Abstract:
The invention is a reusable beverage container including a cap having a first top portion and an inner flange extending downwardly, a receptacle, a neck portion, and a flexible spout. The neck portion includes an inner diameter surface and an outer diameter surface having a through-bore within. The flexible spout includes a first opening rim and a second opening rim formed by the through-bore, and an outer surface having a plurality of ribs annularly disposed about the outer surface. The neck portion is arranged to receive at least a portion of the spout and the plurality of ribs are sealably engaged against the inner diameter surface of the neck portion. The cap is arranged to receive at least a portion of the spout and the first opening rim is sealably engaged to the first top portion when the cap is secured to the neck portion.
REUSABLE BEVERAGE CONTAINER WITH FLEXIBLE SPOUT
CROSS REFERENCE TO PRIOR APPLICATIONS


FIELD OF THE INVENTION

[0002] The present invention broadly relates to beverage containers, and, more particularly, to a reusable beverage container with a flexible spout.

BACKGROUND OF THE INVENTION

[0003] Beverage containers are well known. Generally, a beverage container includes a receptacle, a spout assembly, and, optionally, a cap.

[0004] A problem with prior beverage containers is that the spouts are generally hard and rigid, and, therefore, not tactiley pleasing to a user while consuming the beverage. Hard and rigid spouts and straws are simply not always comfortable in the mouth. Rigid spouts and straws do not conform to the soft tissue of human lips. This poor fit can also cause leakage of the beverage about the circumference of the spout or straw during consumption.

[0005] Another problem with prior spouts and straws is that liquid can generally flow freely therethrough. If liquid is allowed to flow freely, it can flow suddenly and unexpectedly, often onto the user's face.

[0006] Yet another problem with prior beverage containers is that the spout assembly generally includes multiple components, having separate mechanisms to seal the spout assembly to the receptacle as well as separate valves to regulate liquid flow. This causes the spout assemblies to be less reliable, and more complicated and expensive to manufacture.

[0007] Thus, there is a long-felt need for a beverage container with a flexible spout assembly, preferably made of silicone or similar "soft" material, which provides a user with a comfortable feel when engaging the lips of a user. In addition, there is a long-felt need for a beverage container where the liquid flow is restricted, causing the liquid to flow in intermittent surges, i.e., chugs. There is also a long-felt need for a beverage container in which the spout assembly is constructed as a single component.
BRIEF SUMMARY OF THE INVENTION

[0008] The present invention is a reusable beverage container, including a cap having a first top portion and an inner flange extending downwardly, a receptacle, a neck portion, and a flexible spout. In a preferred embodiment, the spout is cylindrical in shape. The neck portion includes a rim and a through-bore having both an inner diameter surface and an outer diameter surface. The flexible spout includes a first opening rim and a second opening rim formed by the through-bore, and an outer surface having a plurality of ribs annularly disposed about the outer surface. The neck portion is operatively arranged to receive at least a portion of the spout and the plurality of ribs are sealably engaged against the inner diameter surface of the neck portion. The cap is operatively arranged to receive at least a portion of the spout and the first opening rim is sealably engaged to the first top portion when the cap is secured to the neck portion.

[0009] A general object of the invention is to provide a reusable beverage container with a flexible spout assembly that provides a user with a comfortable feel when placed in contact with the user’s lips.

[0010] Another object of the invention is to provide a reusable beverage container where the liquid flow is restricted and does not flow freely through the spout assembly.

[0011] Yet another object of the invention is to provide a reusable beverage container in which the spout assembly is a single component and directly engages the receptacle.

[0012] These and other objects and advantages of the present invention will be readily appreciable from the following description of preferred embodiments of the invention and from the accompanying drawings and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The nature and mode of operation of the present invention will now be more fully described in the following detailed description of the invention taken with the accompanying drawing figures, in which:

Figure 1 is a perspective view of a preferred embodiment of the beverage container of the present invention, showing the cap in place atop the receptacle of the beverage container;

Figure 2 is a front view of the beverage container shown in Figure 1;

Figure 2A is a top view of the beverage container shown in Figure 2;
Figure 3A is a cross-sectional view of the preferred embodiment of the beverage container shown in Figure 1 with the cap removed, depicting the spout extending above the rim of the neck portion, which view is taken generally along line 3-3 of Figure 2A;

Figure 3B is a cross-sectional view of the preferred embodiment of the beverage container with the cap removed, illustrating the spout extending slightly above the rim of the neck portion, taken generally along line 3-3 of Figure 2A;

Figure 3C(1) is a perspective view of another embodiment of the present invention, depicting the spout integral with the neck portion and co-molded to form a single piece.

