



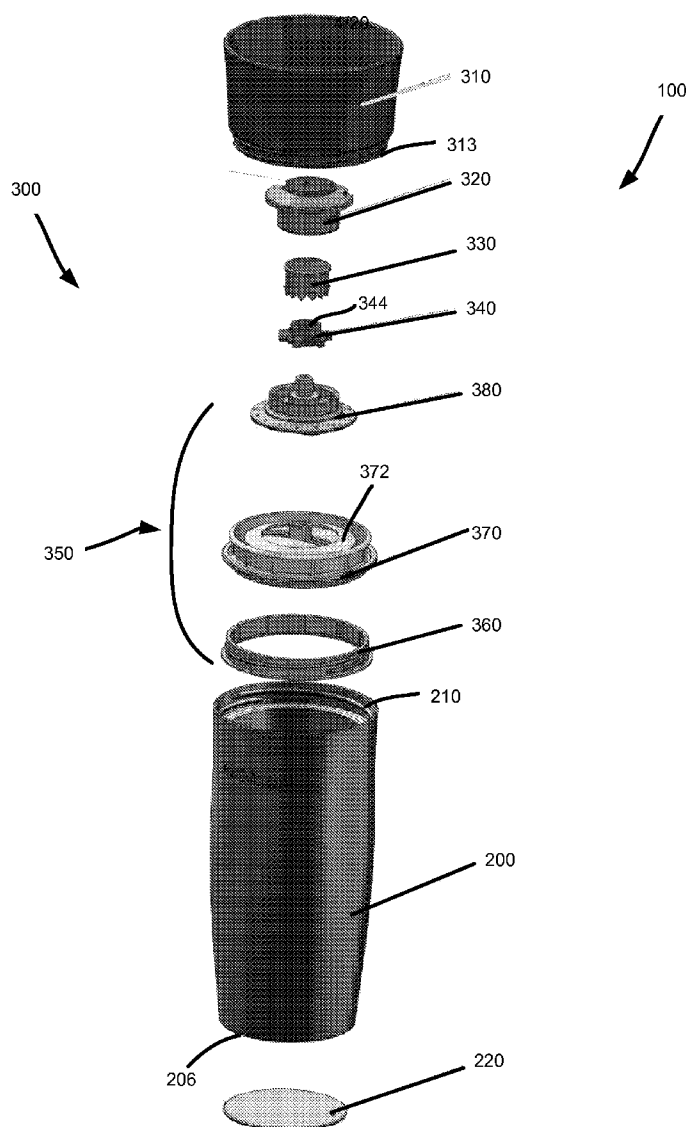
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(19) **United States**(12) **Patent Application Publication**
Lentz et al.(10) **Pub. No.: US 2010/0237078 A1**(43) **Pub. Date: Sep. 23, 2010**(54) **TRAVEL BEVERAGE CONTAINER****Related U.S. Application Data**(75) Inventors: **Daniel Lentz**, Brooklyn, NY (US);
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ATLANTA, GA 30308-2216 (US)(51) **Int. Cl.**
B65D 53/00 (2006.01)
(52) **U.S. Cl.** **220/378**(57) **ABSTRACT**

A beverage container comprises a body for containing a liquid, and a cover assembly for permitting drinking of liquids while preventing accidental spillage of same. The cover assembly includes an open state to permit liquid to be poured from the body and a closed state to prevent liquid from being poured from the body. The beverage container permits drinking from all sides of its top and further enables state change (from open to closed) while holding the container with a single hand.

(73) Assignee: **Lifetime Brands, Inc.**, Garden City, NY (US)(21) Appl. No.: **12/726,899**(22) Filed: **Mar. 18, 2010**

