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(54) Beverage bottle having straining function

(57) A beverage bottle includes a lower container (31), and an upper container (30) detachably mounted on the lower container. The lower container includes a lower bottle body (310). The upper container includes an upper bottle body (301) and a strainer (302) secured on the upper bottle body and detachably mounted on the lower bottle body of the lower container. Thus, when the water (40) is poured outwardly from the upper bottle body of the upper container, the solid beverage item (42) is stopped by the strainer of the upper container to prevent the beverage item from being dropped outwardly from the upper bottle body of the upper container to facilitate the user drinking the water.

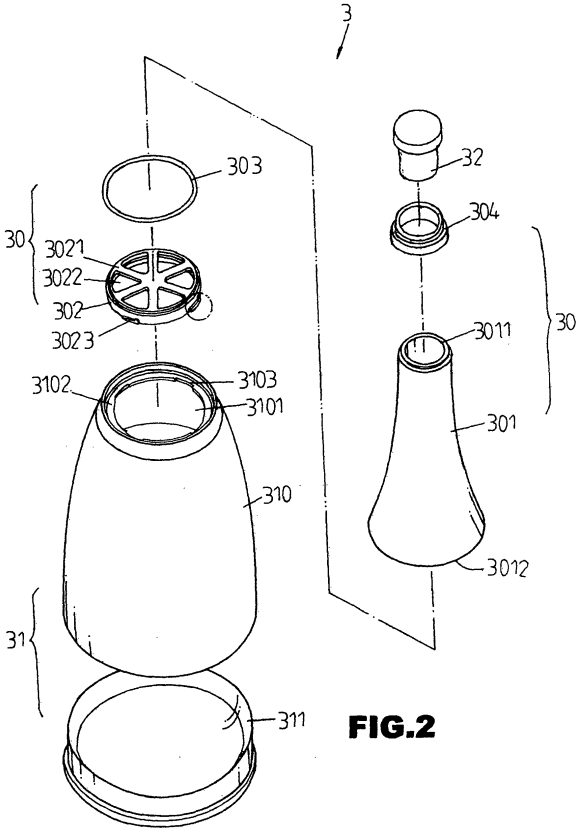

FIG.2

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Description

[0001] The present invention relates to a bottle and, more particularly, to a beverage bottle containing a beverage item, such as a fruit piece, tea bag and the like.

[0002] A conventional beverage bottle or kettle in accordance with the prior art shown in Fig. 6 comprises a hollow body 1, a mouth 10 mounted on a side of the body 1, and a lid 11 mounted on an open top of the body 1. The body 1 is used to receive water and a beverage item 2, such as a fruit piece, tea bag and the like. Thus, after the lid 11 is removed from the open top of the body 1, the beverage item 2 is placed into the body 1 and the water is poured into the body 1 to mix with the water to form beverage. However, when the water is poured outwardly from the mouth 10 for use with a user, the beverage item 2 easily blocks and chokes the channel between the mouth 10 and the body 1, thereby causing inconvenience to the user when drinking the beverage.

[0003] In accordance with the present invention, there is provided a beverage bottle, comprising a lower container, and an upper container having a lower end detachably mounted on an upper end of the lower container.

[0004] The primary objective of the present invention is to provide a beverage bottle having straining function.

[0005] Another objective of the present invention is to provide a beverage bottle, wherein when the water is poured outwardly from the upper bottle body of the upper container, the solid beverage item is stopped by the strainer of the upper container to prevent the beverage item from being dropped outwardly from the upper bottle body of the upper container to facilitate the user drinking the water.

[0006] A further objective of the present invention is to provide a beverage bottle, wherein the upper bottle body of the upper container can be removed from the lower bottle body of the lower container to facilitate the user placing the beverage item into the lower bottle body of the lower container

[0007] A further objective of the present invention is to provide a beverage bottle, wherein the user only needs to rotate the upper bottle body of the upper container relative to the lower bottle body of the lower container to combine or detach the upper bottle body of the upper container and the lower bottle body of the lower container, thereby facilitating the user assembling and disassembling the beverage bottle.

[0008] A further objective of the present invention is to provide a beverage bottle, wherein each of the locking blocks of the strainer has a distal end provided with a guide ramp to guide movement of each of the locking blocks of the strainer relative to the respective locking groove of the stop flange so that each of the locking blocks of the strainer is inserted into and locked in the respective locking groove of the stop flange easily and quickly.

[0009] A further objective of the present invention is to provide a beverage bottle, wherein the O-ring of the upper container provides an air-tight effect between the upper bottle body of the upper container and the lower bottle body of the lower container to prevent from incurring a leakage.

