(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 180 483 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
20.02.2002 Bulletin 2002/08

(51) Int Cl.[7]: **B65D 77/06**

(21) Application number: **01306879.6**

(22) Date of filing: **13.08.2001**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **14.08.2000 GB 0019954**

(71) Applicant: **Scottish & Newcastle plc**
Edinburgh EH8 8YS Scotland (GB)

(72) Inventors:
- **Brown, Jon**
  West Linton, Scotland EH46 7BJ (GB)
- **Baxter, Andrew**
  East Linton, Scotland EH40 3DY (GB)
- **Murray, Duncan**
  Edinburgh EH4 1HT (GB)

(74) Representative: **Alexander, Thomas Bruce et al**
BOULT WADE TENNANT, Verulam Gardens 70 Gray's Inn Road
London WC1X 8BT (GB)

(54) Beverage container and method of storing and dispensing a gasified beverage

(57) The present invention comprises a method of storing and dispensing a gasified beverage comprising storing a broachable container (10) of beverage in a sealable drinking vessel (2), removing the broachable container from the drinking vessel, broaching the container and dispensing at least a portion of the beverage back into the drinking vessel, sealing the drinking vessel, agitating the drinking vessel to produce an expansion in volume of the beverage and unsealing the drinking vessel to allow the beverage to be consumed therefrom.

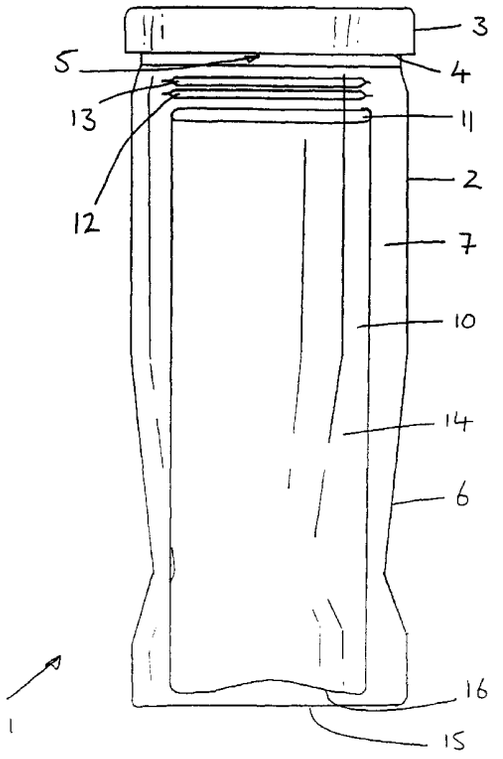

Figure 1

EP 1 180 483 A2

Description

[0001] The present invention relates to an apparatus and method for storing and dispensing a gasified beverage.

[0002] It is known to store and dispense gasified soft drinks and some alcoholic drinks from broachable containers such as aluminum cans. Typically such drinks have been gassed to only moderate levels of dissolved CO_2 since it has been found that higher levels of gassing are undesirable to the consumer as they lead to the consumer feeling uncomfortable and full after only a small volume of beverage has been consumed. In addition, the dispensing of highly gasified beverages has been believed to be messy and potentially dangerous.

[0003] The present invention provides a method of storing and dispensing a gasified beverage comprising storing a broachable container of beverage in a sealable drinking vessel, removing the broachable container from the drinking vessel, broaching the container and dispensing at least a portion of the beverage back into the drinking vessel, sealing the drinking vessel, agitating the drinking vessel to produce an expansion in volume of the beverage and unsealing the drinking vessel to allow the beverage to be consumed therefrom.

[0004] The present invention also provides apparatus comprising a broachable container of a beverage and a resealable drinking vessel in which the broachable container is stored prior to dispensation of the beverage, the broachable container being removable from the resealable drinking vessel to allow subsequent dispensation of the beverage into the resealable drinking vessel for consumption therefrom

[0005] Preferably the beverage contains greater than 5 g/l of an inert gas.