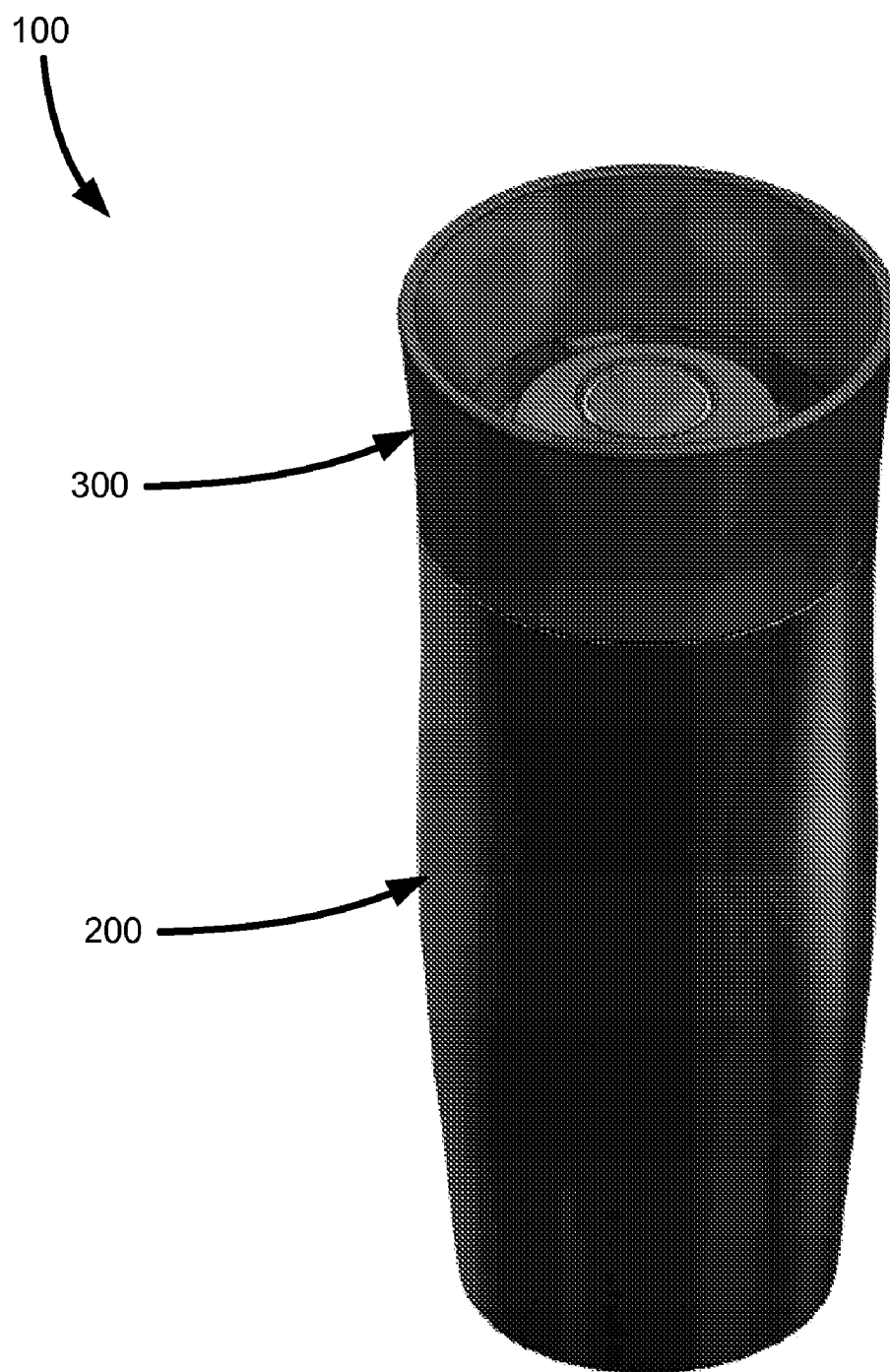


Fig. 1

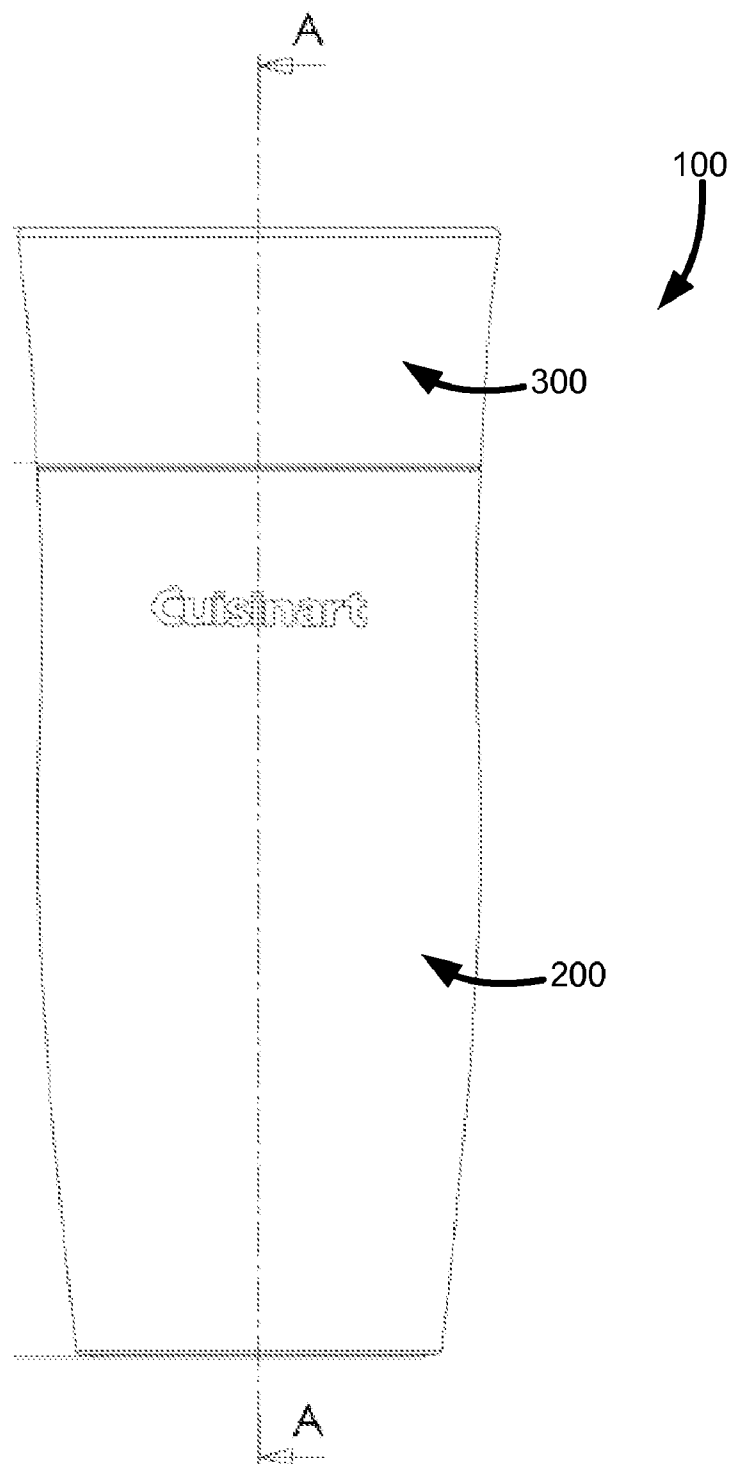


Fig. 2

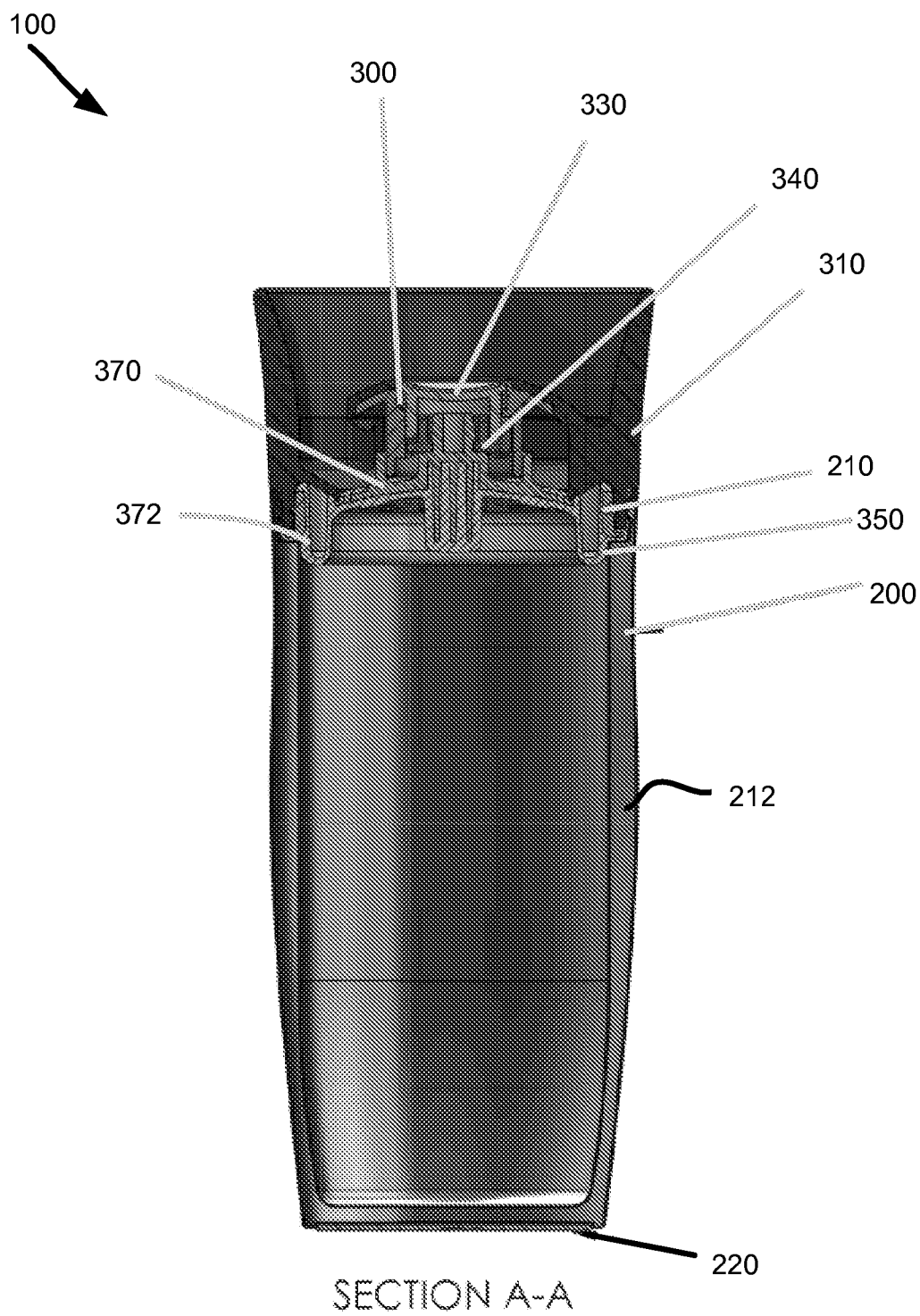


Fig. 3

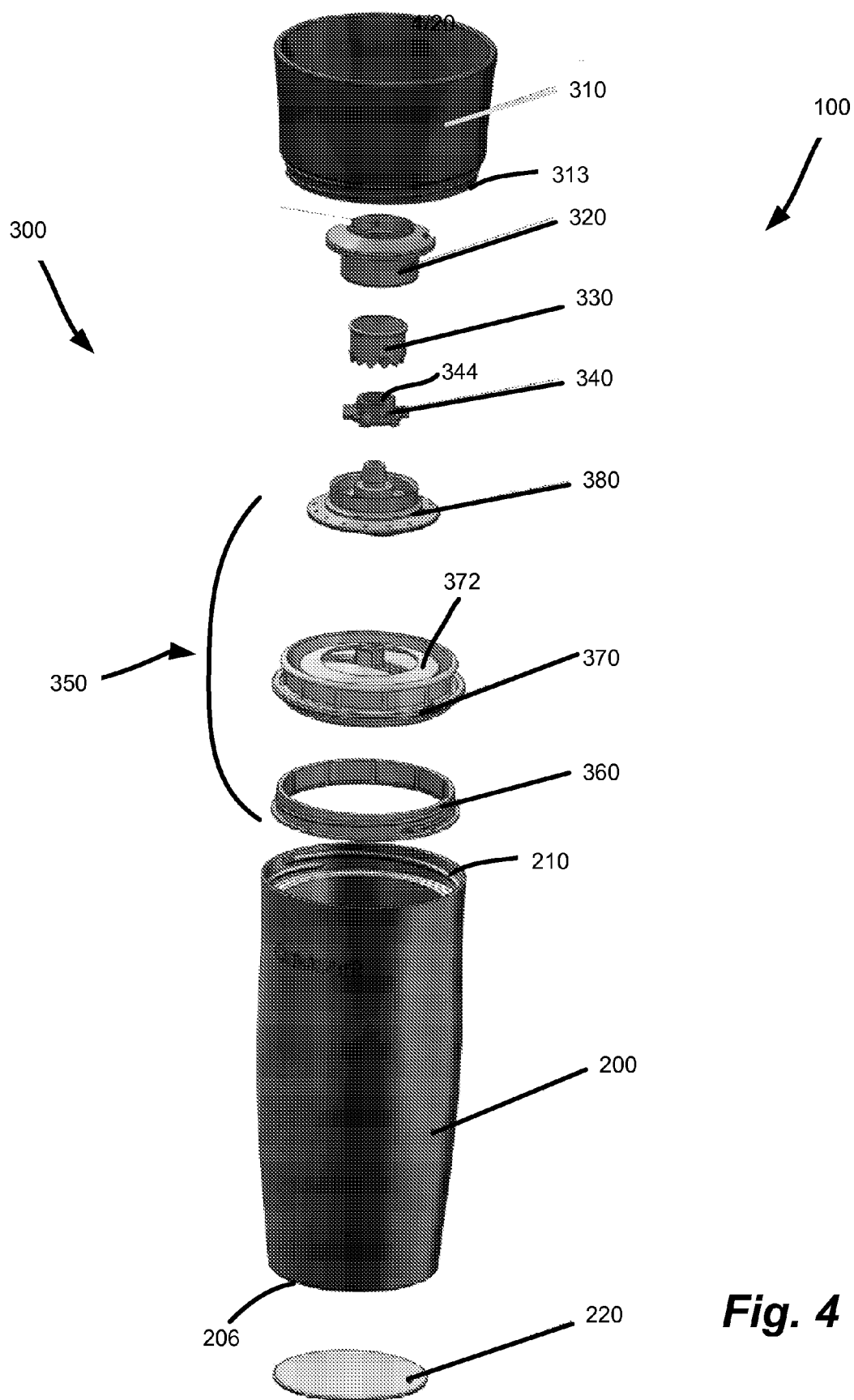


Fig. 4

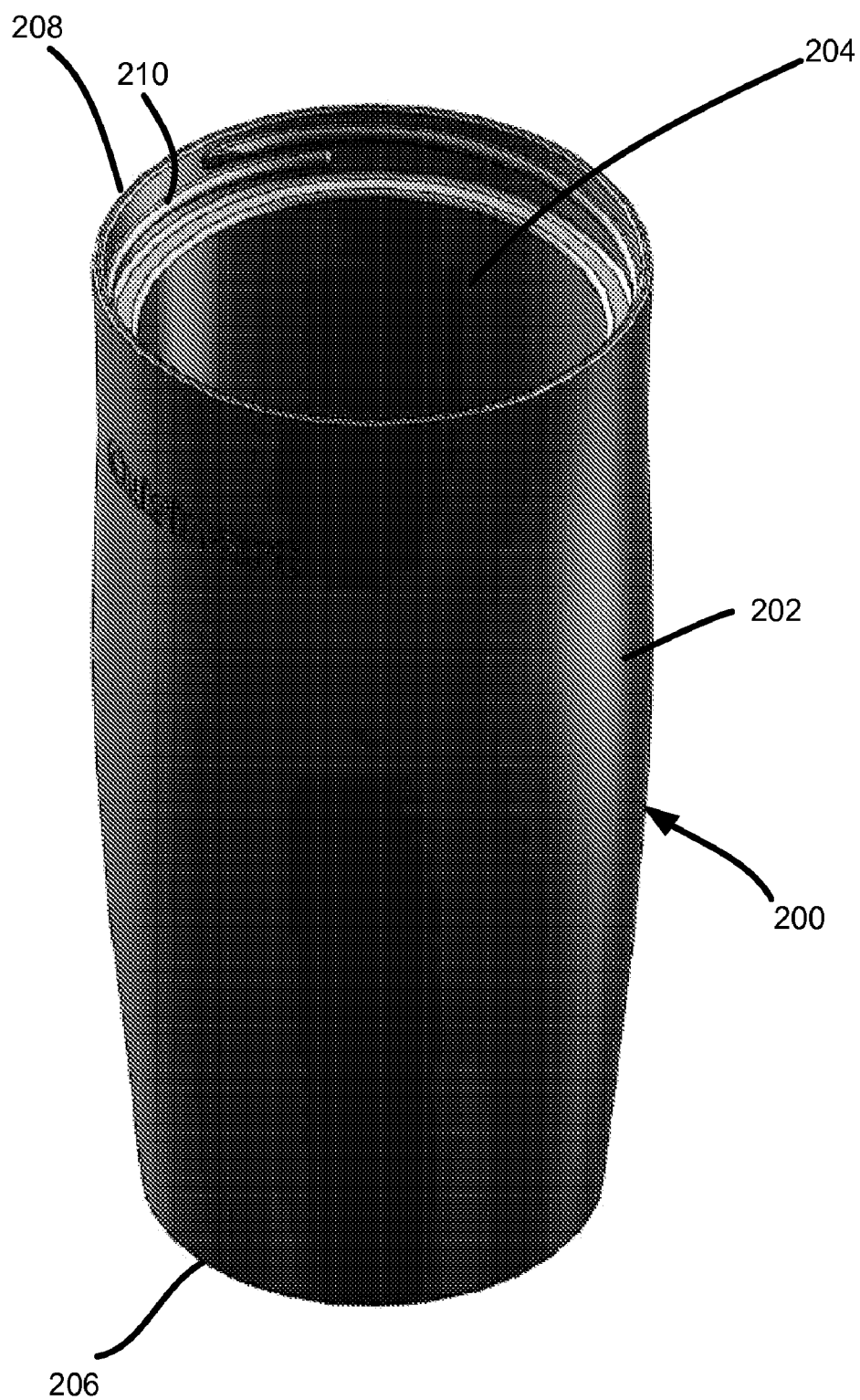


