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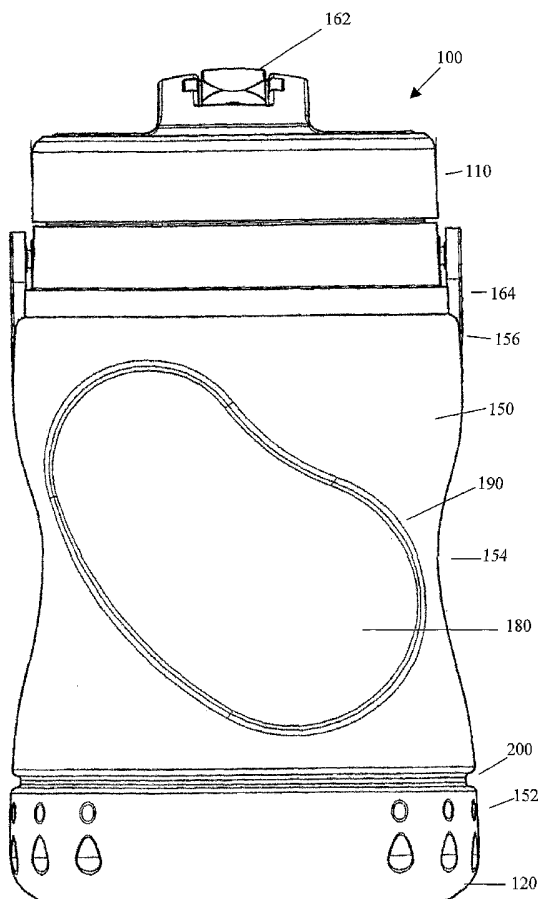
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(54) Title: CONTOUR COOLER



(57) Abstract: A cooler (100) for containing liquids has a main body (150) defining a contour, a lid (110), and a base (120). The main body may have an upper section (156), a lower section (152), and a middle section (154), the width of the middle section being smaller than the width of the upper and lower sections. Each of the upper, middle, and lower sections may have a substantially circular cross-section, the diameter of the middle section being less than the diameter of the upper and the lower section of the main body. The cooler may have a groove in the main body to accommodate the end of a shrink sleeve. The cooler may also include a recessed area and/or a protruded area to enhance the ability of a user to grip the contour cooler.

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## CONTOUR COOLER

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a non-provisional utility application, claiming priority as a continuation-in-part to the design patent application entitled "Contour Beverage Jugs," filed June 8, 2004, having serial number 29/207,005, by Maldonado and Naft.

### BACKGROUND OF THE INVENTION

#### Field of the Invention

[0002] The invention relates to an insulated cooler having a relatively-large cavity for containing fluids, such as beverages. More particularly, this invention relates to a contour cooler with a main body having a middle section defining a contoured surface to enhance the ability to grip the cooler during use. The contour cooler described herein may also have a recessed area, a protruded area, and/or tactile bumps to further facilitate the gripping of the contour cooler. A groove adapted to accommodate a shrink sleeve is also disclosed and described.

#### Description of the Related Art

[0003] Coolers for containing liquids are known to be of various sizes and capacities. Current hard-sided coolers, such as beverage coolers, may prove relatively difficult to grip. For instance, hardsided beverage coolers with a capacity of ½ gallon or more having a relatively large diameter may be difficult to grip while consuming the beverage contained therein.

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[0004] It has been discovered that when the cooler comprises sides which are substantially uniform, the ability of used to grasp the cooler is lessened.

[0005] Further, the smooth hard surfaces of these prior art coolers have proven relatively difficult to grasp, in some situations. Also, condensation accumulating on the cooler surface exacerbates this issue, providing a slippery surface, which may lessen the ability of the user to securely grasp the cooler.

[0006] In some instances, shrink sleeves are adapted to cover the outer periphery of the coolers, both for decorative purposes and to reduce/absorb condensation on the surface of the cooler, e.g. Such shrink sleeves may be comprised of various materials, such as stretchable nylon, or may be conformally coated or shrunk in place on the periphery of the cooler, etc. These shrink sleeves are generally held in place on one end by a restrictive band, such as a rubber band-type end, e.g., or a band, which is typically thicker than the shrink sleeve itself. However, it has been discovered that in use, the restrictive band may not sufficiently secure the shrink sleeve to the cooler. Further, if a thicker restrictive band is utilized, it has been found that the band interferes with the useable surface of the cooler. In other embodiments, the shrink sleeve is comprised of a material which shrinks to secure itself on the periphery of the cooler. However, over time, the edge or end of the shrink sleeve may wear and interfere with the useable surface of the cooler.

[0007] Thus, a need exists for an improved cooler. It would be desirable to provide a cooler having a main body with a shape, which is more easily grasped than existing coolers. This is especially true with relatively-large capacity coolers (e.g. ½ gallons or more). Such a desirable cooler would also provide an outer surface,

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which is more easily grasped than coolers of the prior art. For instance, it is desirable to provide a cooler having a recessed area or a protruding area to facilitate a user's gripping of the cooler. Further, it would be advantageous to provide a cooler having a means to secure a shrink sleeve to the periphery of the cooler, such that the shrink sleeve is more securely attached to the cooler than with other coolers. The means to secure a shrink sleeve should advantageously provide the securing means, while not being exposed to the useable surface of the cooler. In this way, utilization of the shrink sleeve would not deter the user's ability to grip the cooler.

#### **SUMMARY OF THE INVENTION**

[0008] In some embodiments, an insulated contour cooler having a cavity is disclosed comprising a main body having an upper section, a lower section, and a middle section; a lid proximate the upper section of the main body; and a base proximate the lower section of the main body, in which a width of the middle section is less than a width of the upper section and a width of the lower section, thus defining a contour of the main body. Each of the upper section, the lower section and the middle section may have a substantially circular or a circular cross-section, thus defining a substantially cylindrical or cylindrical main body.

[0009] In some embodiments, the contour cooler comprises a recess on a surface of the main body, the recess defining a recessed area, which may be a kidney-shape, an oval, a square, or any other shape as would be known to one of ordinary skill in the art. In other aspects, the contour cooler may comprise a groove in a perimeter of the main body adapted to receive an end of a shrink sleeve.

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[0010] In this way, ease of use of a relatively large-sized beverage cooler or jug is facilitated by the addition of the geometry to the body of the cooler, which creates an more ergonomically-correct surface than other relatively-large coolers.

[0011] The contour cooler of the present disclosure provides a recessed area integrated into the main body, which aids in the gripping of the contour cooler. The contour cooler disclosed herein provides a recessed area in some embodiments, which is integrated into the main body. This recessed area is adapted to aid the user in the gripping of the cooler. The perimeter of the cooler may be substantially hour-glass in shape. That is, the middle section of the contour cooler may have a width which is less than the width of the upper and lower sections of the contour cooler, thus providing a geometric shape which aids in the gripping of the contour cooler during use.

