

[54] **CARAFE**
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220/15, 220/63
[51] **Int. Cl.**..... **B65d 25/18**
[58] **Field of Search**..... 220/9 R, 15, 17,
220/63, 97 C, 36; 150/5

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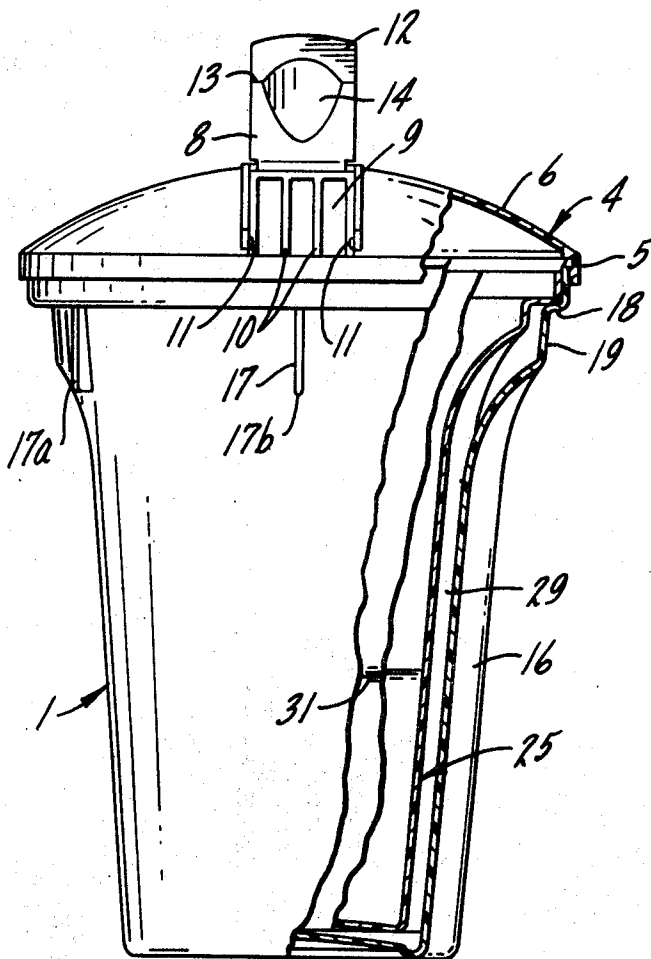
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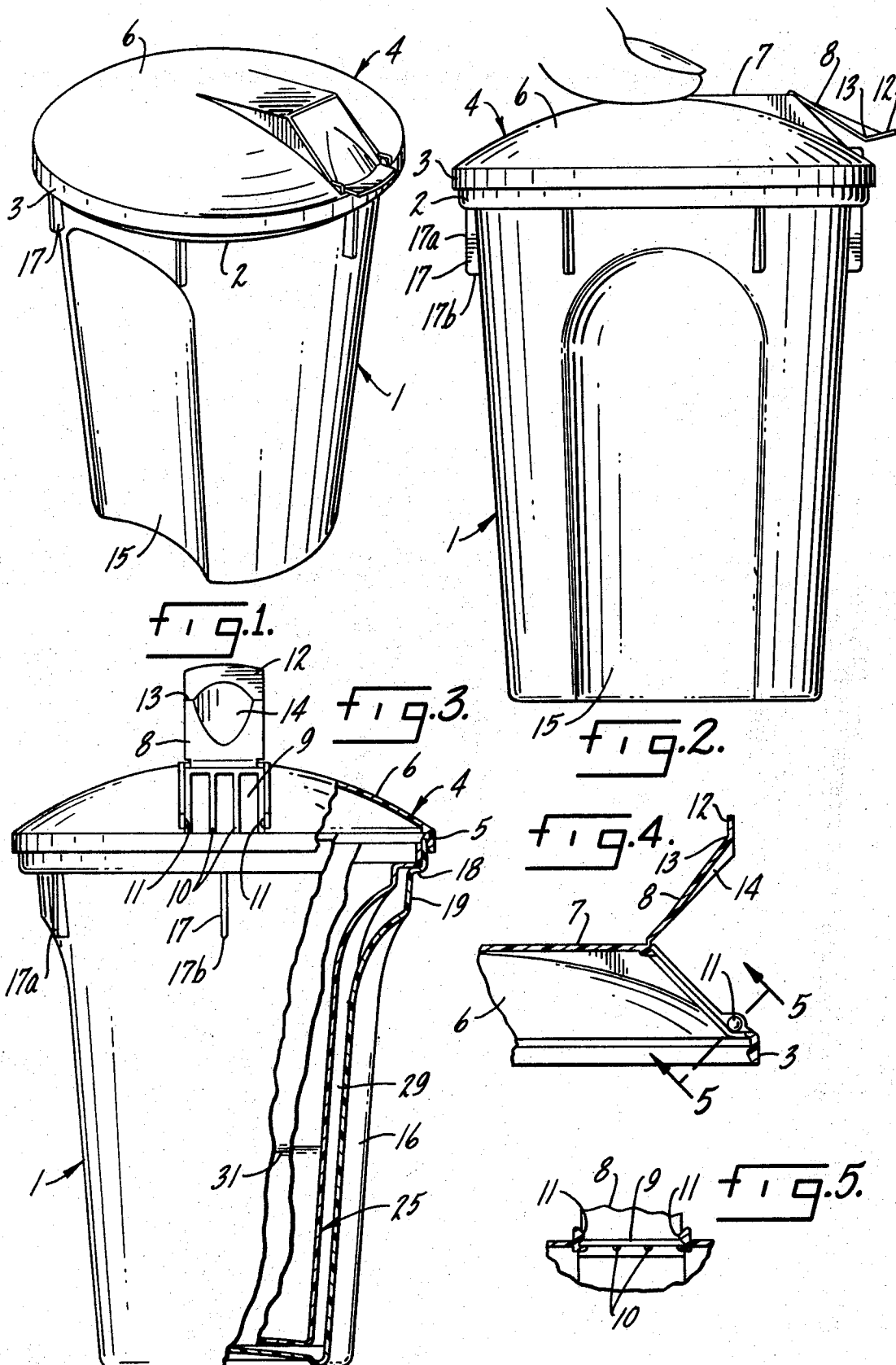
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[57] **ABSTRACT**