[0010] Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

[0011] In the drawings:

Fig. 1 is a perspective view of a beverage bottle in accordance with the preferred embodiment of the present invention.

Fig. 2 is an exploded perspective view of the beverage bottle as shown in Fig. 1.

Fig. 3 is a locally perspective enlarged view of a locking block of the beverage bottle as shown in Fig. 2.

Fig. 4 is a front cross-sectional view of the beverage bottle as shown in Fig. 1.

Fig. 5 is a partially exploded perspective view of the beverage bottle as shown in Fig. 1.

Fig. 6 is a perspective view of a conventional beverage bottle in accordance with the prior art.

[0012] Referring to the drawings and initially to Figs. 1-4, a beverage bottle 3 in accordance with the preferred embodiment of the present invention comprises a lower container 31, an upper container 30 having a lower end detachably mounted on an upper end of the lower container 31, and a cork 32 removably mounted on an upper end of the upper container 30.

[0013] The lower container 31 includes a lower bottle body 310, and a bottom cap 311 mounted on a lower end of the lower bottle body 310. The upper end of the lower bottle body 310 of the lower container 31 is provided with an opening 3101 and has an inner wall provided with a radially and inwardly extending stop flange 3102. The stop flange 3102 of the lower bottle body 310 extends into the opening 3101 and has a peripheral wall provided with a plurality of locking grooves 3103 each connected to the opening 3101. The lower end of the lower bottle body 310 is provided with an open receiving recess 3100 to receive the bottom cap 311. The receiving recess 3100 of the lower bottle body 310 has a stepped shape, and the bottom cap 311 is fully hidden in and secured in the receiving recess 3100 of the lower bottle body 310 by bonding.

[0014] The upper container 30 includes an upper bottle body 301 located above the lower bottle body 310 of the lower container 31, a strainer 302 secured on the lower end of the upper bottle body 301 and detachably mounted on the upper end of the lower bottle body 310 of the lower container 31, an O-ring 303 mounted between the lower end of the upper bottle body 301 and the strainer 302, and a mouth 304 mounted on the upper end of the upper bottle body 301 for mounting the cork 32.

[0015] The lower end of the upper bottle body 301 of the upper container 30 is provided with an open mounting

hole 3012. The upper end of the upper bottle body 301 of the upper container 30 is provided with a reduced protruding edge 3011 for mounting the mouth 304 of the upper container 30.

[0016] The strainer 302 of the upper container 30 is located between the lower end of the upper bottle body 301 and the upper end of the lower bottle body 310 of the lower container 31 and has an inside provided with a plurality of straining holes 3022 each connected between the opening 3101 of the lower bottle body 310 and the mounting hole 3012 of the upper bottle body 301. The strainer 302 of the upper container 30 has a top provided with a protruding shoulder 3021 inserted into and secured in the mounting hole 3012 of the upper bottle body 301 by bonding. The protruding shoulder 3021 of the strainer 302 has a stepped shape. The strainer 302 of the upper container 30 has a peripheral wall provided with a plurality of locking blocks 3023 each detachably locked in a respective one of the locking grooves 3103 of the stop flange 3102 of the lower bottle body 310 to attach the strainer 302 of the upper container 30 to the lower bottle body 310 of the lower container 31. Each of the locking blocks 3023 of the strainer 302 has a distal end provided with a guide ramp 3024 to guide movement of each of the locking blocks 3023 of the strainer 302 relative to the respective locking groove 3103 of the stop flange 3102 so that each of the locking blocks 3023 of the strainer 302 is inserted into and locked in the respective locking groove 3103 of the stop flange 3102 easily and quickly.

[0017] The O-ring 303 of the upper container 30 is mounted around the peripheral wall of the strainer 302 and is located between the protruding shoulder 3021 and the locking blocks 3023 of the strainer 302. Preferably, the O-ring 303 of the upper container 30 is biased between the mounting hole 3012 of the upper bottle body 301, the protruding shoulder 3021 of the strainer 302 and the stop flange 3102 of the lower bottle body 310 to provide an air-tight effect between the upper bottle body 301 of the upper container 30 and the lower bottle body 310 of the lower container 31.

[0018] The mouth 304 of the upper container 30 has a lower end secured on the protruding edge 3011 of the upper bottle body 301 by bonding.

[0019] The cork 32 has an upper portion mounted on an upper end of the mouth 304 and a reduced lower portion inserted into the mouth 304 of the upper container 30.

