United States Patent [19]

Collins

[11] **3,871,555**

[45] **Mar. 18, 1975**

[54] **CONTAINER DEVICE FOR DISPENSING LIQUIDS**

[75] Inventor: **Delmas E. Collins**, West Lafayette, Ohio

[73] Assignee: **Jones-Zylon, Inc.**, West Lafayette, Ohio

[22] Filed: **Mar. 17, 1972**

[21] Appl. No.: **232,675**

[52] **U.S. Cl.** **222/131**

[51] **Int. Cl.** **A47g 19/12**

[58] **Field of Search** ..... D9/290, 275; D44/21 R; 222/131, 500, 570, 183

[56] **References Cited**

UNITED STATES PATENTS

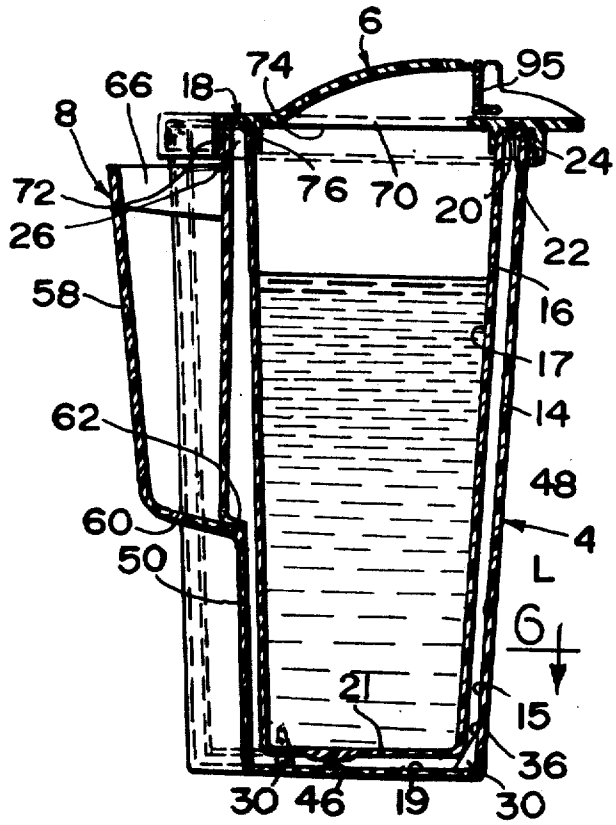
209,446	10/1878	Beach	222/131
334,560	1/1886	Bradford	222/500 X
998,533	7/1911	King	222/131
2,612,765	10/1952	Gorey	222/570 X
2,805,561	9/1957	Emmert et al.	D44/21 R
2,886,218	5/1959	Marcus	222/562 X
3,113,706	12/1963	Wickman	222/570 X
3,471,058	10/1969	Latham et al.	D44/21 R
D166,527	4/1952	Byrd	D44/21 R
D213,796	4/1969	Marue	D44/21 R

Primary Examiner—Stanley H. Tollberg
Assistant Examiner—John P. Shannon
Attorney, Agent, or Firm—Teare, Teare & Sammon

[57] **ABSTRACT**

A container device for dispensing liquids including an open-topped body having a removable lid for covering the open top thereof. The body is of a double-shell construction having one shell heat insulated from the other shell. Guide elements are mounted on one of the shells for coacting engagement with the other shell for properly positioning the shells with respect to one another in the assembled condition of the device. The body includes an inwardly extending depression and a handle mounted adjacent the depression to position the handle closer to the lengthwise axis of the body. The lid includes a spout having an approach component for funneling the liquid contents of the device through a discharge opening into an external receptacle. A shield is mounted on the spout in covering relation with respect to the discharge opening being movable from a closed position to an open position upon movement of the device between a non-pouring position and a pouring position, respectively. A screen is positioned adjacent the spout to prevent solid objects contained in the liquid from being unintentionally discharged from the container.

