US 20040159625A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2004/0159625 A1

Kwon (43) Pub. Date: Aug. 19, 2004

(54) BEVERAGE BOTTLE

(75) Inventor: **Kyeong Hea Kwon**, Yesan-kun (KR)

Correspondence Address:
Harrison & Egbert
7th Floor
412 Main Street
Houston, TX 77002 (US)

(73) Assignees: **Kyeong Hea KWON**; **Jae Hyuk KIM**

(21) Appl. No.: **09/962,838**

(22) Filed: **Sep. 25, 2001**

(30) **Foreign Application Priority Data**

Sep. 29, 2000 (KR) 2000-57535
Nov. 28, 2000 (KR) 2000-33291

Publication Classification

(51) **Int. Cl.**[7] **B65D 51/00**
(52) **U.S. Cl.** **215/329**; 215/334; 215/228; 220/916

(57) **ABSTRACT**

A dual chambered beverage bottle made of synthetic resin is described. The bottle has a cylindrical body member that is divided by a partition wall perpendicularly disposed in the body member to form separate chambers, so that it is possible to contain two different drinks in the chambers. The beverage bottle has a cup which is secured to the bottle spout member as a cap in a substantially liquid-tight relationship, so that users do not need a separate cup to receive drinks poured out of the bottle and may enjoy greatly enhanced convenience when traveling or engaging in sports activities.