Figure 3C(2) is a cross-sectional view of the beverage container shown in Figure 3C(1).

Figure 4 is a fragmentary cross-sectional view of the beverage container in use, illustrating engagement of the spout with a user's mouth and lips;

Figure 4A is an enlarged cross-sectional view of the beverage container shown in Figure 4;

Figure 5 is a fragmentary cross-sectional view of the beverage container shown in Figure 4, depicting liquid flowing in intermittent surges, i.e., chugs;

Figure 6 is a cross-sectional view of the receptacle of the beverage container (without the spout) shown in Figure 3A;

Figure 7 is a cross-sectional view of the long spout of the beverage container;

Figure 7A is a bottom perspective view of the long spout shown in Figure 7;

Figure 7B is a top perspective view of the long spout shown in Figure 7;

Figure 8 is a cross-sectional view of the short spout of the beverage container;

Figure 8A is a bottom perspective view of the short spout shown in Figure 8;

Figure 8B is a top perspective view of the short spout shown in Figure 8;

Figure 9 is a cross-sectional view of a cap of the preferred embodiment of the beverage container;

Figure 9A is a top perspective view of the cap shown in Figure 9;

Figure 9B is a bottom perspective view of the cap shown in Figure 9;

Figure 10 is a cross-sectional view of the beverage container shown in Figure 1; and
Figure 10A is an enlarged cross-sectional view of the area 10A shown in Figure 10, illustrating the interaction between the plurality of ribs of the spout and the neck portion;

Figure 11 is an exploded view of the beverage container shown in Figure 1, showing the long spout embodiment of the invention;

Figure 12 is an exploded view of another embodiment of the beverage container shown in Figure 1, showing the short spout embodiment of the invention;

Figure 13 is a perspective view of a second embodiment of the present invention, illustrating the cap engaging the neck portion.

Figure 14 is an exploded view of the beverage container shown in Figure 13;

Figure 15 is a cross-sectional view of a cap of a second embodiment of the beverage container;

Figure 15A is a top perspective view of the cap shown in Figure 15;

Figure 15B is a bottom perspective view of the cap shown in Figure 15;

Figure 16 is a cross-sectional view of the beverage container shown in Figure 13; and,

Figure 16A is an enlarged cross-sectional view of the area 16A shown in Figure 16, illustrating the interaction between the plurality of ribs of the spout and the neck portion.

**DETAILED DESCRIPTION OF THE INVENTION**

At the outset, it should be appreciated that like drawing numbers on different drawing views identify identical, or functionally similar, structural elements of the invention. It also should be appreciated that figure proportions and angles are not always to scale in order to clearly portray the attributes of the present invention.

While the present invention is described with respect to what is presently considered to be the preferred aspects, it is to be understood that the invention as claimed is not limited to the disclosed aspects. The present invention is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims.

Furthermore, it is understood that this invention is not limited to the particular methodology, materials and modifications described and, as such, may, of course, vary. It is also understood that the terminology used herein is for the purpose of describing particular
aspects only, and is not intended to limit the scope of the present invention, which is limited
only by the appended claims.