A carafe with a snap-in insulating liner and a removable domed cover. The carafe is nestable with and without the liner; the liners are nestable; a spout is carried entirely by the cover and includes a captive door openable in response to pressure on the cover.

2 Claims, 13 Drawing Figures





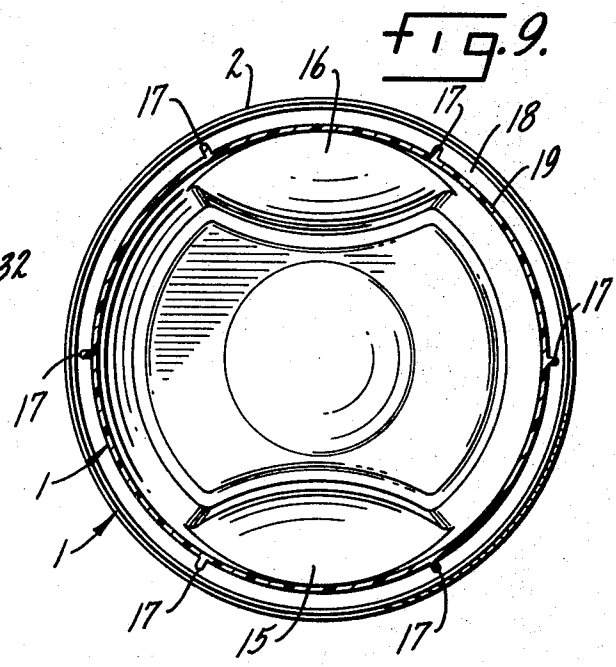
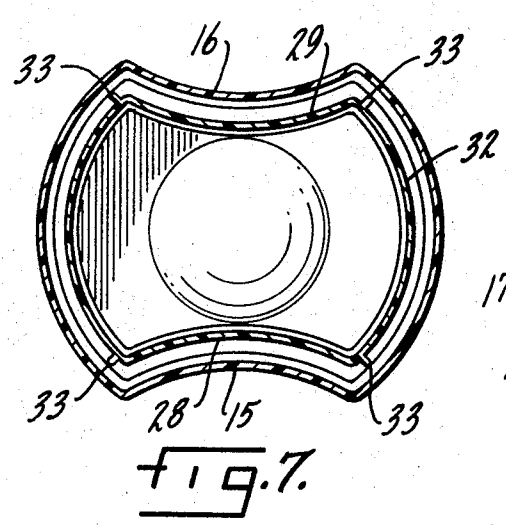
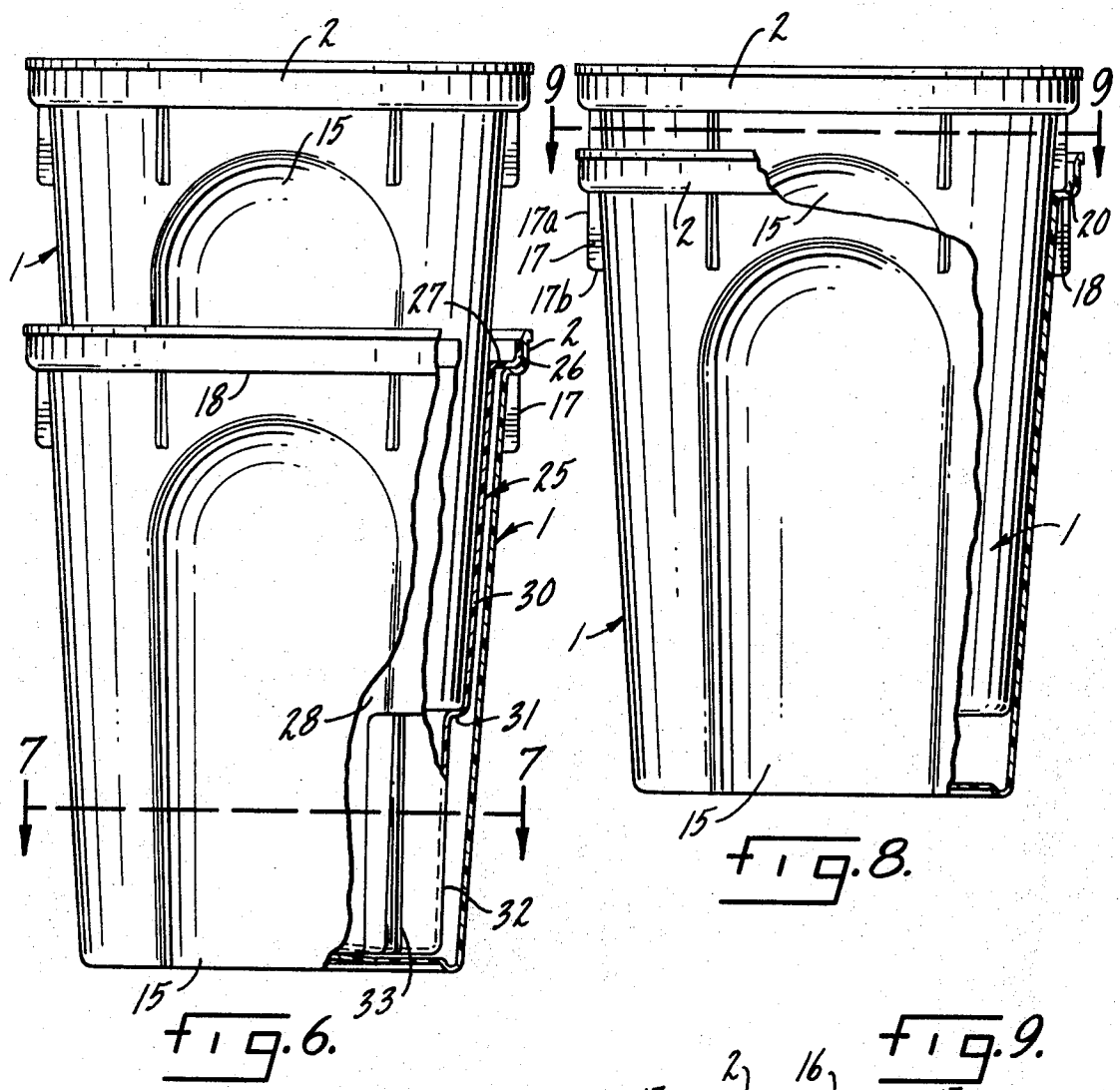