[0012] In some embodiments, the contour cooler incorporates a groove on the main body, which may be located in the lower section of the main body, which is adapted to provide an area to accommodate a shrink sleeve. This allows the shrink sleeve to be properly nested and not be exposed to a useable surface of the cooler.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0013] Figure 1A shows the front view of one embodiment of the contour cooler present invention.

[0014] Figure 1B shows a rear view of one embodiment of the contour cooler of the present invention.

[0015] Figure 1C shows a rear perspective view of one embodiment of the contour cooler of the present invention.

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[0016] Figure 1D shows a side view of one embodiment of the contour cooler of the present invention.

[0017] Figure 1E shows a top view of one embodiment of the contour cooler of the present invention.

[0018] Figure 2 shows an embodiment of the contour cooler of the present invention having a sleeve selectively attachable to an outer perimeter of the main body of the contour cooler.

[0019] Figures 3A-C show embodiments of the present contour cooler having different, relatively-large, sizes or capacities.

[0020] Figures 4A and 4B show an embodiment of the present invention having a protruded area on the main body.

[0021] Figures 5A and 5B show an embodiment of the present invention having a main body with a substantially-square cross-section, with Figure 5B showing the cross-section.

[0022] While the invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and will be described in detail herein. However, it should be understood that the invention is not intended to be limited to the particular forms disclosed. Rather, the intention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

#### **DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS**

[0023] Illustrative embodiments of the invention are described below as they might be employed in the design of a cooler having a cavity for containing fluids, which is

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adapted to facilitate the gripping or carrying of the cooler in a variety of different configurations. In the interest of clarity, not all features of an actual implementation are described in this specification. It will of course be appreciated that in the development of any such actual embodiment, numerous implementation-specific decisions must be made to achieve the developers' specific goals, such as compliance with system-related and business-related constraints, which will vary from one implementation to another. Moreover, it will be appreciated that such a development effort might be complex and time-consuming, but would nevertheless be a routine undertaking for those of ordinary skill in the art having the benefit of this disclosure.

[0024] Further aspects and advantages of the various embodiments of the invention will become apparent from consideration of the following description and drawings. Figure 1 shows one embodiment of the present invention for a contour cooler 100. Contour cooler 100 may be comprised of a base 120, a main body 150, and a lid 110. Lid 110 may be screwably attachable to main body 150, e.g. adjacent the upper portion 156, in a threaded fashion as would be known to one of ordinary skill in the art. Lid 110 may also further comprise a spigot 162. Handle 164 may also be hingedly attached to the contour cooler 100 as shown.

[0025] Main body 150 is comprised generally of an upper section 156, which may be substantially adjacent or connectable to the lid 110, a lower section 152 and a middle section 154. In this embodiment, the main body 150, including the upper section 156, lower section 152, and middle section 154 are integrally formed, being blow molded, e.g. However, as would be realized by one of ordinary skill in the art



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having the benefit of this disclosure, each section 152, 154, and 156 may comprise separate components connected via any leak-proof method known to one of ordinary skill in the art.

[0026] As can be seen in Figure 1E showing a top view of the embodiment of the contour cooler 100 of Figure 1A, contour cooler 100 is comprised of a substantially cylindrical configuration having a cavity therein. For the purposes of this disclosure, the term "substantially cylindrical" may include perfectly cylindrical embodiments as well as other shapes substantially cylindrical shapes, such that the contour cooler 100 provides a cavity therein for storing any variety of contents, such as liquids, beverages, etc. Further, although the cross-sections of upper section 156, middle section 154, and lower section 152 are shown as circular, these cross sections could further comprise any shape, such as an oval, a rectangle, or any other shape known to one of ordinary skill in the art. However, preferably, the overall width of the middle section 154 (e.g. the diameter of the middle section 154 when the cross-section is circular) is smaller than the overall width of the upper section 156 and the lower section 152 (e.g. the diameter of the upper section 156 and lower section 152 in the embodiment of a circular cross-section).

[0027] The upper section 156 of main body 150 may have a circular cross-section, as may lower section 152. The diameter of the upper section 156 and the lower section 152 may be approximately the same. Middle section 154 may have a second diameter, the second diameter being smaller than the diameter of the upper section 156 and the lower section 152, such that the contour cooler 100 has a generally hour-glass or contour periphery, as shown in Figure 1A.

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[0028] Within cooler 100 as a cavity adapted to accommodate the desired contents, such as liquids, beverages, etc.

[0029] On the surface of the perimeter of the main body 150 may be a recess 190 defining a recessed area 180. In the embodiment shown in Figure 1A, the recessed area 180 is substantially kidney-shaped, although any shape may be utilized as would be one of ordinary skill in the art having the benefit of this disclosure, such as an oval, a circle, or a square. The recess 190 and the recessed area 180 is adapted to facilitate the gripping of contour cooler 100. While it should be noted that the recessed area 180 on the main body 150 is recessed inwardly of surface of the main body 150, in other embodiments described hereinafter, protrusions or ridges 290 may define a protruded area 280 extending outwardly from the surface of the main body 150 in some embodiments, as shown in Figure 3, described more thoroughly hereinafter.

[0030] Contour cooler 100 may also comprise a groove 200 described more thoroughly hereinafter with respect to Figure 2. Figure 2 shows an embodiment of the present invention in which a shrink sleeve 300 is attachable to the contour cooler 100. Shrink sleeve 300 has an end 310 adapted to engage the groove 200 such that end 310 does not interfere with the usable surface of the contour cooler 100. That is, the end 310, which may be comprised of a material adapted to shrink around the periphery of the cooler 100, or of a rubber band-like band, or any other type of material which is generally thicker than the sleeve itself, does not interfere with contact of the base 120 with a surface on which the contour cooler 100 may be placed, nor with the user's grip of the contour cooler 100. In this way, the shrink

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sleeve 300 may be more securely anchored to the contour cooler 100 than in prior art methods and devices. Further, in some embodiments, the groove 200 is adapted to hide the edge or end 310 of the shrink sleeve 300, thus reducing the exposed edge or end 310 to peeling.

[0031] Referring now to Figures 3A, 3B and 3C, additional embodiments of the present invention are shown in which the contour cooler 100 is shown in various relatively-large (e.g. ½ gallons or greater) sizes. The cooler of Figure 3A is larger than that of Figure 3B, and the contour cooler of Figure 3C being the largest of the three contour coolers shown. In this way, it can be seen that various relatively-large (e.g. at least ½ gallon) sizes of contour coolers 100 are disclosed herein. The contour cooler of Figure 3C includes a spigot 162 on base 120 as opposed to on the lid 110 of the other configurations.

