

(19)



(11)

**EP 2 643 228 B9**

(12)

**CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:

**Corrected version no 1 (W1 B1)**  
**Corrections, see**  
**Description Paragraph(s) 57**

(51) International Patent Classification (IPC):

**B65D 25/08** <sup>(2006.01)</sup>      **B65D 39/08** <sup>(2006.01)</sup>

(52) Cooperative Patent Classification (CPC):

**B65D 25/087**; **B65D 39/08**; B65D 2251/0018;  
 B65D 2251/0075

(48) Corrigendum issued on:

**30.08.2023 Bulletin 2023/35**

(86) International application number:

**PCT/EP2011/070697**

(45) Date of publication and mention of the grant of the patent:

**05.07.2023 Bulletin 2023/27**

(87) International publication number:

**WO 2012/069482 (31.05.2012 Gazette 2012/22)**

(21) Application number: **11784722.8**

(22) Date of filing: **22.11.2011**

(54) **BEVERAGE CONTAINER AND STOPPER FOR SUCH CONTAINER**

GETRÄNKEBEHÄLTER UND STOPFEN FÜR SOLCH EINEN BEHÄLTER

RÉCIPIENT À BOISSON ET BOUCHON POUR UN TEL RÉCIPIENT

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB**  
**GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO**  
**PL PT RO RS SE SI SK SM TR**

(72) Inventors:

- **Sisniega Barroso, Oscar**  
**08013 Barcelona (ES)**
- **Sisniega Balaguer, Sinforiano**  
**08013 Barcelona (ES)**

(30) Priority: **23.11.2010 EP 10382311**

(43) Date of publication of application:

**02.10.2013 Bulletin 2013/40**

(74) Representative: **de Rooij, Mathieu Julien**

**Bardehle Pagenberg S.L.**  
**Avenida Diagonal 598, 3° 1a**  
**08021 Barcelona (ES)**

(73) Proprietors:

- **Sisniega Barroso, Oscar**  
**08013 Barcelona (ES)**
- **Sisniega Balaguer, Sinforiano**  
**08013 Barcelona (ES)**

(56) References cited:

**WO-A1-98/29317**      **FR-A- 751 164**  
**GB-A- 2 417 240**      **JP-A- 6 278 750**  
**US-A- 302 881**      **US-A- 6 112 537**  
**US-A1- 2007 074 979**

**EP 2 643 228 B9**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

## Description

**[0001]** The present invention relates to a beverage container, and more particularly relates to a beverage container which is especially suited for containing, storing and serving carbonated or sparkling drinks, but is also suitable for use with other types of drinks. The present invention also relates to stoppers for use in such containers.

## BACKGROUND ART

**[0002]** Containers of many different kinds are used for storing, and subsequent serving of drinks. The most popular containers these days are cans, plastic bottles and glass bottles. One problem associated with these kinds of containers is that they are not very comfortable for a consumer who wants to drink directly from the container.

**[0003]** It is therefore common practice in bars, discotheques and restaurants to empty e.g. a glass bottle in a drinks glass. The beverage is thus ultimately served in a different container than the container in which it was stored and transported.

**[0004]** When glass bottles are used, the glass bottles are filled in a bottling plant and transported to bars and restaurants. After use, the glass bottles are returned to the bottling plant, where they are cleaned and reused. Typically, glass bottles may be used approximately 25 times, before they are retired. During their lifecycle, the glass bottles add weight to be transported, both when they are filled and being transported away from the bottling plant, and when they are empty and being returned to the bottling plant. This added weight is costly, and also leads to a higher production of greenhouse gases.

**[0005]** A solution to this problem has been proposed in e.g. US 2010/0133285. One problem related to the design proposed in US 2010/0133285 is that the hygiene of the rim of the container cannot be guaranteed. A consumer would put his lips at the rim of the container, which cannot be guaranteed to be free from contamination.

**[0006]** Another solution is proposed in US 5,207,341. In the design of US 5,207,341, a closure lid extends over the rim of the container body. GB 2 417 240 discloses a beverage container according to appended claim 1 and a closure assembly, wherein the container neck comprises a first screw thread on an internal surface thereof and the closure comprises a cylindrical plug for insertion into the container neck, said plug having a second screw thread on an outer surface thereof for engagement with the first screw thread to secure and resecure the closure on the neck. The sealing plug may be provided with a floor to define a chamber or compartment, which may be filled with a dehydrated beverage ingredient or snack food. However, one problem associated with these designs is due to the threads provided on the container wall near to the opening: these threads are unpleasant for a consumer when drinking.

**[0007]** Yet another solution is proposed in US

2008/0257849. One problem associated with this design is that the design of the cap of the container is rather complicated and therefore rather expensive. Another problem associated with this design is that no mix drinks could be served in such a container. If a carbonated drink is used, the entire volume of the container will practically be taken up by the carbonated drink. There is no space available for adding liquor (e.g. Vodka, rum, whiskey etc.) and/or ice cubes after opening of the container.

**[0008]** It is an object of the present invention to provide a container which at least partially solves one or more of the aforementioned problems.

## SUMMARY OF THE INVENTION

**[0009]** In a first aspect, the invention provides a beverage container in accordance with claim 1. Various embodiments are set out in the dependent claims. The beverage container according to the invention comprises a container body and a stopper for closing the opening of the container body. The container body has a wall extending between a bottom and a wide-mouth opening, the interior wall of the container body comprising first threads by which the stopper may be releasably secured to the container body. The stopper comprises a first lid, and a second lid connected to the first lid via a central shaft and/or a cylindrical wall, and second threads for mating with the first threads. When the stopper is secured to the container body, a first volume is defined in the container body between the bottom of the container body and the first lid and a second volume is defined in the container body between the first lid and the second lid. The first volume is slightly larger than a predefined quantity of a beverage to be stored in the beverage container and wherein said predefined quantity of beverage is 200 ml, 250 ml, 330 ml, 350 ml, or 500 ml. The ratio of said first volume to said second volume is between approximately 0.8 and approximately 3.15. The first lid comprises an annular skirt portion extending downwardly, said skirt portion having threads on its external circumference.

**[0010]** In this aspect, two separated volumes are provided; a first volume may be used for containing e.g. a carbonated drink, the second volume may be used for liquor and/or ice cubes after the beverage container is opened. Due to the separation in two volumes, a carbonated drink in the first volume does not lose the carbon dioxide gas in the beverage, whereas a second volume is available after opening for fitting e.g. liquor and/or ice cubes.

**[0011]** In some embodiments, the second lid may be in sealing contact with the rim of the opening of the container body when the stopper is secured to the container body.

**[0012]** In accordance with the invention, the first volume is slightly larger than a predefined quantity of carbonated drink to be stored in the beverage container. When a carbonated drink is contained and stored in the container, it is preferable that the carbonated drink does

not loose the carbon dioxide. For this purpose, only a small free space between the level of the carbonated drink and the first lid is provided.

**[0013]** In accordance with the invention, the container contains a predefined standard quantity (e.g. 200 ml, 250 ml, 330 ml, 350 ml or 500 ml) of a beverage. An aspect of using standardized quantities is that both bottling plants and e.g. bars are prepared for such standard quantities. A bartender is used to standard quantities of e.g. Coca-Cola™ for preparing certain mixed drinks and cocktails.

**[0014]** In some embodiments, the predefined quantity of carbonated drink is 200 ml, which is a standard size drink. In these embodiments, it is preferable that when the stopper is secured to the container body, the second volume is at least approximately 150 ml. About 150 ml is needed for fitting both a standard quantity of liquor (approx. 70 ml) such as rum or whiskey and a few ice cubes (approx. 80 ml). In these embodiments, standardized mix drinks may thus be comfortable served in the same container in which the carbonated drink was stored and transported.

**[0015]** In some embodiments, the predefined quantity of carbonated drink may be 350 ml, which is also a standard quantity. In these embodiments, the second volume may preferably be at least approximately 50 ml, more preferably at least 70 ml. In these embodiments, at least some ice cubes can be added and the container may still be comfortably held by a consumer.