[0017] Unless defined otherwise, all technical and scientific terms used herein have the
same meaning as commonly understood to one of ordinary skill in the art to which this
invention belongs. It should be appreciated that the term "operatively" is synonymous with
terms such as "functionally", "actively", etc., and such terms may be used interchangeably as
appearing in the specification and claims. It should also be appreciated that the term
"substantially" is synonymous with terms such as "nearly", "very nearly about", "approximately", "around", "bordering on", "close to", "essentially", "in the neighborhood
of", "in the vicinity of", etc., and such terms may be used interchangeably as appearing in the
specification and claims. An important element of the present invention as described and
claimed is the "flexible" spout of the beverage container. By "flexible", we mean a spout that
is capable of being bent or flexed. We mean that the spout is pliable. It is preferred that the
spout is "soft" to enable a pleasing tactile interface and feeling when the spout engages the lips
of the user. In a preferred embodiment, the spout is made of silicone, or other similar natural
or synthetic rubber, or a material having similar characteristics. In a preferred embodiment,
the spout is made of a material having a Shore hardness range of approximately 10 to 50. For
example, in one embodiment the spout has a Shore A hardness of approximately 75 or less. By
Shore A hardness, it is meant the hardness determined from a type A durometer according to
the American Society for Testing and Materials (ASTM) D2240 testing standards. In a
preferred embodiment, the spout is made of silicone and the Shore A hardness of the spout is
between approximately 10 to 50. However, it should be appreciated that other durometers,
such as Type 00 durometers could be utilized, with the Shore 00 hardness of the spout ranging
as low as approximately 10 to 50, and that these ranges are given as examples only and are not
intended to limit the scope of the claims of the patent.

[0018] Although any methods, devices or materials similar or equivalent to those
described herein can be used in the practice or testing of the invention, the preferred methods,
devices, and materials are now described.

[0019] In the description that follows, we describe two distinct embodiments of the
present invention. We refer to them herein as a first and second embodiment (Embodiments I
and II, respectively.) The first embodiment is the preferred embodiment. Moreover, we also
describe three sub-embodiments of the first embodiment (Embodyments I-A, I-B, and I-C, respectively.)

Embodyment I (Preferred Embodiment)

Adverting now to the drawings, Figure 1 is a perspective view of a preferred embodiment of the invention. Beverage container 10 comprises receptacle 11 and cap 13. Cap 13 includes convex handle 47, which extends across the diameter of second top portion 21 of cap 13, and is open on both sides.

Figure 2 is a front view of the beverage container shown in Figure 1.

Figure 2A is a top view of the beverage container shown in Figure 2.

Figure 9 is a cross-sectional view of a preferred embodiment of cap 13 of beverage container 10. As also depicted in Figure 1, handle 47 extends across the diameter of second top portion 21 of cap 13, and is open on both sides. Aperture 41 enables user 90 (not shown in Figure 9A) to hold beverage container 10 by gripping through aperture 41 and wrapping his or her hand around handle 47 for a secure grip. Figure 9A is a top perspective view of cap 13 shown in Figure 9. Figure 9B is a bottom perspective view of cap 13 shown in Figure 9.

Embodyment I-A (Long Spout Embodiment)

In the long spout embodiment, as shown in Figures 3A, 4, 4A, 5, 6, 7, 7A, 7B, and 11, the spout sealably engages the neck portion of the receptacle. When the spout is inserted into the neck portion, the spout extends upwardly beyond the rim of the neck portion. In a preferred embodiment, the spout extends upwardly approximately ¾ inch above the rim of the neck portion. This dimension is not critical, and is not intended to limit the scope of the appended claims. Perhaps more importantly, in the long spout embodiment, is the ratio of the length of the spout relative to the length of the neck portion of the container. As shown in Figure 3A, the length "x" of the portion of the spout that extends beyond the rim of the neck is approximately equal to the length "y" of the neck portion itself. In a preferred embodiment, in the long spout embodiment, the ratio y/x is approximately equal to 1, or in the general range of 0.8-1.2.
[0025] Figure 3A is a cross-sectional view of embodiment 1-A of beverage container 10 taken generally along line 3-3 of Figure 1. We refer to this as the "long spout" embodiment of the invention. In this figure, cap 13 has been removed, such that flexible cylindrical spout 12 is shown inserted into neck portion 32 of receptacle 11. Neck portion 32 includes inner diameter surface 33, outer diameter surface 34, and rim 27. Neck portion 32 is operatively arranged to receive at least a portion of spout 12. Spout 12 includes through-bore 24, frusto-conical shaped spout portion 23, and tubular channel portion 38, first opening rim 35, and second opening rim 36. In this embodiment, spout 12 extends approximately ¾ inch above rim 27 of the neck portion 32.