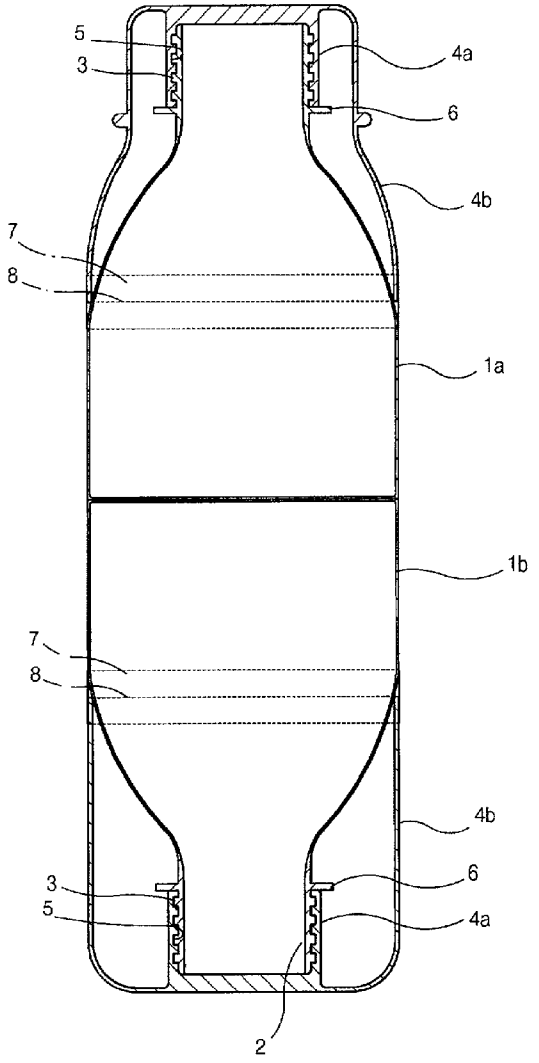


Fig 1

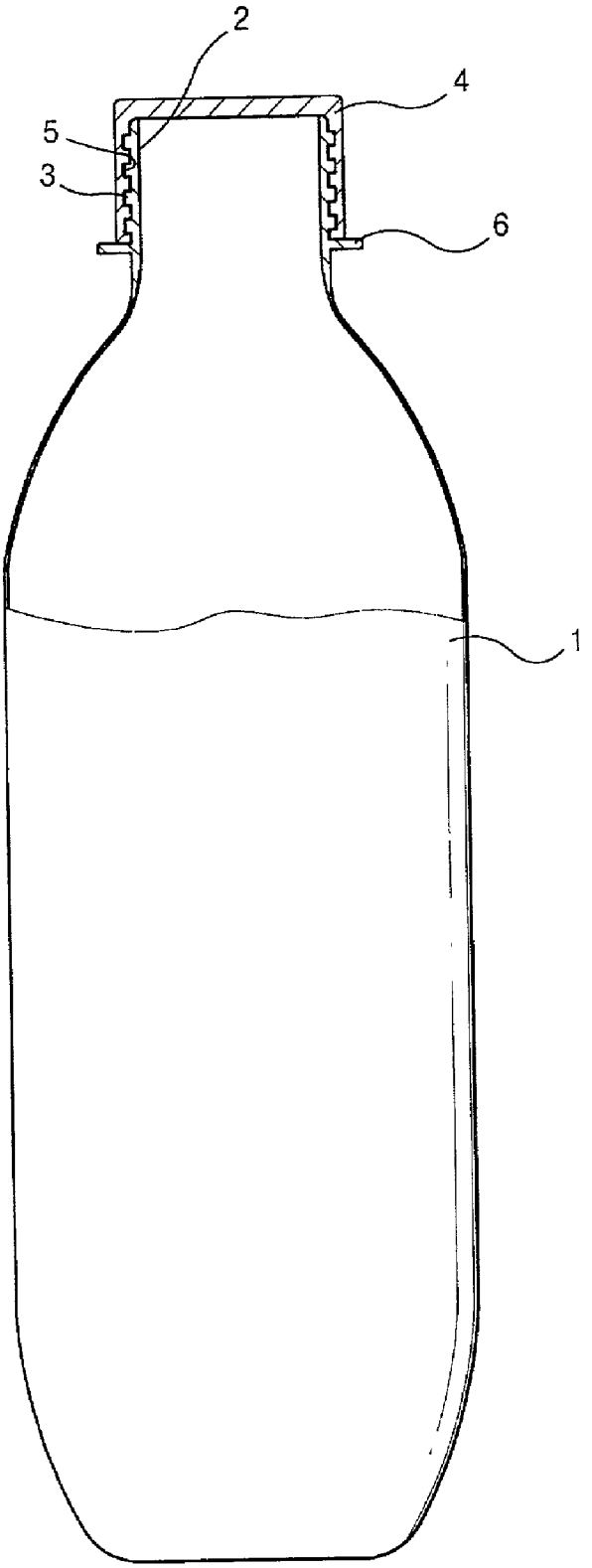


Fig 2

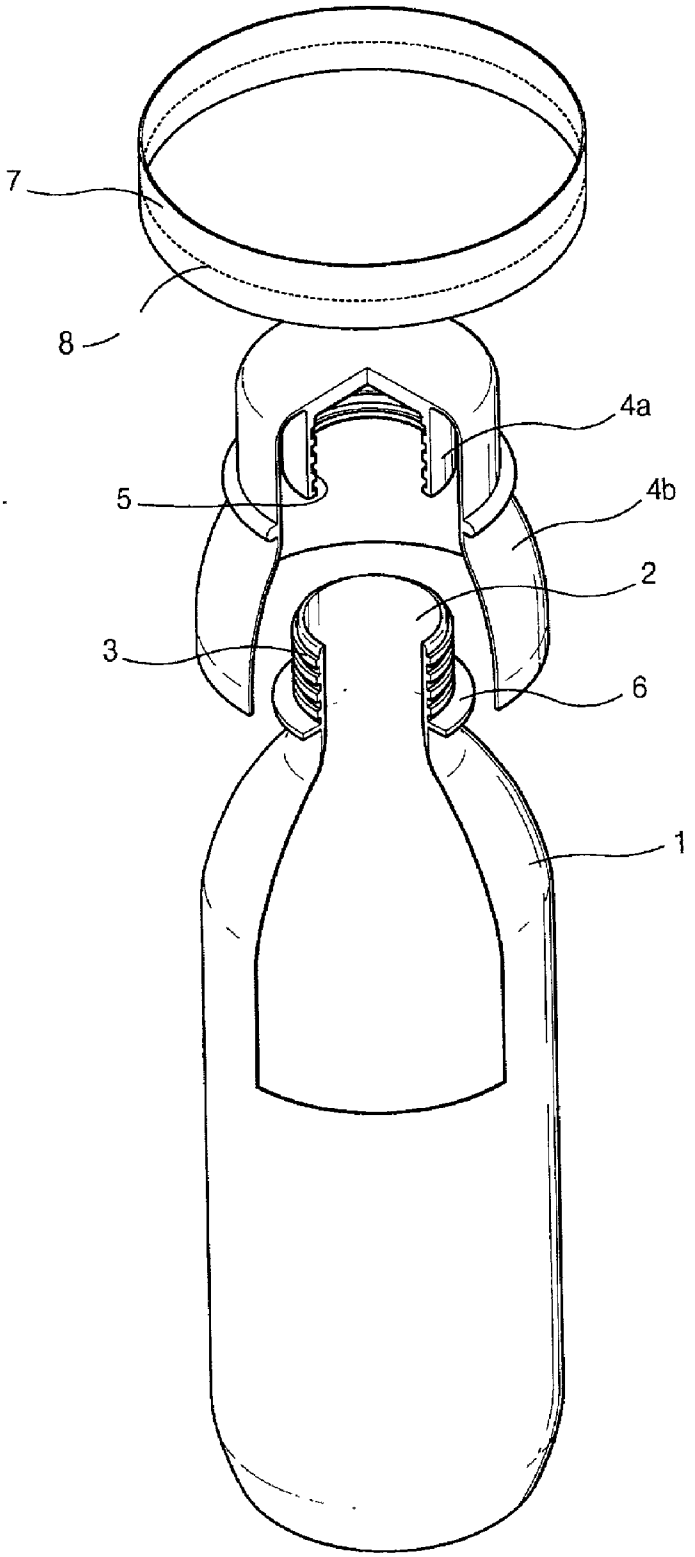


Fig 3