4 Claims, 6 Drawing Figures



PATENTED MAR 18 1975

3,871,555

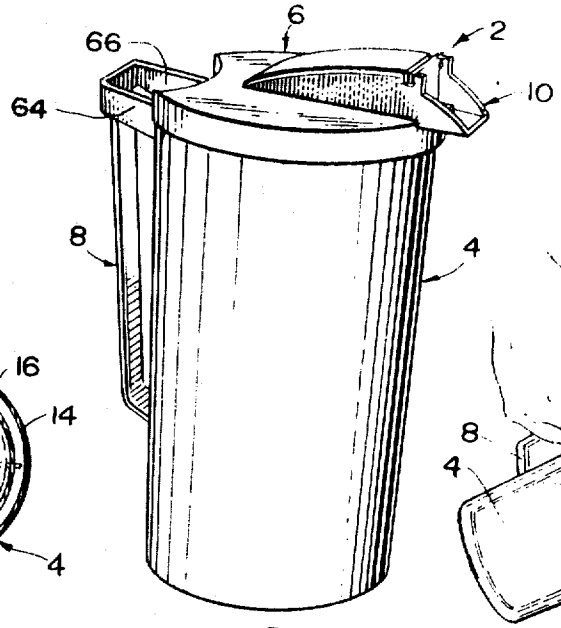


fig. 1

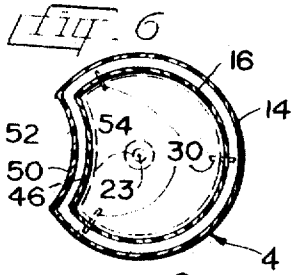


fig. 6

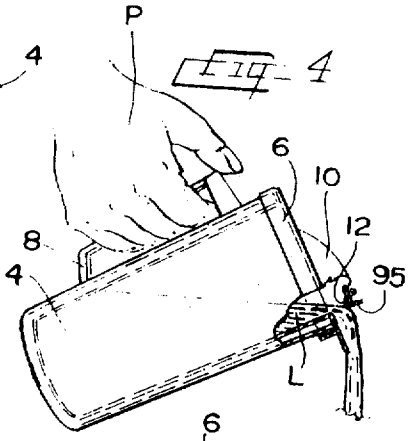


fig. 4

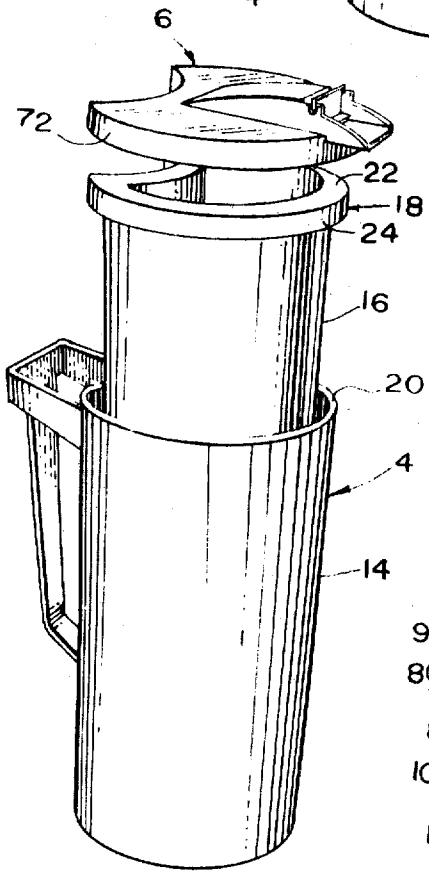


fig. 3

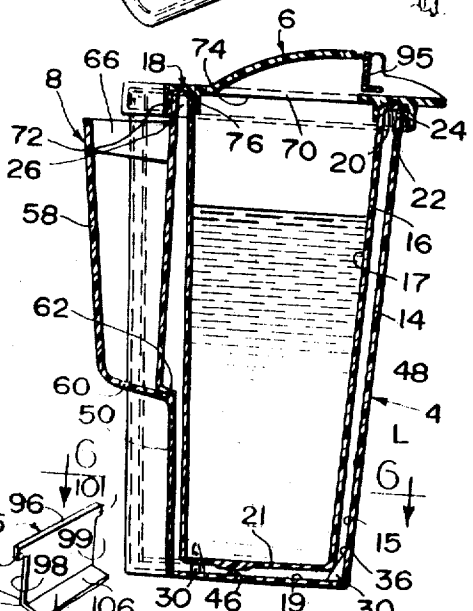


fig. 2

fig. 5

CONTAINER DEVICE FOR DISPENSING LIQUIDS

BACKGROUND OF THE INVENTION

The present invention relates to a container device from which liquids are dispensed, and more particularly, relates to an improved construction for sanitary containers for pouring liquids, such as for drinking.

Generally, when liquids in a container are to be used for drinking purposes, it is desirable to protect the liquid when in the container from direct exposure to contaminants which may exist in the atmosphere externally of the container, and particularly, in those situations requiring a high degree of sanitary control, such as in a hospital or the like.

Generally, those persons who are confined as a result of illness, either in a hospital or at home, are quite often in a weakened condition, and thus are permanently or temporarily lacking sufficient strength to perform certain manual functions, such as grasping, lifting or the like, in the manner in which they are normally capable. It is not infrequent that such confined persons find it more difficult than usual to manipulate a container or its component parts, such as a cover or the like, in order to dispense the liquid contents therefrom, and often, inadvertently drop the container or spill its contents.

Under such conditions, it has been found desirable to provide a container which will be covered when not in use to protect the liquid contents from contaminants which are present in the environment external to the container, and from which container the liquid contents can be poured without necessitating removal of the cover therefrom. Further, it has been found desirable to provide a container which facilitates the directing of the flow of liquid into a receptacle, and which flow will not be obstructed by any solid particles which may be present in the liquids, such as ice cubes, or the like. Still further, it has also been desirable to provide a container which is of a construction which is not easily tipped or dropped as the result of a sudden shifting in a position of the liquid content within a container, especially when being handled by a person in a weakened condition.