**[0016]** In accordance with the invention, the ratio of said first volume to said second volume is between approximately 0.8 and approximately 3.15, and preferably between approximately 1.1 and approximately 1.7. To prepare some standard mix drinks, the ratio of carbonated drink (e.g. Coca Cola™) to liquor is around 2.85 (approx. 200 ml of carbonated drink and about 70 ml of liquor). It will be clear that variations to these proportions within the claimed range are possible. The first volume of the beverage container may generally comprise a quantity of carbonated drink and a small free space. The second volume would preferably be large enough to contain liquor and/or ice cubes and at least a small free space.

**[0017]** The interior of a container body for use in the beverage container as substantially herein before described, comprises at least securement means by which a stopper may be releasably secured to the container body.

**[0018]** In accordance with the invention, the securement means are one or more threads, such as e.g. screw threads or bayonet threads. A stopper may thus be easily attached to and removed from a container body.

**[0019]** In accordance with the invention, the opening of the container body is a wide-mouth opening. It is more pleasant for consumers to drink from containers with a wide-mouth opening and they may also more easily be used for preparing mix drinks etc. Additionally, the carbon dioxide consumed is generally lower when drinking from

a container with a wide mouth than when drinking directly from e.g. a can or bottle; a consumer will thus generally experience less of a "gassy" feeling after drinking.

**[0020]** In accordance with the invention, the position of the securement means in the container is determined such that the first lid of a stopper closes off a first volume which is suitable for containing a predefined quantity of a carbonated drink. In accordance with the invention, the first volume may be only slightly larger than the volume occupied by the predefined quantity of carbonated drink. By establishing a first volume which is only slightly larger than the volume occupied by a carbonated drink, only a small free space is available in the first volume. It can hereby be avoided that significant amounts of carbon dioxide of the beverage escapes to the free space during transport and storage.

**[0021]** In some embodiments, the volume between the opening of the container body and the securement means is at least approximately 150 ml. Such a volume would be enough to fit liquor and a plurality of ice cubes.

**[0022]** In some embodiments, the container may comprise a marker indicating a predetermined amount of liquor to be added to a quantity of carbonated drink provided in the container. Since the quantity of carbonated drink is exactly known, a marker that indicates a predetermined quantity of liquor may help to indicate to a bartender, a consumer, and also the owner of a bar that the exact quantity of liquor is added.

**[0023]** In a further aspect, the invention provides a stopper according to claim 9 for use in the beverage container as substantially hereinbefore described. Such a stopper comprises a first lid and a second lid and threads mating the threads provided on a container body.

**[0024]** In some embodiments, the first and second lid may be connected via a central shaft. In alternative embodiments, the first and second lid may be connected via a cylindrical wall. In yet further embodiments, both a central shaft and a cylindrical wall may be provided to connect the first lid to the second lid.

**[0025]** In some embodiments, the second lid may be releasable from such a central shaft or cylinder. For example, a central shaft may comprise threads, which mate with threads arranged with the second lid. In this example, the second lid may be screwed off the shaft. An aspect of this embodiment is that the second lid may be used as a cover again for the beverage container after the initial opening. In another example, a tearable portion may be provided between the lid and a central shaft or a cylinder. Similarly as in the previous example, the lid may be torn off and subsequently be used again as a cover for the beverage container.

**[0026]** The first lid comprises the second threads. The second threads may be e.g. one or more helical threads. In alternative embodiments, e.g. a bayonet coupling may be used.

**[0027]** Additional objects, advantages and features of embodiments of the invention will become apparent to those skilled in the art upon examination of the descrip-

tion, or may be learned by practice of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0028]** Particular embodiments of the present invention will be described in the following by way of non-limiting examples, with reference to the appended drawings, in which:

Figures 1a - 1d illustrate a first example of a beverage container, not forming part of the invention;  
 Figures 2a - 2d illustrate an embodiment of a beverage container according to the present invention;  
 Figures 3a - 3c illustrate examples of stoppers. The examples of figures 3a and 3c may be used with the present invention. The example of figure 3b does not form part of the invention; and  
 Figures 4a - 4c illustrate various methods of manufacturing a container body, which methods do not form part of the invention.

#### DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

**[0029]** Figure 1a schematically illustrates cross-sections of a first example of a beverage container 10, which does not form part of the invention but serves an illustrative purpose, comprising a container body 20 and a stopper 30. Stopper 30 closes off opening 24 at one end of the container body 20 when it is mounted on the container body. Figure 1d illustrates an isometric view of the stopper and a partial cross-section of the same embodiment.

**[0030]** The container body 20 extends between a bottom 22 and the opening 24 and may generally be thin-walled. Threads 26 are provided in the interior wall of the container body. An annular flange 21 provided at the top of the threads 26 serves to provide a sealing as will be explained later on. The flange 21 may or may not comprise threads.

**[0031]** The threads 26 and flange 21 may be performed as a recess in the wall (see option A or option C) or as an inner protrusion of the wall (see option B or option D). An aspect of options B and D is that a smoother outer surface of the container body may be obtained. An aspect of options A and B is that the sealing flange 21 forms part of the threaded portion of the interior wall of the container body. In options C and D the sealing flange does not have threads. The stopper comprises a first lid 32 and a second lid 34. First lid 32 and second lid 34 of stopper 30 are connected via a central shaft 33. When the stopper 30 is mounted on the container body 20, the two lids 32 and 34 divide the interior of the container body in a separate first volume 40 and a separate second volume 50.

**[0032]** The first lid 32 comprises a skirt portion 39 extending upwardly having threads 36 along its external circumference and establishes an airproof and waterproof sealing of the first volume 40. Threads 36 of the stopper mesh with threads 26 on the interior wall of the

container body when the stopper is mounted on the container body. To establish an air- and waterproof sealing, the stopper 30 comprises a gasket ring 31 at the end of the skirt portion 39. This gasket ring 31, when the stopper is mounted on the container body, comes into sealing contact with sealing flange 21 formed at the top of the threads 26 of the container body.

**[0033]** The second lid 34 may establish a sealing of second volume 50. To this end, rim 37 of second lid 34 may lie against the outer surface of the container body to seal the second volume and the top wall and rim of the container body and an additional sealing contact may be established by the contact between the bottom surface of the second lid and the top surface of the rim of the container body.

**[0034]** Because of the sealing established between the first lid and the container body, no gases can escape from the first volume to the second volume. In some implementations, a carbonated or fizzy drink, such as Coca-Cola™, Fanta™, Sprite™, or carbonated water may be provided in the first volume. The sealing with the first lid makes sure that the carbonated drink may be stored for a prolonged period of time without the gas being lost. The beverage provided in the first volume may thus be maintained in proper conditions. Because of the sealing established between the rim of the container body and the second lid 34 of the stopper, contamination of the second volume may be avoided. The sealing of the second lid does not necessarily need to be airproof in this respect.

**[0035]** The beverage container may be filled in a bottling plant already and may subsequently be stored and be transported to a place of consumption. A (standard) quantity that would normally be contained in a bottle can now be provided in the container which may later be used for consumption.

**[0036]** In figures 1b and 1c, the dimensions of this illustrative beverage container are indicated. One particular aspect of the shown embodiment is that the first volume can contain 200 ml of a carbonated drink. The first lid 32 of the stopper 30 when mounted on the container body is positioned such that only a small free space is available below the first lid (and above the beverage). Carbonated drinks can thus be kept fresh. Carbonated drinks are generally available in various standard sizes, such as 200 ml, 330 ml, 350 ml, 500 ml or 1000 ml. In this particular embodiment, a standard quantity of beverage can be provided in the beverage container.

**[0037]** The second volume is large enough to contain approximately 70 ml of liquor (Vodka, Whiskey, Gin etc.) and a plurality of ice cubes occupying approximately 85 ml. The particular embodiment shown may thus be particularly in bars, discotheques, and events wherein mixed drinks are to be prepared. The ratio of the first volume to the second volume in this particular example is approximately 1.2.

**[0038]** The ratio of the first volume to the second volume may be varied within the scope of the present in-

vention. An aspect of providing a substantial ("non-insignificant") second volume is that a space is created to which a build-up of carbon dioxide under pressure can controllably expand. During transport, beverage containers may be shaken which may cause a pressure build-up of carbon dioxide. In ordinary bottles or cans, such a pressure build-up can lead to spilling when the container is opened. Such a problem may be effectively avoided using embodiments of the present invention.