FIG. 11.

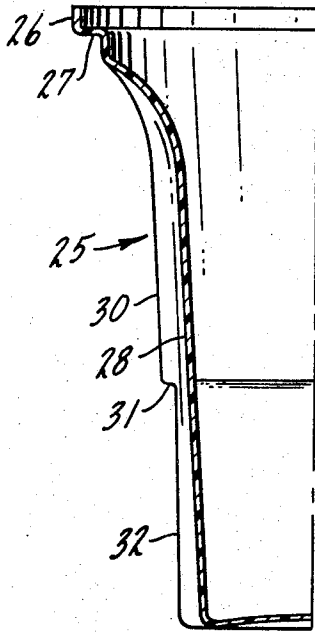


FIG. 10.

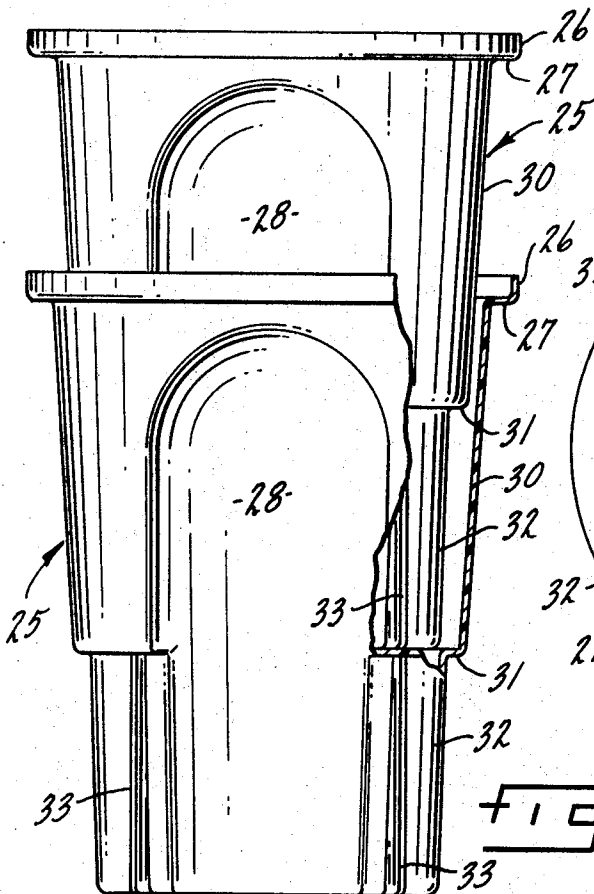
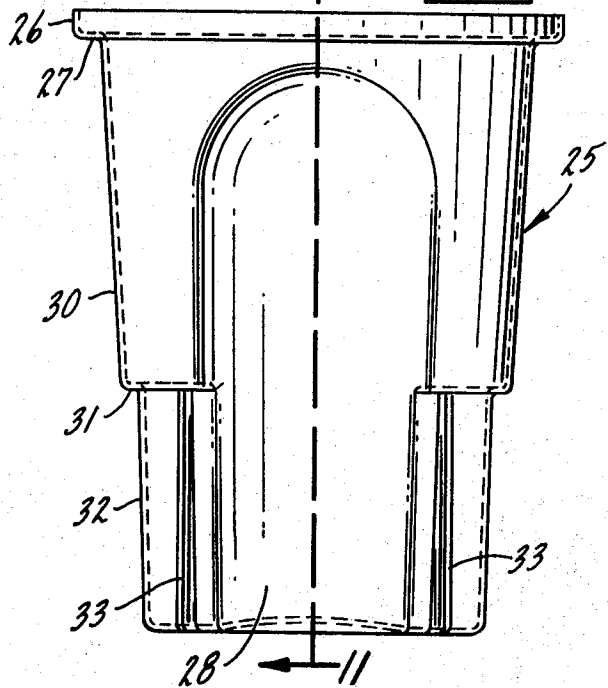


FIG. 12.