SUMMARY OF THE INVENTION

The present invention contemplates providing an improved container device for use in pouring liquids, and more particularly, for use in hospitals or at home by persons who, generally, are in a weakened physical condition.

In general, the device comprises a hollow body which is open at one end for receiving liquids therein. A lid is mounted on the body to cover the open end, and thus, protects the liquid contents from direct exposure with contaminants which may be present in the surrounding atmosphere.

The body of the container device includes a handle mounted on the side of the body for grasping by the user for pouring the liquid contents therefrom. A depression is formed in the body, and the handle is mounted adjacent the depression so as to be positioned closer to the center of mass of the liquid contained in the container device to facilitate handling of the container device during pouring of the liquid therefrom.

In the form shown, the body is of a double-shell construction having an inner shell adapted to receive the liquid and an outer shell which is adapted to receive and support the inner shell therein. Means is provided adjacent the top and bottom of the shells to support the inner shell in spaced, generally concentric relation with respect to the outer shell to insulate the inner shell from the surrounding atmosphere.

The lid includes a generally planar cover portion having a spout assembly mounted thereon for discharging liquids from the container while the cover is in the mounted position thereon. The spout assembly includes a discharge opening which extends in a plane generally normal to the general plane of the cover portion. The shield member is movably mounted on the lid for covering the discharge opening when the container device is in a generally upright, non-pouring position, and is movable, by gravity, for uncovering the discharge opening when the container device is moved to a tilted pouring position. A screen assembly including spaced, strut-like elements extend across the discharge opening to prevent solid objects contained in the liquid, such as ice or the like, from spilling out with the liquid during pouring thereof.