**[0039]** With the single consumption packaging provided by the invention, no separate bottle for the carbonated drink needs to be provided, and such a bottle does not need to be emptied in a drinks glass. Since no separate bottles are needed, they do not need to be transported to a bar, restaurant, disco or event either. Additionally, there are no empty bottles that need to be returned to the factory either. The container according to the present invention may be made to be disposable and in this case may be made preferably from plastics. The container may also be made to be reusable various times and in this case may preferably be made from glass. In the former case, there is no need for any transport back to a factory. In the latter case, there may be less weight to be transported back to the factory compared to the weight to be carried with conventional glass bottles (depending on the design of the container).

**[0040]** It may be seen that the example of figure 1 has a wide mouth opening. The container body of this embodiment is substantially cylindrical and the diameter of the opening of the container is substantially equal to the diameter of the container wall and a person may drink from the container in the same manner as from a drinks glass. Such containers are more pleasant when drinking than narrow-mouth openings such as provided in bottles and cans. Additionally, since the threads 26 are arranged in the interior wall of the container body away from the rim, the rim of the container body is free from threads, which further improves the drinking experience. The design according to the example of figure 1 is thus able to provide improvements along the entire added value chain from the filling of the containers in a bottling plant to the drinking experience of an end consumer.

**[0041]** The container body of figure 1 may generally be made by injection blow molding (IBM) or extrusion blow molding (EBM) and may be made from Polyethylene terephthalate (PET). Other suitable plastics may however also be used such as polyethylene (PE), polypropylene (PP), or polylactid acid (PLA). The container may alternatively also be formed by thermoforming. In further embodiments, the container body could be made from glass or metal as well.

**[0042]** A shrink cap seal (from e.g. HDPE or LDPE) may be provided around the second lid of the stopper and around the top of the container body.

**[0043]** The inner threads may particularly easily be provided using injection blow molding by adaptation of the mold. The threads may thus be formed as recesses in the wall of the container body and may be noticeable

from the outside of the beverage container as well. Alternatively they may be formed as inward protrusions from the wall, not noticeable from the outside. The threads are in any case not provided in the area where a consumer may place his / her mouth. This way a more pleasant drinking experience may be provided. The lid 30 may be made from the same material as the container body or from a different material. The lid may be made e.g. by injection molding.

**[0044]** The dimensions shown in figures 1b and 1c are merely one example. It will be clear that e.g. the height or the diameter of the beverage container may be varied and that the diameter does not necessarily need to be constant over its entire length. Additionally, the opening of the container body and the container body itself do not necessarily need to be circular.

**[0045]** It will be clear that the quantities indicated for the carbonated beverage, liquor, and ice cubes are merely indicative. It will also be clear that in other implementations, other drinks (e.g. fruit juice, beer, wine, water etc.) could equally well be provided in the beverage container according to the present invention.

**[0046]** In some implementations, a paper or plastic wrapper (sleeve) may be provided around the beverage container. Such a wrapper may comprise e.g. a trademark, logo, name of the beverage company.

**[0047]** In some implementations, a marker may be provided (e.g. printed) on the wall of the container body indicating a suitable level of the total of a liquor and a carbonated drink. Since the quantity of carbonated drink is exactly known, a marker that indicates a predetermined total quantity indirectly indicates the quantity of liquor that is to be added. Such a marker may help to indicate to a bartender, a consumer, and also the owner of a bar that the right quantity of liquor is added.

**[0048]** Figures 2a - 2d illustrate an inventive embodiment of a beverage container, comprising a container body and stopper according to the present invention. The functionalities, structure, manufacturing methods and advantages are largely comparable to the ones described with reference to figures 1a - 1d. Only the most important differences will be described here.

**[0049]** The container body has the same outer dimensions as the container body shown before. However, the inner thread 26 is provided at a different height. The first volume defined between the first lid 32 of the stopper and the bottom 22 of the container body is thus larger than in the first embodiment. The distance between the first lid 32 and second lid 34, and also the so-called second volume is shorter. The shaft 33 of the stopper connecting the two lids is thus also smaller. A different quantity of beverage may be provided in the container in the factory, i.e. in this case approximately 350 ml. The second volume may in this case not be large enough to fit both ice cubes and liquor, but may still be big enough to fit some ice cubes or a small quantity of liquor, see also figure 2c. The ratio of the first volume to the second volume in this embodiment is approximately 7.2.

**[0050]** A further difference with respect to the embodiment of figure 1 is the design of the stopper 30. In the embodiment of figure 2, the threads 36 are provided on a downwardly extending annular skirt portion 38. The first lid 32 is thus positioned above the threads 26 and 36 (see figure 2a). In the non-claimed example of figure 1, the first lid is positioned just below the threads 26 and 36 (compare figure 1a). Substantially directly underneath the first lid 32, a gasket ring 31 is integrally formed with the stopper. Sealing contact may be established between the gasket ring 31 and the upper surface of annular sealing flange 21. Although not indicated in figure 2, it will be clear that similar options A, B, C and D are also possible for sealing flange 21 in this configuration.

**[0051]** An aspect of providing two container bodies with the same outer dimensions is that different containers may be more easily packaged and transported together. It will be clear however in alternative embodiments, by making the beverage container slightly higher (and accordingly adapt the stopper), a larger second volume may be provided if desired.

**[0052]** Figure 2d provides an isometric view of the stopper and a partial cross-section of the container body and stopper shown in cross-section in figures 2a - 2c.

**[0053]** Figures 3a and 3c illustrate further alternative embodiments of stoppers according to the present invention. In the embodiments of figures 1 and 2, the first lid 32 was provided with a downwardly or upwardly extending skirt portion provided with threads. In figure 3a, the first lid 32 of the stopper is thicker, and threads 36 are provided on the external circumference of the lid. Gasket ring 31 is integrally formed with the first lid 32 as well.

**[0054]** In figure 3b which is not covered by the present invention, the connection between the first lid 32 and second lid 34 is established by a thin-walled cylinder 35. Cylinder 35 may be arranged such that it is substantially in contact with the inner wall of the container body, thus further reducing the possibilities of any contamination. It may be noted that a shaft connecting the two lids is not needed in this embodiment. In further embodiments however, a central shaft may be provided to increase the strength of the stopper. Threads 36 are provided on the external surface of the cylinder near the bottom of the cylinder. A gasket ring 31 forming an annular wall extending in a downward direction from the cylinder may be in sealing contact with a suitable part of a container body.

**[0055]** In figure 3c, yet a further inventive stopper is illustrated. In this example, the stopper also comprises a cylinder 35 which in use may be in contact with the inner wall of a container body. A skirt portion of a slightly smaller diameter extends from the bottom of the cylinder. On the outside of the skirt portion, threads 36 are provided. The annular portion of the bottom of the cylinder that is external to the skirt portion forms a gasket ring 31 which in use may be in sealing contact with a suitable sealing flange formed in the interior of the container body.

**[0056]** In accordance with the chosen design of the

stopper, the height of the threads on the container body may need to be adapted to provide suitable first and second volumes.

**[0057]** Figure 4a illustrates a first method of manufacturing a container body 20, which method does not form part of the invention.

**[0058]** Reference sign 20c refers to a possible preform of the container body, before injection blow moulding (IBM) of the preform. A result of IBM is shown in an interrupted line.

**[0059]** Further indicated in figure 4a are an annular flange 21 and threads 26 integrated in the preform. The annular flange may cooperate with a gasket ring provided on a stopper to establish a seal of a first volume of the container.

**[0060]** Figure 4b illustrates an alternative in which the bottom 20b and top 20a of the container body may be manufactured separately, and afterwards joint through mating threads 29. The preform 20c before IBM is shown in a continuous line and the resulting bottom 20b of the container body is shown in an interrupted line. In this particular embodiment, the threads 26 to which a stopper may be releasably secured are provided in the bottom portion of the container body.

**[0061]** Figure 4c illustrates a further alternative. Also in this example, the container body may be split in a top 20a and a bottom 20b, which are manufactured separately, and later connected through mating threads 29. In this embodiment, threads 26 which serve for securing a stopper are provided in the top portion 20a. To this end the top portion comprises an annular opening in which threads 29 are provided and in which the edge portion of the bottom 20b may be inserted. Once again, pre-form 20c is indicated in a continuous line and the result after IBM is shown in an interrupted line.