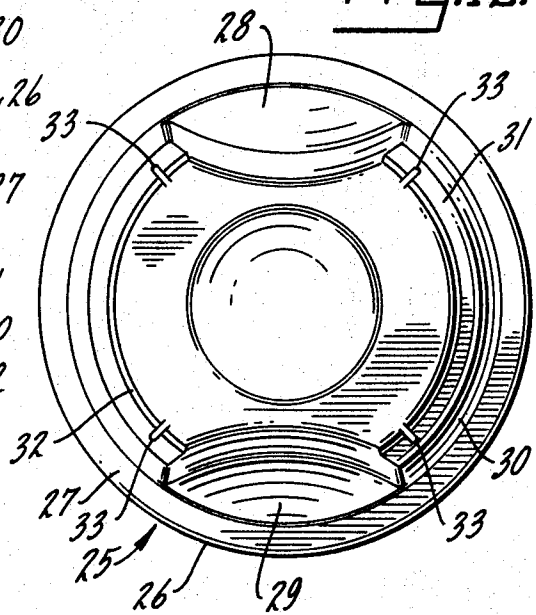


FIG. 13.

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CARAFE

SUMMARY OF THE INVENTION

This application relates to carafes and particularly to an economically producible carafe disposable after one use by a patient in a hospital, for example.

One purpose of the invention is to provide a carafe of maximum economy in manufacture and use and of maximum attractiveness in appearance.

Another purpose of the invention is to provide a carafe, the basic container or outer shell of which is nestable.

Another purpose is to provide a carafe having a liner which may be snapped into and out of position, rendering the carafe selectably insulated.

Another purpose is to provide an insulated carafe nestable with insulated and noninsulated carafes.

Another purpose is to provide an insulating liner for a carafe, the liners being individually nestable with like liners in storage.

Another purpose is to provide an insulated carafe having a removable liner shell formed and adapted for nesting of the carafe, nesting of the liner shell and nesting of the carafe-liner assemblies.

Another purpose is to provide a carafe and cover therefor, the cover incorporating a spout and a captive door for said spout closable against said cover.

Another purpose is to provide a carafe having a spout and a door for said spout, the door being openable in response to pressure on the cover.

Other purposes may appear from time to time during the course of the specification and claims.

BRIEF DESCRIPTION OF THE DISCLOSURE

The invention is illustrated more or less diagrammatically in the accompanying drawings wherein:

FIG. 1 is a perspective view;

FIG. 2 is a side elevation;

FIG. 3 is a front view with parts broken away and parts in cross section;

FIG. 4 is a detail view;

FIG. 5 is a detail view on the line 5—5 of FIG. 4;

FIG. 6 is a side view illustrating insulated carafes in nested relationship;

FIG. 7 is a view taken on the line 7—7 of FIG. 6;

FIG. 8 is a side view of noninsulated carafes in nesting relationship;

FIG. 9 is a view taken on the line 9—9 of FIG. 8;

FIG. 10 is a side view of an insulating liner;

FIG. 11 is a partial view taken on a line 11—11 of FIG. 10;

FIG. 12 is a bottom view of the structure illustrated in FIG. 10; and

FIG. 13 is a side elevation illustrating the liners in nested relationship.