[0032] Figure 4A-C show another embodiment of the present invention. Figures 4A, 4B and 4C show an embodiment of the present invention in which the main body 150 of the contour cooler is provided with protrusions or ridges 290 defining a protruded area 280, as opposed to a recessed area 180 defined by a recess 290 of the embodiments above. Further, as shown, protruded area 280 may also comprise tactile bumps 270 to provide a user with enhanced gripping capability.

[0033] Figures 5A and 5B show another embodiment of the present invention, with contour cooler 400 having a base 420, a main body 450, and a lid 410. In this embodiment, the cross section of the upper section 456, the middle section 454, and the lower section 452 of the main body 450 comprise a non-circular cross-section. In this embodiment, the cross-section of upper section 456, middle section 454, and

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lower section 452 comprise a substantially-square cross-section. As can be seen, the width of the middle section 454 is smaller than the width of the upper section 456 and the lower section 452, thus defining a contour for the contour cooler 400. Recess 490 and recessed area 480 are similar to the recesses 190 and recessed areas 180 described above.

[0034] In operation, when a user grasps any of the contour coolers described above, the contoured perimeter of the main body facilitates the user's grasping of the contour cooler. Further, the recessed areas and/or protruded areas further act to enhance the ability of the user to grip the contour cooler. Finally, the grooves described herein are adapted to more effectively secure a shrink sleeve on the main body of the contour cooler than do coolers of the prior art, in such a way that the useable surface of the contour cooler is not compromised.

[0035] Thus, in the embodiments described above, the contoured main body (i.e. the middle section having a width less than the width of the upper and lower sections), the recessed areas, the protruded areas, and the groove securing the shrink sleeve on the contour cooler provide, alone or in combination, improved means for gripping the contour cooler.

[0036] Although various embodiments have been shown and described, the invention is not so limited and will be understood to include all such modifications and variations as would be apparent to one skilled in the art.

**CLAIMS:**

1. An insulated contour cooler having a cavity, comprising:
  - a main body having an upper section, a lower section, and a middle section;
  - a lid proximate the upper section of the main body; and
  - a base proximate the lower section of the main body, wherein a width of the middle section is less than a width of the upper section and a width of the lower section, thus defining a contour of the main body.
2. The contour cooler of claim 1 in which each of the upper section, the lower section and the middle section comprise a substantially circular or a circular cross-section, thus defining a substantially cylindrical or cylindrical main body.
3. The contour cooler of claim 2 in which the main body further comprises an hour-glass shape.
4. The contour cooler of claim 2 further comprising a recess on a surface of the main body, the recess defining a recessed area.
5. The contour cooler of claim 4 in which the recessed area comprises is selected from one of a kidney-shape, an oval, or a square.
6. The contour cooler of claim 2 further comprising a ridge on the surface of the main body, the ridge defining a protruded area.
7. The contour cooler of claim 6 in which the protruded area comprises a kidney-shape, an oval, or a square.

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8. The contour cooler of claim 6 in which the protruded area further comprises at least one tactile bump.
9. The contour cooler of claim 1 further comprising a groove in a perimeter of the main body adapted to receive an end of a shrink sleeve.
10. The contour cooler of claim 1 in which each of the upper section, the lower section and the middle section comprise a substantially square or square cross-section.
11. The contour cooler of claim 1 further comprising:
  - means for gripping the cooler; and
  - means for attaching a shrink sleeve to the cooler.
12. The contour cooler of claim 11 further comprising:
  - a handle hingedly attachable to the lid.
13. The contour cooler of claim 12 further comprising a spigot on the lid for dispensing contents from the cavity of the contour cooler.
14. The contour cooler of claim 1 in which the lid is detachably connected to the upper section of the main body.
15. The contour cooler of claim 15 in which the base is adjacent the lower section of the main body.
16. The contour cooler of claim 15 in which the upper, middle, and lower sections of the main body are integrally formed.
17. A method of gripping a contour cooler, comprising:
  - providing the contour cooler;
  - gripping the cooler such that the contour is contacted.

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18. The method of claim 17 further comprising:
  - providing a recess on the main body defining a recessed area; and
  - gripping the recess and the recessed area.
19. The method of claim 17 further comprising:
  - providing a ridge on the main body defining a protruded area; and
  - gripping the ridge and the protruded area.
20. The method of claim 19 further comprising:
  - providing tactile bumps on the protruded area; and
  - gripping the tactile bumps.
21. The method of claim 17 further comprising:
  - circumscribing a shrink sleeve on the main body; and
  - securing an end of the shrink sleeve in a groove on the lower section of the main body.