**[0062]** In all illustrated examples, the securement means on the stopper and corresponding securement means on the container body were all cooperating helical threads. Such helical threads may have different cross-sections e.g. triangular, rectangular or trapezoidal. In other embodiments of the invention, bayonet threads may be used.

**[0063]** Further in all examples, the sealing of the first volume was obtained through a sealing contact between a gasket ring of a stopper and a complementary ring formed in the internal wall of the container body. However, alternative methods of sealing e.g. involving a sealing flange at a different location of the interior wall of the container body or involving sealing contact between other surfaces and/or O-rings or similar may be envisaged.

**[0064]** Although only a number of particular embodiments and examples of the invention have been disclosed herein, it will be understood by those skilled in the art that other alternative embodiments and/or uses of the invention and obvious modifications and equivalents thereof falling within the scope of the appended claims, are possible.

**[0065]** The scope of the present invention should not

be limited by particular embodiments, but should be determined only by a fair reading of the claims that follow.

### Claims

1. A beverage container (10) comprising a container body (20) and a stopper (30) for closing the opening (24) of the container body,

the container body (20) having a wall extending between a bottom (22) and a wide-mouth opening (24), the interior wall of the container body comprising first threads (26) by which the stopper (30) may be releasably secured to the container body (20),

the stopper (30) comprising a first lid (32), and a second lid (34) connected to the first lid via a central shaft (33) and/or a cylindrical wall (35), and second threads (36) for mating with the first threads (26)

such that,

when the stopper (30) is secured to the container body (20), a first volume (40) is defined in the container body (20) between the bottom (22) of the container body and the first lid (32) and the first volume (40) is slightly larger than a predefined quantity of a beverage to be stored in the beverage container and wherein said predefined quantity of beverage is 200ml, 250 ml, 330 ml, 350 ml, or 500 ml, **characterised in that** a second volume (50) is defined in the container body between the first lid (32) and the second lid (34),

wherein the ratio of said first volume (40) to said second volume (50) is between approximately 0.8 and approximately 3.15,

wherein the first lid (32) comprises an annular skirt portion (39) extending downwardly, said skirt portion having said second threads (36) on its external circumference.

2. A beverage container (10) according to claim 1 containing a carbonated drink in the first volume (40).
3. A beverage container (10) according to claim 1 or 2, wherein when the stopper (30) is secured to the container body (20), the second volume (50) is large enough for containing liquor and/or a plurality of ice cubes.
4. A beverage container (10) according to any of claims 1 - 3, wherein said second lid (34) is in sealing contact with the rim of the opening (24) of the container body (20) when the stopper (30) is secured to the container body.
5. A beverage container (10) according to any previous

claim, wherein the stopper (30) comprises a gasket ring (31) and the container body comprises a corresponding sealing flange (21), such that when the stopper (30) is secured to the container body (20) the gasket ring (31) is in sealing contact with the sealing flange (21) of the container body (10) in such a way as to seal the first volume (40).

6. A beverage container according to claim 5, wherein a gasket ring (31) is arranged at or near the first lid (32) and/or wherein the gasket ring (31) is integrally formed with the first lid (32).

7. A beverage container according to any of claims 1 - 6, wherein the second volume (50) between the opening (24) of the container body and the first threads (26) is at least approximately 150 ml.

8. A beverage container according to any of claims 1 - 7, wherein the ratio of said first volume (40) to said second volume (50) is between approximately 1.1 and approximately 1.7.

9. A stopper for use in the beverage container of any of claims 1 - 8.

### Patentansprüche

1. Ein Getränkebehälter (10) mit einem Behälterkörper (20) und einem Stopfen (30) zum Verschließen der Öffnung (24) des Behälterkörpers, wobei

der Behälterkörper (20) eine Wand aufweist, die sich zwischen einem Boden (22) und einer Weithalsöffnung (24) erstreckt, wobei die Innenwand des Behälterkörpers ein erste Gewinde (26) aufweist, mit denen der Stopfen (30) lösbar am Behälterkörper (20) befestigt werden kann, wobei der Stopfen (30) einen ersten Deckel (32) und einen zweiten Deckel (34), der mit dem ersten Deckel über einen zentralen Schaft (33) und/oder eine zylindrische Wand (35) verbunden ist, und ein zweites Gewinde (36) zum Zusammenpassen mit dem ersten Gewinde (26) umfasst, derart dass,

wenn der Stopfen (30) an dem Behälterkörper (20) befestigt ist, ein erstes Volumen (40) in dem Behälterkörper (20) zwischen dem Boden (22) des Behälterkörpers und dem ersten Deckel (32) definiert ist und ein zweites Volumen (50) in dem Behälterkörper zwischen dem ersten Deckel (32) und dem zweiten Deckel (34) definiert ist, **dadurch gekennzeichnet, dass**

das erste Volumen (40) geringfügig größer ist als eine vordefinierte Menge eines in dem Getränkebehälter zu lagernden Getränks, und wobei die vordefinierte Getränkemenge 200 ml,

- 250 ml, 330 ml, 350 ml oder 500 ml beträgt, wobei das Verhältnis des ersten Volumens (40) zum zweiten Volumen (50) zwischen etwa 0,8 und etwa 3,15 liegt, wobei der erste Deckel (32) einen sich nach unten erstreckenden ringförmigen Rockabschnitt (39) aufweist, der an seinem Außenumfang ein Gewinde (36) zum Zusammenpassen mit dem ersten Gewinde (26) aufweist.
2. Ein Getränkebehälter (10) nach Anspruch 1, der ein kohlenensäurehaltiges Getränk in dem ersten Volumen (40) enthält.
  3. Getränkebehälter (10) nach Anspruch 1 oder 2, wobei, wenn der Stopfen (30) am Behälterkörper (20) befestigt ist, das zweite Volumen (50) groß genug ist, um Spirituosen und/oder eine Vielzahl von Eiswürfeln aufzunehmen.
  4. Getränkebehälter (10) nach einem der Ansprüche 1 bis 3, wobei der zweite Deckel (34) in dichtendem Kontakt mit dem Rand der Öffnung (24) des Behälterkörpers (20) steht, wenn der Stopfen (30) am Behälterkörper befestigt ist.
  5. Getränkebehälter (10) nach einem der vorhergehenden Ansprüche, wobei der Stopfen (30) einen Dichtungsring (31) und der Behälterkörper einen entsprechenden Dichtungsflansch (21) aufweist, so dass, wenn der Stopfen (30) am Behälterkörper (20) befestigt ist, der Dichtungsring (31) in abdichtendem Kontakt mit dem Dichtungsflansch (21) des Behälterkörpers (10) steht, so dass das erste Volumen (40) abgedichtet wird.
  6. Getränkebehälter nach Anspruch 5, wobei ein Dichtungsring (31) am oder in der Nähe des ersten Deckels (32) angeordnet ist und/oder wobei der Dichtungsring (31) einstückig mit dem ersten Deckel (32) ausgebildet ist.
  7. Getränkebehälter nach einem der Ansprüche 1 bis 6, wobei das zweite Volumen (50) zwischen der Öffnung (24) des Behälterkörpers und dem ersten Befestigungsmittel (26) mindestens etwa 150 ml beträgt.
  8. Getränkebehälter nach einem der Ansprüche 1 bis 7, wobei das Verhältnis des ersten Volumens (40) zu dem zweiten Volumen (50) zwischen etwa 1,1 und etwa 1,7 liegt.
  9. Ein Stopfen zur Verwendung in einem Getränkebehälter nach einem der Ansprüche 1 bis 8.