[0026] Figure 4 is a fragmentary cross-sectional view of beverage container 10 shown in Figure 3A, illustrating the engagement of spout 12 with user's mouth 91 and lips 93, 94. In use, the lower lip of the user "kisses" the lower surface of the spout, and the upper rim of the spout presses against the upper lip of the user. That is, outer surface 26 of spout 12 is in contact with upper surface 97 of lower lip 94 and first opening rim 35 of spout 12 is in contact with philtral columns 95 of face 92 and that area of face 92 proximate thereto, between nostrils 96 and upper lip 93 proximate the philtrim. Spout 12 may be made of any suitable substantially flexible material, such as silicone, providing user 90 with a soft, comfortable feel when engaged with user's mouth 91 and lips 93, 94 as user 90 drinks from beverage container 10. Silicones form a group of a large variety of synthetic compounds that are polymers, comprising silicon combined with carbon, hydrogen, oxygen, and other chemical elements. Silicone is preferable due to its soft, rubber-like composition, thermal stability, and ability to repel water and form watertight seals. In addition, many forms of silicone have antimicrobial and antibacterial properties.

[0027] Figure 4A is an enlarged cross-sectional view of beverage container 10 shown in Figure 4. In this figure, the user's upper lip 93 and lower lip 94 enclose first opening rim 35 of flexible cylindrical spout 12 within user's mouth 91. Due to the soft, flexible nature of spout 12, outer surface 26 of spout 12 conforms to user's mouth 91 and user's lips 93, 94, providing a more enjoyable drinking experience.

[0028] Figure 5 is a fragmentary cross-sectional view of beverage container 10 shown in Figure 4, depicting liquid 51 flowing in intermittent surges 52, 53, 54, i.e., chugs. As user's
mouth 91 and lips 93, 94 engage spout 12 and user 90 begins to drink, liquid 51 flows by means of through-bore 24 into user's mouth 91. Liquid 51 flows in intermittent surges 52, 53, 54 so as to prevent liquid 51 from flowing suddenly and unexpectedly onto user's face 92. Intermittent surges 52, 53, 54 of liquid 51 commence when user 90 tilts beverage container 10 upward to drink liquid 51. Upon tilting beverage container 10, air space 46 is created above liquid 51 within receptacle 11 of beverage container 10. Initial surge 52 of liquid 51 flows out of spout 12 until the air pressure above liquid 51 is decreased, which in turn causes the flow of liquid 51 to cease. Air then enters beverage container 10 through spout 12 forming air pockets, which bubble up through liquid 51 into air space 46. As the air bubbles enter air space 46 of receptacle 11, the additional air increases the pressure in air space 46 enough to initiate second surge 53 of liquid 51 to flow out of spout 12 into user's mouth 91. This cycle repeats until user 90 tilts beverage container 10 upright or beverage container 10 empties.

Figure 6 is a cross-sectional view of receptacle 11 of beverage container 10 shown in Figure 3A, with spout 12 removed. Receptacle 11 comprises outer surface 14, inner surface 15, and slightly convex bottom surface 16, and is substantially cylindrical in shape. Outer diameter surface 34 of neck portion 32 includes threads 25 disposed about outer diameter surface 34.

Figure 7 is a cross-sectional view of an embodiment of spout 12 of beverage container 10. Spout 12 comprises outer surface 26 having plurality of ribs 22 annularly disposed about outer surface 26. Through-bore 24 forms first opening rim 35 and second opening rim 36. Frusto-conical shaped spout portion 23 is in communication with first opening rim 35 and tubular channel portion 38 is in communication with second opening rim 36, such that the diameter of first opening rim 35 is larger than the diameter of second opening rim 36. Spout 12 is easily removed from neck portion 32 (not shown in Figure 7) of receptacle 11 (not shown in Figure 7) for easy cleaning or replacement.

Figure 7A is a bottom perspective view of spout 12 shown in Figure 7. In this figure, tubular channel portion 38 forms second opening rim 36 on the lower end of spout 12. Figure 7B is a top perspective view of spout 12 shown in Figure 7. In this figure, frusto-
conical shaped spout portion 23 forms first opening rim 35 on the upper end of spout 12 and tapers towards the center of spout 12.

Figure 11 is an exploded view of beverage container 10 shown in Figure 1. Figure 14 illustrates cap 13, spout 12, and receptacle 11, along a longitudinal axis. When spout 12 is inserted into the neck portion of receptacle 11, spout 12 extends approximately ¾ inch above the rim of the neck portion. In addition, when cap 13, spout 12, and receptacle 11, are secured to one another, cap 13 is flush with receptacle 11.