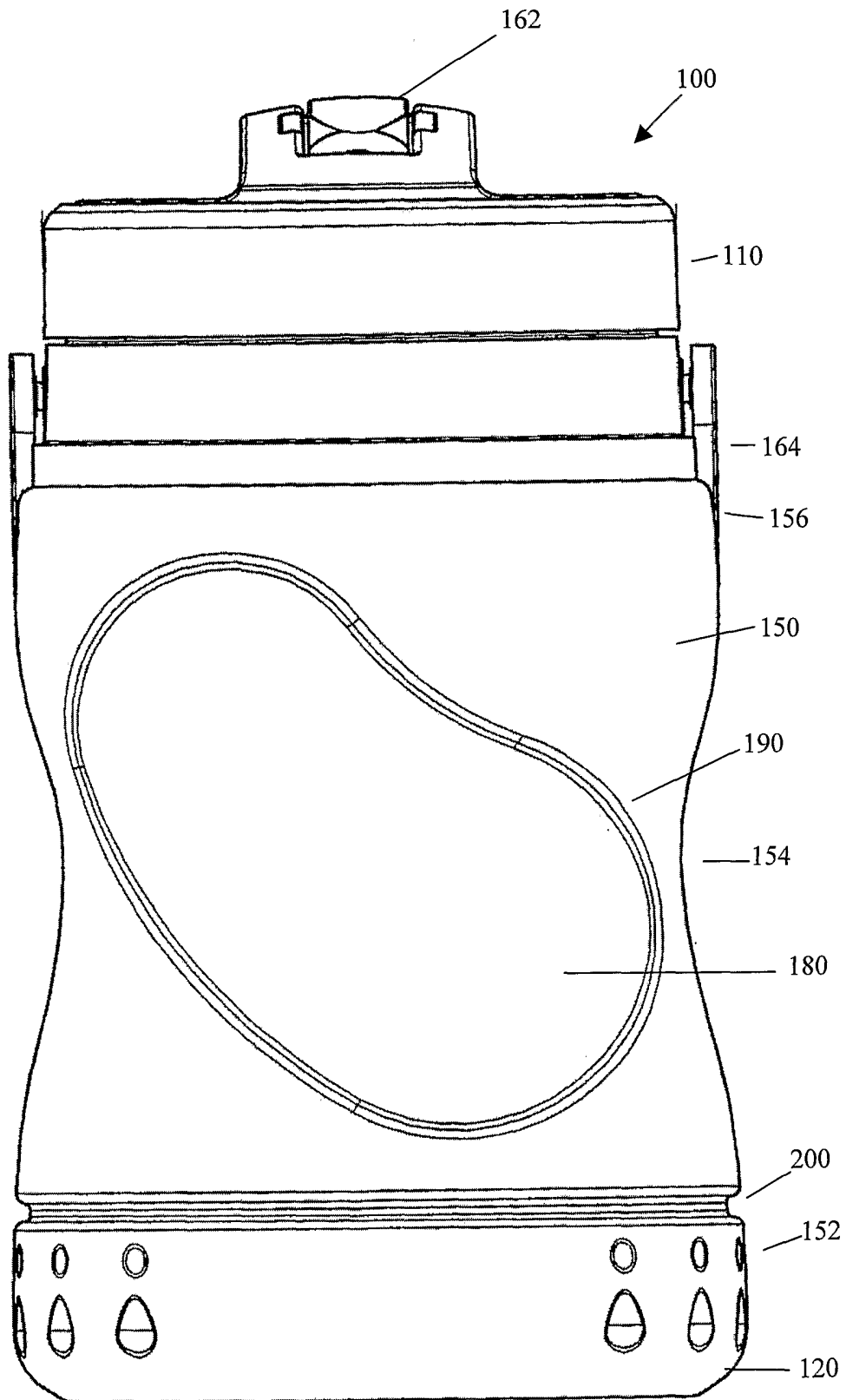
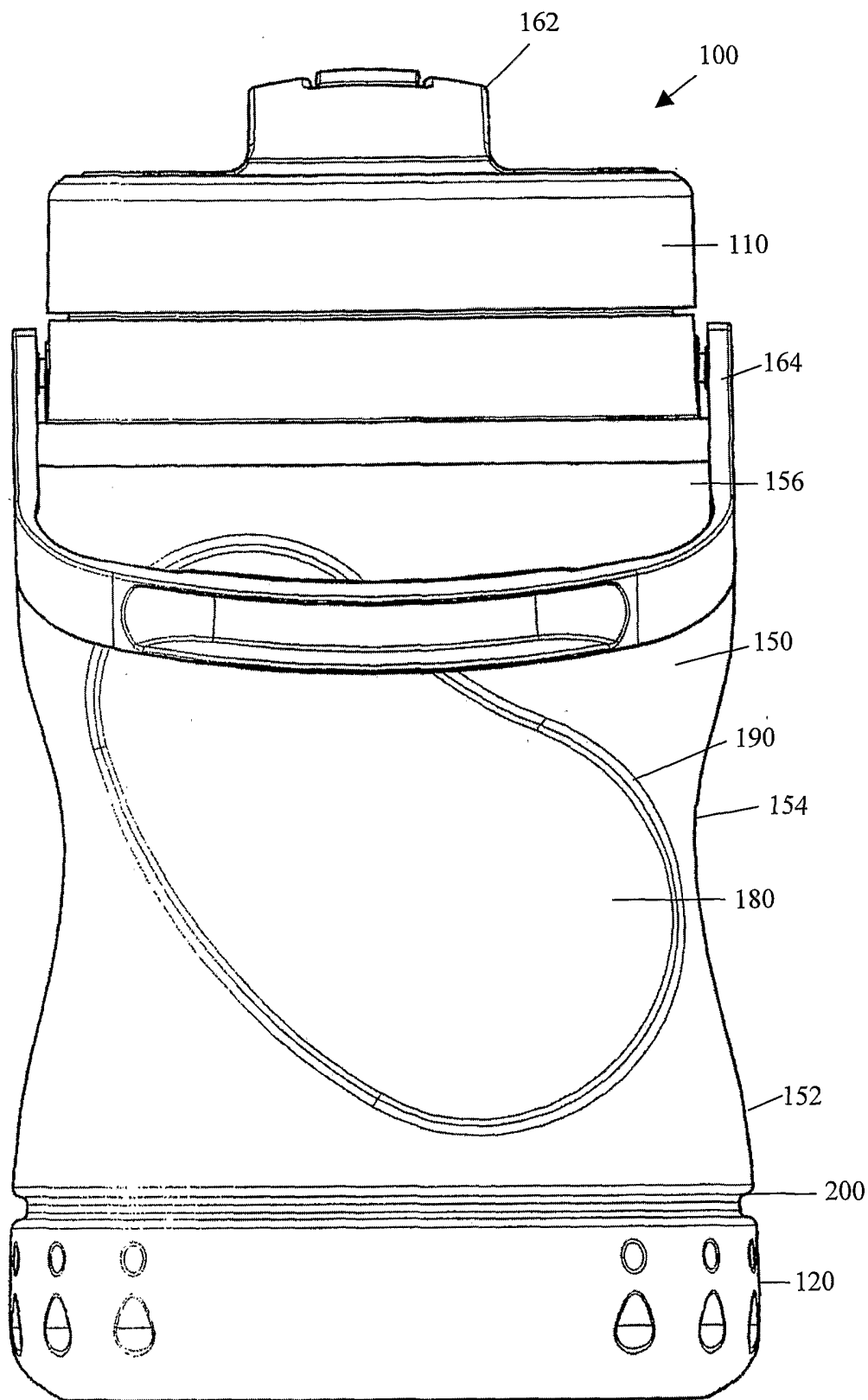