Fig. 5

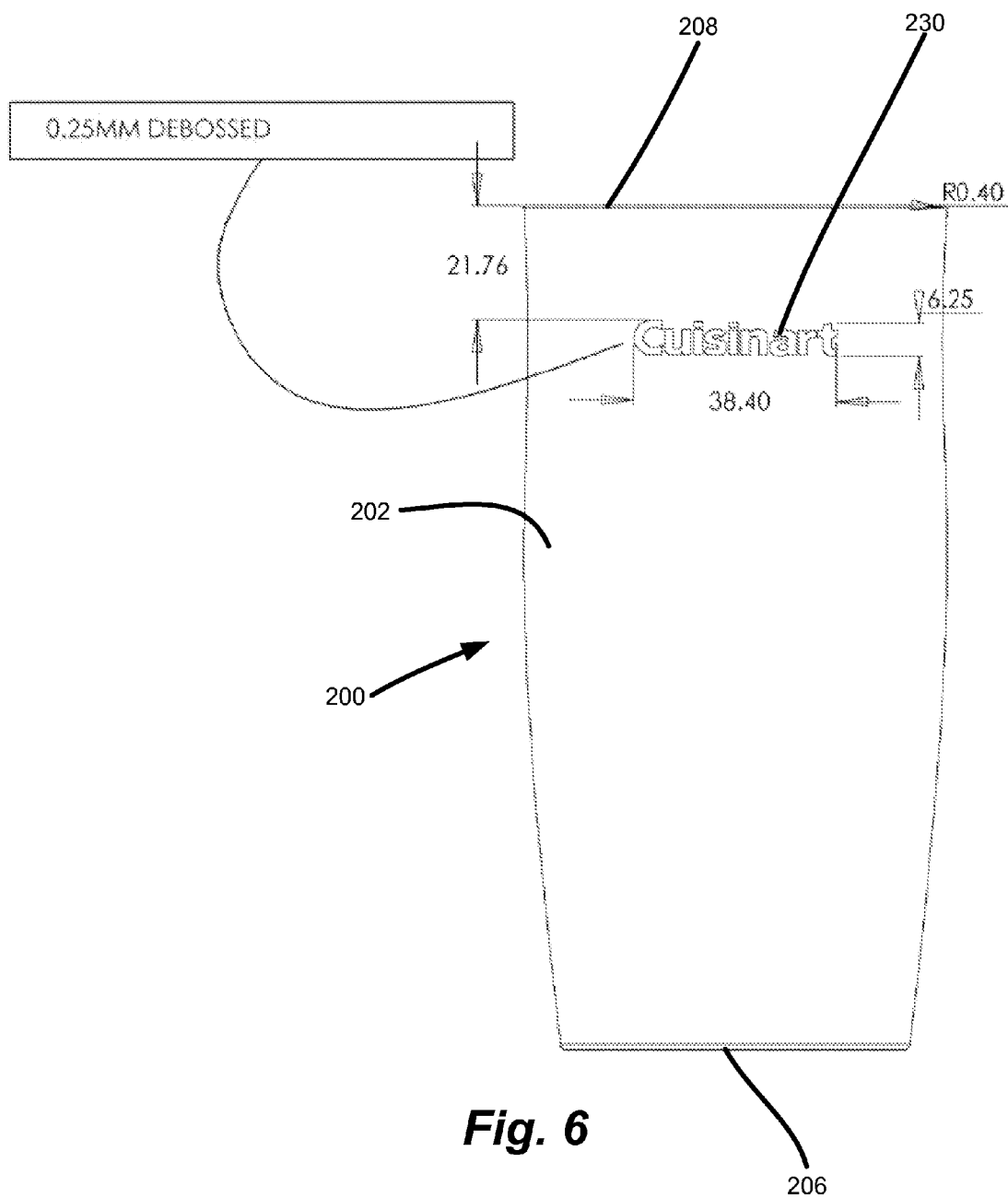


Fig. 6

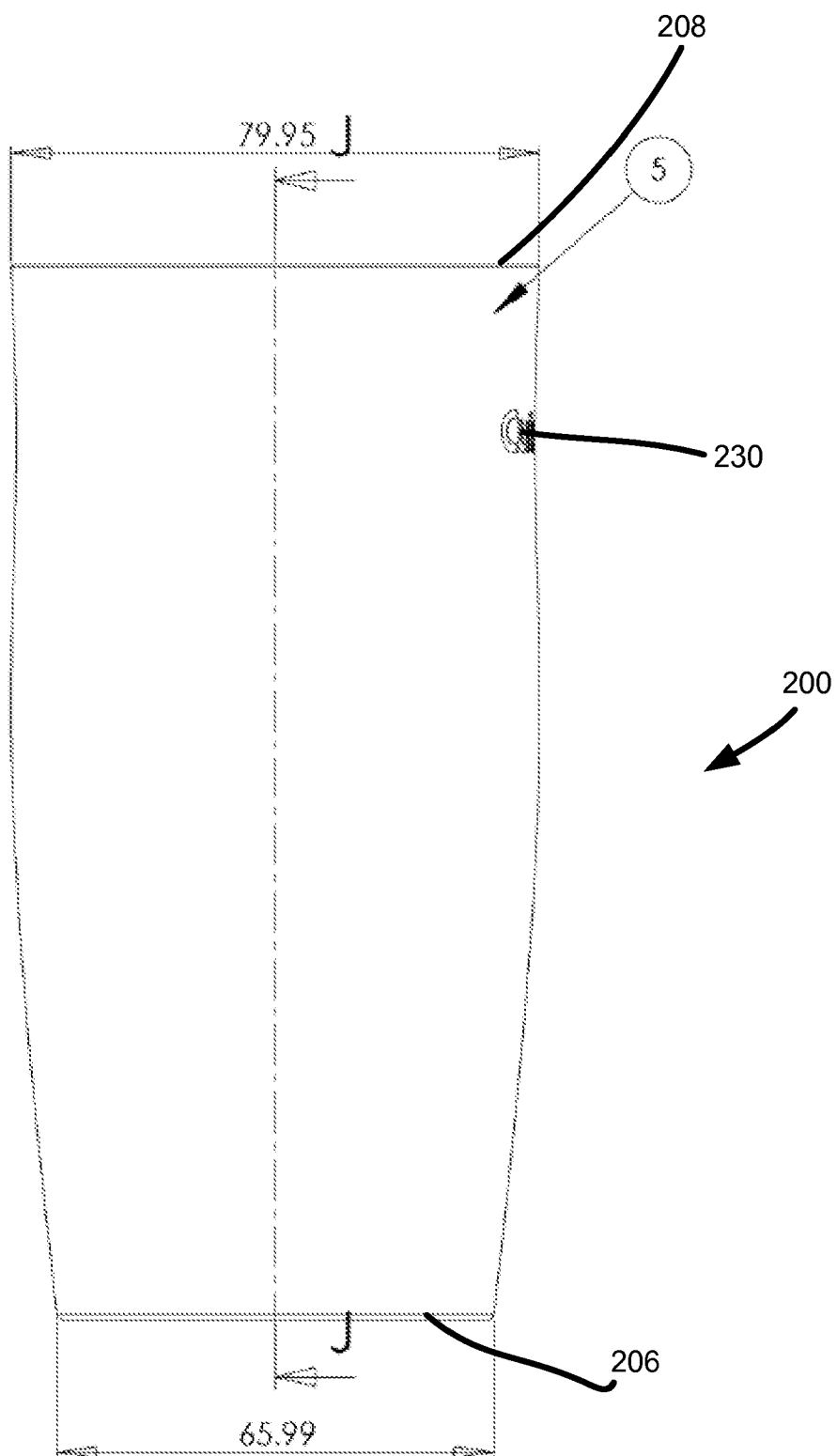


Fig. 7A

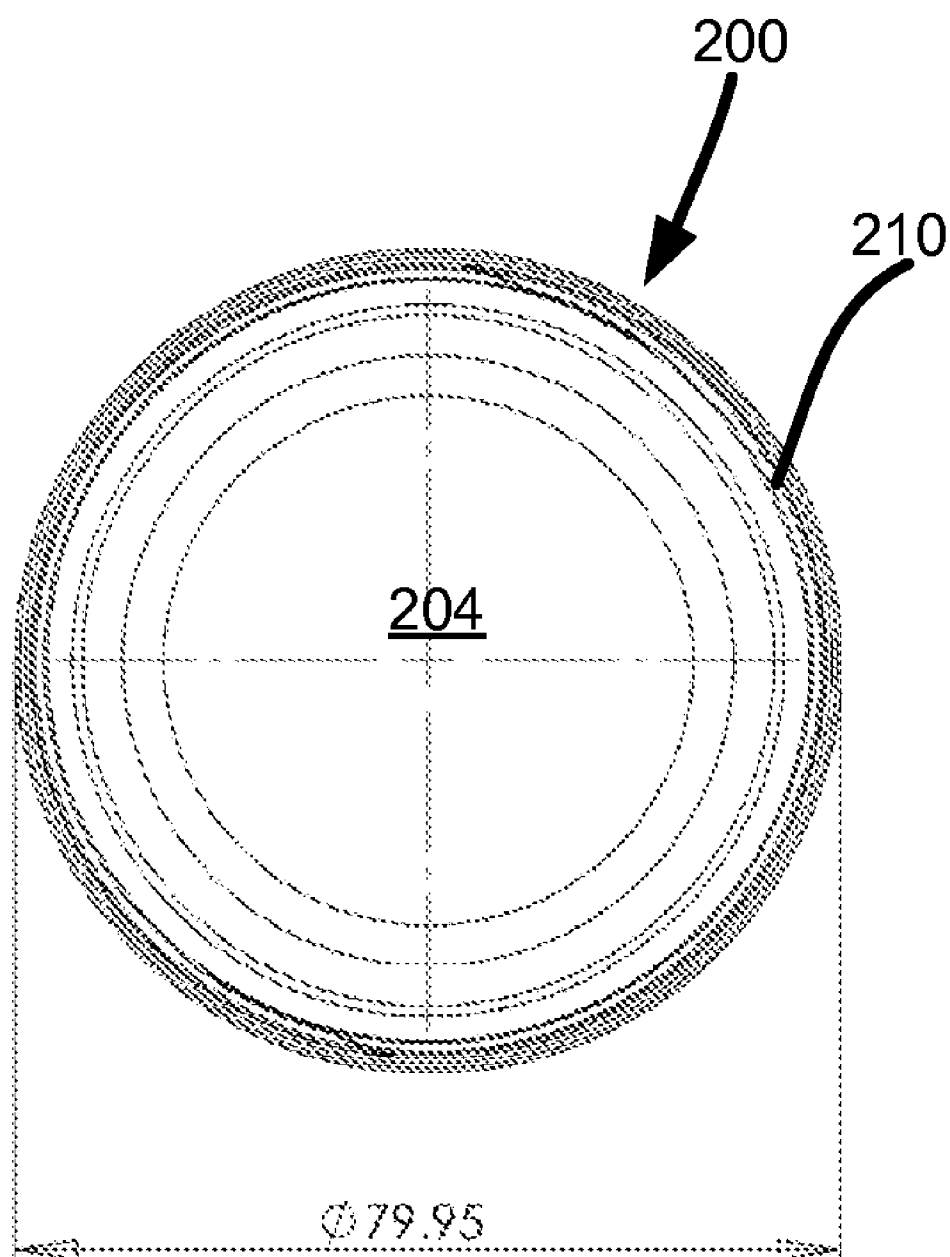


Fig. 7B

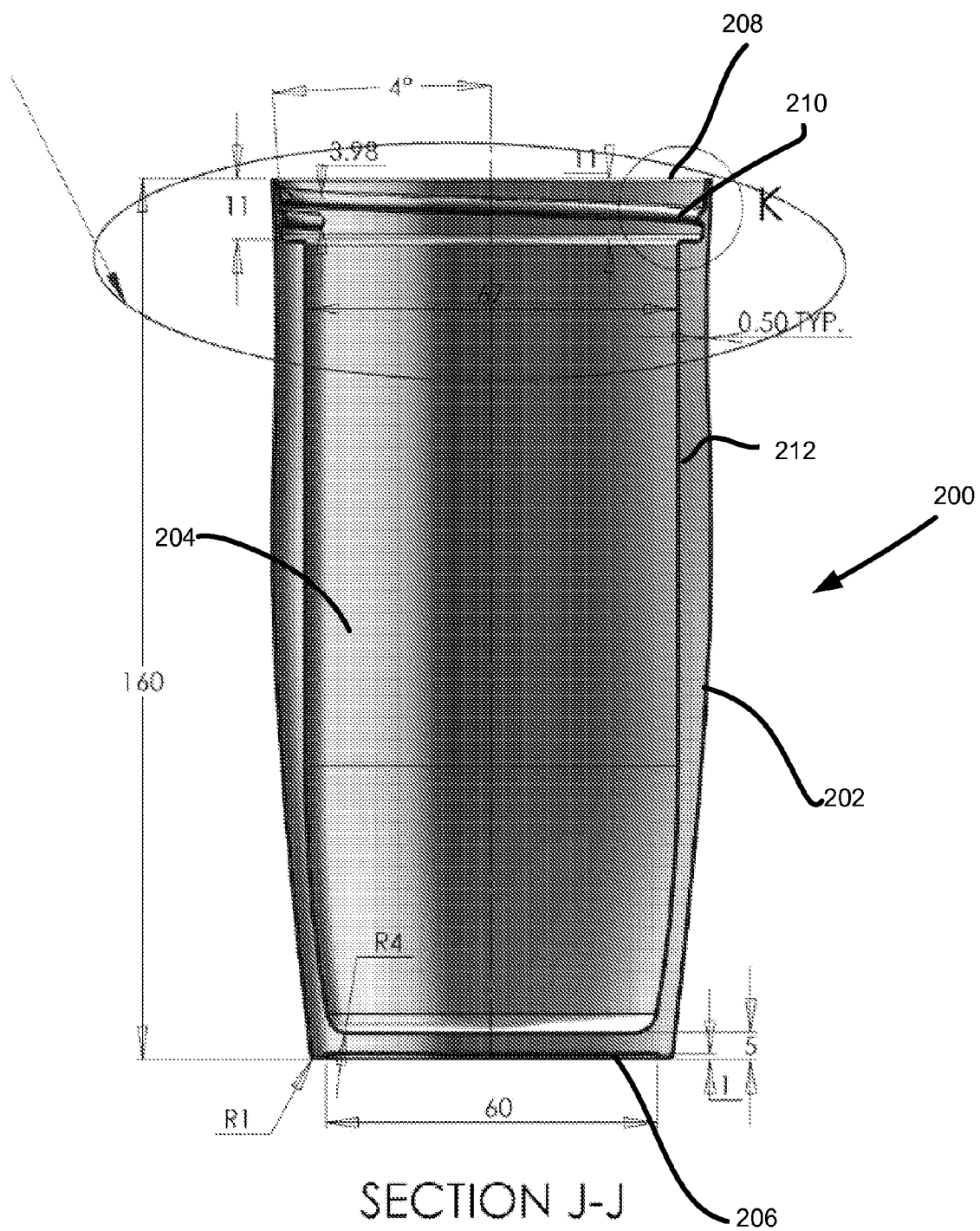


Fig. 8