[0020] In assembly, after each of the locking blocks 3023 of the strainer 302 is aligned with and extended into the respective locking groove 3103 of the stop flange 3102, the upper bottle body 301 of the upper container 30 is rotated relative to the lower bottle body 310 of the lower container 31, so that each of the locking blocks 3023 of the strainer 302 is inserted into and locked in the respective locking groove 3103 of the stop flange 3102 by guidance of the guide ramp 3024 to lock the upper bottle body 301 of the upper container 30 onto the lower bottle body 310 of the lower container 31. Thus, the upper container 30 is combined with the lower container 31 to construct the beverage bottle 3 as shown in Fig. 1.

[0021] When in use, referring to Fig. 5 with reference to Figs. 1-4, the upper bottle body 301 of the upper container 30 is rotated relative to the lower bottle body 310 of the lower container 31 in the opposite direction, so that each of the locking blocks 3023 of the strainer 302 is detached from the respective locking groove 3103 of the stop flange 3102 to unlock the upper bottle body 301 of the upper container 30 from the lower bottle body 310 of the lower container 31. Thus, the upper bottle body 301 of the upper container 30 can be removed from the lower bottle body 310 of the lower container 31 as shown in Fig. 5. In such a manner, water 40 can be poured into the lower bottle body 310 of the lower container 31, and a beverage item 42, such as a fruit piece, tea bag and the like, can also be dropped into the lower bottle body 310 of the lower container 31.

[0022] After the water 40 and the beverage item 42 are received in the lower bottle body 310 of the lower container 31, the upper bottle body 301 of the upper container 30 is rotated relative to the lower bottle body 310 of the lower container 31, so that each of the locking blocks 3023 of the strainer 302 is inserted into and locked in the respective locking groove 3103 of the stop flange 3102 by guidance of the guide ramp 3024 to lock the upper bottle body 301 of the upper container 30 onto the lower bottle body 310 of the lower container 31 as shown in Fig. 1.

[0023] In such a manner, when the beverage bottle 3 is drunk by a user, the water 40 in the lower bottle body 310 of the lower container 31 in turn flows through the straining holes 3022 of the strainer 302 and the upper bottle body 301 of the upper container 30 and is poured outwardly from the mouth 304 of the upper container 30 for use with the user, while the beverage item 42 is stopped by the strainer 302 of the upper container 30 to prevent the beverage item 42 from being dropped outwardly from the upper bottle body 301 of the upper container 30.

[0024] Accordingly, when the water 40 is poured outwardly from the upper bottle body 301 of the upper container 30, the solid beverage item 42 is stopped by the strainer 302 of the upper container 30 to prevent the beverage item 42 from being dropped outwardly from the upper bottle body 301 of the upper container 30 to facilitate the user drinking the water. In addition, the upper bottle body 301 of the upper container 30 can be removed from the lower bottle body 310 of the lower container 31 to facilitate the user placing the beverage item 42 into the lower bottle body 310 of the lower container 31. Further, the user only needs to rotate the upper bottle body 301 of the upper container 30 relative to the lower bottle body 310 of the lower container 31 to combine or detach the upper bottle body 301 of the upper container 30 and the lower bottle body 310 of the lower container 31, thereby facilitating the user assembling and disassembling the beverage bottle 3. Further, each of the locking blocks

3023 of the strainer 302 has a distal end provided with a guide ramp 3024 to guide movement of each of the locking blocks 3023 of the strainer 302 relative to the respective locking groove 3103 of the stop flange 3102 so that each of the locking blocks 3023 of the strainer 302 is inserted into and locked in the respective locking groove 3103 of the stop flange 3102 easily and quickly. Further, the O-ring 303 of the upper container 30 provides an air-tight effect between the upper bottle body 301 of the upper container 30 and the lower bottle body 310 of the lower container 31 to prevent from incurring a leakage.

[0025] Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.

Claims

1. A beverage bottle, comprising:

a lower container;
an upper container having a lower end detachably mounted on an upper end of the lower container.

2. The beverage bottle of claim 1, wherein
the lower container includes a lower bottle body;
the upper container includes:

an upper bottle body located above the lower bottle body of the lower container;
a strainer secured on a lower end of the upper bottle body and detachably mounted on an upper end of the lower bottle body of the lower container.

3. The beverage bottle of claim 2, wherein
the upper end of the lower bottle body of the lower container has an inner wall provided with a radially and inwardly extending stop flange;
the stop flange of the lower bottle body has a peripheral wall provided with a plurality of locking grooves;
the strainer of the upper container has a peripheral wall provided with a plurality of locking blocks each detachably locked in a respective one of the locking grooves of the stop flange of the lower bottle body to attach the strainer of the upper container to the lower bottle body of the lower container.