## Revendications

1. Un récipient pour boissons (10) comprenant un corps de récipient (20) et un bouchon (30) pour fermer l'ouverture (24) du corps de récipient,
 

le corps du récipient (20) a une paroi s'étendant entre un fond (22) et une ouverture à col large (24), la paroi intérieure du corps du récipient comprenant des premiers filets (26) par lesquels le bouchon (30) peut être fixé de manière amovible au corps du récipient (20), le bouchon (30) comprenant un premier couvercle (32) et un second couvercle (34) relié au premier couvercle par un arbre central (33) et/ou une paroi cylindrique (35), et des seconds filets (36) pour s'accoupler avec les premiers filets (26) de telle manière que, lorsque le bouchon (30) est fixé au corps du récipient (20), un premier volume (40) est défini dans le corps du récipient (20) entre le fond (22) du corps du récipient et le premier couvercle (32) et un second volume (50) est défini dans le corps du récipient entre le premier couvercle (32) et le second couvercle (34), **caractérisé en ce que** le premier volume (40) est légèrement supérieur à une quantité prédéfinie de boisson à stocker dans le conteneur de boisson et dans lequel ladite quantité prédéfinie de boisson est de 200 ml, 250 ml, 330 ml, 350 ml ou 500 ml, dans lequel le rapport entre le premier volume (40) et le second volume (50) est compris entre environ 0,8 et environ 3,15, dans lequel le premier couvercle (32) comprend une portion de jupe annulaire (39) s'étendant vers le bas, ladite portion de jupe ayant des filets (36) sur sa circonférence externe pour s'accoupler avec les premiers filets (26).
2. Récipient à boisson (10) selon la revendication 1, contenant une boisson gazeuse dans le premier volume (40).
3. Récipient à boisson (10) selon la revendication 1 ou 2, dans lequel, lorsque le bouchon (30) est fixé au corps du récipient (20), le second volume (50) est suffisamment grand pour contenir de la liqueur et/ou une pluralité de glaçons.
4. Récipient pour boisson (10) selon l'une des revendications 1 à 3, dans lequel le second couvercle (34) est en contact étanche avec le bord de l'ouverture (24) du corps du récipient (20) lorsque le bouchon (30) est fixé au corps du récipient.
5. Récipient à boisson (10) selon l'une quelconque des revendications précédentes, dans lequel le bouchon



(30) comprend un anneau de joint (31) et le corps du récipient comprend une bride d'étanchéité correspondante (21), de sorte que lorsque le bouchon (30) est fixé au corps du récipient (20), l'anneau de joint (31) est en contact étanche avec la bride d'étanchéité (21) du corps du récipient (10) de manière à fermer hermétiquement le premier volume (40). 5

6. Récipient à boisson selon la revendication 5, dans lequel un anneau de joint (31) est disposé sur ou près du premier couvercle (32) et/ou dans lequel l'anneau de joint (31) est formé d'une seule pièce avec le premier couvercle (32). 10
7. Récipient à boisson selon l'une des revendications 1 à 6, dans lequel le second volume (50) entre l'ouverture (24) du corps du récipient et le premier moyen de fixation (26) est d'au moins 150 ml environ. 15
8. Récipient à boisson selon l'une des revendications 1 à 8, dans lequel le rapport entre le premier volume (40) et le second volume (50) est compris entre environ 1,1 et environ 1,7. 20
9. Bouchon à utiliser dans le récipient de boisson de l'une des revendications 1 à 9. 25