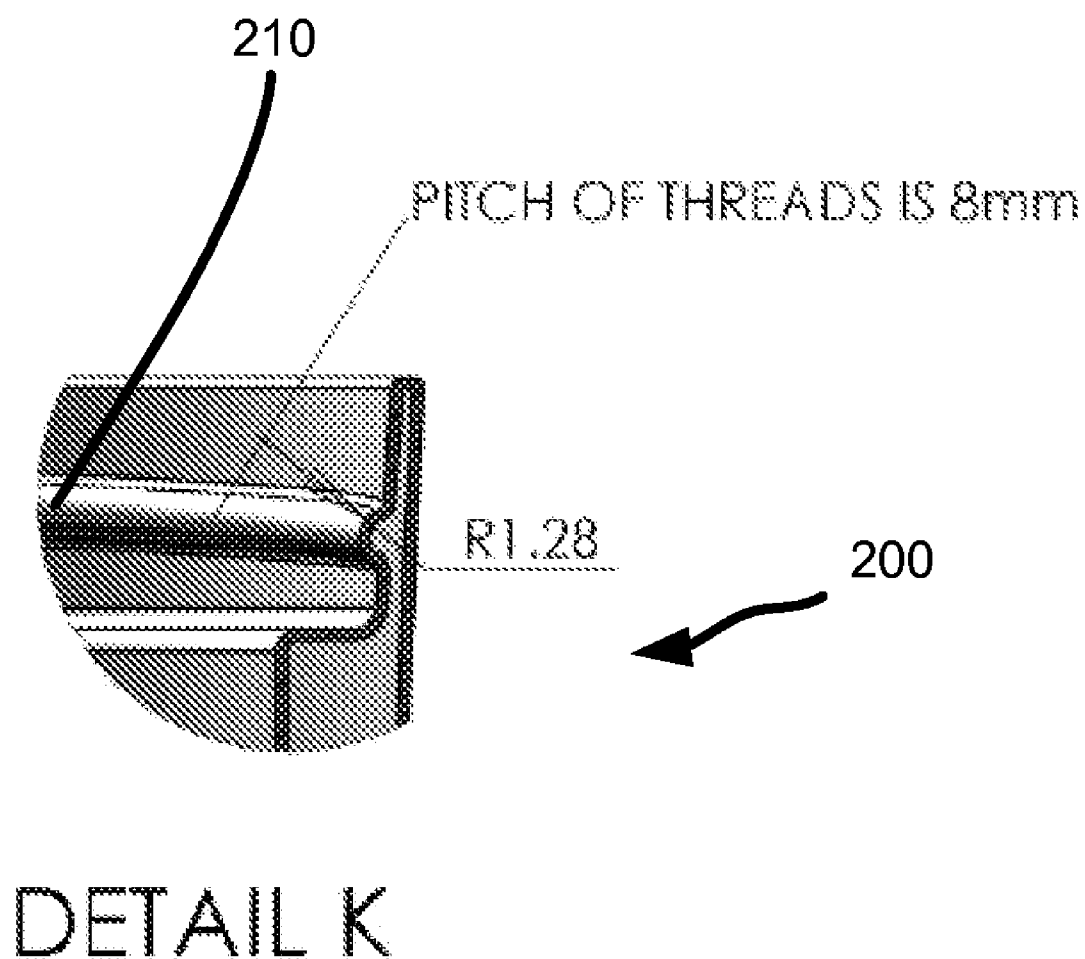
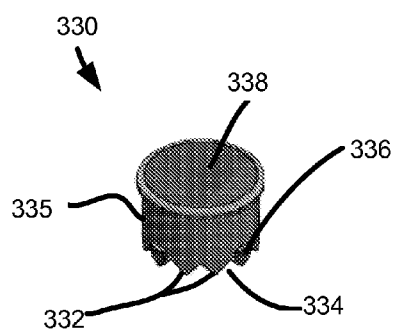
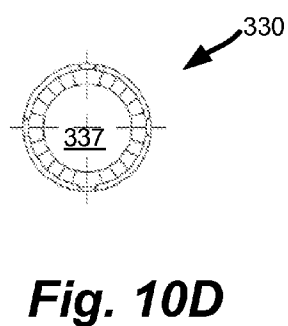
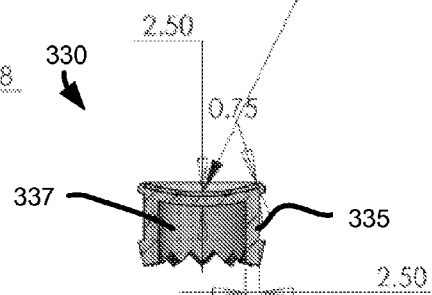
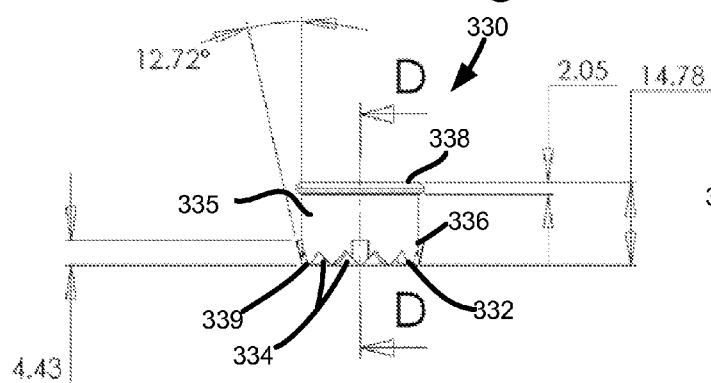
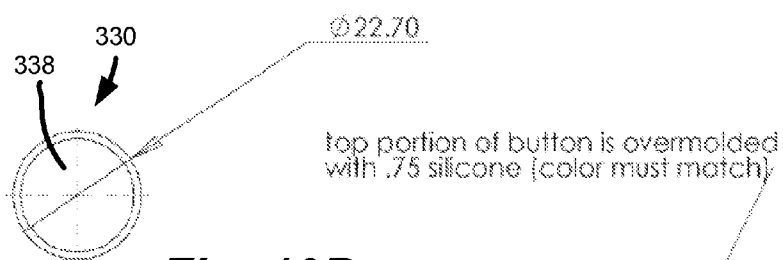