The spout assembly includes an approach component which connects the discharge opening in fluid communication with the interior of the container device. The approach component serves to prevent solid objects from blocking the discharge opening and assures a steady interchange of air between the exterior and interior of the container device to provide a steady, continuous flow of liquid therefrom. A lip extends outwardly from the approach component and beyond the periphery of the body of the container device to facilitate pouring of the liquid into an external receptacle without spillage thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of the container device of the present invention;

FIG. **2** is a side elevation transverse sectional view of the container device shown in FIG. **1**;

FIG. **3** is a perspective, assembly view of the container device shown in FIG. **1**;

FIG. **4** is a fragmentary, side elevation view of the container device shown in FIG. **1** in the pouring position thereof;

FIG. **5** is an enlarged, fragmentary perspective view of the spout assembly of the lid for a container of the present invention; and

FIG. **6** is a transverse sectional view taken along the line **6—6** of FIG. **2**.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The container device of the present invention is illustrated, generally at **2**, in FIG. **1**, and as shown includes a hollow, open-topped body **4** adapted to receive a liquid L therein, as shown in FIG. **4**. Referring again to FIG. **1**, a lid **6** is shown mounted on the body adjacent the open top thereof to prevent contaminants which may be present in the atmosphere surrounding the container from entering the container and the liquid L therein. A handle **8** is mounted on the side of the body **4** for grasping by a user P to tilt the body forward into a pouring position, as shown in FIG. **4**. Referring again to FIG. **1**, the lid **6** is provided with a spout assembly **10** which includes a discharge opening, as at **12** in FIG. **4**, to enable the liquid L to be discharged from the body **4** into an external receptacle, such as a glass or the like

(not shown) when the body 4 is in the pouring position as shown in FIG. 4.

Referring now to FIGS. 2, 3, and 6, the body 4 is shown as being of a double-shell construction including an outer shell 14 and an inner shell 16 mounted interiorly of the outer shell 14. The shells 14 and 16 may be made of any suitable material, such as plastic, metal, or the like. The shells may have any suitable configuration, but in the form shown include endless side walls 15 and 17, respectively, which may be generally circular throughout their length (FIG. 6), and which may be tapered in their lengthwise dimension so as to be larger adjacent their top ends than at the bottom ends. As shown in FIG. 3, the shells 14 and 16 are both initially open at the top ends and closed at their bottom ends, such as by bottom walls 19 and 21, respectively, with the outer shell 14 being adapted to telescopically receive the inner shell 16 in the lengthwise direction thereof. As shown, the inner shell 16 includes a peripheral flange 18 adjacent its open end which is adapted for overlying, interlocking seated engagement with the upper marginal edge 20 of the outer shell 14. As shown in FIGS. 2 and 3, the flange 18 includes a radially outwardly extending portion 22 and an axially extending portion 24 which is spaced outwardly from and extends downwardly alongside the upper end of the shell 16 defining a peripheral recess 26 for receiving the upper marginal edge 20 of the shell 14. Preferably, the recess 26 has a transverse sectional configuration complementary to the transverse sectional configuration of the upper distal end of the shell 14 with the corresponding transverse dimensions of the shell 14 adjacent its upper peripheral edge 20 being slightly smaller than the corresponding transverse dimensions of the recess 26 such that the flange 18 will snugly engage the shell 14, and center the upper end of the shell 14 with the shell 16 when the latter is fully inserted into the shell 14. Once inserted, the shells 14 and 16 may be permanently secured to one another, such as adjacent the flange 18 and upper marginal edge 20 in any suitable manner, such as by adhesives, fusing or the like.