30

35

40

45

50

55

FIG.1a

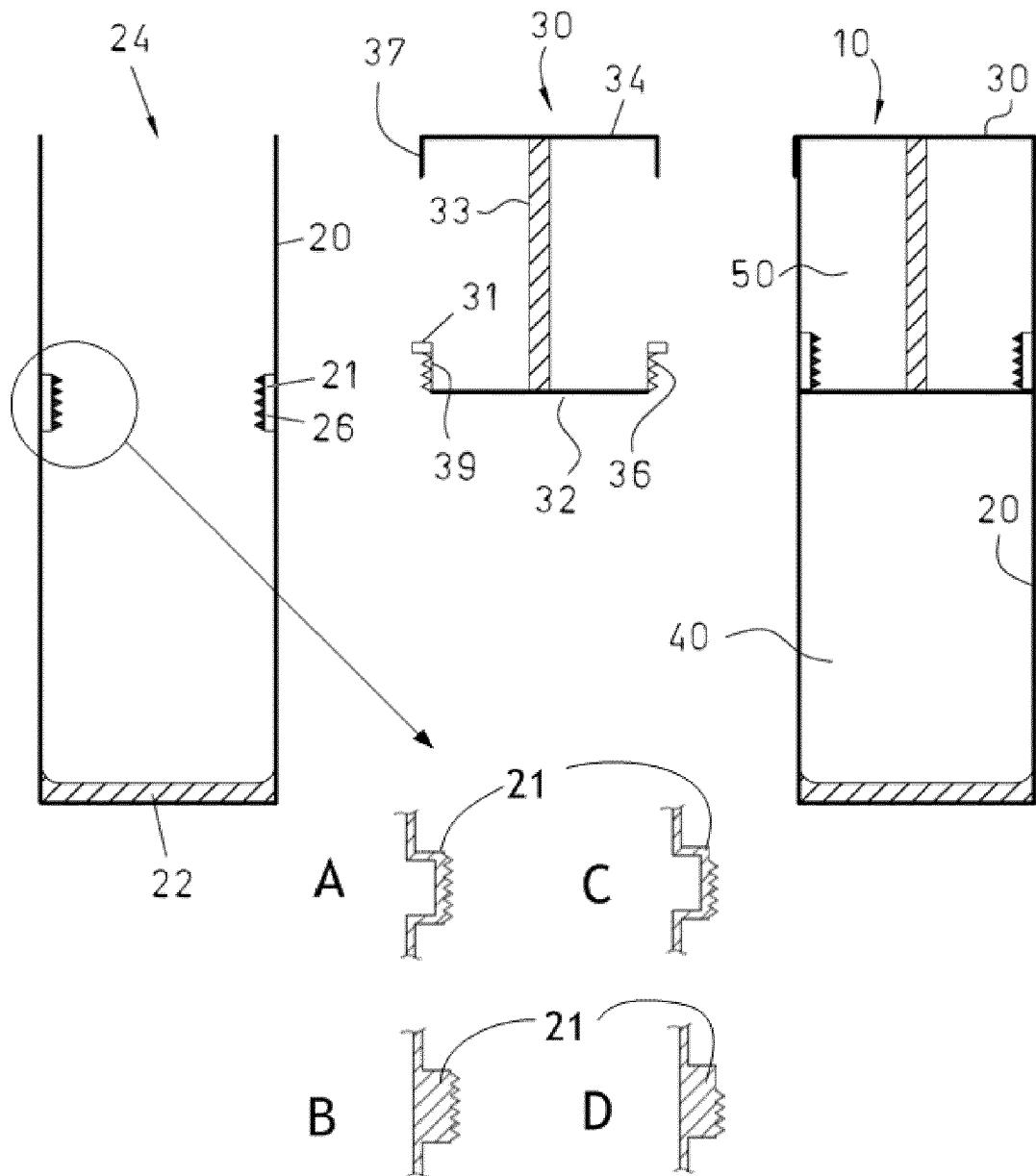


FIG.1b

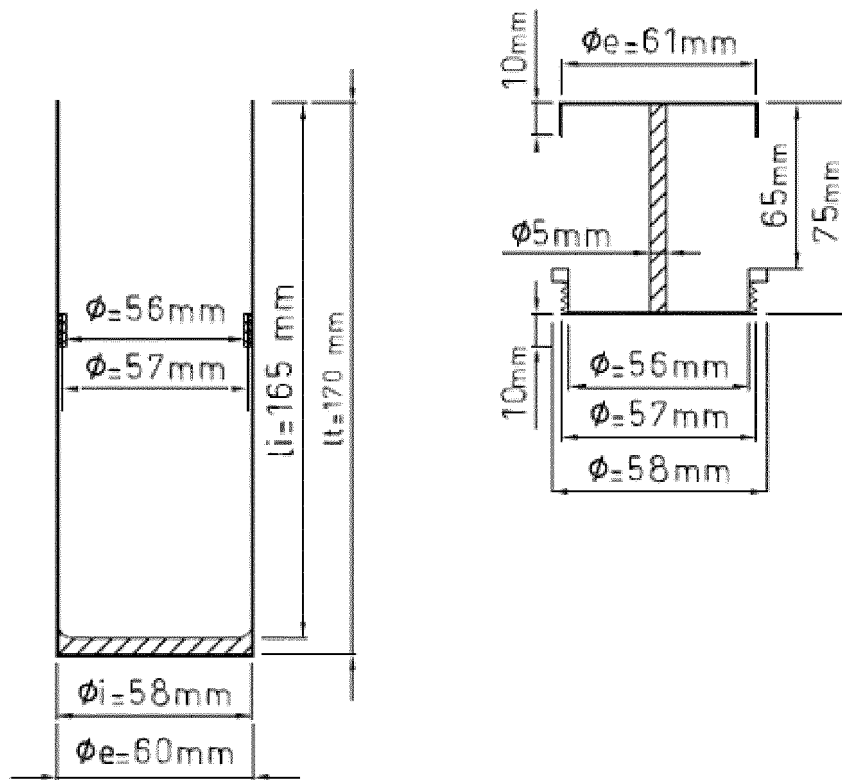


FIG.1c

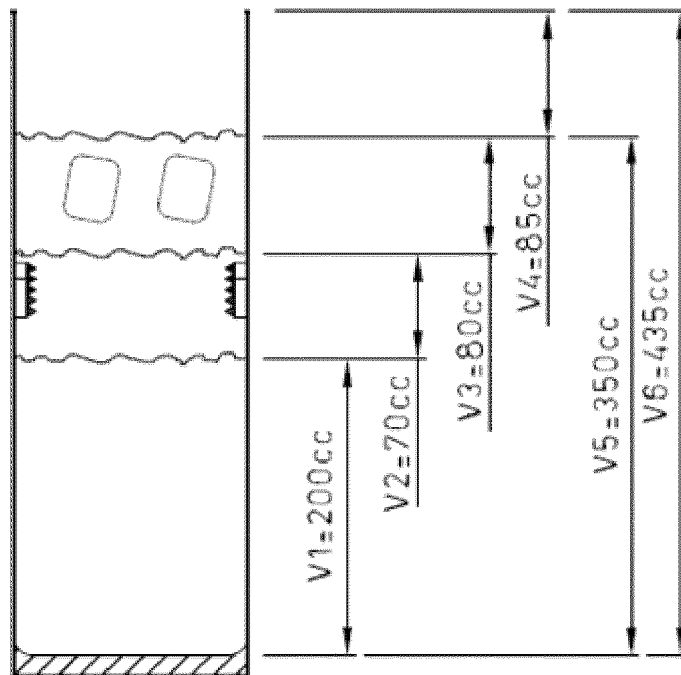


FIG.1d

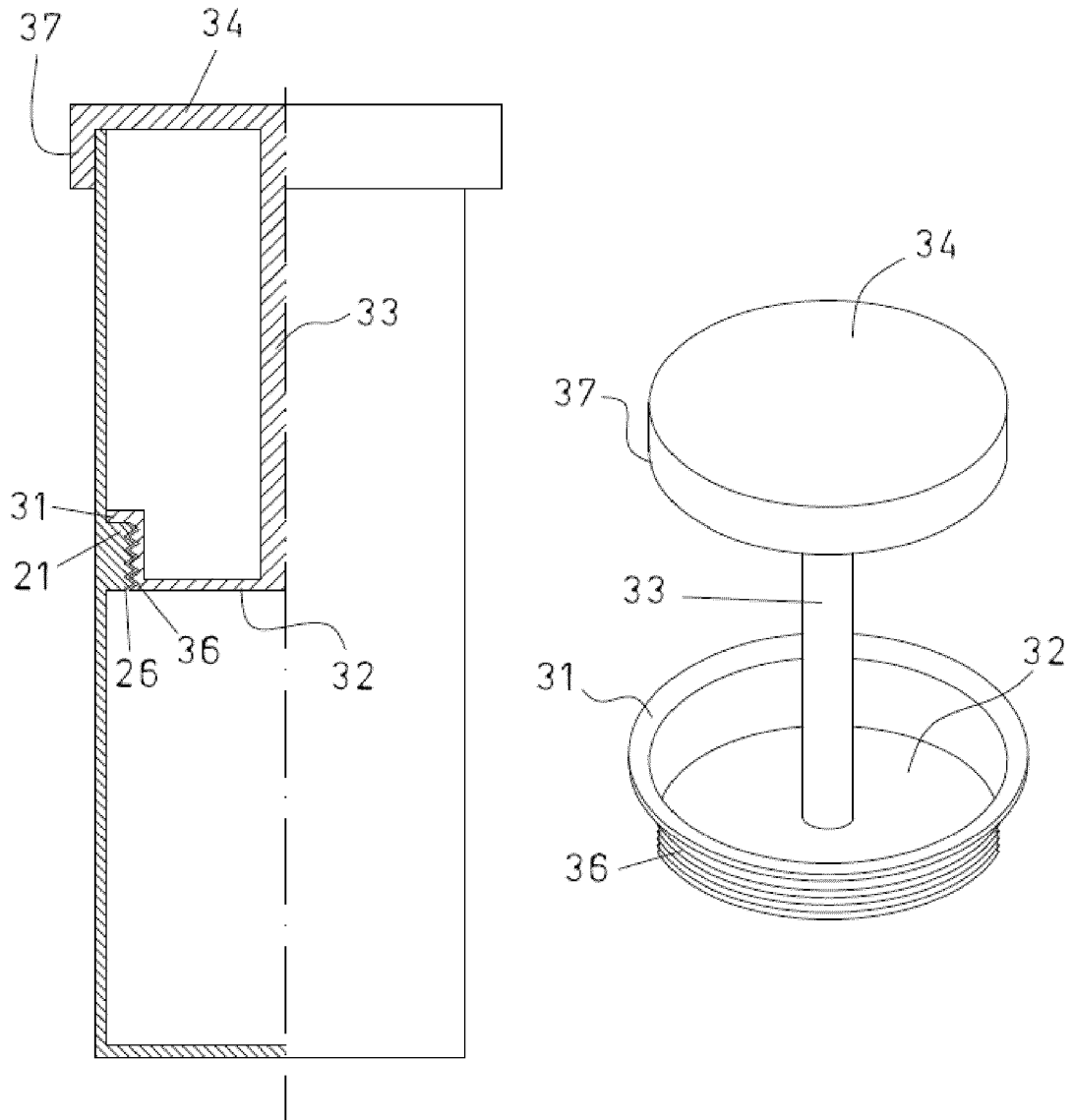


FIG.2a

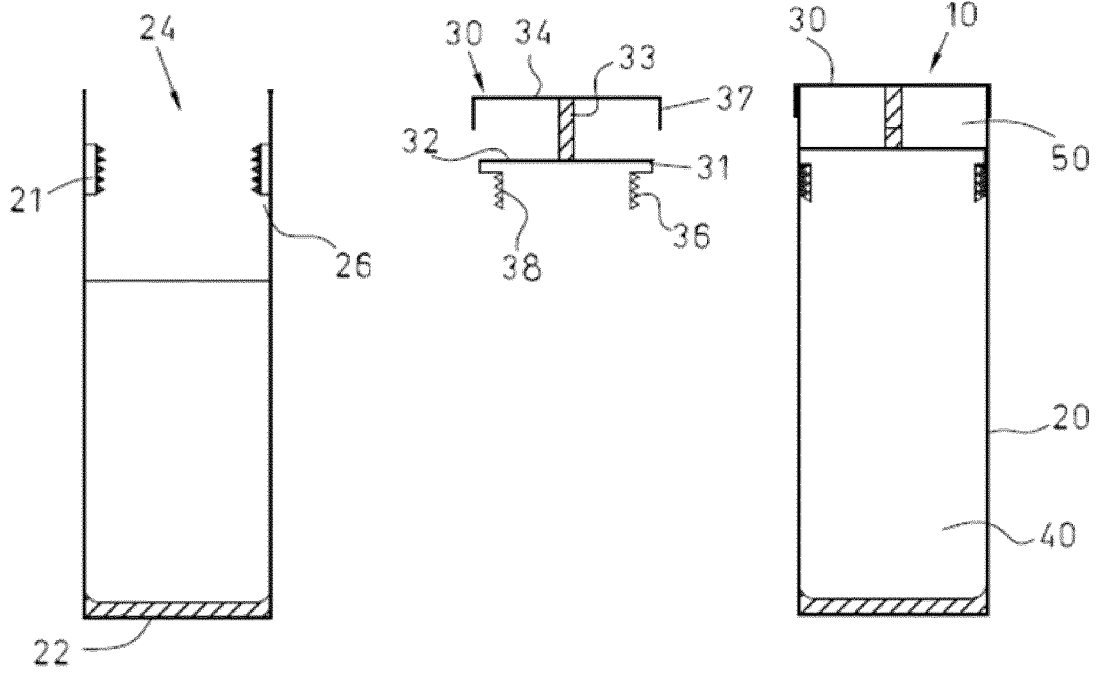


FIG.2b

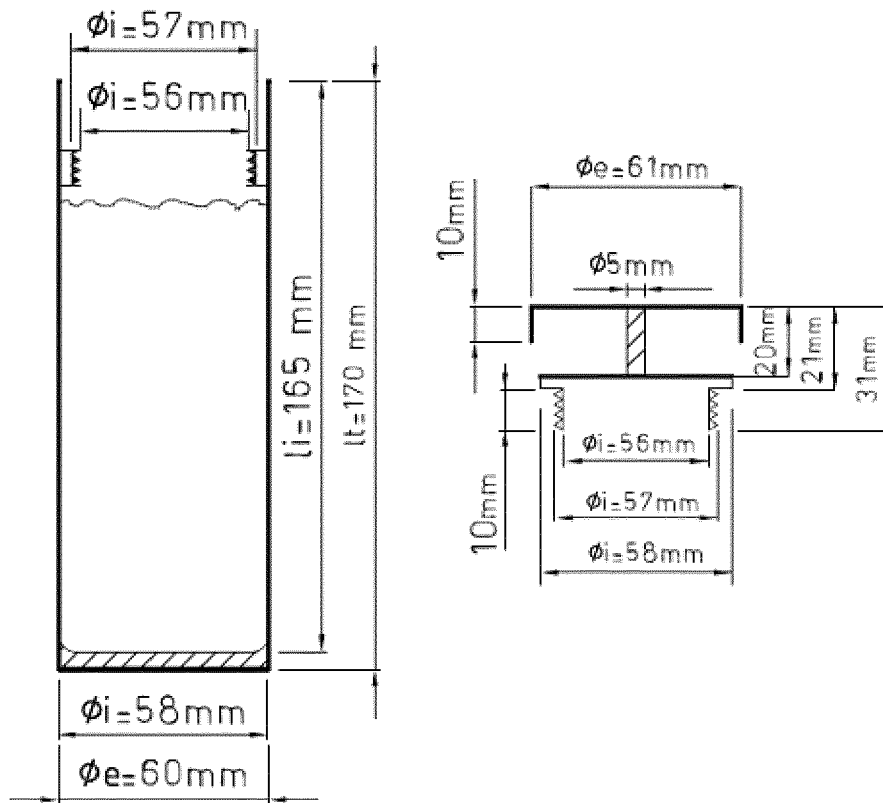