Fig. 9



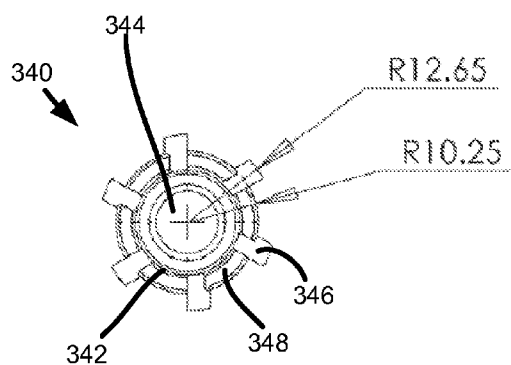


Fig. 11B

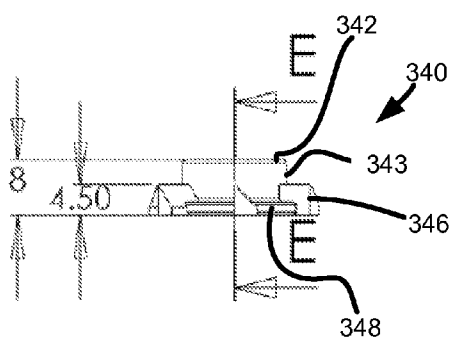


Fig. 11C

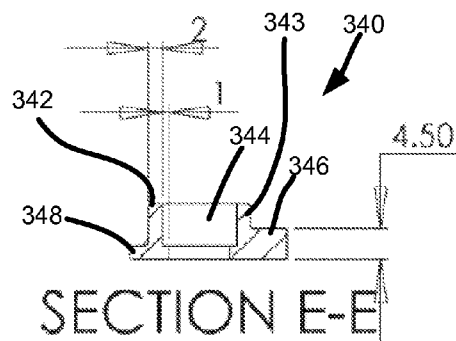


Fig. 11D

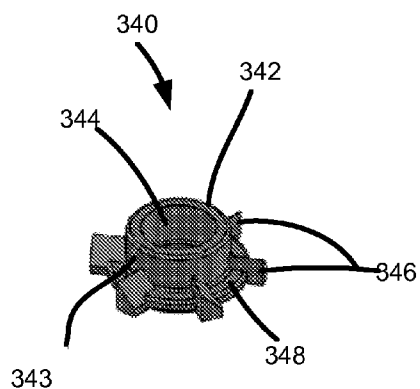


Fig. 11A

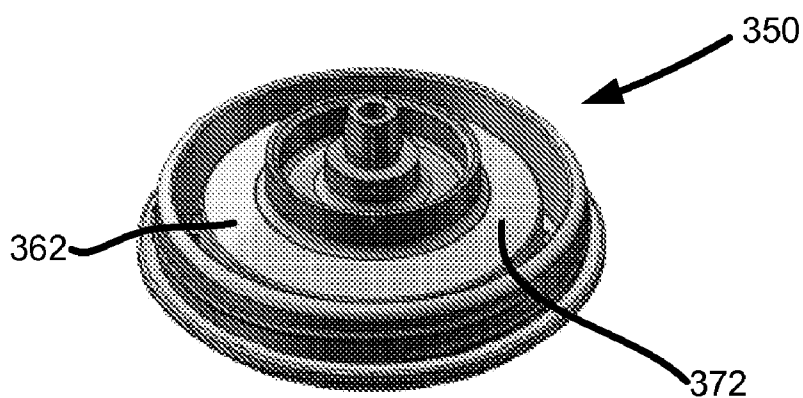
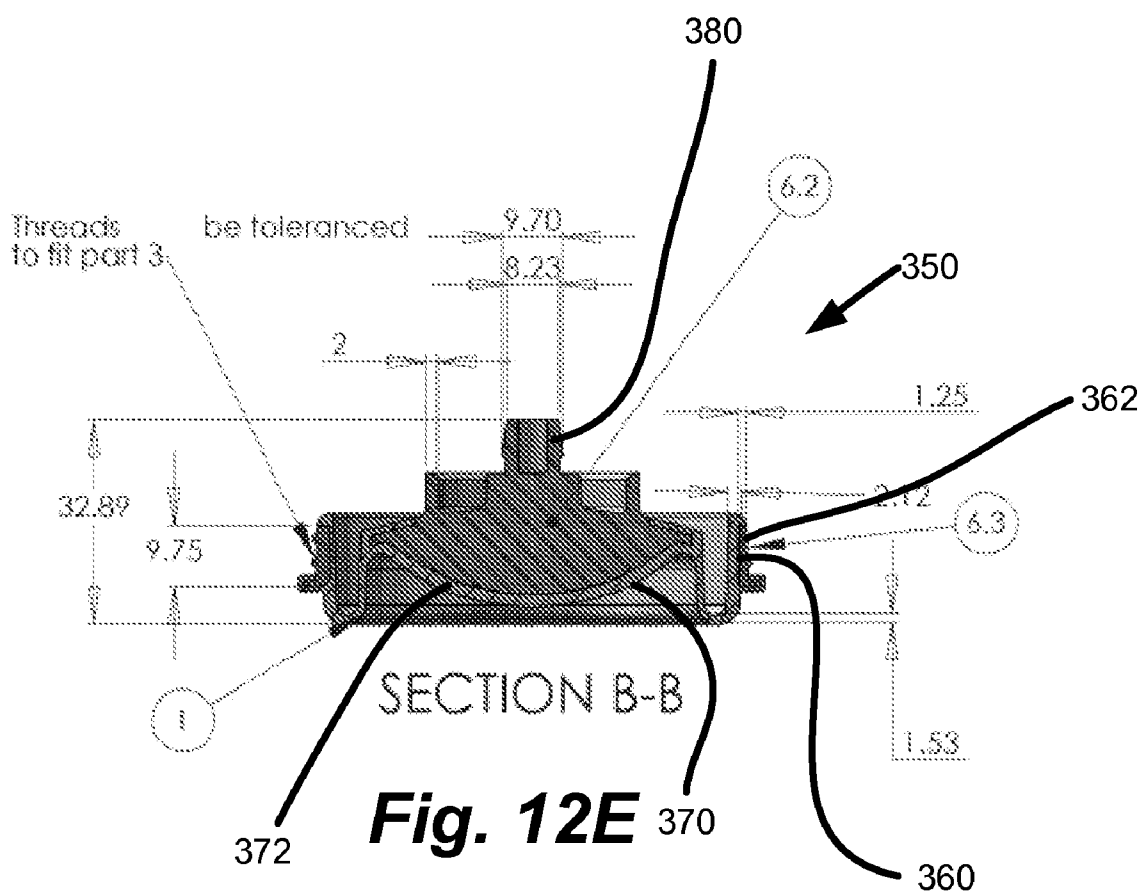
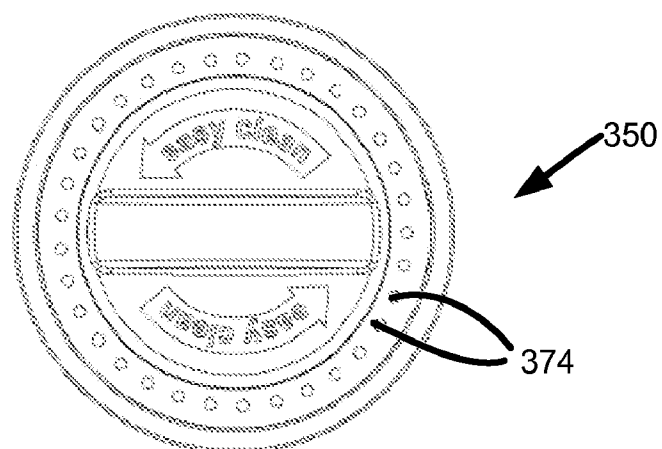
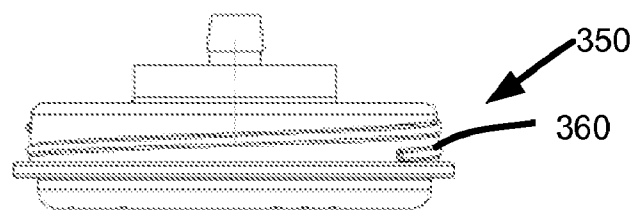
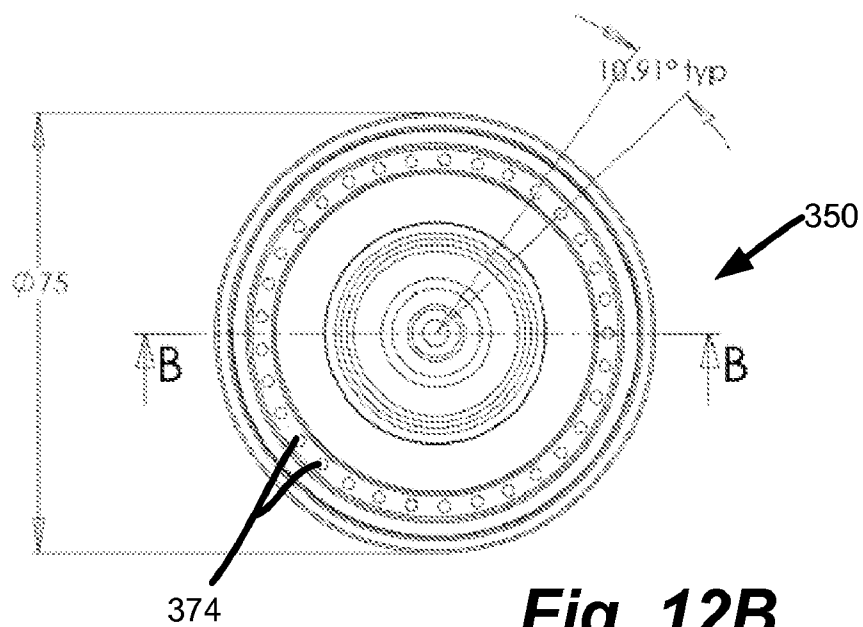


Fig. 12A



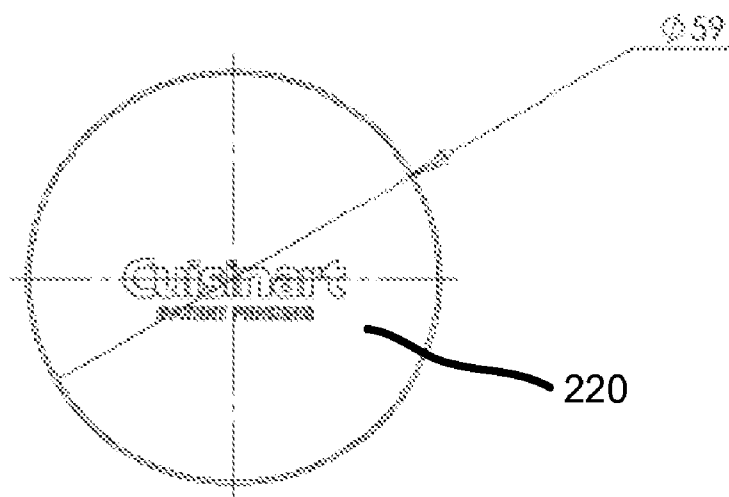


Fig. 13B

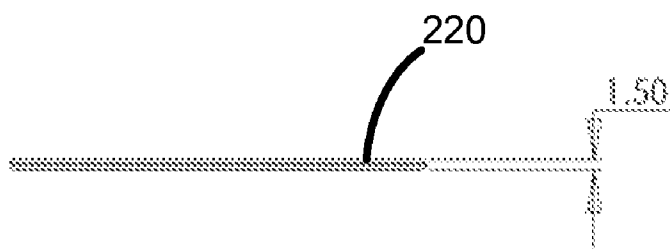


Fig. 13C

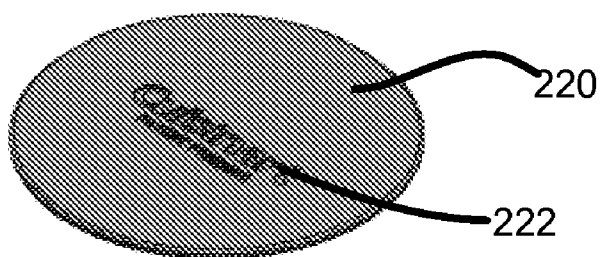


Fig. 13A

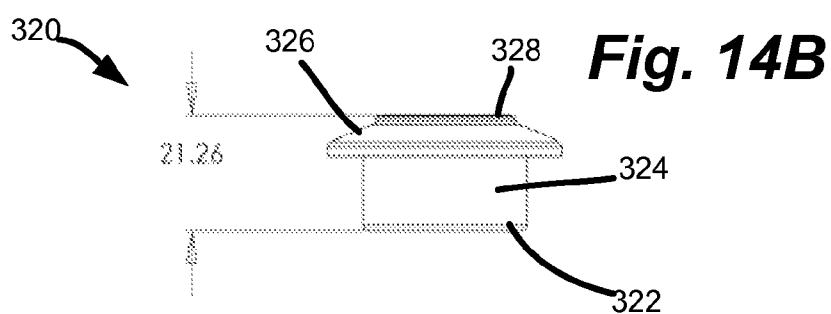
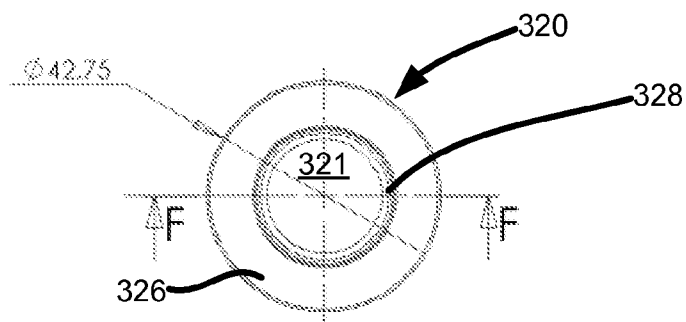