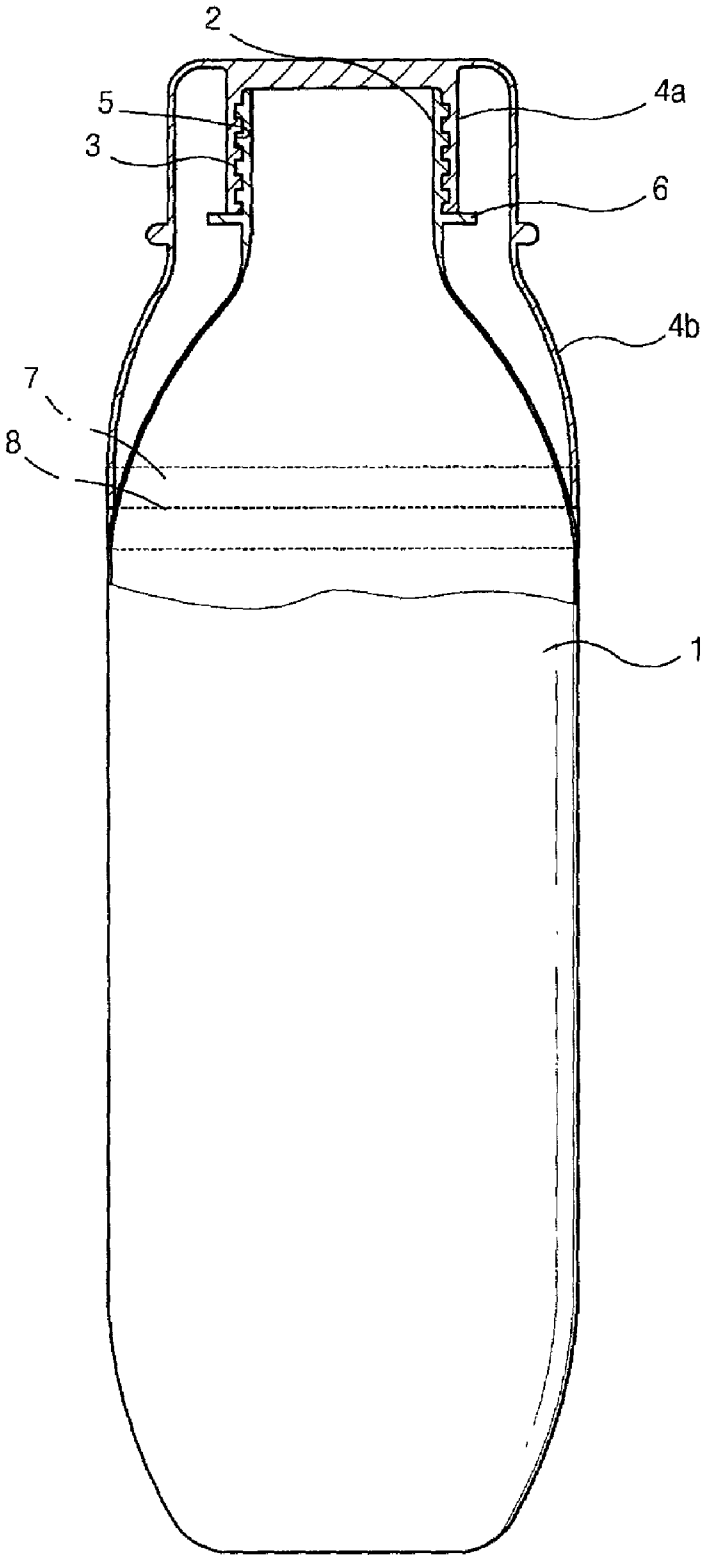


Fig 4

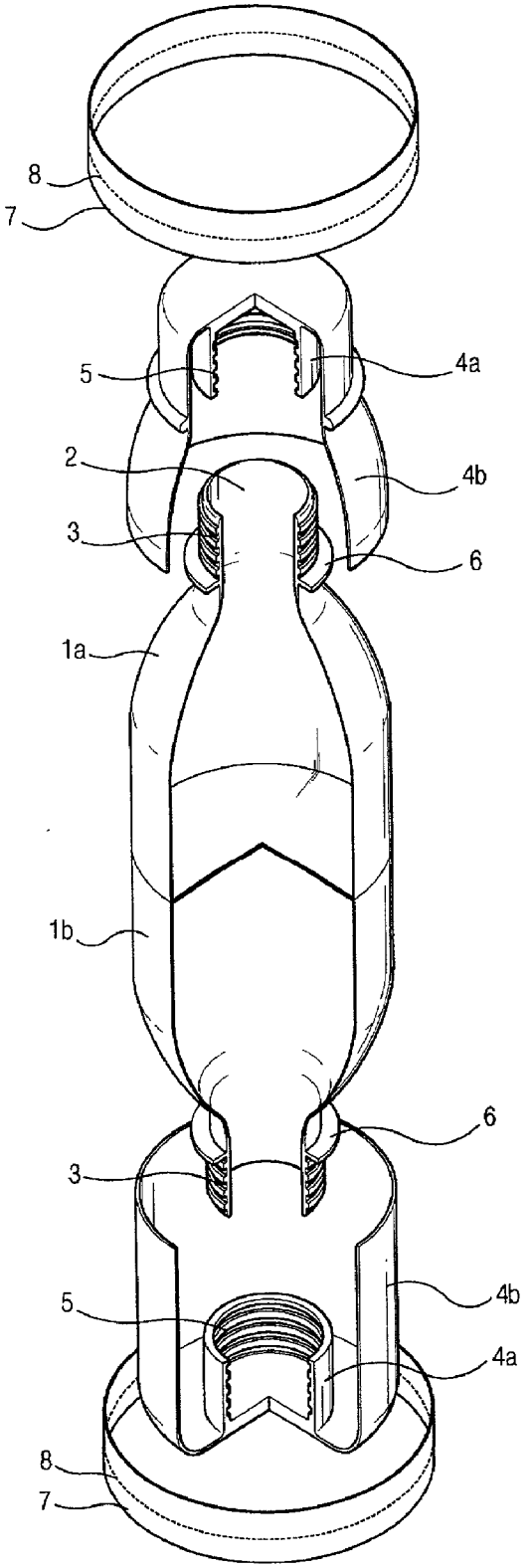
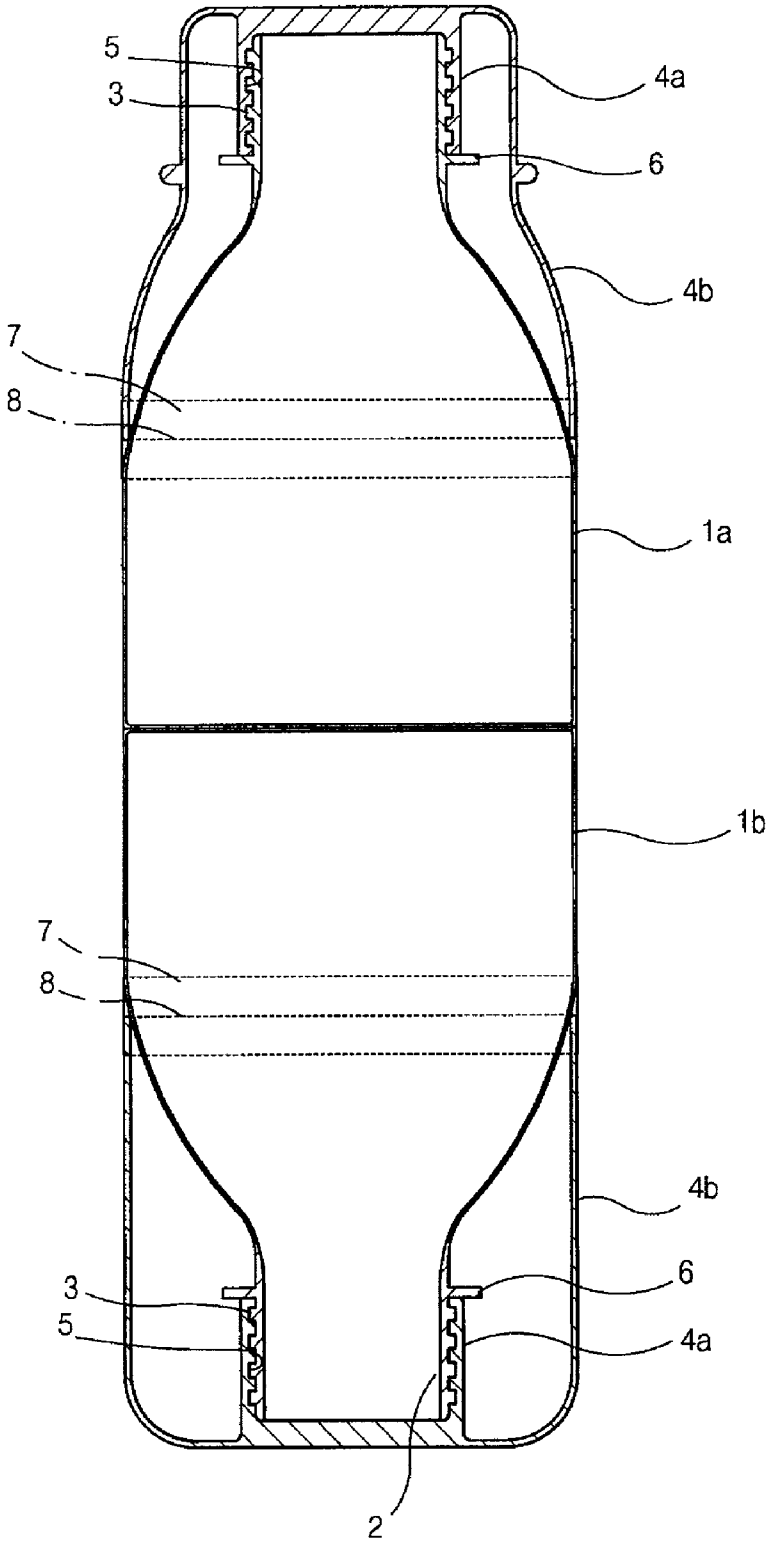


Fig 5



BEVERAGE BOTTLE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates generally to a beverage bottle, and more particularly to a synthetic resin bottle, which has a cylindrical body, dual chambers divided by a partition wall perpendicularly disposed in the cylindrical body, and a cup secured to the bottle spout member as a cap in a substantially liquid-tight relationship.