Like parts are indicated by like numerals throughout the specification and drawings.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, and particularly to FIG. 1, the numeral 1 generally indicates the external shell or main container portion of the carafe of the invention. The upper open end of the shell 1 has an enlarged circumferential rim wall 2 engaged by a corresponding circumferential rim wall 3 of a domed cover 4. As may be best seen at 5 in FIG. 3, the parallel, cir-

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cumferential walls 2, 3 include outwardly and inwardly directed beads or ridges, respectively, the ridges overlapping to insure a watertight snap-on engagement of cover 4 on carafe shell 1.

As illustrated in FIGS. 2-5, the cover 4 includes a major domed portion 6 rising in a continuous curve from the upper edge of the wall 3. The surface 6 is broken by an integral spout conformation 7 positioned radially in and extending upwardly above the portion 6. Formed integrally with the upper flat surface of the spout 7 is a captive door element 8, the material between the door element 8 and the upper flat surface of spout 7 being relatively thin to permit hinging, as may be best seen for example in FIG. 4. The spout 7 has a forward downwardly, outwardly inclined window or outlet portion 9 with ice cube-retaining, stream-separating, spout-strengthening integral bars 10 spaced therein. The side walls of the spout 9 have inwardly directed integral buttons 11 adjacent the wall 3 of cover 4 and the door 8 has a forwardly directed end portion 12 forming with the main portion of door 8 a latching angle 13 positioned to engage the buttons 11, as may be best seen for example in FIG. 5. The door 8 has a central, outwardly curved segment 14 which extends into the forwardly extending portion 12 to strengthen the door.

The otherwise frusto-conical, circumferential main wall of the outershell 1 has its opposite sides inwardly concave or indented, as indicated at 15, 16, for ease in handling. A plurality of vertically disposed, circumferentially spaced ribs 17 extend from beneath the ledge 18 formed between the wall 2 and an upper circumferential shell portion 19 of the shell 1. The ribs 17 have an outer edge 17a extending in a plane parallel to that of the walls 2, 3. As may be best seen in FIG. 9, the shells 1 are easily nested or stacked for storage, the lower edges 17b of the ribs 17 seating on ledge 18 and the outer edges 17a of ribs 17 being received within the wall 2, as indicated generally at 20 in FIG. 8, to preclude sticking of individual shells 1 within identical shells 1 when stacked or nested.

Illustrated in FIG. 10 is an insulating liner generally indicated at 25. The liner 25 has an upper enlarged, circumferential section at its upper open end, the enlarged section being defined by a circumferential wall 26 and an annular wall 27, the height of wall 26 being less than that of wall 2. Indentations or concave wall portions 28, 29 correspond generally in size and positioning to the segments 15, 16 of the external containers 1. The frusto-conical main wall 30 of liner 25 is inwardly offset as indicated at 31 in its convex or nonconcave portions to create a reduced lower segment 32. A set of four longitudinal ribs 33 extend radially from the convex portions of reduced end segment 32 and extend linearly from the inset 31 to the lower edge of segment 32. It will be observed that the ribs 33 are positioned adjacent the juncture of the concaves 28, 29 with the remaining convex wall portions of reduced segment 32.

The use and operation of the invention are as follows:

The cap 4 is easily manually pressed into and removed from watertight engagement with the external container 1, the ridges on walls 2 and 3 interlocking. Since the plastic material of the cap 4 and the plastic material of the container 1 differ, the door 8 of spout 7 is designed for engagement only with the cover and not with the container. Thus varying shrinkage factors

of the cover and container have no affect on the performance of the door 8.

The door 8 closes and lockingly engages with the integral lugs 11. Alternate means of opening the door 8 are provided in that the operator may lift upwardly on the extension 12, or may, as illustrated in FIG. 2, press downwardly on the dome 6 of cover 4 to snap the door 8 open. The dome 6 has the further advantage of precluding the gathering of dust and dirt, as well as germs. It will be understood that the carafe of the invention finds its greatest utilization in hospitals, being provided for one-patient use and subsequent discarding. Hence the dome 6 avoids entrapment or buildup of dust, dirt and germs.

