combination:
 - (1) a container defining a reservoir chamber containing said liquid, said container having a filling opening,
 - (2) a separate closure member in hermetic sealing engagement with the opening of said container, one of said container and closure including engagement means formed thereon, and
 - (3) a combination opening and dispensing adapter, said adapter including:
 - (a) a planar transverse wall having a central aperture,
 - (b) a hollow resilient nipple having a perforate outlet end and a connected base flange end sealingly carried on the upper side of said wall over said aperture defining thereby an interior dispensing chamber,
 - (c) a piercing tool integrally formed on and projecting from the side of the wall opposite said nipple, said tool including a central bore leading from its piercing end to said aperture, thereby communicating with said interior chamber,

(d) a plurality of depending feet elements formed on the periphery of said adapter, said feet elements holding said adapter member with the piercing tool in spaced, non-piercing relationship with said closure portion and over said opening, and said feet elements ultimately engaging said protruding engagement means upon vertical non-rotational downward movement of said adapter to thereby hold said tool with its bore connecting said reservoir and dispensing chambers after piercement of said closure by said piercing tool, and

(e) means holding said adapter poised over said closure and resting on said depending feet elements prior to piercement.

2. A package as claimed in claim 1, which includes an annular gasket surrounding said piercing tool, said gasket being located just beneath the wall of said adapter.

3. A package as claimed in claim 1, wherein said piercing tool is of downwardly frustoconical configuration in section and contains a notch in its outer surface, said package further including an annular gasket surrounding said piercing tool just beneath the transverse wall of said adapter, said gasket containing at least one transverse groove extending from the outer perimeter to the inner perimeter and communicating with said notch to provide a passageway for air, thereby permitting equalization of pressure within said reservoir chamber as contents are removed.

4. A package as claimed in claim 1, wherein said adapter includes on its upper surface, opposite said piercing tool, an annular upstanding wall surrounding the aperture and said hollow nipple is removably mounted thereabout said annular wall.

5. The package as claimed in claim 1, which includes a removable cover embracing said nipple.

6. A package containing a quantity of nontoxic liquid under sterile conditions and including easy opening and dispensing features, said package including, in combination:

- (1) a container defining a reservoir chamber containing said liquid, said container having a filling opening,
- (2) a closure member hermetically sealing said filling opening,
- (3) a combination opening and dispensing adapter, said adapter including:

- (a) a generally circular, planar transverse wall having a downwardly extending annular flange formed on the circular edge,
- (b) a resilient nipple having a perforate outlet end and a connected base flange carried on the upper side of said wall defining thereby a dispensing chamber, said base flange extending over, downwardly and about said wall flange and said base nipple flange including a plurality of integral, resilient spacer legs spaced thereabout,
- (c) an integral depending piercing tool formed on the side of the wall of the adapter opposite said nipple, said tool including a central bore passageway leading from its operating end to the upper side of said wall proximate said dispensing chamber, said piercing tool having external threads leading to a piercing end, said spacer legs holding said adapter member with the piercing tool in spaced, non-piercing relationship with said closure portion over said opening, said spacer legs being collapsible permitting piercement of said closure and threaded engagement therewith, thereby securing said adapter to said closure with the bore passageway fluidly connecting said reservoir and dispensing chambers after piercement of said closure by said threaded piercing tool, and

(4) means holding said adapter in registration over said closure.

7. For use with a hermetically sealed container including one planar end closure plate formed of rigid but rupturable material and having a protruding bead formed on one of said container and said closure, the combination, in assembly:

a combination opening and dispensing adapter, said adapter including:

(a) an apertured transverse wall,
(b) a hollow resilient nipple having a perforate outlet end and a connected base flange end sealingly carried on the upper side of said wall over said aperture defining thereby a dispensing chamber,

(c) a piercing tool integrally formed to project outwardly from the side of the wall opposite said nipple, said tool including an axial bore extending from its piercing end to said aperture proximate said interior chamber, said piercing tool being of downwardly frustoconical configuration in section and containing a notch in its outer surface,

(d) an annular gasket surrounding said piercing tool just beneath the said transverse wall portion of said adapter, and

(e) peripheral depending feet formed on said transverse wall, said feet having engagement means engaging said protruding bead formed on one of said container and said closure, whereby in one position the adapter member is held with the piercing tool in spaced, non-piercing relationship with said closure plate and in a second position the piercing tool extends piercingly through said closure plate and is held with said axial bore fluidly connecting said reservoir chamber and said dispensing chamber.