Embodiment I-B (Short Spout Embodiment)

In the short spout embodiment, as shown in Figures 3B, 6, 8A, 8B, 10, 10A, and 12, the spout sealably engages the neck portion of the receptacle similar to the long spout embodiment. However, the spout only extends slightly above the rim of the neck portion. The rim of the neck portion extends upwardly into a channel in the spout to secure the spout to the neck portion.

Figure 3B is a cross-sectional view of embodiment IB of beverage container 10 taken generally along line 3-3 of Figure 1. We refer to this as the "short spout" embodiment of the invention. In this figure, cap 13 has been removed, such that flexible cylindrical spout 12 is shown inserted into neck portion 32 of receptacle 11. In this embodiment, spout 12 extends slightly above rim 27 of neck portion 32. Spout 12 engages rim 27 via channel 48, such that rim 27 extends upwardly into channel 48 to secure spout 12 to neck portion 32.

As described previously, Figure 6 is a cross-sectional view of receptacle 11 of beverage container 10 shown in Figure 3B, with spout 12 removed. Receptacle 11 comprises outer surface 14, inner surface 15, and slightly convex bottom surface 16, and is substantially cylindrical in shape. Outer diameter surface 34 of neck portion 32 includes threads 25 disposed about outer diameter surface 34. (The receptacle is common to embodiments I-A and I-B.)

Figure 8 is a cross-sectional view of the short spout embodiment of beverage container 10. In this embodiment, spout 12 includes channel 48. Spout 12 engages rim 27 (not shown in Figure 8) via channel 48, such that rim 27 extends upwardly into channel 48 to secure spout 12 to neck portion 32 (not shown in Figure 8). Figure 8A is a bottom
perspective view of spout 12 shown in Figure 8. Figure 8B is a top perspective view of spout
12 shown in Figure 8.

Figure 10 is a cross-sectional view of beverage container 10 shown in Figure 1.
Figure 10A is an enlarged cross-sectional view of area 10A shown in Figure 10, illustrating
the interaction between plurality of ribs 22 of the spout and neck portion 32. In this
embodiment, spout 12 extends slightly above rim 27 of neck portion 32.

Figure 12 is an exploded view of the short spout embodiment of beverage
container 10 shown in Figure 2. Figure 12 illustrates cap 13, spout 12, and receptacle 11,
along a longitudinal axis. When spout 12 is inserted into the neck portion of receptacle 11,
spout 12 extends slightly above the rim of the neck portion. In addition, when cap 13, spout
12, and receptacle 11, are secured to one another, cap 13 is flush with receptacle 11.

Embodiment I-C (Integral Spout Embodiment)

In the integral spout embodiment, as shown in Figures 3C(1) and 3C(2), the
spout and neck portion are integral, i.e., of a single piece. The spout and neck are formed
using a co-injection molding process to form a single piece. In a preferred embodiment, the
spout and neck portion are made from two different materials. In a preferred embodiment, the
spout is made of silicone, or of a similar flexible, soft, material, whereas the neck is made of
plastic.

Figure 3C(1) is a perspective view of yet another embodiment of beverage
container 10. In this figure, cap 13 has been removed. This embodiment depicts spout 12 and
neck portion 32 co-molded as a single piece. Figure 3C(2) is a cross-sectional view of
beverage container 10 shown in Figure 5A.

Embodiment II

Adverting now to the drawings, Figure 13 is a perspective view of an
embodiment of beverage container 10. Beverage container 10 includes receptacle 11, spout
12 (not shown in Figure 13), and cap 13. Receptacle 11 has outer surface 14, inner surface 15
(not shown in Figure 13) and bottom surface 16 (not shown in Figure 13). Cap 13 includes
first top portion 28 and second top portion 21. First top portion 28 includes raised first cover
portion 29, depressed first cover portion 31 (not shown in Figure 13), sidewall 37 and at least
one drainage aperture 45. Second top portion includes handle 47.
Figure 14 is an exploded view of beverage container 10 shown in Figure 13. Figure 14 illustrates cap 13, spout 12, and receptacle 11, along a longitudinal axis. When cap 13, spout 12, and receptacle 11, are secured to one another, cap 13 is flush with receptacle 11.