4. The beverage bottle of claim 3, wherein each of the locking blocks of the strainer has a distal end provided with a guide ramp to guide movement of each of the locking blocks of the strainer relative to the respective locking groove of the stop flange so that each of the locking blocks of the strainer is inserted into and locked in the respective locking groove of the stop flange.

5. The beverage bottle of claim 3, wherein
the upper end of the lower bottle body of the lower container is provided with an opening;
the stop flange of the lower bottle body extends into the opening.

6. The beverage bottle of claim 2, wherein the upper container further includes an O-ring mounted between the lower end of the upper bottle body and the strainer.

7. The beverage bottle of claim 2, wherein the upper container further includes a mouth mounted on the upper end of the upper bottle body for mounting a cork.

8. The beverage bottle of claim 7, wherein the upper end of the upper bottle body of the upper container is provided with a reduced protruding edge for mounting the mouth of the upper container.

9. The beverage bottle of claim 5, wherein
the lower end of the upper bottle body of the upper container is provided with an open mounting hole;
the strainer of the upper container has an inside provided with a plurality of straining holes each connected between the opening of the lower bottle body and the mounting hole of the upper bottle body.

10. The beverage bottle of claim 9, wherein the strainer of the upper container has a top provided with a protruding shoulder inserted into and secured in the mounting hole of the upper bottle body.

11. The beverage bottle of claim 10, wherein
the upper container further includes an O-ring mounted between the lower end of the upper bottle body and the strainer;
the O-ring of the upper container is mounted around the peripheral wall of the strainer and is located between the protruding shoulder and the locking blocks of the strainer.

12. The beverage bottle of claim 2, wherein the strainer of the upper container is located between the lower end of the upper bottle body and the upper end of the lower bottle body of the lower container.

13. The beverage bottle of claim 11, wherein the O-ring of the upper container is biased between the mounting hole of the upper bottle body, the protruding shoulder of the strainer and the stop flange of the lower bottle body to provide an air-tight effect be-

tween the upper bottle body of the upper container and the lower bottle body of the lower container.

14. The beverage bottle of claim 8, wherein the mouth of the upper container has a lower end secured on the protruding edge of the upper bottle body.

15. The beverage bottle of claim 7, wherein the cork has an upper portion mounted on an upper end of the mouth and a reduced lower portion inserted into the mouth of the upper container.