[0003] 2. Description of the Prior Art

[0004] As well known to those skilled in the art, aluminum cans and glass bottles are used and merchandised to contain drinks currently. However, because aluminum and glass are expensive materials, a synthetic resin is frequently employed as a material to mold beverage bottles all over the world.

[0005] In **FIG. 1, a** conventional beverage bottle is illustrated. The bottle includes a generally cylindrical body member **1** and has a spout member **2** at the upper end of the body member **1**. The spout member **2** has an external thread **3** on its outer periphery that can be engaged with a cooperative thread **5** inside of a cap **4**. The spout member **2** also has an annular peripheral flange **6** outwardly extending from the underside of the external thread **3** for stopping an excessive rotation of the cap **4**. The annular peripheral flange **6** also may be used as an easy-to-grip handle by a user.

[0006] However, the conventional beverage bottle has some problems as described below.

[0007] One problem is that the bottle needs a separate cup to receive drinks poured out of the bottle by a user, which causes the user's inconvenience. Another problem is that the size of the cap of the bottle is relatively small, so that it is difficult to open the cap with the user's fingers. Another problem is that the bottle has a single chamber for storing a drink, which makes it impossible to contain two different liquids.

[0008] In order to solve the problems, Korean Pat. Appln. No. 2000-28791 applied by this applicant discloses "beverage container with selective openers and dual storing chambers", in which the container has dual chambers divided by a partition wall, so as to make it possible to hold two different liquids. However, the configuration disclosed in the patent application is problematic, in that it can be applied to can type beverage containers, but cannot be applied to synthetic beverage containers that is most widely utilized currently.

SUMMARY OF THE INVENTION

[0009] Accordingly, the present invention has been made keeping in mind the above problems occurring in the prior art, and an object of the present invention is to provide a beverage bottle, which is provided with one or more chambers and a double-walled cap, thereby containing one or more drinks in the beverage bottle, and allowing its cap to serving as a cup as well as a cap so as to eliminate the inconvenience of carrying a cup during sports activities, tours or travels.

[0010] In order to accomplish the above object, the present invention provides a beverage bottle, comprising: a bottle body member having a cylindrical shape; a spout member positioned on the upper end of the bottle body member, the spout member including an external thread on its outer periphery and an annular peripheral flange outwardly extending from the underside of the external thread for stopping the excessive rotation of a cap, the annular peripheral flange being adapted to be used as an easy-to-grip handle by users; a double-walled cap provided with inner and outer walls, the inner wall having a cooperative thread therein for being engaged with the external thread of the spout member, the outer wall being formed to serve as a cup to receive a beverage poured out of the bottle body member; and a circumferential sealing strap adapted to be adhered around the entire circumference of the bottle body member in the region that the edge of the outer wall and the outer surface of the bottle body member are engaged, the sealing strap including a separation line placed in the longitudinal direction of the strap, whereby users can apply a shear stress to the separation line of the strap so as to tear the strap along the line and to separate the cap from the bottle body member.

[0011] The body member is separated into an upper section and a lower section.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The above and other objects, features and other advantages of the present invention will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings, in which:

[0013] **FIG. 1** is a partially sectional front view of a plastic bottle of the prior art;

[0014] **FIG. 2** is an exploded perspective view of a beverage bottle with portions cut away, in accordance with a first embodiment of the invention;

[0015] **FIG. 3** is a partially sectional front view showing the assembly of the beverage bottle of the first embodiment;

[0016] **FIG. 4** is an exploded perspective view of a beverage bottle with portions cut away, in accordance with a second embodiment of the invention; and

[0017] **FIG. 5** is a partially sectional front view showing the assembly of the beverage bottle of the second embodiment.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] Reference now should be made to the drawings, in which the same reference numerals are used throughout the different drawings to designate the same or similar components.