Fig. 14C

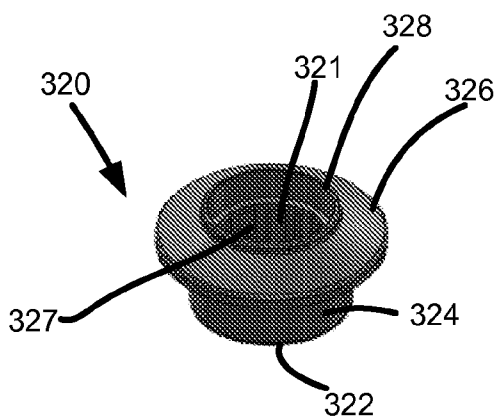


Fig. 14A

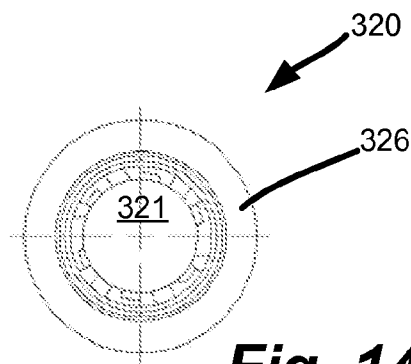


Fig. 14D

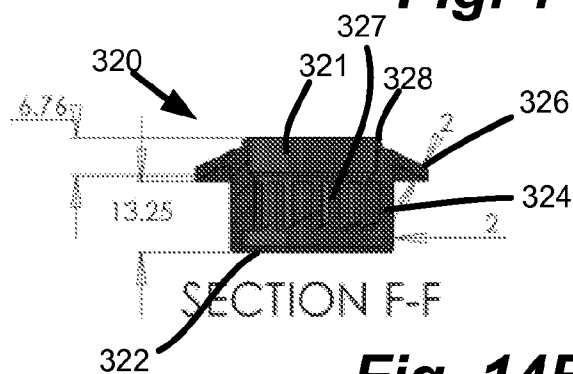


Fig. 14E

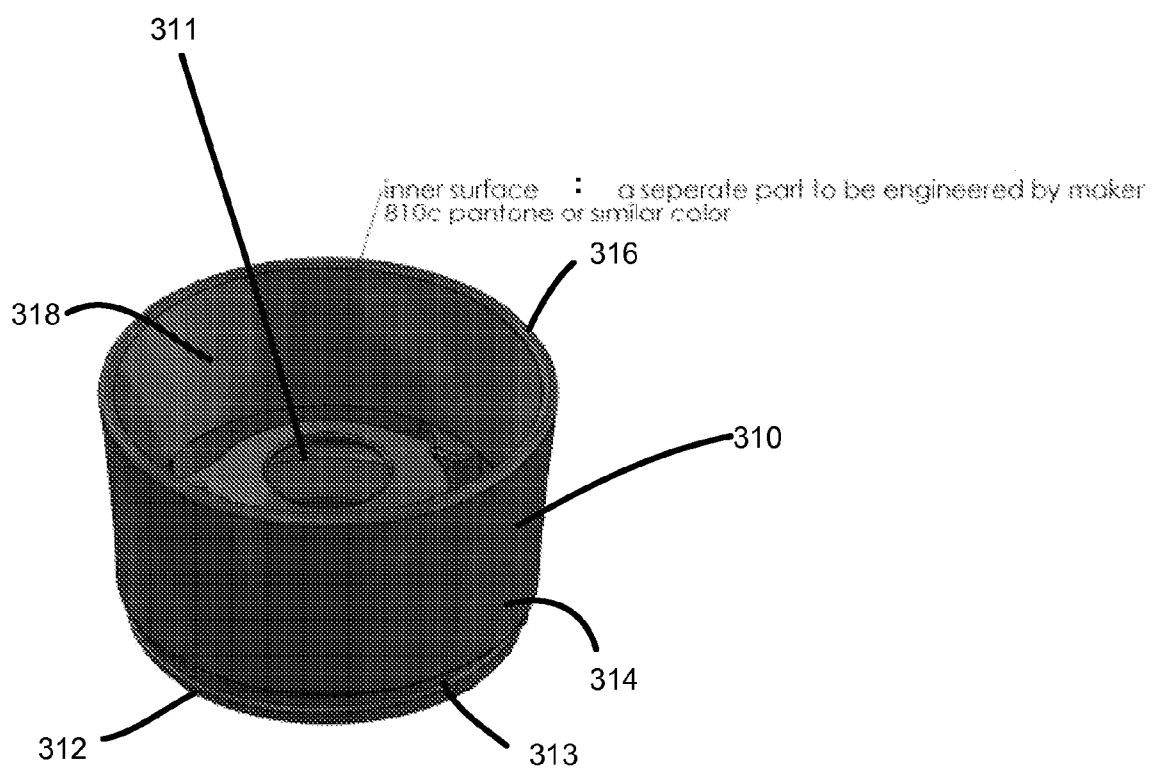


Fig. 15A

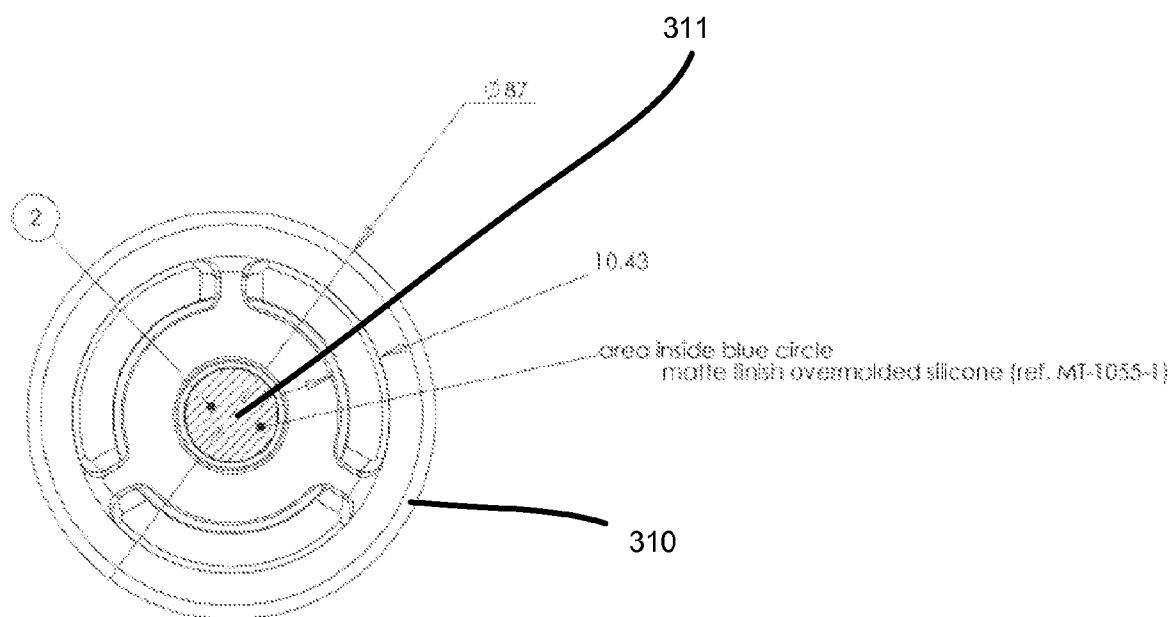


Fig. 15B

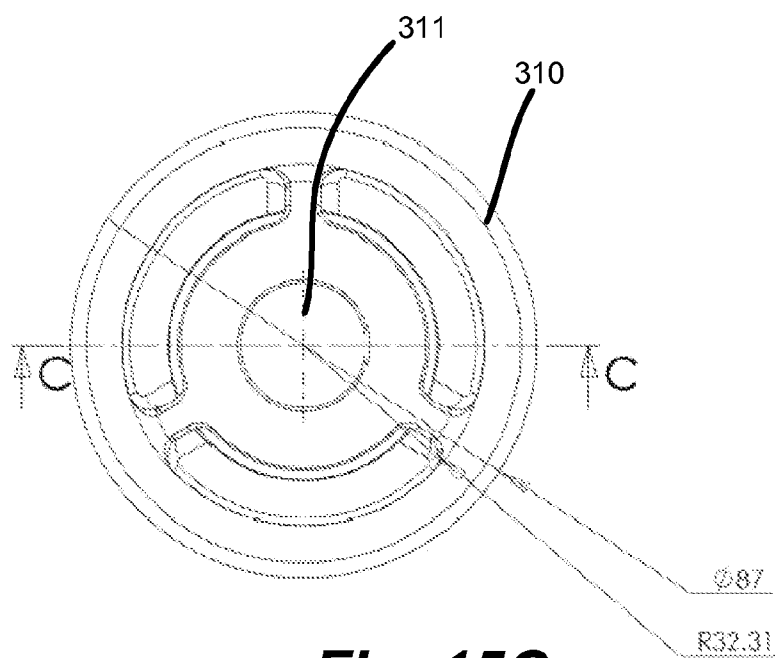


Fig. 15C

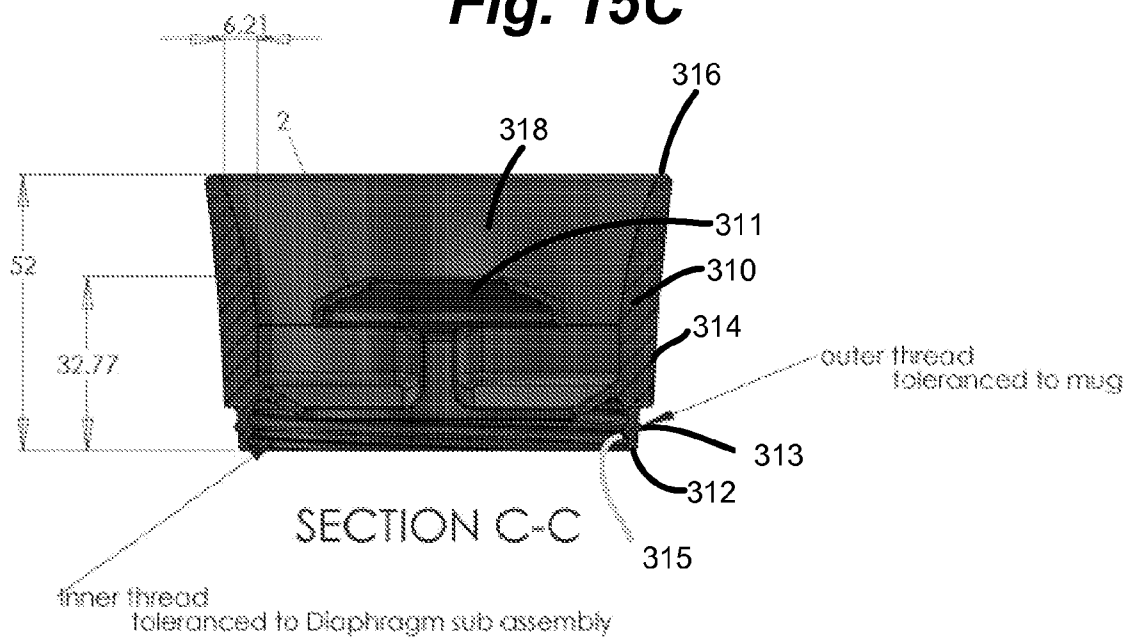
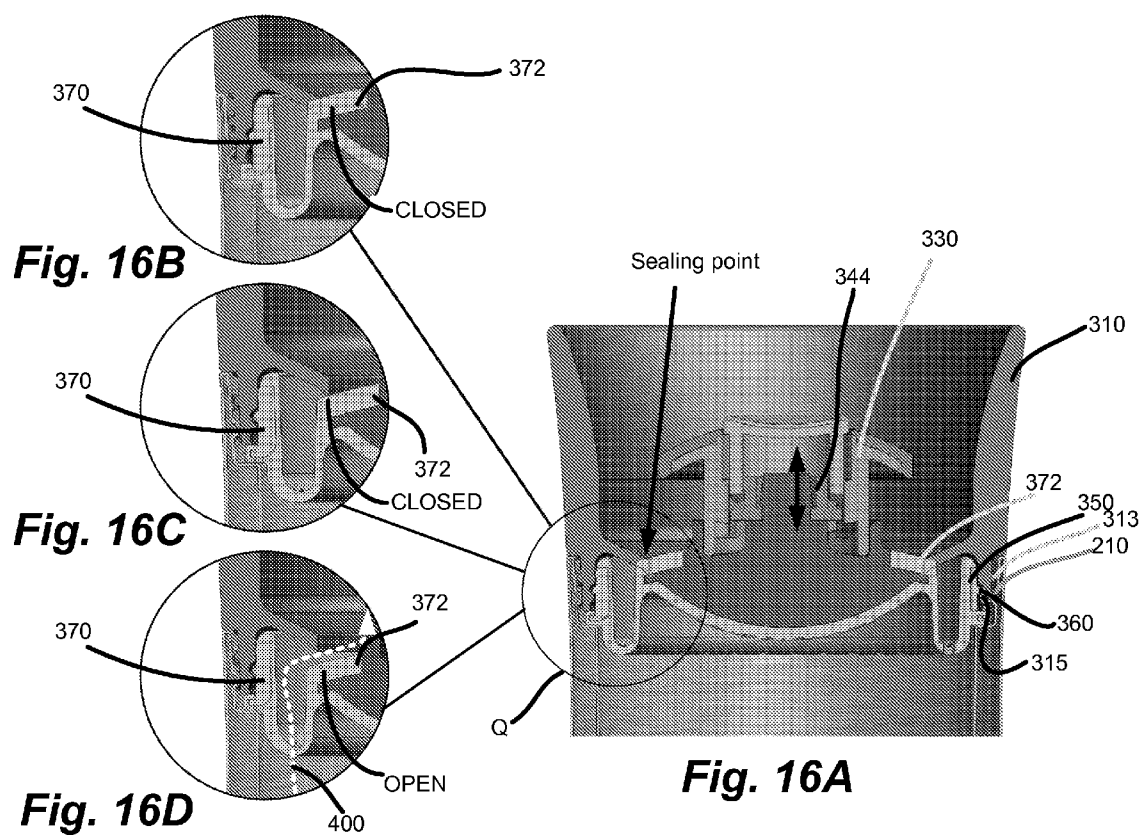


Fig. 15D



TRAVEL BEVERAGE CONTAINER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit, under 35 U.S.C. §119(e), of U.S. Provisional Application Ser. No. 61/161,201, filed 18 Mar. 2009, the entire contents and substance of which is hereby incorporated by reference.