As best seen in FIGS. 2 and 6, the outer shell 14 has a transverse dimension throughout its length which is greater than the corresponding transverse dimensions of the inner shell 16, and the inner shell 16 is disposed in laterally spaced relation from the outer shell 14 throughout its length. As shown, the outer shell 14 is provided with a plurality of radially inwardly extending guide elements 30 which are adapted to engage and position the shell 16 with respect to the shell 14 when the shell 16 is fully inserted into the shell 14. As shown, each of the guide elements 30 is generally triangular-shaped in side elevation having two adjacent sides attached to the side wall 15 and bottom wall 19 of the outer shell 16 and the remaining side 36 inclined radially inwardly and downwardly between the side wall 15 and the bottom wall 19 for seatingly engaging the shell 16 adjacent its bottom wall 21. The guide elements 30 are positioned in laterally spaced relation on the interior of the shell 14 so as to generally axially align the central axis of the shell 16 with respect to the central axis of the shell 14 (as at 23 in FIG. 6), and thus maintain the shells 14 and 16 in spaced relation throughout their lengths. A spacer element 46 projects downwardly from the bottom wall 21 of the inner shell 16 and engages the bottom wall 19 of the outer shell 14 in the fully inserted position of the inner shell 16 within the outer shell 14. The spacer element 46 cooperates with the guide elements 30 to maintain the bottom wall 21 of the inner shell 16 in spaced relation above the bottom wall 19 of the outer shell 14. By this arrangement, the inner shell 16 is completely surrounded by an air space, as at 48, for best insulating the inner shell 16 and its liquid contents from the outer shell 14 and the surrounding atmosphere.

Referring now particularly to FIGS. 2 and 6, the outer shell 14 includes an arcuately-curved portion 50 defining a depression 52 which extends lengthwise of the outer shell 14. The inner shell 16 includes an arcuate-shaped portion 54 which corresponds generally to the curvature of the arcuate portion 50 and defines an inner depression 56 to provide clearance for the arcuate portion 50 when the inner shell 16 is inserted into the outer shell. As shown, the arcuate portion 54 is spaced inwardly from and extends lengthwise of the arcuate portion 50 so as to maintain the continuity of the air space 48 surrounding the inner shell 16.

Referring now particularly to FIG. 2, the handle 8 is shown as including an elongated grip portion or strap 58 which is aligned lengthwise with the depression 52 and spaced outwardly from the arcuate portion 50. The grip portion 58 is bent inwardly adjacent its lower end, as at 60, so as to engage the outer shell 14 for attachment thereto, such as by fusing or the like. As shown in FIG. 2, the arcuate portion 50 includes another depression 62 which extends only part way along the length of the arcuate portion 50 terminating in a shoulder 62 which is spaced upwardly from the bottom of the outer shell 14. As shown, the bent-in portion 60 of the grip portion 58 may be attached to the outer shell 14 in underlying relation to the shoulder 62 and within the depression 52. The upper end of the grip portion 58 includes spaced arms 64 and 66 which project inwardly toward and are attached to the outer shell 14. In the form shown, the arms 64 and 66 also have their inner ends attached to the outer shell 14 within the depression 52. By this arrangement, the grip portion 58 can be positioned closer to the outer periphery of the outer shell 14, and thus, closer to the central axis of the inner shell 16 to enable the hand of the user, when grasping the grip portion 58, to be positioned closer to the center of mass of the liquid contents L contained within the inner shell 16. In effect, this arrangement reduces the torque acting on the hand of the user resulting in better control over the liquid mass when pouring, as shown in FIG. 4.

Referring now particularly to FIGS. 2 and 5, the lid 6 is shown as including a generally flat or planar cover portion 70 adapted to span and cover the open top of the inner shell 16. As shown, the cover portion 70 has an outline configuration, in top plan, which conforms to the outline configuration of the peripheral flange 18 being adapted to receive the flange 18 in fitted relation therein, as shown in FIG. 2. Another flange 76 depends downwardly from the cover portion 70 and extends in laterally spaced relation inwardly from the flange 72 so as to snugly engage the interior of the shell 16, and cooperates with the flange 72 to seal the open top of the shell 16 when the lid 6 is in the mounted position on the flange 18.