[0019] First Embodiment

[0020] In the **FIGS. 1 and 2**, a first embodiment of the beverage bottle of the invention is illustrated. In this embodiment, the bottle includes a cylindrical body member **1** and a spout member **2** on the upper end of the body member **1**. The spout member **2** includes an external thread **3** on its outer periphery and an annular peripheral flange **6** outwardly extending from the underside of the external thread **3** for stopping the excessive rotation of a cap **4**. The annular peripheral flange **6** is adapted to be used as an easy-to-grip handle by users.

[0021] The beverage bottle has a double-walled cap that is provided with inner and outer walls **4***a* and **4***b*. The inner wall **4***a* has a cooperative thread **5** therein for being engaged with the external thread **3** of the spout member **2**, and the outer wall **4***b* is formed to serve as a cup to receive a beverage poured out of the bottle body member **1**.

[0022] The beverage bottle also has a circumferential sealing strap **7** that is adapted to be adhered around the entire circumference of the bottle body member **1** in the region that the edge of the outer wall **4***b* and the outer surface of the bottle body member **1** are engaged. The sealing strap **7** includes a separation line **8** that is placed in the longitudinal direction of the strap **7**. Thereby users can apply a shear stress to the separation line **8** of the strap **7** so as to tear the strap **7** along the line **8** and to separate the cap **4** from the bottle body member **1**.

[0023] Second Embodiment

[0024] In the **FIGS. 3 and 4**, a second embodiment of the beverage bottle of the invention is illustrated. In this embodiment, the body member **1** is separated into an upper section la and a lower section **1***b*.

[0025] The dual chambered body member **1** may be formed by an biaxial blow molding in which a preform having a wall may be expanded by an biaxial blowing process, so that the preform is biaxially expanded to form the upper section la and the lower section **1***b* respectively.

[0026] Alternatively, the dual chambered body member **1** may be formed by bonding two half-bottle bodies that are symmetrically the same in shape respectively. The bonding of both flat bottom surfaces of the half bodies may be achieved through a supersonic wave bonding process or by an adhesive such as a urethane adhesive, a hot-melt adhesive (polyamides) or an acrylic adhesive (TGA) that may be cured by ultraviolet rays in a short exposure time without environmental pollution.

[0027] Both caps **4** of the bottle may be identical for permitting simple and inexpensive construction.

[0028] It is desirable that the one end cap **4** of the bottle has same diameter as that of the bottle body member **1** and flat bottom surface so that the bottle may have an increased stability when standing in an upright position.

[0029] A comparison of **FIGS. 1 and 4** makes readily apparent the advantages of the present invention. The beverage bottle of the invention has a cup that is secured to the bottle spout member as a cap in a substantially liquid-tight fashion so that a user does not need a separate cup to receive drinks poured out of the bottle. The body member has dual chambers divided by a partition wall, so that the bottle may hold two different beverages. Customers can enjoy greatly enhanced flavor retention of one or more beverages. Finally, the beverage bottle of the invention is easily opened by simply twisting the cap **4** against the body member **1**, wherein the separation line **8** along the strap **7** is parted to separate the cap **4** from the bottle body member **1**.

[0030] Although the preferred embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.

1. A beverage bottle, comprising:

a cylindrically shaped bottle body member closed at its bottom and partitioned into two portions at its longitudinally central portion;

two spout members each formed at each of upper and lower ends of the bottle body member, said spout members each being provided with an external thread on its outer circumferential surface and with an annular flange extended radially outwardly from a position under the external thread to stop excessive rotation of a cap and serve as an easy-to-grip handle;

two double-walled caps each provided with inner and outer walls, said inner wall being provided with an internal thread on its inner surface to be engaged with the external thread of each of the spout members, said outer wall being adapted to serve as a cup to receive a beverage poured out of said bottle body member; and

two sealing straps each adhered around a region where each of the double-walled caps is brought into contact with the bottle body member, and each provided with a separation line formed along a longitudinally central portion of each of the sealing straps so as to allow a user to open the beverage bottle by twisting the double-walled cap while gripping the bottle body member.

* * * * *