BACKGROUND

[0002] Embodiments of the present invention relate to insulated containers provided with a removable cover and, more specifically, to such containers for containing beverages.

[0003] In recent years, lidded beverage containers, commonly referred to as “travel cups” or “travel mugs”, have become quite popular for use in vehicles or in other applications where the user is in motion. These containers are typically thermally insulated to maintain the temperature of hot or cold beverages, and may be provided with removable covers or lids, which are designed to permit drinking from the vessel while, at the same time, inhibiting accidental spillage of the type that might result from the sloshing of the contents, e.g., during motion of an automotive vehicle or the like.

[0004] Many travel mug lids include a drinking aperture, latch, or valve that can be opened or closed. When the aperture, latch, or valve is open, the liquid in the container can be consumed by the user. When the aperture, latch, or valve is closed, liquid ideally will not escape from the container. The user presumably closes the aperture until he or she is ready to drink from the mug, and then opens the aperture when he or she is ready to drink. These apertures or latch mechanisms, however, include many disadvantages. For example and not limitation, the latches are typically located on the top of the lid, which makes one-handed operation of the mug difficult. In addition, the latch or valve mechanism may be of the type that is open so long as the user is actuating the mechanism, and closes when the user disengages his or her hand from the mechanism. Further, the drinking aperture is arranged in the travel mug in such a way that the user can only drink from one side of the mug and the user must pay close attention to where the user is drinking from, otherwise the beverage contained in the travel mug may spill and specifically may spill over the user who is drinking.

SUMMARY

[0005] Briefly described, embodiments of the present invention relate to a container, or more specifically, a travel container for beverages. The beverage container contains a body for containing a liquid (e.g., a beverage), and a cover assembly for permitting drinking of liquids and for preventing accidental spillage of same.

[0006] The body includes a cylindrical-shape having a uniform side wall extending about the circumference of the body, and defining a hollow cavity or reservoir for carrying a medium, preferably a liquid or a fluid. The body includes a closed bottom end and an open top end, such that the side wall extends from the closed bottom end to the open top end. In proximity to the open top end, the body can include a threaded portion along its inner circumference for mating with a portion of the cover assembly.

[0007] The cover assembly includes a lid or lid body, a collar, a button, a gear assembly, and a diaphragm or activating assembly.

[0008] The lid body includes a bottom, a side wall, and a flange section, which collectively form another container that can hold and store some of the liquid exiting the reservoir of the body. The bottom of the lid body can be substantially flat and can define an aperture sufficiently large enough to receive a portion of the collar. The side wall of the lid body extends from the bottom of the lid body to the flange. The flange can serve as a 360 degree mouthpiece or edge for drinking purposes. Based on the arrangement and operation of the cover assembly, the flange enables a user to drink from any side of the flange and eliminates a need of the user to identify from which side of the flange that the user is drinking.

[0009] The collar, which can be received in the aperture of the lid body, has a bottom, a side wall, an outwardly extending wing, and a top. A defined conduit extends through an approximate center of the collar. The side wall extends from the bottom of the collar to the wing; the side wall can form a cylindrical shape. The wing extends a predetermined distance outwardly from the side wall and is in communication with the top of the collar. An interior of the side wall can define a plurality of indentions for permitting movement of the button within the collar, i.e., longitudinally relative the collar.

[0010] The button includes plurality of teeth, wherein between each tooth is a gap. In an exemplary embodiment, the gaps make upside down V-shapes, while the teeth have a V-shape. The teeth are adapted to engage the gear assembly. In addition, a plurality of outwardly extending teeth can extend from some of the teeth. The outwardly extending teeth are adapted to engage the indentions of the collar.

[0011] The gear assembly comprises a gear having a conduit and a plurality of outwardly extending, substantially triangular-shaped members. The outwardly extending members extend outwardly from the conduit and can have an approximate right triangular shape.

[0012] The diaphragm includes a threaded portion, a biasing portion, and a top portion. The threaded portion is adapted to mate with the threaded portion of the lid body for securing the cover assembly to the body. The biasing portion is adapted to flex, bias, or spring upon depression of the button causing the button to rise and fall relative the lid body and the collar. The button can rise and fall depending on the state of the biasing portion, which can be in an upward position (enabling the button to be up) or a downward position (enabling the button to be down). The top portion is adapted to mate with the gear assembly.

[0013] In an exemplary embodiment, a conduit extends through an approximate center of the diaphragm, the gear of the gear assembly, and the collar. Depending on the position of the button, fluid or liquid contained in the reservoir may or may not be permitted to exit the beverage container.

[0014] In an exemplary embodiment, when the button is up, its top extends up and into a portion of the container of the lid body, and when the body is tilted fluid/liquid can flow therefrom; conversely, when the button is down, its top is in a sealing arrangement relative the top of the collar, which is likewise is a sealing arrangement with the aperture of the bottom of the lid body.

[0015] In another exemplary embodiment, when the button is up, its top is in a sealing arrangement relative the top of the collar, which is likewise in sealing arrangement with the aperture of the bottom of the lid body, and when the button is down, the top extends into a portion of the container of the lid body and when the body is tilted fluid/liquid can flow from the lid body.

[0016] In an exemplary embodiment, the beverage container can be locked or unlocked, i.e., in a sealed arrangement or in an open arrangement, respectively, with a single hand. Instead of requiring two hands to activate or deactivate the locking of the beverage container, the arrangement and design of the cover assembly enables a user to use a single hand to operate it. This overcomes many difficulties of use and further improves safety of use of the beverage container, as one does not need to pay attention where to drink from the flange, nor does one need to use two hands to operate the beverage container.

[0017] These and other objects, features, and advantages of the present invention will become more apparent upon reading the following specification in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE FIGURES

[0018] FIG. 1 is a perspective view of a beverage container, in accordance with an exemplary embodiment of the present invention.

[0019] FIG. 2 is a side view of the beverage container of FIG. 1, in accordance with an exemplary embodiment of the present invention.

[0020] FIG. 3 is a cross-sectional view along line A-A of FIG. 2 of the beverage container of FIGS. 1-2, in accordance with an exemplary embodiment of the present invention.

[0021] FIG. 4 is an exploded view of the beverage container of FIGS. 1-3, in accordance with an exemplary embodiment of the present invention.

[0022] FIG. 5 is a perspective view of a body of the beverage container of FIGS. 1-4, in accordance with an exemplary embodiment of the present invention.

[0023] FIG. 6 is a front view of the body of FIG. 5, in accordance with an exemplary embodiment of the present invention.

[0024] FIG. 7A is a side view of the body of FIGS. 5-6, in accordance with an exemplary embodiment of the present invention.

[0025] FIG. 7B is a top view of the body of FIGS. 5-7A, in accordance with an exemplary embodiment of the present invention.

[0026] FIG. 8 is a cross-sectional view across line J-J of FIG. 7A of the body of FIGS. 5-7B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0027] FIG. 9 is a close-up detailed view of K of FIG. 8 of a threaded portion of the body of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0028] FIG. 10A is a perspective view of a button of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0029] FIG. 10B is a top view of the button of FIG. 10A of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0030] FIG. 10C is a side view of the button of FIGS. 10A-10B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0031] FIG. 10D is a bottom view of the button of FIGS. 10A-10C of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0032] FIG. 10E is a cross-sectional view along the line D-D of FIG. 10C of the button of FIGS. 10A-10D of the

beverage container, in accordance with an exemplary embodiment of the present invention.

[0033] FIG. 11A is a perspective view of a gear assembly of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0034] FIG. 11B is a top view of the gear assembly of FIG. 11A of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0035] FIG. 11C is a side view of the gear assembly of FIGS. 11A-11B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0036] FIG. 11D is a cross-sectional view along line E-E of FIG. 11C of the gear assembly of FIGS. 11A-11C of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0037] FIG. 12A is a perspective view of a diaphragm of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0038] FIG. 12B is a top view of the diaphragm of FIG. 12A of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0039] FIG. 12C is a side view of the diaphragm of FIGS. 12A-12B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0040] FIG. 12D is a bottom view of the diaphragm of FIGS. 12A-12C of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0041] FIG. 12E is a cross-sectional view along line B-B of FIG. 12B of the diaphragm of FIGS. 12A-12D of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0042] FIG. 13A is a perspective view of a base of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0043] FIG. 13B is a top view of the base of FIG. 13A of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0044] FIG. 13C is a side view of the base of FIGS. 13A-13B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0045] FIG. 14A is a perspective view of a collar of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0046] FIG. 14B is a top view of the collar of FIG. 14A of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0047] FIG. 14C is a side view of the collar of FIGS. 14A-14B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0048] FIG. 14D is a bottom view of the collar of FIGS. 14A-14C of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0049] FIG. 14E is a cross-sectional view along line F-F of FIG. 14B of the collar of FIGS. 14A-14D of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0050] FIG. 15A is a perspective view of a lid body of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0051] FIG. 15B is a top view of the lid body of FIG. 15A of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0052] FIG. 15C is another top view of the lid body of FIGS. 15A-15B of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0053] FIG. 15D is a cross-sectional view along line C-C of FIG. 15C of the lid body of FIGS. 15A-15C of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0054] FIG. 16A is a partial cross-sectional view along line A-A of FIG. 2 of a cover assembly of the beverage container, in accordance with an exemplary embodiment of the present invention.

[0055] FIG. 16B is a close-up detailed view of Q of FIG. 16A illustrating the cover assembly in a sealed position, in accordance with an exemplary embodiment of the present invention.

[0056] FIG. 16C is a close-up detailed view of Q of FIG. 16A illustrating the cover assembly in a sealed position, in accordance with an exemplary embodiment of the present invention.

[0057] FIG. 16D is a close-up detailed view of Q of FIG. 16A illustrating the cover assembly in an open position, in accordance with an exemplary embodiment of the present invention.

DETAILED DESCRIPTION

[0058] To facilitate an understanding of embodiments, principles, and features of the present invention, they are explained hereinafter with reference to implementation in illustrative embodiments. In particular, they are described in the context of being a container. Embodiments of the present invention are also described in the context of a travel container for beverages.

[0059] Embodiments of the present invention, however, are not limited to use in the described systems. Rather, embodiments of the present invention can be used when a container is desired or necessary. Thus, the system described hereinafter as a container can also find utility as a system for other applications, beyond that of a beverage container.

[0060] The components described hereinafter as making up the various embodiments are intended to be illustrative and not restrictive. Many suitable components that would perform the same or a similar function as the materials described herein are intended to be embraced within the scope of embodiments of the present invention.

[0061] Referring now to the figures, wherein like reference numerals represent like parts throughout the views, embodiments of the present invention will be described in detail. A container for, among other things, insulating to maintain the temperature of hot or cold beverages, and permitting drinking from the container, while, at the same time, preventing accidental spillage that might result from sloshing of the beverage, is described herein.

[0062] Embodiments of the present invention relate to a container 100, or more specifically, a travel container for beverages. The beverage container 100 contains a body 200 for containing a liquid (e.g., a beverage), and a cover assembly 300 for permitting drinking of liquids while preventing accidental spillage of same.

[0063] The body 200 includes a cylindrical-shape having the uniform side wall 202 extending about the circumference of the body 200, and defining a hollow cavity 204 or reservoir for carrying a medium, preferably a liquid or a fluid. The body 200 includes a closed bottom end 206 and an open top end 208, such that the side wall 202 extends from the closed

bottom end 206 to the open top end 208. In proximity to the open top end 208, the body 200 can include a threaded portion 210 along its inner circumference for mating with a portion of the cover assembly 300.

[0064] The cover assembly 300 includes a lid or lid body 310, a collar 320, a button 330, a gear assembly 340, and a diaphragm or an activating assembly 350.