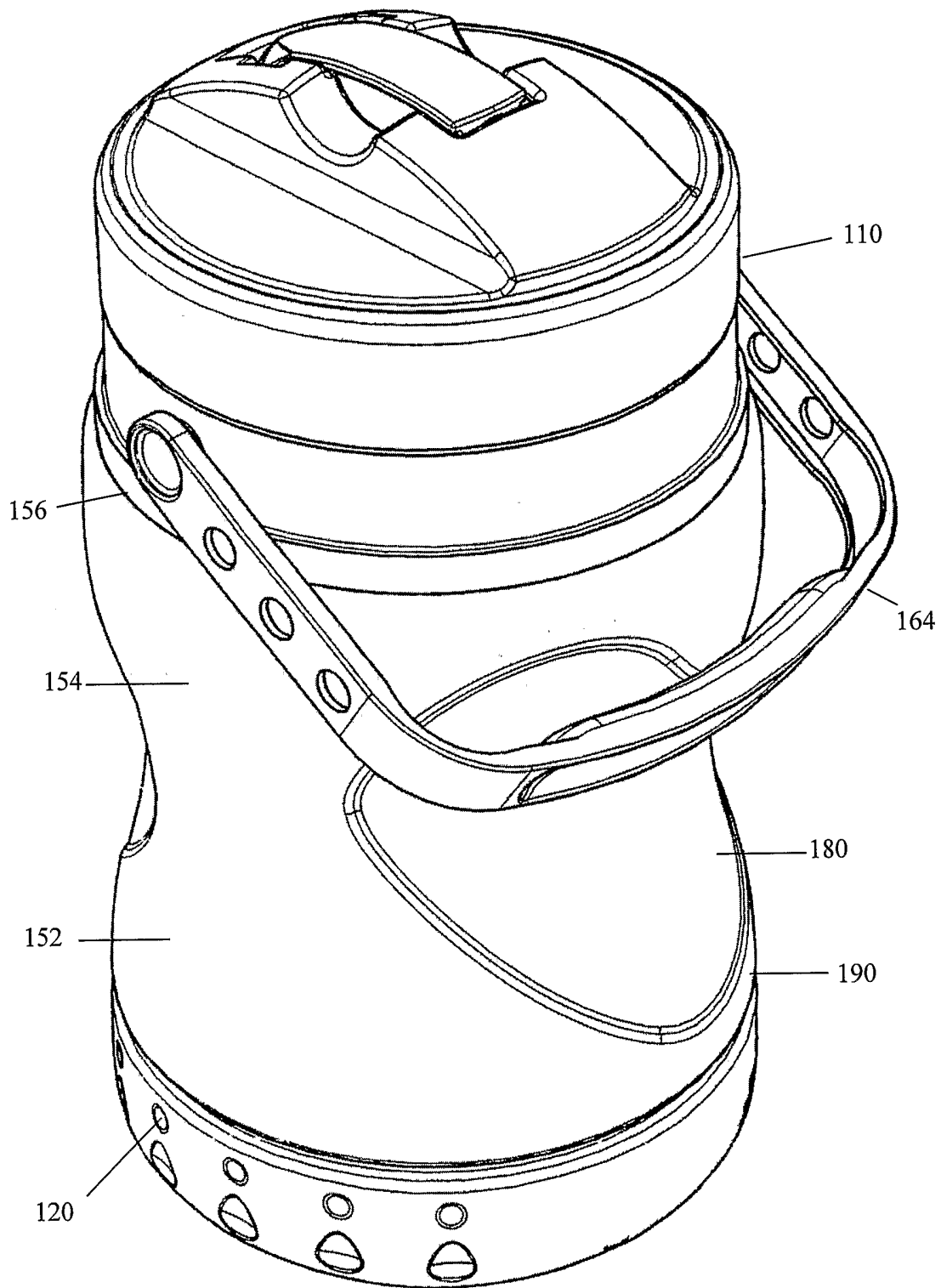