[0006] Preferably, the beverage contains between 7 and 8 g/l of an inert gas.

[0007] Preferably the inert gas is one of, or a mixture of, carbon dioxide, nitrogen, nitrous oxide or oxygen.

[0008] In one embodiment the beverage is alcoholic.

[0009] The applicant has found that the foamed consistency of the beverage when dispensed and relatively high residual gassing of the beverage imparts a surprisingly pleasing and desirable taste and mouth-feel to the beverage. This has been found to be the case in particular with spirit-based alcoholic beverages, such as a tequila-flavoured alcoholic mixer, which are traditionally either non-gasified or only gasified to a low level.

[0010] Additionally, the apparatus of the present invention provides a novel, safe and aesthetically pleasing means for dispensing the beverage which adds to the mouth-feel of the product.

[0011] An embodiment of the present invention will now be described by way of example only with reference to the accompanying drawing, in which:

[0012] Figure 1 is a schematic side elevation of an apparatus according to the present invention.

[0013] The apparatus 1 of the present invention, shown in Figure 1, comprises an outer, resealable container 2 and an inner, broachable container 10.

[0014] The resealable container 2 comprises a generally tubular body portion 7 which is closed at one end 15 and open an opposite end to define a mouth 5 of the container. The mouth 5 of the container 2 is sealed in use by a screw top 3 which engages the mouth 5 by means of co-operating screw-thread formations 4 formed on the top 3 and container 2. The screw-thread formation 4 on the container 2 may be formed on either the inner or outer surfaces. The seal between the screw top 3 and container 2 is both liquid and gas-tight. A rubberised or polymeric material may be provided as an annular or circular gasket in the screw top 3 to improve the seal integrity.

[0015] The generally tubular body portion 7 of the container 2 has a portion of reduced diameter 6 forming a "waist" which provides an ergonomically improved grip for the hand of a user of the apparatus 1.

[0016] The resealable container 2 is preferably formed from a material such as polyethylene terephthalate (PET). The screw top 3 is preferably formed from a material such as polypropylene (PP). Both materials have the advantages of being hard wearing and shock resistant.

[0017] The inner, broachable container 10 has a generally tubular body portion 14 closed at one end 16 and having a broachable closure 11 at an opposite end. Preferably, the broachable closure 11 is in the form of a ring pull or tab closure as commonly found on soft drinks containers.

[0018] Preferably, the inner container 10 is a can formed from aluminium, steel or the like. Alternatively, the inner container 10 may be a bottle of either glass or plastics having a broachable closure.

[0019] The internal diameter of the mouth 5 of the outer container 2 is large enough to allow the inner container 10 to pass therethrough.

[0020] In use the apparatus 1 contains a beverage. The apparatus 1 may be sold through licensed premises such as pubs, bars or the like, or through other typical retail outlets including, but not limited to, shops, vending machines and the like.

[0021] Initially, the apparatus is sold in a 'storage condition' wherein the broachable container 10 is stored within the resealable container 2 with the screw top 3 in place, as shown in Figure 1.

[0022] The broachable container 10, contains the beverage. The beverage is a gassed beverage which is gasified with one or more inert gases such as carbon dioxide, nitrogen, nitrous oxide or oxygen. A mixture of any combination of these gases may also be used. The beverage is gassed to a high level compared to comparable beverages. For example, where the beverage is gasified with CO_2, the beverage contains at least 5g/l dissolved CO_2. Typically, the beverage contains 7-8g/l dissolved CO_2.

[0023] Any inert gas may be used which is non-toxic

and does not react with the beverage or containers 2, 10.

[0024] The beverage may be any soft or alcoholic drink including, but not limited to, mineral waters, soft drinks, mixers, beers, lagers, spirits and fortified drinks. In one embodiment the beverage contains an alcoholic spirit such as martini or tequila.