Figure 15 is a cross-sectional view of cap 13 of beverage container 10. Cap 13 includes first top portion 28 and inner flange 18. First top portion 28 of cap 13 includes sidewall 37, which has an inner surface 30 and an outer surface 40. Cap 13 further includes outer flange 39 extending downwardly and second top portion 21 including aperture 41. Raised first cover portion 29 is located within the circumference of the upper section of first top portion 28 and depressed first cover portion 31 is located within the inner circumference of raised first cover portion 29 of first top portion 28. Inner flange 18 extends downwardly from raised first cover portion 29 and includes threads 19 disposed within inner flange 18.

Figure 15A is a top perspective view of cap 13 shown in Figure 15. In this figure, second top portion 21 is secured to first top portion 28 forming compartment 42 between first top portion 28 and second top portion 21. Compartment 42 is in communication with aperture 41 enabling user 90 (not shown in Figure 15A) to hold beverage container 10 by gripping through aperture 41 and grasping handle 47. One method of attachment of second top portion 21 to first top portion 28 is a snap fit. Other methods of attachment are well known to users of ordinary skill in the art. Figure 15B is a bottom perspective view of cap 13 shown in Figure 15. First top portion 28 of cap 13 is threadingly secured to neck portion 32 (not shown in Figure 15B) via threads 19 within inner flange 18. When first top portion 28 of cap 13 is threadingly secured to neck portion 32, outer flange 39 becomes flush with outer surface 14 (not shown in Figure 15B) of receptacle 11 (not shown in Figure 15B).

Figure 16 is a cross-sectional view of beverage container 10 shown in Figure 13. Figure 16A is an enlarged cross-sectional view of area 16A shown in Figure 16, illustrating the interaction between plurality of ribs 22 of the spout and neck portion 32. Beverage container 10 comprises first seal 43 and second seal 44. First seal 43 prevents liquid flow between inner diameter surface 33 of neck portion 32 and outer surface 26 of spout 12. Plurality of ribs 22 are sealably engaged against inner diameter surface 33 of neck portion 32. Plurality of ribs 22 of spout 12 flex upward and downward as plurality of ribs 22 engage inner
diameter surface 33, which is smooth, creating first seal 43, similar to a cork fitting into a bottle. Second seal 44 prevents liquid from flowing out of spout 12 when cap 13 is engaged. Cap 13 is operatively arranged to receive at least a portion of spout 12. First opening rim 35 is sealably engaged to first top portion 28 when cap 13 is secured to neck portion 32. First opening rim 35 of spout 12 matingly engages raised first cover portion 29 of first top portion 28. Depressed first cover portion 31 of first top portion 28 is forced downward slightly within first opening rim 35, which compresses first opening rim 35, forming second seal 44. At least one drainage aperture 45 is disposed within raised first cover portion 29 of first top portion 28. When first top portion 28 is forced downward compressing first opening rim 35, at least one drainage aperture 45 allows air to escape to create a stronger second seal 44. It should be appreciated that spout 12 is a single component. Unlike prior beverage containers, there is no separate valve to prevent liquid from flowing out of spout 12.

[0046] Thus, it is seen that the objects of the present invention are efficiently obtained, although modifications and changes to the invention should be readily apparent to those having ordinary skill in the art, which modifications are intended to be within the spirit and scope of the invention as claimed. It also is understood that the foregoing description is illustrative of the present invention and should not be considered as limiting. Therefore, other embodiments of the present invention are possible without departing from the spirit and scope of the present invention.
CLAIMS

What I s Claimed Is:

1. A reusable beverage container comprising:
   a cap having a first top portion and an inner flange extending downwardly;
   a receptacle and a neck portion, said neck portion includes an inner diameter
   surface and an outer diameter surface; and,
   a flexible spout having a through-bore therein, a first opening rim and a second
   opening rim formed by said through-bore, and an outer surface comprising a plurality of ribs
   annularly disposed about said outer surface, wherein said neck portion is operatively arranged
   to receive at least a portion of said spout, and said plurality of ribs are sealably engaged
   against said inner diameter surface of said neck portion,
   wherein said cap is operatively arranged to receive at least a portion of said
   spout and said first opening rim is sealably engaged to said first top portion when said cap is
   secured to said neck portion.