Figure 1A

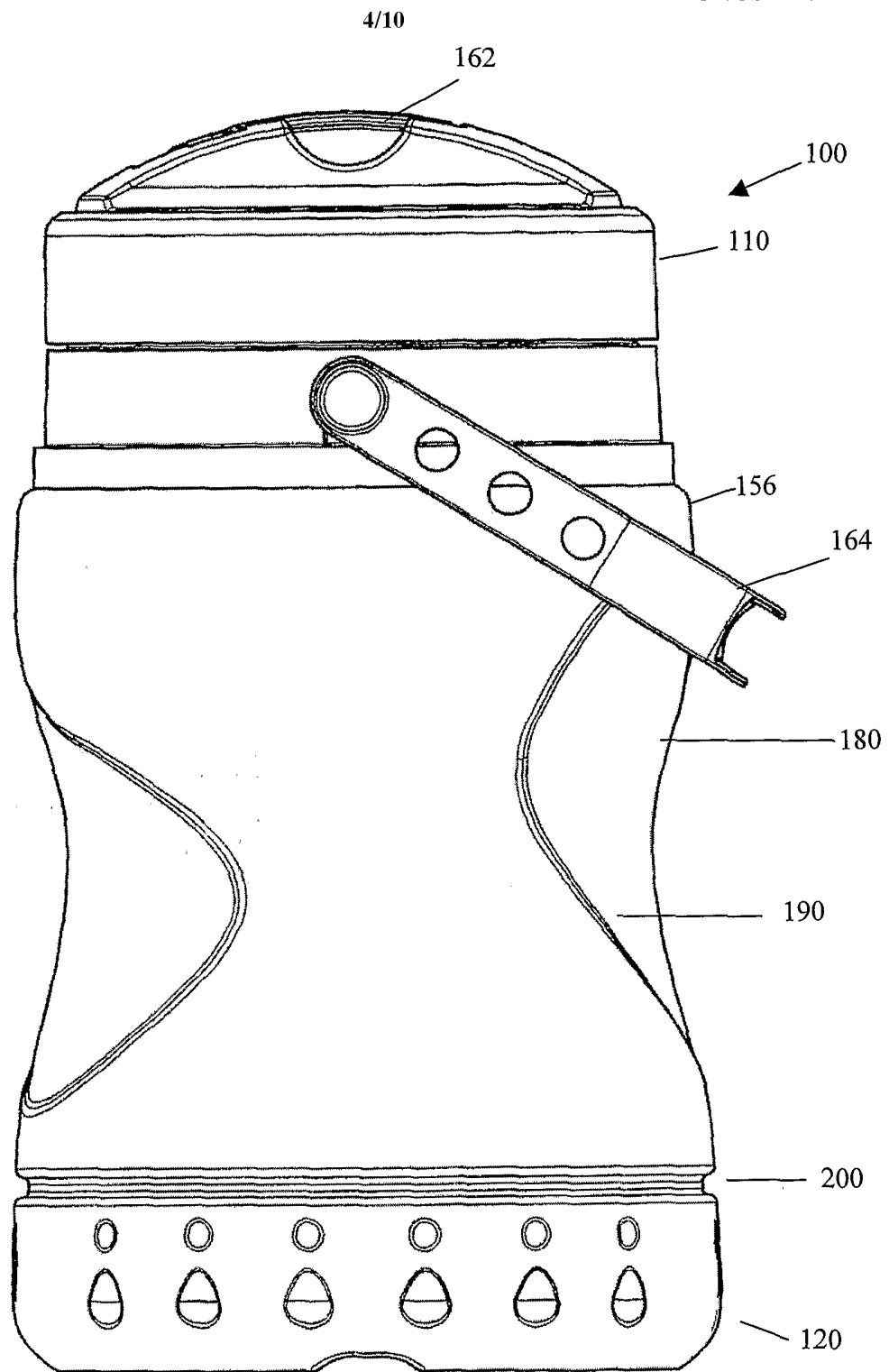




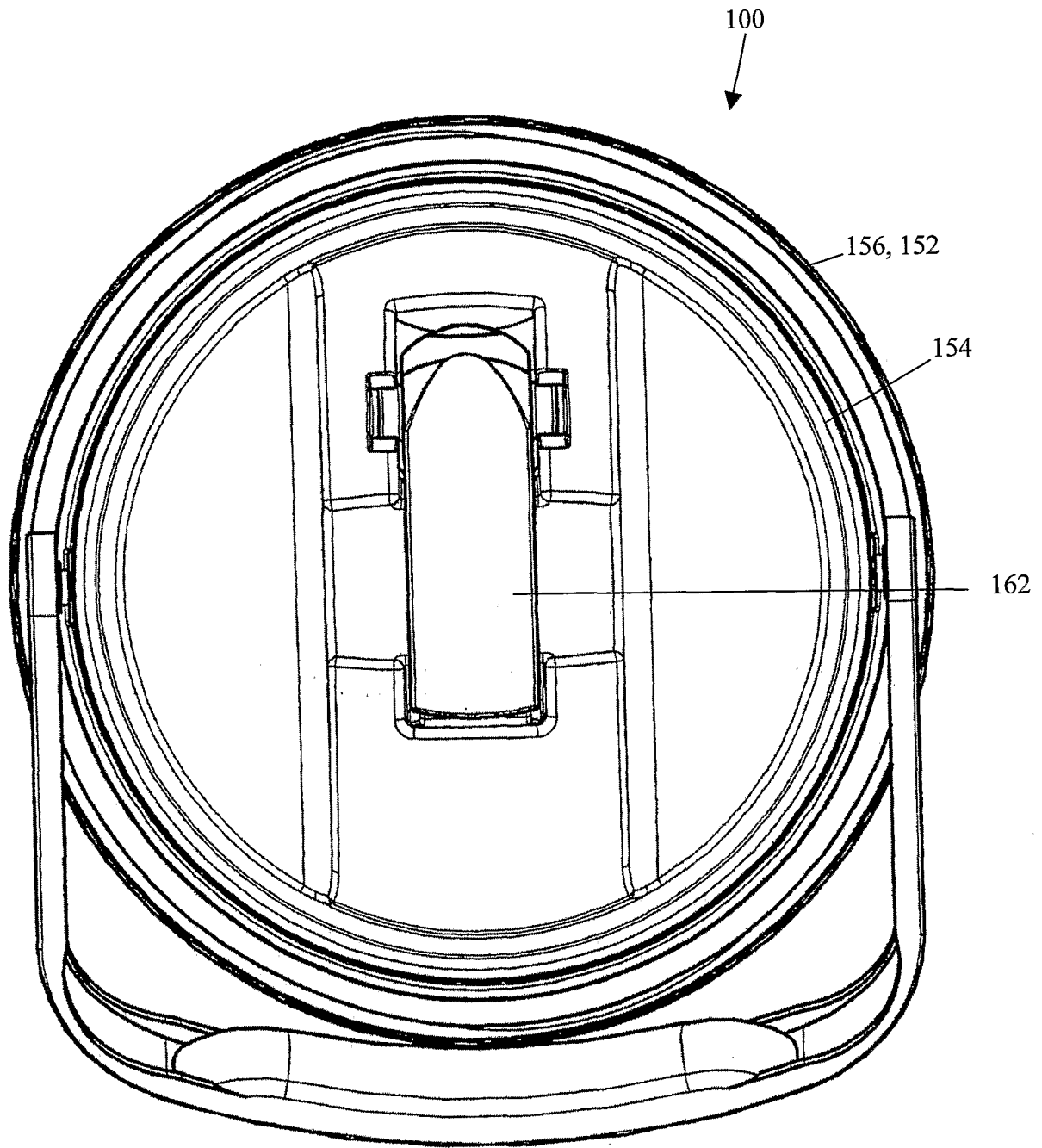
**Figure 1B**



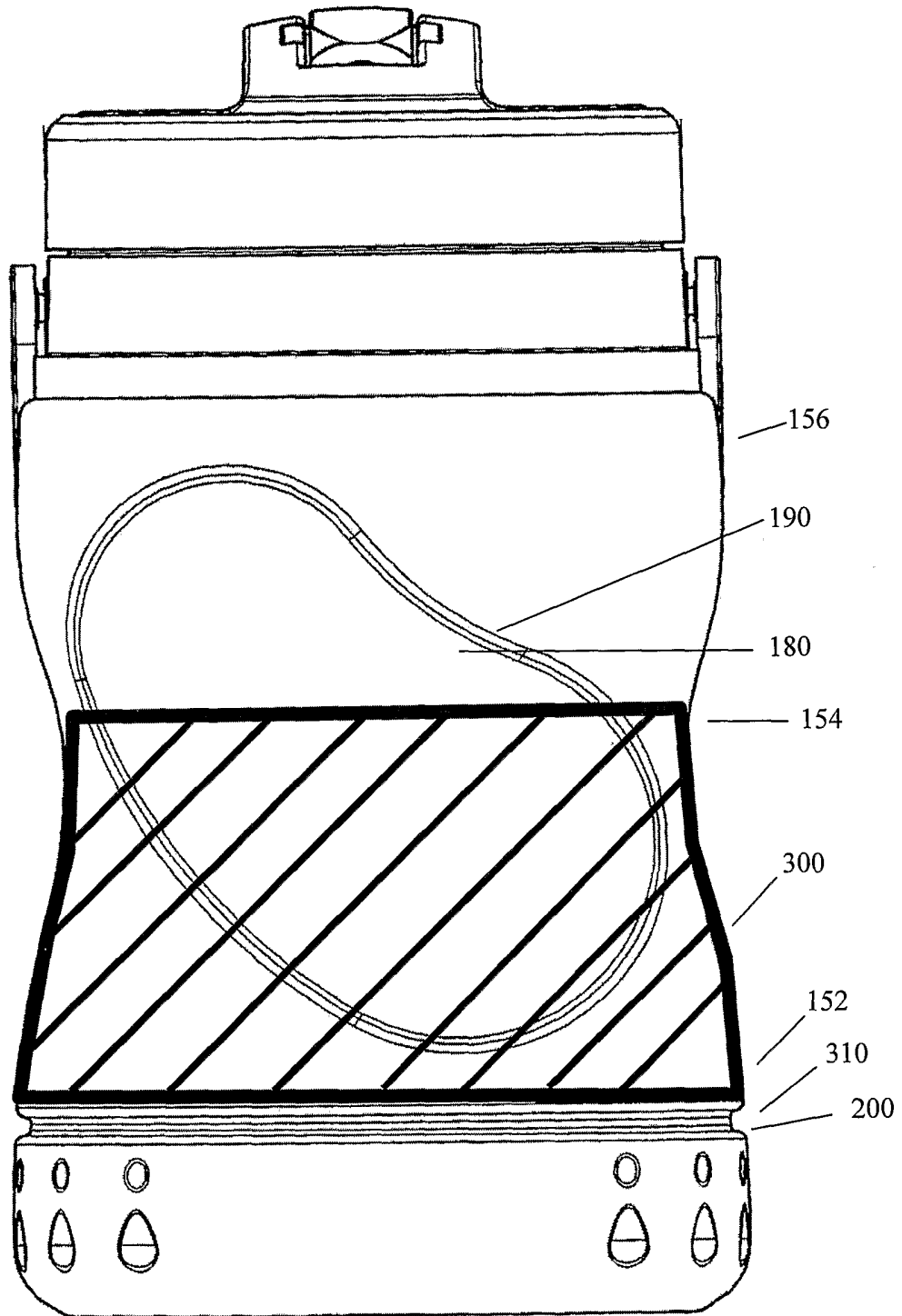
**Figure 1C**



**Figure 1D**



**Figure 1E**



**Figure 2**

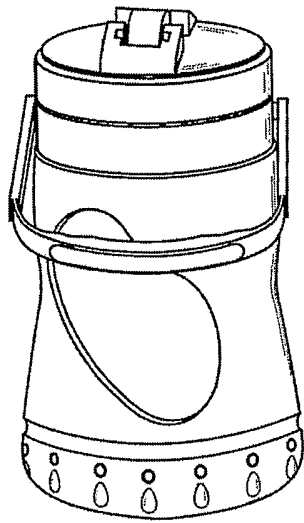


Figure 3A

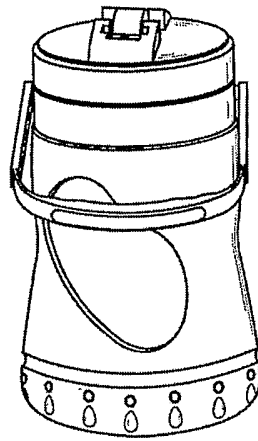


Figure 3B

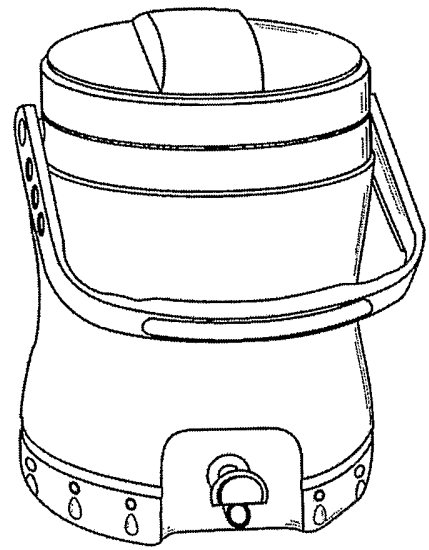


Figure 3C

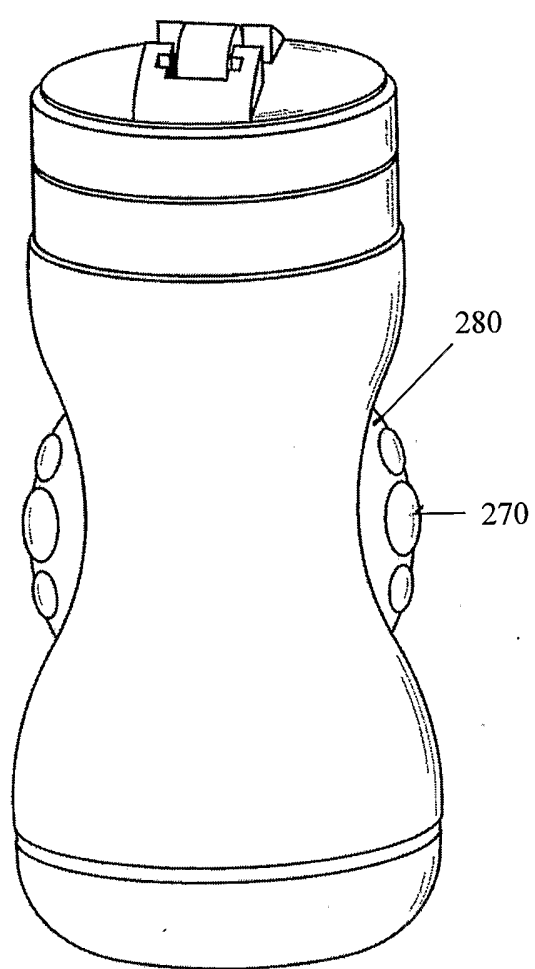


Figure 4A

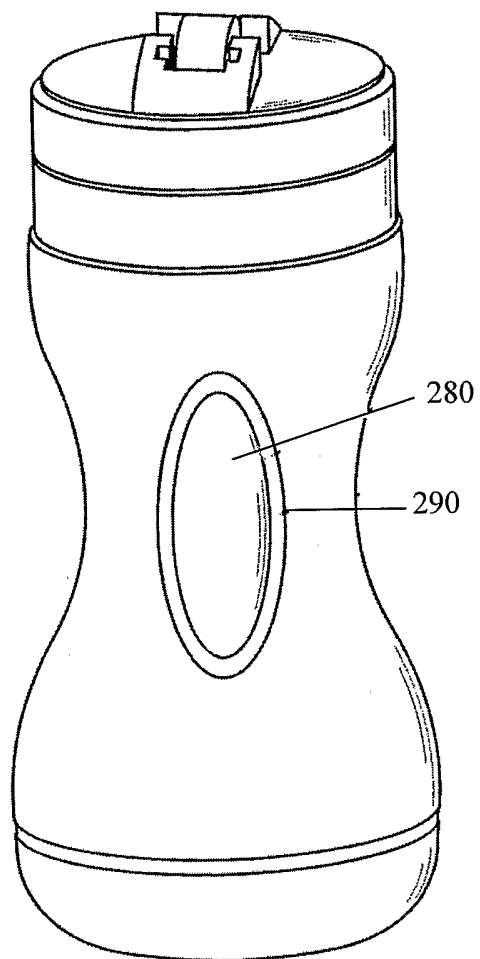
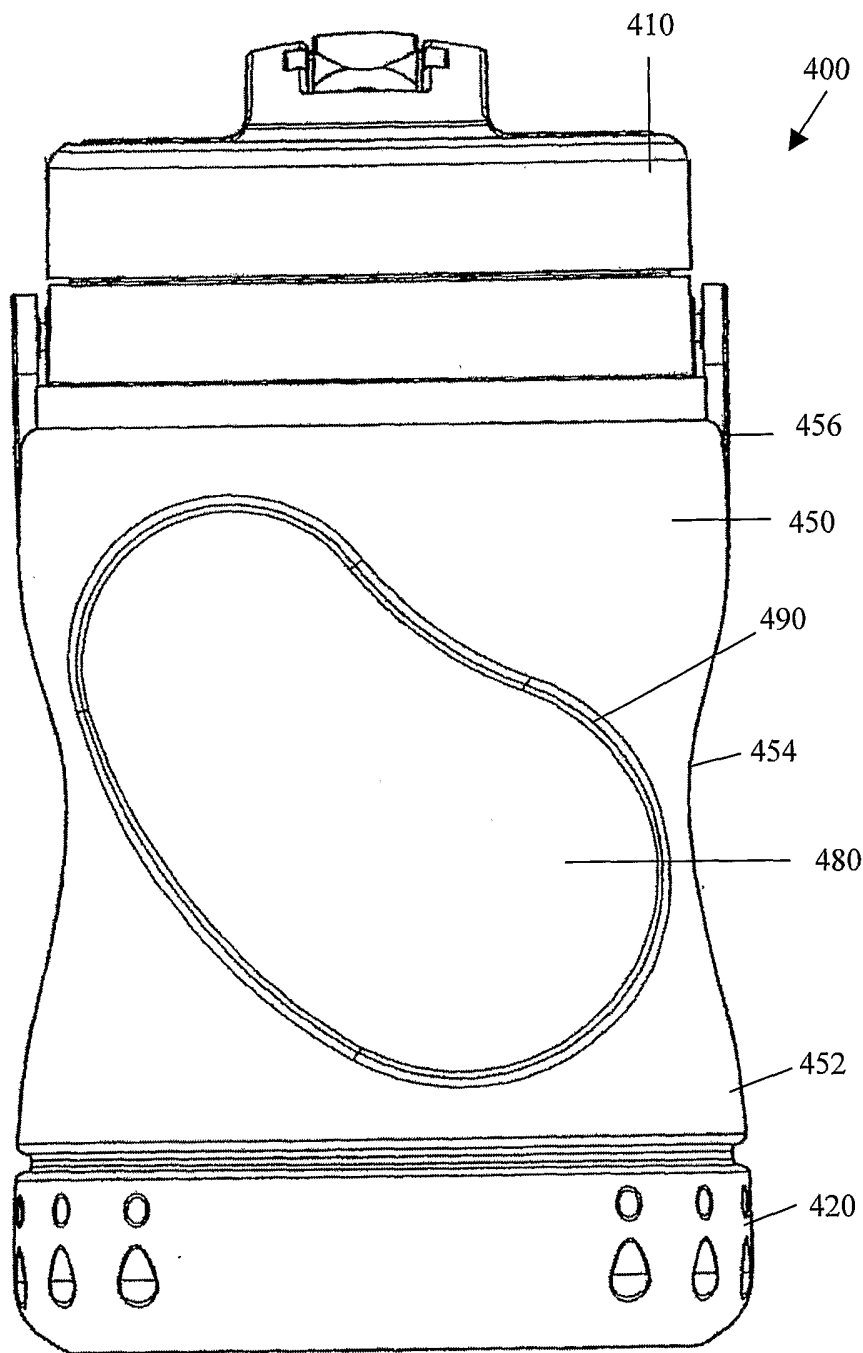
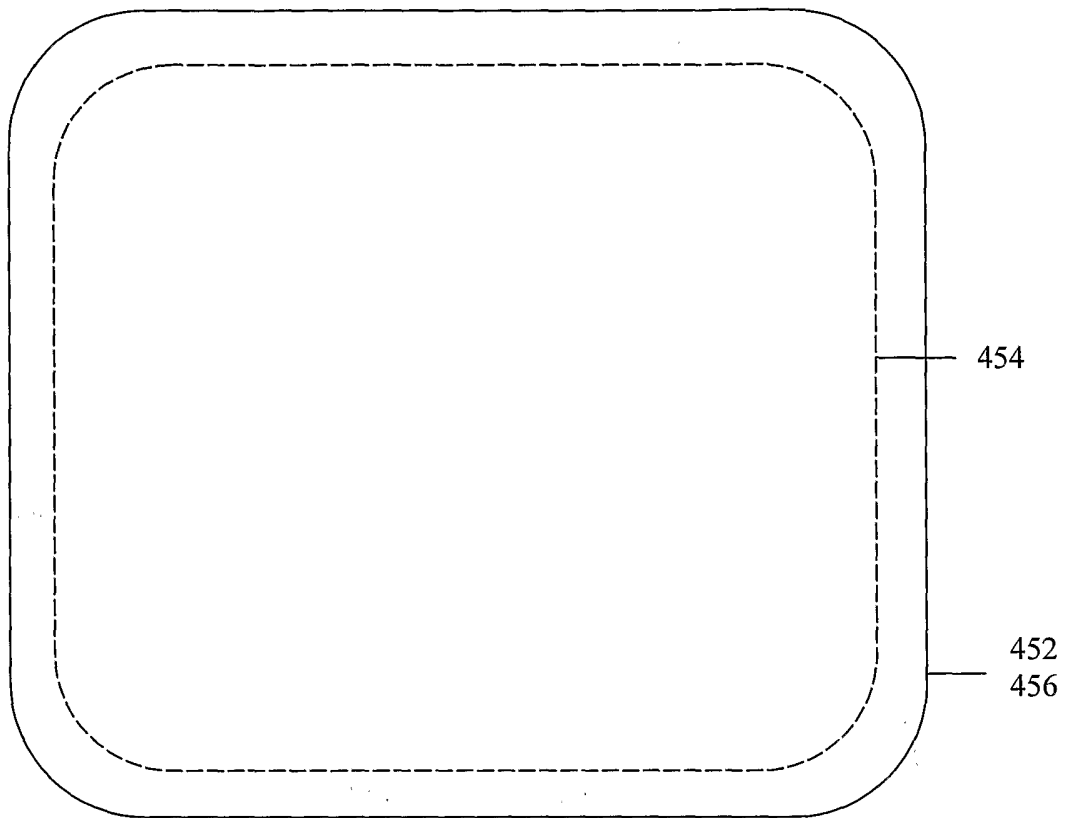