As shown in FIGS. 1, 2 and 5, the spout assembly 10 is mounted on the lid 6, and is shown as including an approach component 80 and a discharge lip 82 which projects outwardly from the approach component and

beyond the peripheral flange **72.** In the form shown, the spout assembly **10** includes a pair of generally upright, spaced side walls **85** and **86** which extend upwardly from the cover portion **74.** The cover portion is cut out in an area defined by the side walls **85** and **86** in one direction and by opposite portions of the inner flange **76** in the opposite direction, defining an opening **88** to enable liquid L from the inner shell **16** to enter the spout assembly **10.** A top wall **90** is supported on and spans the space between the side walls **85** and **86** to cover the opening **88.** As shown, the walls **85** and **86** are generally arcuately inclined in their lengthwise direction such that one end or rear end of the top wall **90** remote from the lip **82** commences in the general plane of the cover portion **70** and the opposite end or front end terminates in a front edge **93** positioned above the general plane of the cover portion **70.** The lip portion **82** is shown as including a bottom wall **93,** which is connected to and extends between the side walls **85** and **86** for directing the liquid along the bottom wall **92.** The bottom wall **92** is disposed generally in the plane of the cover portion **70** having one edge, such as its inner edge **91,** disposed generally vertically below the front edge **93** of the top wall **90.** The front edge **93** of the top wall **90** and inner edge **91** of the bottom wall **92** together define a plane which is generally normal to the general plane of the cover portion and form a discharge opening **94** at the end of the approach component **80** for discharging the liquid L from the device. As shown, the side walls **85** and **86** extend along and upwardly from the bottom wall **92** and also project outwardly beyond the peripheral edge of the lid for directing the liquid discharged from the discharge opening **84** along the bottom wall **92** and away from the container. This arrangement assures an adequate interchange of air between the exterior and interior of the container resulting in a smooth flow of the liquid out of the spout assembly **10,** and reduces the possibility of spillage.

As shown in FIG. **5,** the spout assembly **10** includes a shield member **95** which has a generally planar body which is shown as being generally rectangular in configuration, as seen in FIG. **5,** and defined by an upper edge **96,** bottom edge **97,** and side edges **98** and **99.** As shown, the shield member **95** includes a pair of oppositely projecting tabs **100** and **101** adjacent its upper edge **96** which are adapted for connecting the shield member **95** on the spout assembly **10.** In the form shown, the side walls **85** and **86** are provided with upwardly opening slots **103** and **104** adjacent the front edge **93** of the top wall **90,** which are adapted to receive the tabs **100** and **101,** respectively, for pivotally supporting the shield member **95** between the walls **85** and **86.** Preferably, the transverse distance between the upper end **96** and lower edge **97** of the shield member **95** is approximately equal to the transverse vertical distance between the front edge **93** of the top wall **90** and the inner edge **91** of the bottom wall **92** of the lip assembly **82.** Further, the transverse distance between the side edges **98** and **99** of the shield member **95** is slightly less than the transverse distance between the side walls **85** and **86** so that the shield member **95** substantially covers the discharge opening **94** in its closed position when the container device **2** is in the upright non-pouring position (FIG. **2**) whereas, the shield member **95** is free to pivot outwardly, by gravity, to an open position upon moving the container device **2** to a tilted pouring position, as shown in FIG. **4.** As shown in FIG. **5,** a toe element **106** may extend outwardly and forwardly from the lower edge **97** so that when the shield member **95** is in covering relation over the discharge opening **94,** the toe element **106** will project forwardly beyond the inner edge **91** and overlie the wall **92.** The toe element **106** may extend slightly angularly downward out of a plane normal to the shield member **95** so that the toe element **106** will engage the bottom wall **92** to assure adequate covering of the discharge opening **94** between the lower edge **97** of the shield member **95** and the bottom wall **92.**

To assure that solid objects, such as ice cubes or the like, will be retained in the liquid, and not suddenly discharged so as to cause substantial splashing of the liquid as it is poured into an external container, such as a glass or the like, screen elements may be provided which extend transversely across the discharge opening **94,** as shown in FIG. **5.** The screen elements **108** may comprise elongated struts or bars which may extend in any direction transversely of the discharge opening **84,** but in the form shown extend generally vertically between the top wall **90** and the bottom wall **92.** In addition, the cut-out opening **88** in the cover portion **70** may be provided with a transverse dimension in one direction, such as its widthwise direction between the walls **85** and **86,** such that any large solid objects in the liquid will not enter the spout assembly **10,** whereas, any relatively smaller solid particles which do enter the spout assembly **10** will be retained within the spout assembly by the screen elements **108.**