2. The reusable beverage container recited in Claim 1, wherein said flexible spout is made
   of silicone.

3. The reusable beverage container recited in Claim 1, said flexible cylindrical spout
   comprises a frusto-conical shaped spout portion in communication with first opening rim; and
   a tubular channel portion in communication with said second opening rim.

4. The reusable beverage container recited in Claim 3, wherein the diameter of said first
   opening rim is larger than the diameter of said second opening rim.

5. The reusable beverage container recited in Claim 1, wherein said inner flange includes
   threads disposed within said inner flange, and said outer diameter surface of said neck portion
   includes threads disposed about said outer diameter surface.

6. The reusable beverage container recited in Claim 4, wherein said first top portion and
   said cap are threadingly secured to said neck portion.

7. The reusable beverage container recited in Claim 1, wherein said cap further comprises
   an outer flange extending downwardly and a second top portion including an aperture, said
   second top portion secured to said first top portion to form a compartment between said first
top portion and said second top portion, wherein said compartment is in communication with said aperture enabling a user to hold said container by gripping through said aperture.

8. The reusable beverage container recited in Claim 7, wherein said first top portion of said cap comprises at least one drainage aperture.

9. The reusable beverage container recited in Claim 1, wherein said neck portion includes a rim and said spout extends approximately ¾ inch above said rim of neck portion.

10. The reusable beverage container recited in Claim 1, wherein said neck portion includes a rim and said spout extends slightly above said rim of said neck portion.

11. The reusable beverage container recited in Claim 1, wherein said spout is integral with said neck portion.

12. The reusable beverage container recited in Claim 1, wherein the spout has a Shore A hardness of approximately 75 or less.

13. The reusable beverage container recited in Claim 2, wherein the Shore A hardness of the spout is in the range of approximately 10 to 50.

14. The reusable beverage container recited in Claim 2, wherein the Shore 00 hardness of the spout is in the range of approximately 10 to 50.

15. A reusable beverage container comprising:

   a cap having a first top portion and an inner flange extending downwardly, said inner flange having threads disposed within;

   a receptacle and a neck portion including an inner diameter surface and an outer diameter surface, said outer diameter surface having threads disposed about; and,

   a flexible cylindrical spout having a through-bore therein, said through-bore comprising a frusto-conical shaped spout portion having a first opening rim, a tubular channel portion having a second opening rim and an outer surface comprising a plurality of ribs annularly disposed about said outer surface; wherein said neck portion is operatively arranged to receive at least a portion of said spout, and said plurality of ribs are sealably engaged against said inner diameter surface of said neck portion,

   wherein said cap is operatively arranged to receive at least a portion of said spout and said first opening rim is sealably engaged with said first top portion when said cap is threadingly secured to said neck portion.
1. A reusable beverage container comprising:
   a cap having a first top portion and an inner flange extending downwardly therefrom;
   a receptacle and a neck portion, said neck portion includes an inner diameter surface
   and an outer diameter surface; and,
   a flexible spout having a through-bore therein, a first opening rim and a second
   opening rim formed by said through-bore, and an outer surface comprising a plurality of ribs
   annularly disposed about said outer surface, wherein said flexible spout comprises a first
   portion having a first length and a second portion having a second length, said neck portion is
   operatively arranged to receive said first portion of said spout, said second portion of said
   spout extends upwardly beyond said neck portion, a ratio between said first length and said
   second length ranges from about 0.8 to about 1.2, and said plurality of ribs are seaulably
   engaged against said inner diameter surface of said neck portion,
   wherein said first opening rim is seaulably engaged to said first top portion when said
   cap is secured to said neck portion.

2. The reusable beverage container recited in Claim 1, wherein said flexible spout is
   made of silicone.

3. The reusable beverage container recited in Claim 1, said flexible spout comprises a
   frusto-conical shaped spout portion in communication with said first opening rim; and a
   tubular channel portion in communication with said second opening rim.

4. The reusable beverage container recited in Claim 3, wherein the diameter of said first
   opening rim is larger than the diameter of said second opening rim.