Figure 4B



**Figure 5A**



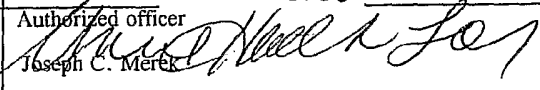


**Figure 5B**

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/19572

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : B65D 81/38 US CL : 220/592.16,62.22,62.14,574; 62/457.1,457.3 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 220/592.16,62.22,62.14,574; 62/457.1,457.3 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US D462,270 S (RENZ) 03 September 2002 (03.09.2002), Figs. 1-8	1-6, 9, 11, , 14-16, 18
X	US 6,276,560 B1 (BELCASTRO) 21 August 2001(21.08.2001), Figs. 1-5	1-3, 6, 9, 11, 12-17
X	US 5,141,121 A (BROWN et al ) 25 August 1992(25.08.1992) Figs. 1-5	1-4, 69, 11, 1-19 and 20
Y	US 6,321,931 B1 (HAKIM et al ) 27 November 2001(27.11.2001) Fig. 10	1-4, 6, 9, 10, 11, 14-17, 19, 21
Y	US D 412,085 S (Roush et al) 20 July 1999(20.07.1999) Figs. 1 and 3	1-4, 6, 9, 11, 14-17, 19, 21
Y	US 3,536,500 A (CLEERMAN et al) 27 October 1970(27.10.1970), Figs. 1 and 2	10
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Joseph C. Merck Telephone No. (571) 272-4542	