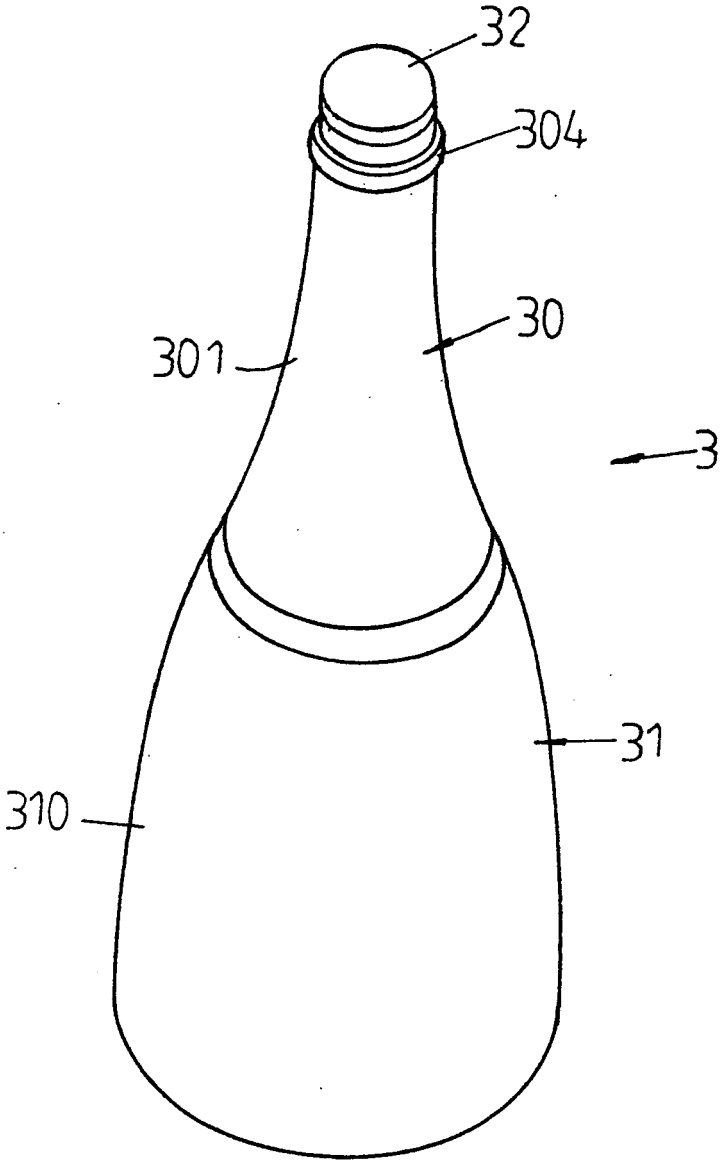

FIG.1

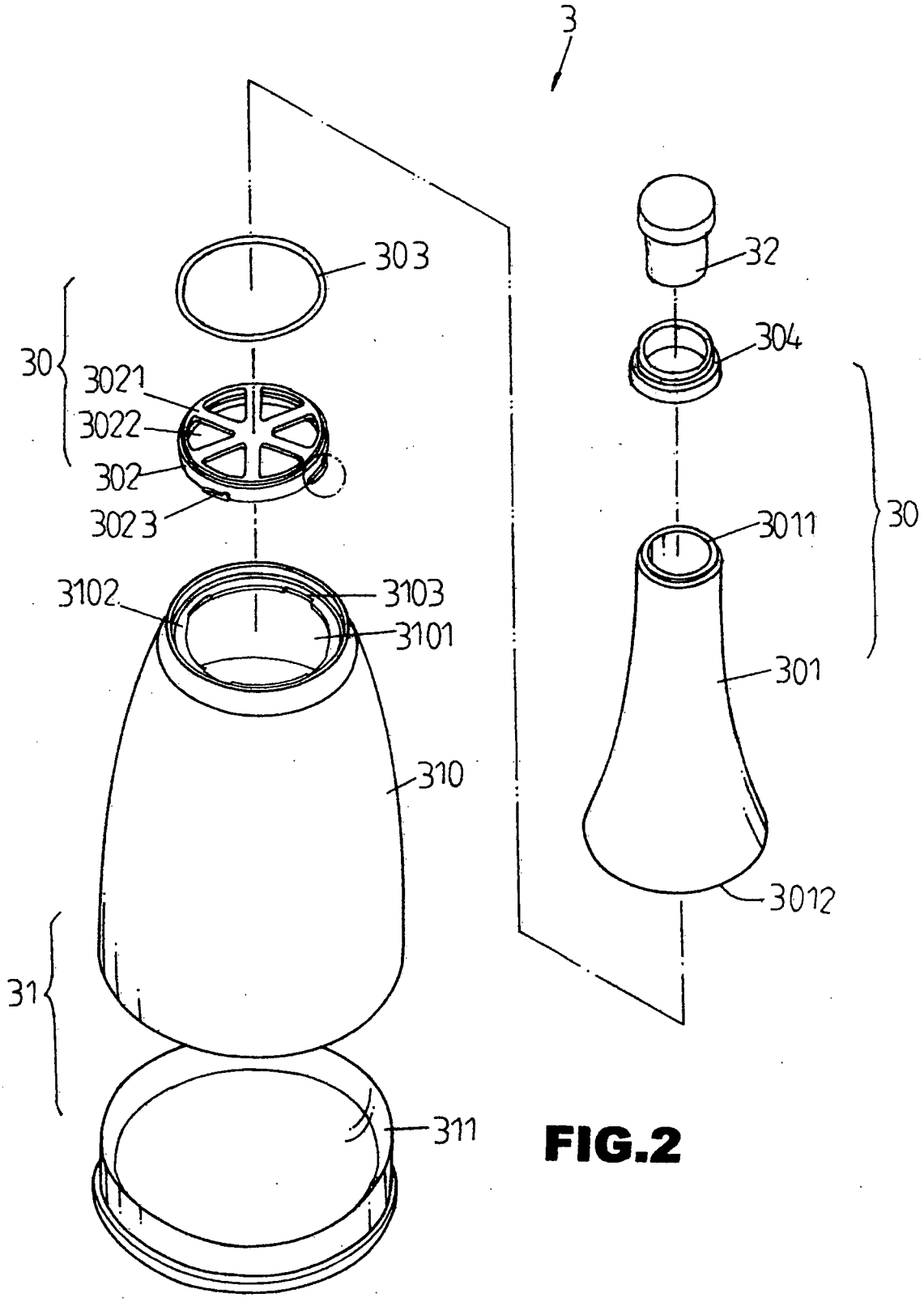
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FIG.2