FIG.2c

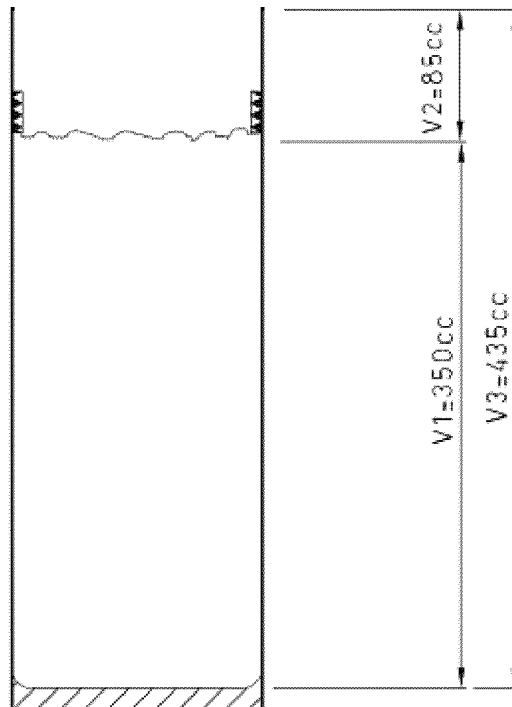


FIG.2d

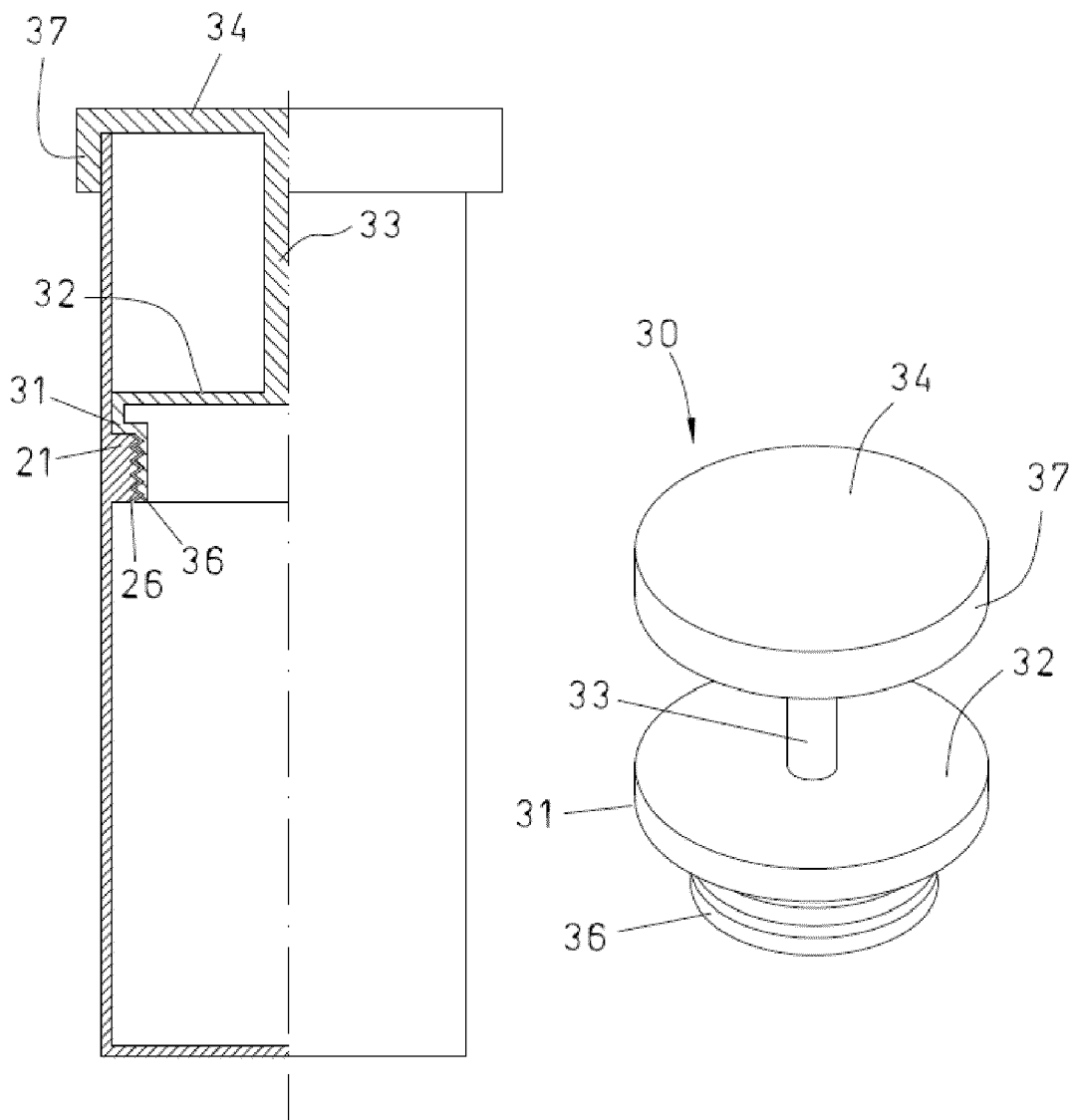


FIG. 3a

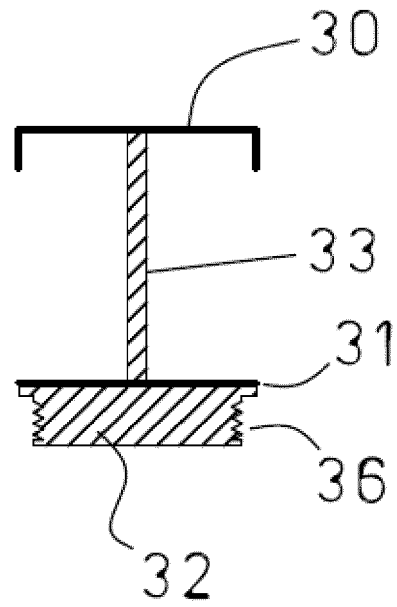


FIG. 3b

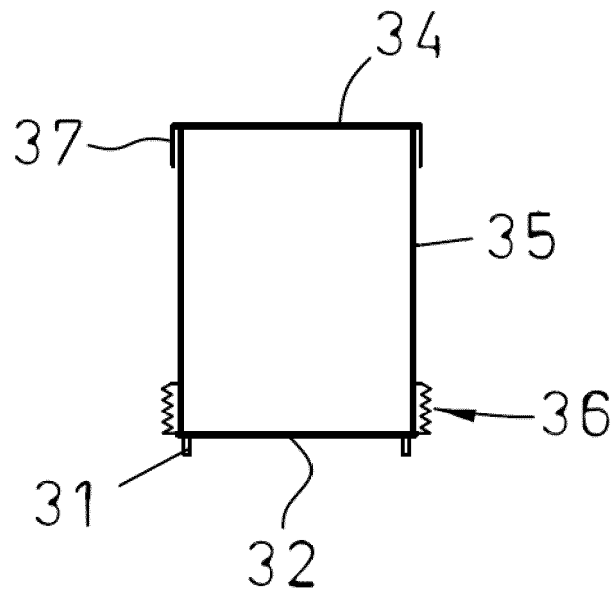




FIG. 3c

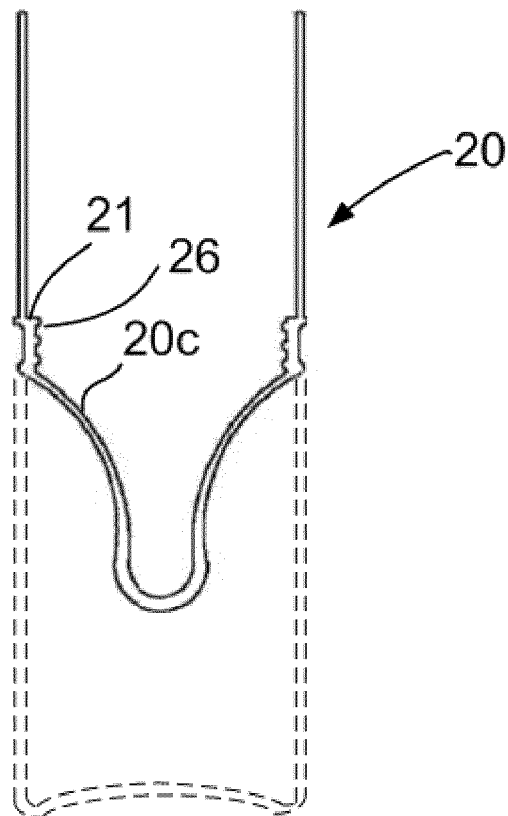
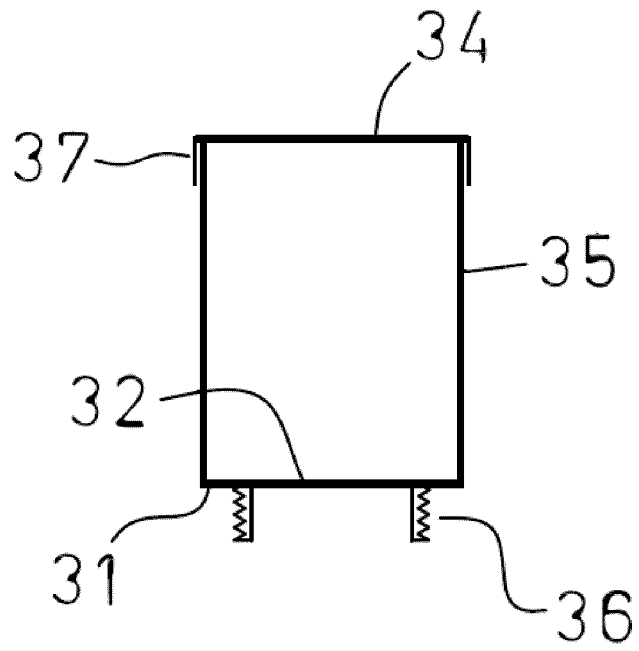


Figure 4a