[0025] The beverage may contain foam enhancing ingredients and/or the inner container 10 may contain a foam enhancing device such as the 'widgets' commonly found in cans of beer and stout.

[0026] Additional 'condiments' may also be provided with the apparatus 1 as optional additives. For example sachets 12, 13 of lemon juice and salt may be provided where the beverage is tequila-based. The sachets 12, 13 are stored in the resealable container 2 along with the broachable container 10.

[0027] To dispense the beverage from the apparatus 1 in the 'storage condition', a user first unscrews the screw top 3 from the resealable container 2 and removes the broachable container 10. The user then broaches the closure 11 in order to open the inner container 10 and pours all or some of the beverage contained in the inner container 10 back into the body portion 7 of the resealable container 2. Any condiments that are required are also added. The condiments may be designed to be dissolvable in the beverage or to form a suspension therein. Alternatively, the condiments may be consumed separately from the beverage.

[0028] The screw top 3 is then reattached to the resealable container 2 and tightly fastened. The user then agitates the resealable container 2, preferably by striking the resealable container 2 down one or more times onto a hard surface. The sudden agitation causes the gasified beverage to undergo a rapid first stage expansion in volume caused by the sudden release of the dissolved gas from the beverage, producing a 'foamed' consistency to at least a portion of the beverage. The user then unseals screw top 3 which produces a second stage expansion in volume of the beverage caused by the reduction in pressure and further release of dissolved gas from the beverage.

[0029] The volume of the resealable container 2 is large enough to accommodate the first and second stage expansions.

[0030] The user then drinks the beverage directly from the resealable container 2 which thereby forms the drinking vessel. It has been found that the foamed consistency of the beverage imparts a surprisingly pleasing and desirable taste and mouth-feel to the beverage.

[0031] In one embodiment the broachable container 10 contains sufficient beverage to supply two 'shots', each shot being dispensed and consumed in the manner described above.

Claims

1. A method of storing and dispensing a gasified beverage comprising storing a broachable container of beverage in a sealable drinking vessel, removing the broachable container from the drinking vessel, broaching the container and dispensing at least a portion of the beverage back into the drinking vessel, sealing the drinking vessel, agitating the drinking vessel to produce an expansion in volume of the beverage and unsealing the drinking vessel to allow the beverage to be consumed therefrom.

2. A method as claimed in claim 1 wherein unsealing the drinking vessel produces a further expansion in volume of the beverage.

3. A method as claimed in claim 1 or claim 2 wherein the beverage contains greater than 5 g/l of an inert gas.

4. A method as claimed in any of claims 1 to 3 wherein the beverage contains between 7 and 8 g/l of an inert gas.

5. A method as claimed in claim 3 or claim 4 wherein the inert gas is one of, or a mixture of, carbon dioxide, nitrogen, nitrous oxide or oxygen.

6. A method as claimed in any preceding claim wherein the beverage is alcoholic.

7. Apparatus comprising a broachable container of a beverage and a resealable drinking vessel in which the broachable container is stored prior to dispensation of the beverage, the broachable container being removable from the resealable drinking vessel to allow subsequent dispensation of the beverage into the resealable drinking vessel for consumption therefrom.

8. Apparatus as claimed in claim 7 wherein the beverage contains greater than 5 g/l of an inert gas.

9. Apparatus as claimed in claim 7 or claim 8 wherein the beverage contains between 7 and 8 g/l of an inert gas.

10. Apparatus as claimed in claim 8 or claim 9 wherein the inert gas is one of, or a mixture of, carbon dioxide, nitrogen, nitrous oxide or oxygen.

11. Apparatus as claimed in any of claims 7 to 10 wherein the beverage comprises one or more foam enhancing ingredients.

12. Apparatus as claimed in any of claims 7 to 11 wherein the broachable container contains a foam en-

hancing insert.