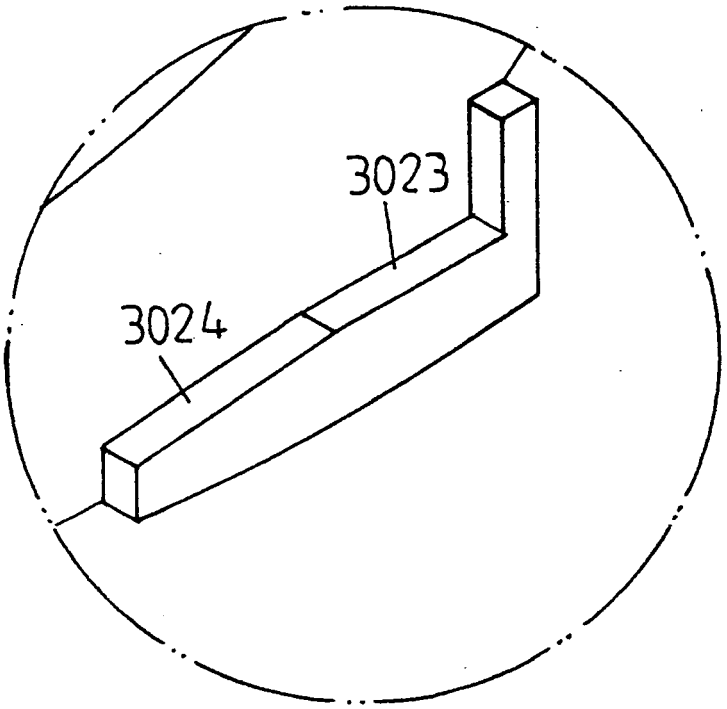

FIG.3

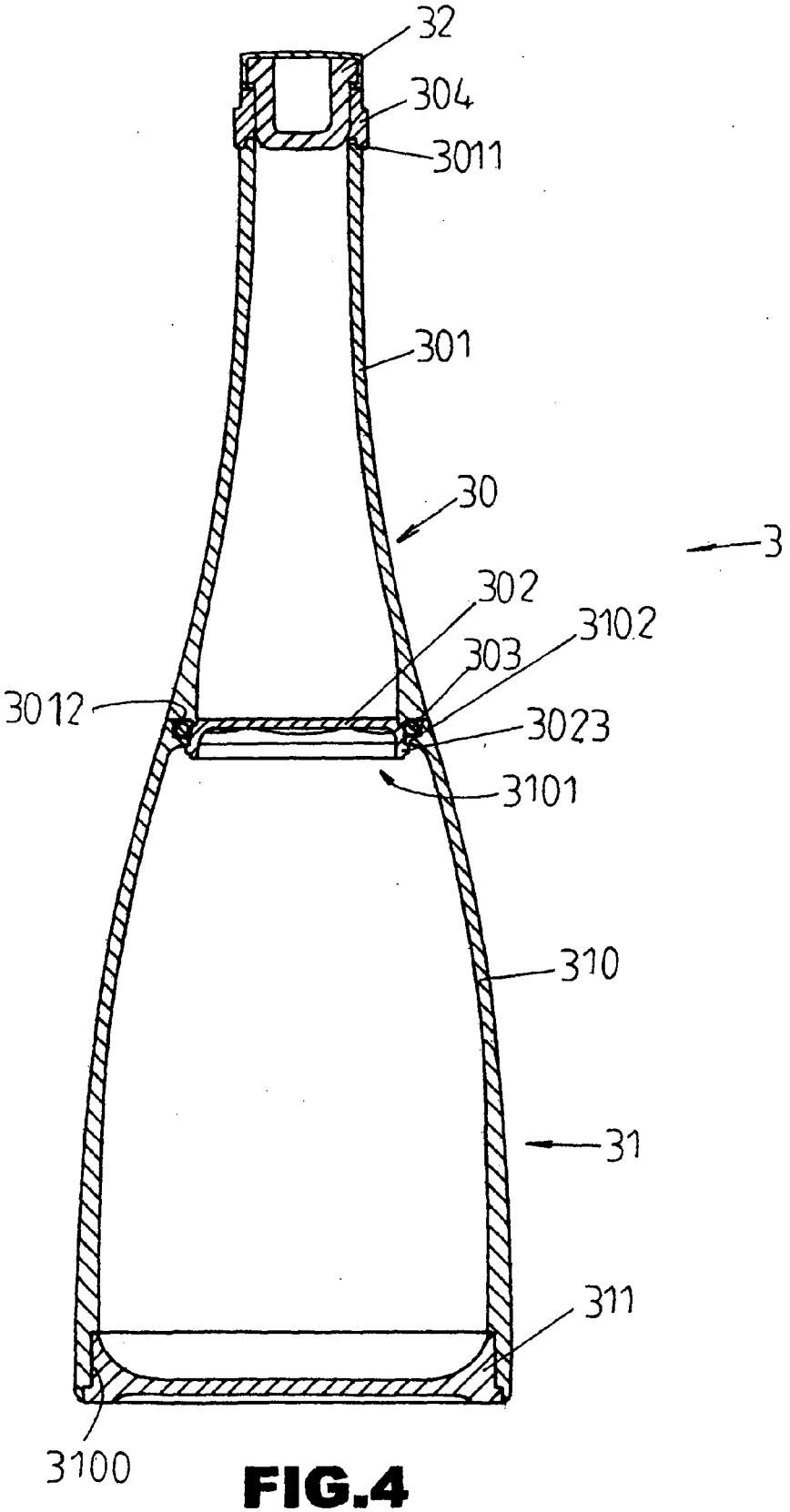

FIG.4

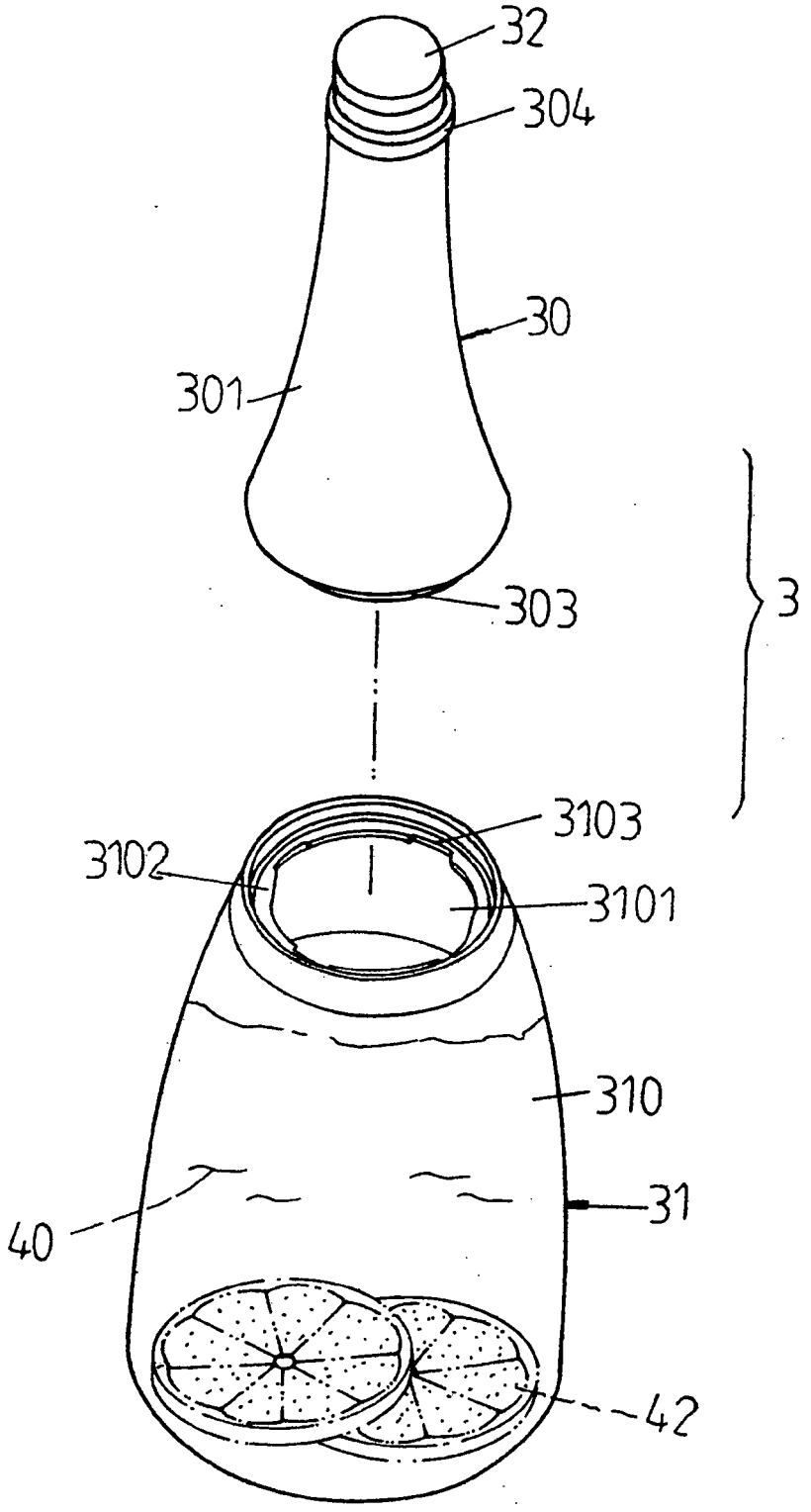

FIG.5

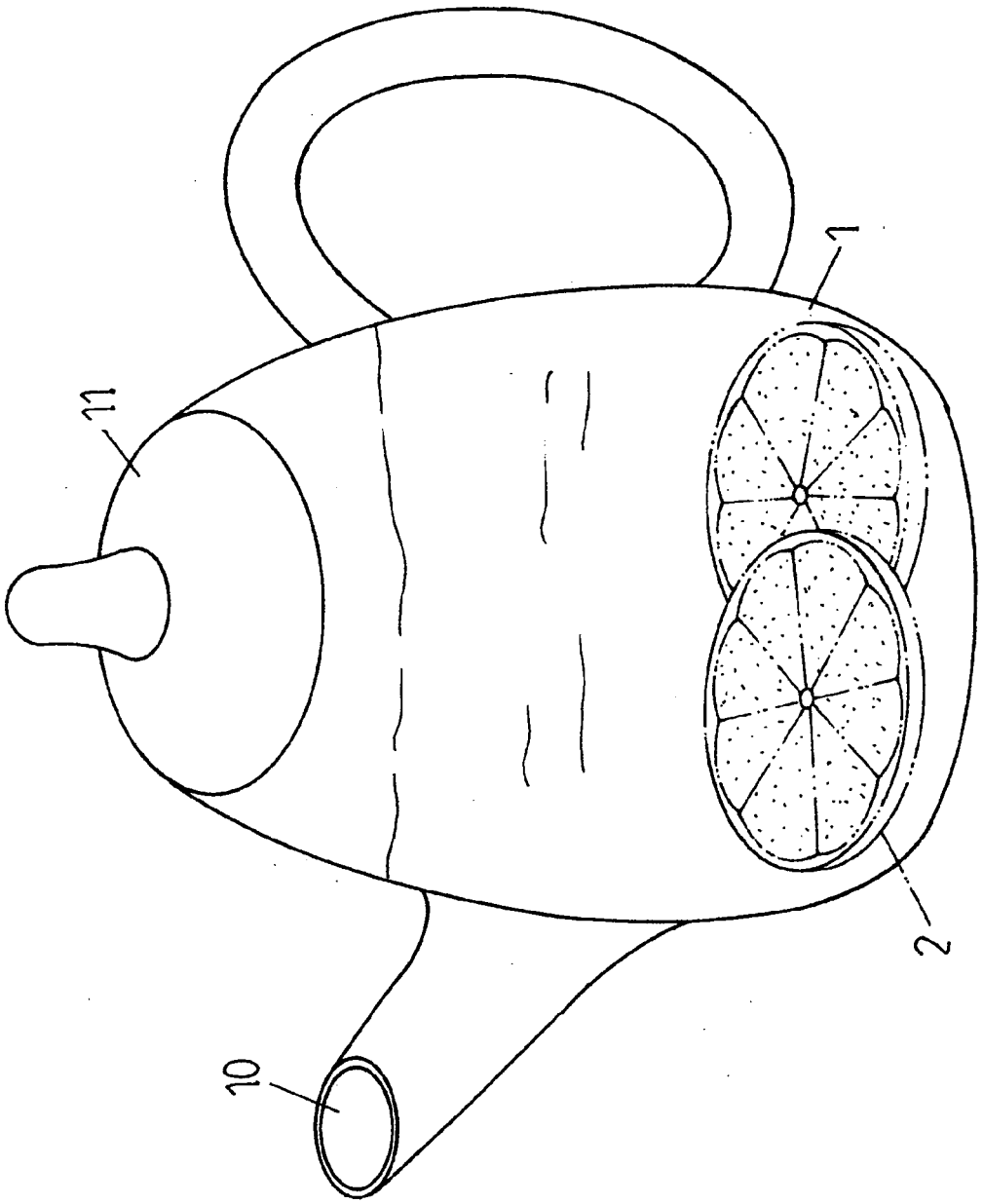

FIG.6
(PRIOR ART)

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EUROPEAN SEARCH REPORT

Application Number
EP 08 25 3103

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A	* paragraphs [0021], [0023] *	3-6,8-14	

TECHNICAL FIELDS SEARCHED (IPC)

B65D
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	25 February 2009	Lämmel, Gunnar

CATEGORY OF CITED DOCUMENTS

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