5. The reusable beverage container recited in Claim 1, wherein said inner flange
   includes threads disposed along an inner diameter surface of said inner flange, and said outer
   diameter surface of said neck portion includes threads disposed about said outer diameter
   surface.

6. The reusable beverage container recited in Claim 4, wherein said first top portion of
   said cap are threadingly secured to said neck portion.
7. The reusable beverage container recited in Claim 1, wherein said cap further comprises an outer flange extending downwardly from said first top portion and a second top portion including an aperture, said second top portion secured to said first top portion to form a compartment between said first top portion and said second top portion, wherein said compartment is in communication with said aperture enabling a user to hold said container by gripping through said aperture.

8. The reusable beverage container recited in Claim 7, wherein said first top portion of said cap comprises at least one drainage aperture.

9. The reusable beverage container recited in Claim 1, wherein said neck portion includes a rim and said spout extends approximately 1.905 centimeters above said rim of said neck portion,

10. The reusable beverage container recited in Claim 1, wherein the spout has a Shore A hardness of approximately 75 or less.

11. The reusable beverage container recited in Claim 2, wherein the Shore A hardness of the spout is in the range of approximately 10 to 50.

12. The reusable beverage container recited in Claim 2, wherein the Shore 00 hardness of the spout is in the range of approximately 10 to 50.

13. A reusable beverage container comprising:
   a cap having a first top portion and an inner flange extending downwardly therefrom, said inner flange having threads disposed along an inner diameter surface of inner flange;
   a receptacle and a neck portion including an inner diameter surface and an outer diameter surface, said outer diameter surface having threads disposed about; and,
   a flexible cylindrical spout having a through-bore therein, said through-bore comprising a frusto-conical shaped spout portion having a first opening rim, a tubular channel portion having a second opening rim and an outer surface comprising a plurality of ribs annularly disposed about said outer surface; wherein said flexible cylindrical spout comprises
a first portion having a first length and a second portion having a second length, said neck portion is operatively arranged to receive said first portion of said flexible cylindrical spout, said second portion of said flexible cylindrical spout extends upwardly beyond said neck portion, a ratio between said first length and said second length ranges from about 0.8 to about 1.2, and said plurality of ribs are sealably engaged against said inner diameter surface of said neck portion,

wherein said first opening rim is sealably engaged with said first top portion when said cap is threadingly secured to said neck portion.

14. A reusable beverage container comprising:

a cap having a first top portion and an inner flange extending downwardly therefrom;

a receptacle and a neck portion, said neck portion includes an inner diameter surface and an outer diameter surface, said neck portion formed from a first material; and,

a flexible spout having a through-bore therein and a first opening rim, wherein said flexible spout extends upwardly beyond said neck portion, said flexible spout formed from a second material different from said first material,

wherein said first opening rim is sealably engaged to said first top portion when said cap is secured to said neck portion.
An amendment under Article 19 of the PCT is being filed concurrently herewith.

Independent claims 1 and 15 have been amended in order to further distinguish the, claimed invention from the references cited in the ISR. Claims 1, 3, 5 to 7, 9 and 15 have been amended in order to address formality issues. Claims 10 and 11 have been cancelled. New independent claim 14 has been added, which corresponds generally with original claim 11.
INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2011/050076

A. CLASSIFICATION OF SUBJECT MATTER
IPC: B65D 47/06 (2006.01) , A47G 19/22 (2006.01) , B65I 1/02 (2006.01)
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
IPC: B65D 47/06 (2006.01) , A47G 19/22 (2006.01) , B65I 1/02 (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)
Epodoc, TotalPatent, Espacenet, Japan Patent Office (keywords: container, spout, beverage, flexible, cap, ribs, compartment, aperture, handle, grip)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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[X] Further documents are listed in the continuation of Box C.  [X] See patent family annex.

- Special categories of cited documents
- document defining the general state of the art which is not considered to be of particular relevance
- earlier application or patent but published on or after the international filing date
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-Y later document published after the international filing date or priority date and not in conflict with the application but which the examiner considers to be irrelevant to the invention
-X document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Date of the actual completion of the international search
27 June 2011 (27-06-2011)

Date of mailing of the international search report
29 June 2011 (29-06-2011)

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage 1, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 001-819-953-2476

Authorized officer
Gregory Myslicki (819) 956-5824
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