8. The combination as claimed in claim 7, wherein, said gasket contains at least one transverse groove extending from the outer perimeter to the inner perimeter and communicating with said notch to provide a passageway for air, thereby permitting equalization of pressure within said reservoir chamber when contents of the container are ultimately removed.

9. For use with a hermetically sealed container including one planar end closure plate formed of rigid material, the combination, in assembly:

(1) a combination opening and dispensing adapter, said adapter including:

(a) a generally circular planar transverse wall having a central aperture and a downwardly extending annular flange formed on the edge,

(b) a resilient nipple having a perforate outlet end and a connected base flange carried on the upper side of said wall over said aperture defining thereby a dispensing chamber, said base flange extending over, downwardly and about said wall flange, and said nipple flange including a plurality of integrally formed spacer legs spaced thereabout,

(c) a pointed piercing tool integrally formed to project from the side of the wall of the adapter opposite said nipple, said tool including a central bore extending from its piercing end to said aperture, said piercing tool having external threads leading to said pointed piercing end, said spacer legs extending downwardly further than said piercing tool, whereby said spacer legs serve to hold said adapter member such that the piercing tool is in spaced, non-piercing relationship with said closure portion, said spacer legs being collapsible permitting ultimate piercing of said closure and subsequent threaded engagement therewith to thereby secure said adapter to said closure in such fashion that the bore fluidly

connects the principal container with the nipple-defined dispensing chamber.

10. A combination as claimed in claim 9, which includes an annular gasket surrounding said piercing tool, said gasket being located just beneath the wall of said adapter.

11. A combination as claimed in claim 9, wherein said piercing tool is of downwardly frustoconical configuration in section and contains a notch in its outer surface, said combination further including an annular gasket surrounding said piercing tool just beneath the transverse wall of said adapter, said gasket containing at least one transverse groove extending from the outer perimeter to the inner perimeter and communicating with said notch to provide a passageway for air, thereby equalizing pressure within said reservoir chamber as contents are removed.

12. A unitary package of sterile nourishment having a sterile, compression release dispensing outlet, said package comprising, in cooperative assembly, a mouth-containing receptacle, liquid nourishment within said receptacle, a mouth-spanning closure in secure hermetic sealing engagement with said receptacle, and a combination opener and dispensing assembly mounted in secure overlying relationship over said closure, said assembly including a support plate, piercing means formed on said plate capable of puncturing said closure, said piercing means including an interior bore passageway leading from proximate the piercing edge to the location on the other side of said plate, said piercing means having external threads formed thereon and extending from said plate, a perforate resilient hollow nipple marginally secured to the upper side of said plate opposite said piercing means and embracingly communicating with said passageway, said nipple including a base portion provided with spaced spacer legs projecting axially a distance at least as great as the extension of said piercing tool, said spacer legs resting on said closure holding said piercing edge in vertically spaced relationship with said closure, said spacer legs being collapsible, thereby permitting said piercing edge to pierce said closure and allow threaded engagement thereof with said closure, thereby securing said adapter to said closure with the bore passageway fluidly connected to said receptacle and said perforate hollow nipple, and an outer cover removably secured to and protectively embroved of said nipple.

13. For use with a hermetically sealed container including one planar end closure formed of rigid material and having a protruding bead formed on one of said container and said closure, the combination, in assembly:

a combination opening and dispensing adapter attached to a planar end closure, said adapter including:

(a) an apertured plate,

(b) a hollow resilient nipple having a perforate outlet end and a connected base flange end sealingly carried on the upper side of said plate over said aperture defining thereby a dispensing chamber,

(c) a tubular piercing tool integrally formed to project from the side of the plate opposite said nipple, said tool including a central bore passageway leading from proximate its piercing end to said aperture, said tubular tool having an external notch axially along its outer surface,

(d) an annular gasket surrounding said tubular tool proximate its juncture with said plate, said gasket having at least one groove on the side normally contacting said closure,

(e) means formed on said adapter holding said adapter in registration over said closure with the piercing tool poised over said closure, and

(f) means holding said adapter snugly against said closure with the gasket compressed therebetween, and with the piercing tool extending through said closure plate, said groove in said gasket and

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notch in said tool cooperating to define a pas-
sageway providing equalization of air pressure
within said container.

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A. LOUIS MONACELL, *Primary Examiner.*

FRANKLIN T. GARRETT, RAYMOND N. JONES,
Examiners.

10 R. PESHOCK, *Assistant Examiner.*