I claim:

1. A sanitary container for dispensing liquids therefrom comprising,

a hollow body,

said body being open at the top and closed at the bottom for receiving and discharging a liquid material,

a lid member is detachably connected to and covers the open top of said body,

said lid member includes a cover portion having a discharge opening therein,

said lid member includes an integrally formed spout assembly having another discharge opening connected in fluid communication with said discharge opening in said cover member for discharging liquid from said device,

said body is of a double shell construction including an inner shell and an outer shell,

said body includes centering means between said inner shell and said outer shell for supporting said shell in spaced generally continued relation with respect to one another to insulate said inner shell from the atmospheric environment surrounding said container,

said outer shell and said inner shell each includes a depression therein,

said depression of said inner shell is aligned with and spaced inwardly from depression of said outer shell to enable said inner shell to be fitted internally of said outer shell,

said depressions extend in the lengthwise direction of said shells,

said outer shell is formed with a handle for holding said body,

said handle extends along and in the lengthwise direction of said depression to enable said handle to be positioned closer to the center of mass of the liquid contained in said container,

said cover portion is of a generally planar construction and said spout assembly includes a lip member having a bottom wall which is formed integral with and extends outwardly from said cover portion, being disposed generally in the general plane thereof,

said lip member includes a front edge disposed outwardly of said outer shell and an inner edge disposed inwardly of said inner shell,

said spout assembly including an approach component connecting said discharge opening in said cover portion in fluid communication with said discharge opening in said spout assembly,

said approach component being raised out of the general plane of said cover portion in overlying relation with respect to the discharge opening in said cover portion directing fluids passing through said discharge opening in said cover portion through said discharge opening in said spout assembly onto said lip member for discharge from said device,

said approach component includes a top wall disposed above the general plane of said cover portion and overlying said opening in said cover portion,

said bottom wall of said lip member commences generally vertically below the termination of said top wall of said approach component for defining said discharge opening in said spout assembly,

said discharge opening in said spout assembly defines a plane which extends generally perpendicular to the general plane of said cover portion,

said approach component being further defined by spaced laterally extending side walls which extend outwardly from said cover portion and project beyond the periphery of said cover member to form part of said spout,

said side walls being disposed on opposite sides of said opening in said cover portion,

said top wall being supported on and extending between said side walls as to span and cover said opening in said cover portion, forming a passageway for directing liquid from said discharge openings in said cover portion and said spout assembly and along said bottom wall,

a shield member is disposed in covering relation over said discharge opening in said spout assembly to prevent contaminants from entering said container and

said shield member is pivotally connected to said approach component to enable pivotal movement by gravity between a closed position covering said discharge opening in said spout assembly and an open position upon movement of said container from an upright position to a tilted position, respectively.

2. A container in accordance with claim **1**, wherein

said centering means comprises a peripheral flange adjacent the upper end of said inner shell and guide elements adjacent the lower end of said outer shell,

said peripheral flange extending radially outwardly and downwardly alongside said inner shell for overlapping seated engagement with the upper peripheral edge of said outer shell, and

said guide elements having radially inwardly and downwardly extending abutment surfaces for seated engagement with the lower end of said inner shell when said flange is seated on the upper peripheral edge of said outer shell for maintaining the lower end of said inner shell in spaced relation from the lower end of said outer shell.

3. A container in accordance with claim **2**, wherein

said cover portion includes an endless downwardly depending outer peripheral flange and an endless downwardly depending inner peripheral disposed radially inwardly of said outer flange,

said cover flange extends in laterally spaced relation from said outer flange defining therewith a downwardly opening endless recess in said cover portion for receiving the peripheral flange of said inner shell for attaching said lid member in seating relation adjacent the open top of said container.

4. A container in accordance with claim **1** wherein,

said spout assembly includes a screen assembly disposed in the discharge opening of the spout assembly to retain solid objects within said container during discharge of said liquid therefrom.

* * * * *