13. Apparatus as claimed in any preceding claim wherein the beverage is alcoholic.

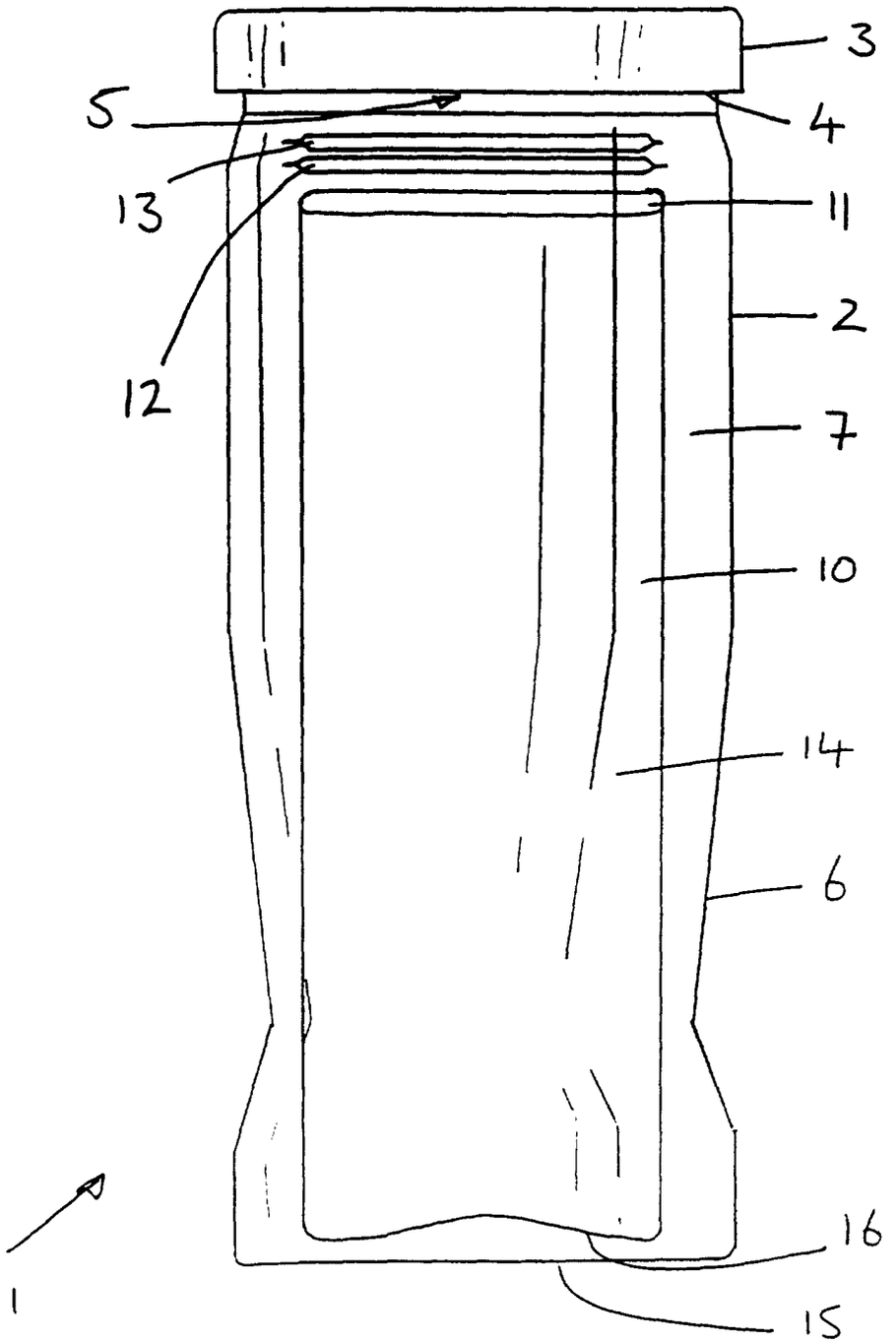

Figure 1