While the spout 7 and door 8 are located in the cover, they are positioned for escape of water from the carafe directly into a drinking glass or other container and water is not required to flow over the carafe or cover itself. Ribs or bars 10 serve the triple function of strengthening the spout, retaining ice cubes and dividing the flow of fluid from the carafe of the invention and thus limiting the tendency to splash or overflow a drinking glass for example.

As may be best seen in FIG. 3, the liner 25 is simply manually snapped in place to render the external shell 1 an insulated carafe, the walls 26,27 of inner liner or inner shell 25 being formed and adapted for watertight contact engagement with the walls 2,18 of external shell 1. It will be understood that the dimensions of the walls 26 and 2 are such as to provide a watertight engagement and while the inner shell 25 may be manually snapped into place, rather than glued, heat-sealed or otherwise secured, and while the inner shell 25 may be manually removed, substantial manual effort is required for such removal and the liner 25 will remain solidly in place as long as desired.

The frusto-conical walls of the shells 1,25 are dimensioned to create an insulating air space throughout their extension, including their concave portions 15,16 and 28,29, as can be clearly seen in FIG. 3. The lower ends of ribs 33 of liner shell 25 engage the opposed lower inner corner portions of the shell 1, as may best be seen in FIG. 7. Thus the engagement of wall 26 with wall 2 and of ribs 33 with the shell 1 preclude any rattling or looseness of the liners while maintaining a maximum insulating air space therebetween.

The shells 1 may be nested or stacked in storage as illustrated in FIG. 8. While two such shells are illustrated, it will be understood that the number may vary as desired. In each case the ribs 17 carry one shell 1 within the next lower adjacent shell and preclude sticking therebetween.

Similarly, the liner shells 25 themselves may be stacked or nested in storage as illustrated in FIG. 13, the inwardly offset portion 31 of the wall thereof serving to support the bottom wall of the next above liner 25.

While noninsulated carafe shells 1 may be stacked or nested and the liner shells 25 may be stacked or nested,

the insulated carafes of FIG. 3 may also be stacked or nested, as may be best seen in FIG. 6. In this event, the bottom wall of each shell 1 is supported on the inward offset 31 of the insulated liner 25 in the next lower insulated carafe. It will be understood that noninsulated carafes may be nested or stacked within insulated carafes as shown in FIG. 6 and insulated carafes may be stacked or nested in noninsulated carafes, as shown in FIG. 8.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. In a carafe, an outer shell having a closed end and a larger open end, a circumferential wall surrounding said open end, an annular remainders joining said circumferential wall to the remainder of said outer shell, an insulating liner shell for said first shell, said liner shell having a closed end and a larger open end, a circumferential wall surrounding said open end and an annular wall joining said circumferential wall to the remainder of said liner shell, said liner shell being manually engageable in water tight relationship with said outer shell, said circumferential and annular walls of said liner shell being formed and dimensioned for engagement within and in water tight contact with said circumferential and annular walls of said outer shell, said remainders of said shells having different diameters whereby an insulating air space is created between said remainder, a plurality of circumferentially spaced, longitudinally disposed, radially directed ribs positioned beneath and extending a limited distance downwardly from said annular wall of said outer shell and formed and adapted for reception within the diameter of said circumferential wall of said outer shell whereby said outer shells are stackable one within the other, the ribs of one of said outer shells being received within the circumferential wall of the next lower outer shell and resting upon the annular wall of next lower outer shell.

2. In a carafe, an outer shell having a closed end and a larger open end, a circumferential wall surrounding said open end, an annular wall joining said circumferential wall to the remainder of said outer shell, an insulating liner shell for said first shell, said liner shell having a closed end and a larger open end, a circumferential wall surrounding said open end and an annular wall joining said circumferential wall to the remainder of said liner shell, said liner shell being manually engageable in water tight relationship with said outer shell, said circumferential and annular walls of said liner shell being formed and dimensioned for engagement within and in water tight contact with said circumferential and annular walls of said outer shell, said remainders of said shells having different diameters whereby an insulating air space is created between said remainders, rib elements formed on said liner shell and positioned to contact opposed inner lower surfaces of said outer shell when said outer and liner shells are in insulating relationship.

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