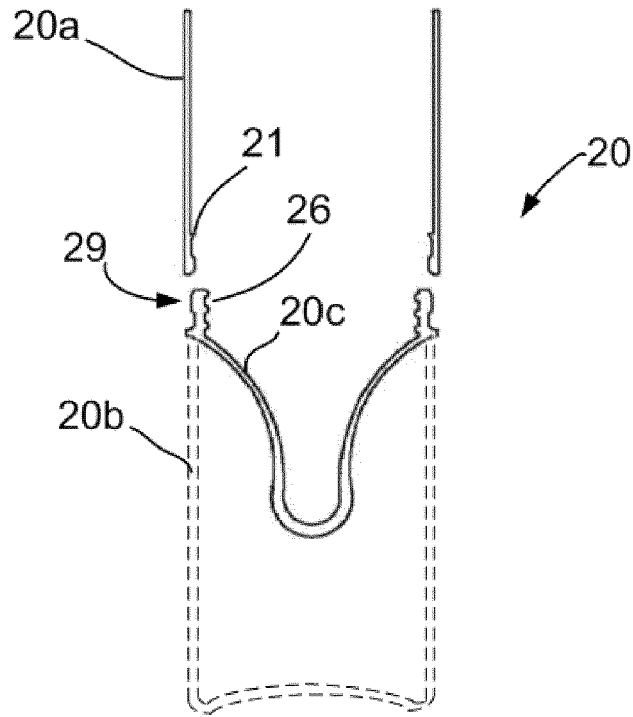


Figure 4b

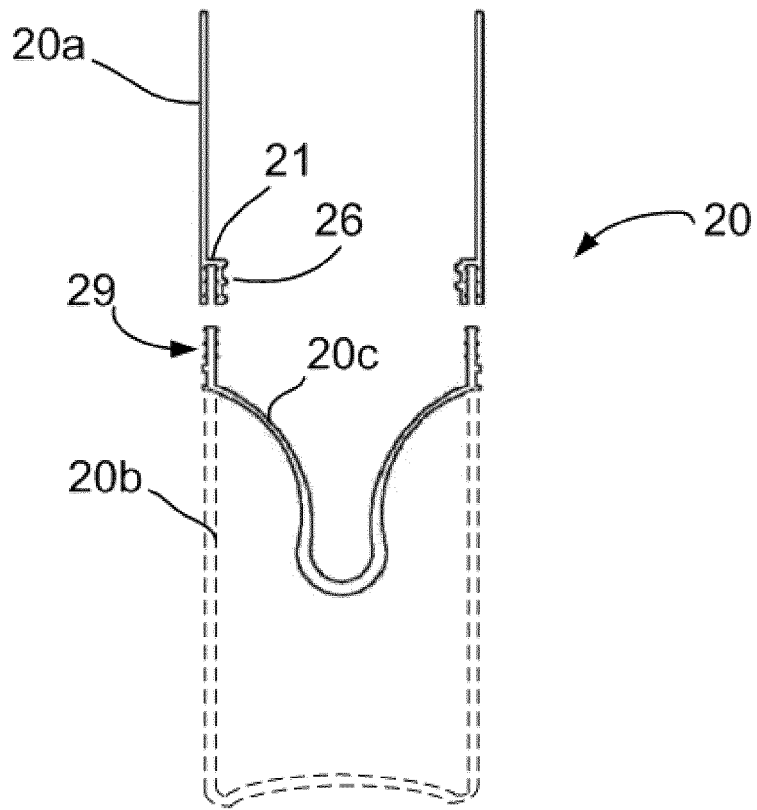


Figure 4c

**REFERENCES CITED IN THE DESCRIPTION**

*This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.*

**Patent documents cited in the description**

- US 20100133285 A [0005]
- US 5207341 A [0006]
- GB 2417240 A [0006]
- US 20080257849 A [0007]