[0065] The lid body 310 includes a bottom 312, a side wall 314, and a flange section 316, which collectively form another container 318 that can hold and store some of the liquid exiting the reservoir 204 of the body 200. The bottom 312 of the lid body 310 can be substantially flat and can define an aperture 311 sufficiently large enough to receive a portion of the collar 320. The side wall 314 of the lid body 310 extends from the bottom 312 of the lid body 310 to the flange 316. The flange 316 can serve as a 360 degree mouthpiece or edge for drinking purposes, thus permitting a user to drink from all sides of the lid body 310 (360 degree drinking). Based on the arrangement and operation of the cover assembly 300, the flange 316 enables a user to drink from any side of the flange 316 and eliminates a need of the user to identify from which side of the flange 316 that the user is drinking.

[0066] The lid body 310 includes two sets of threaded portions, an outer threaded portion 313 and an inner threaded portion 315. The outer threaded portion 313 includes a singular circumferentially extending thread that is adapted to mate with the threaded portion 210 of the body 200 for securing the cover assembly 300 to the body 200. The inner threaded portion 315 includes is adapted to mate with a threaded portion of the diaphragm 350, as described more fully below.

[0067] The collar 320, a portion of which can be received in the aperture 311 of the lid body 310, has a bottom 322, a side wall 324, an outwardly extending wing 326, and a top 328. A defined conduit 321 extends through an approximate center of the collar 320. The side wall 324 extends from the bottom 322 of the collar 320 to the wing 326; the side wall 324 can form a cylindrical shape. The wing 326 extends a predetermined distance outwardly from the side wall 324 and is in communication with the top 328 of the collar 320. An interior of the side wall 324 can define a plurality of indentions 327 for permitting movement of the button 330 within the collar 320 longitudinally relative the collar 320.

[0068] The button 330 includes plurality of teeth 332 near its bottom. Between each tooth is a gap 334. In an exemplary embodiment, each gap 334 makes an upside down V-shape, while the teeth 332 have a right-side up V-shape. In addition, a plurality of outwardly extending teeth 336 can extend outwardly from some of the plurality of teeth 332. The outwardly extending teeth 336 are adapted to engage the indentions 327 of the collar 320, while the teeth 332 are adapted to engage the gear assembly 340.

[0069] The gear assembly 340 comprises a gear 342 comprising a side wall defining a conduit 344 therein and a plurality of outwardly extending, substantially triangular-shaped members 346. The outwardly extending members 346 extend from the conduit 344 and can have a right triangular shape.

[0070] The diaphragm 350 includes a threaded portion 360, a biasing portion 370, and a top portion 380. The threaded portion 360 includes a singular circumferentially extending thread 362 that is adapted to mate with the threaded portion 315 of the lid body 310 of the cover assembly 300 for securing the diaphragm 350 to the cover assembly 300. The biasing portion 370 includes a biasing member 372 and is adapted to

flex, bias, or spring upon depression of the button 330 causing the button 330 to rise and fall relative the lid body 310 and the collar 320. The button 330 can rise and fall depending on the state of the biasing member 372, which can be in an upward position (enabling the button 330 to be in an upward state) or a downward position (enabling the button 330 to be in a downward state). The top portion 380 is adapted to mate with the gear assembly 340.

[0071] In an exemplary embodiment, a conduit extends through an approximate center of the diaphragm 350, the gear 342 of the gear assembly 340, and the collar 320. Depending on the position of the button 330, fluid or liquid contained in the reservoir 204 may or may not be permitted to exit the beverage container 100.

[0072] In an exemplary embodiment, when the button 330 is up, its top extends up and into a portion of the container 318 of the lid body 310, and when the body 200 is tilted fluid/liquid can flow therefrom; conversely, when the button 330 is down, its top is in a sealing arrangement relative the top of the collar 320, which is likewise is a sealing arrangement with the aperture 311 of the bottom 312 of the lid body 310.

[0073] In another exemplary embodiment, when the button 330 is up, its top is in a sealing arrangement relative the top of the collar 320, which is likewise in sealing arrangement with the aperture 311 of the bottom 312 of the lid body 310, and when the button 330 is down, the top extends into a portion of the container 318 of the lid body 310 and when the body 200 is tilted fluid/liquid can flow from the lid body 310.

[0074] FIG. 1 illustrates a perspective view of the beverage container 100. Here, the cover assembly 300 is secured to the body 200, and the button 330 is in a down position, and as a result fluid or liquid contained in the reservoir 204 of the body 200 shall not escape.

[0075] FIG. 2 illustrates a side view of the beverage container 100. Again, like FIG. 1, the cover assembly 300 is secured to the body 200. The dimensions provided in FIG. 2 are exemplary and can vary.

[0076] FIG. 3 illustrates a cross-sectional view across line A-A of FIG. 2. Like FIGS. 1-2, the beverage container illustrated in FIG. 3 is in a state such that the cover assembly 300 is secured to the body, and the button is down such that media shall not leak from the container 100. The elements of the cover assembly 300 are shown in FIG. 3. In addition, the body 200 can include a thermal insulation layer 212 that surrounds the reservoir 204. The thermal insulation layer 212 maintains the temperature of hot or cold beverages contained in the body 200.

[0077] FIG. 4 illustrates an exploded view of the beverage container 100. As illustrated, the threaded portion 360 can fit around the perimeter of the biasing portion 370. The top portion 380 can mate with the biasing portion 370. Collectively, the threaded portion 360, the biasing portion 370, and the top portion 380 can make up the diaphragm 350. In some embodiments, these elements can be integral with one another; in other embodiments, these elements can be separate, distinct pieces. The conduit 344 of the gear assembly 340 can be in communication with the top portion of the diaphragm 350. The button 330 can move relative the gear assembly 340. The collar 320 is fittable within an aperture 311 of the body 310. In addition, a base or bottom pad 220 can be attached to the bottom 206 of the body 200.

[0078] FIG. 5 illustrates a perspective view of the body 200 of the beverage container 100. A portion of the reservoir 204

is illustrated, as is the threaded portion 210 along the inner periphery in proximity to the top end 208.

[0079] FIG. 6 illustrates a side view of the body 200. In an exemplary embodiment, the exterior side wall 202 of the body 200 can be printed, debossed, or embossed with indicia 230, which as illustrated can be a trademark, such as "Cuisinart." FIG. 7A illustrates another side view of the body 200. FIG. 7B illustrates a top view of the body 200, as if looking into the reservoir 204 from the top with the cover assembly 300 absent. The dimensions provided in FIGS. 6-7B are exemplary and can vary.

[0080] FIG. 8 illustrates a cross-sectional view of the body across line J-J of FIG. 7A. The thermal insulation layer 212 maintains the temperature of hot or cold beverages contained in the body 200 and is positioned between the exterior of the side wall 202 of the body 200 and the reservoir 204. The dimensions provided in FIG. 8 are exemplary and can vary.

[0081] FIG. 9 illustrates a detailed view of the threaded portion 210 of the body 200. The dimensions provided in FIG. 9 are exemplary and can vary.

[0082] FIGS. 10A-10E illustrate various views of the button 330. The button 330 includes the plurality of downwardly extending teeth 332, and in between each tooth is the gap 334. In an exemplary embodiment, the gaps 334 make upside down V-shapes, while the teeth 332 have a V-shape. In addition, the plurality of outwardly extending teeth 336 can extend from a plurality of teeth 332. The outwardly extending teeth 336 are adapted to engage the indentions 327 of the collar 320. The button has a flat top end 338, while the bottom end 339 includes the tip of each tooth 332. Beneath the flat top 338 is a cavity 337 encapsulated by a side wall 335 extending from the top 338 down to the gap 334 or tooth 332. The cavity 337 is adapted to receive a portion of the gear 342 of the gear assembly 340. The dimensions provided in FIGS. 10B-10E are exemplary and can vary.

[0083] FIGS. 11A-11D illustrate various views of the gear assembly 340. The gear assembly 340 comprises the gear 342 comprising a side wall 343 defining the conduit 344 and a plurality of outwardly extending, substantially triangular-shaped members 346. The outwardly extending members 346 extend from the conduit 344 and can have an approximate right triangle shape. The outwardly extending members 346 can be supported by a rim 348, which also extends outwardly from the side wall 343, just not as far as the extending member 346. The outwardly extending members 346 include a top end, which can have a point to engage the gaps 334 of the button 330, and a falling end that terminates at the rim 348. The dimensions provided in FIGS. 11B-11D are exemplary and can vary.

[0084] FIG. 12A-12E illustrate various views of the diaphragm 350. The diaphragm 350 includes the threaded portion 360, the biasing portion 370, and the top portion 380. The threaded portion 360 includes a singular circumferentially extending thread 362 that is adapted to mate with the threaded portion 210 of the body 200 for securing the cover assembly 300 to the body 200. The biasing portion 370 includes a biasing member 372 and is adapted to flex, bias, or spring upon depression of the button 330 causing the button 330 to rise and fall relative the lid body 310 and the collar 320. The button 330 can rise and fall depending on the state of the biasing member 372, which can be in an upward position (enabling the button 330 to be in an upward state) or a down-

ward position (enabling the button 330 to be in a downward state). The top portion 380 is adapted to mate with the gear assembly 340.

[0085] In proximity to the perimeter of the biasing portion 370 of the diaphragm 350 can be a plurality of apertures 374, as illustrated in FIGS. 12B and 12D. Fluid can flow through the apertures 374 from the reservoir and into the lid body when the lid body is in the open position (see, e.g., FIG. 16D). The dimensions provided in FIGS. 12B and 12E are exemplary and can vary.

[0086] FIGS. 13A-13C illustrate various views of the bottom 206 of the body 200. The base or bottom pad 220 can be attached to the bottom 206 of the body 200. Indicia 222 can be printed, embossed or debossed on the bottom pad 220. In addition, the bottom pad 220 can be removably attached to the bottom 206 of the body 200. Alternatively, the bottom pad 220 can be permanently attached to the bottom 206 of the body 200, e.g., via an adhesive means. In an exemplary embodiment, the indicia 222 is positioned on the side of the bottom pad 220 that is facing out from the bottom 206 of the body 200, and thus can be seen by users (i.e., not on the side connected to the bottom 206 of the body 200). The dimensions provided in FIGS. 13B and 13C are exemplary and can vary.

[0087] FIGS. 14A-14E illustrate various views of the collar 320. A portion of the collar 320 is receivable in the aperture 311 of the lid body 310, and includes the bottom 322, the side wall 324, the outwardly extending wing 326, and the top 328. The defined conduit 321 extends through an approximate center of the collar 320. The side wall 324 extends from the bottom 322 of the collar 320 to the wing 326; the side wall 324 can have a cylindrical shape. The wing 326 extends a predetermined distance outwardly from the side wall 324 and is in communication with the top 328 of the collar 320. An interior 325 of the side wall 324 can define the plurality of indentions 327 for permitting movement of the button 330 within the collar 320 longitudinally relative the collar 320. The dimensions provided in FIGS. 14B, 14C and 14E are exemplary and can vary.

[0088] FIGS. 15A-15D illustrate various views of the lid body 310, which includes the bottom 312, the side wall 314, and the flange section 316. The lid body includes the container 318 that can hold and store some of the liquid exiting the reservoir 204 of the body 200. The bottom 312 of the lid body 310 can be substantially flat and can define the aperture 311 sufficiently large enough to receive a portion of the collar 320. The side wall 314 of the lid body 310 extends from the bottom 312 of the lid body 310 to the flange 316. The flange 316 can serve as a 360 degree mouthpiece or edge for drinking purposes. The button 330 is adapted to move up and into a portion of the container 318.

[0089] The cover assembly 300 is rotatably attachable to the body 200. The threaded portion 362 of the cover assembly 300 can mate with the threaded portion 210 of the body 200. When attached to the body, the cover assembly includes two states—a first in which fluid/liquid can flow from the body and out and a second in which fluid/liquid is prohibited from flowing from the body. The state is dependent on the button.

[0090] FIGS. 16A-16D illustrate various views of the cover assembly. Specifically, FIG. 16A shows a cross-sectional view of the cover assembly 300, while FIGS. 16B-16D illustrate partial cross-sectional views of the cover assembly 300, wherein the diaphragm 350 is in communication with the lid body 310. FIGS. 16B-16C illustrate the body 200 in a closed

or sealed position, where fluid cannot flow outwardly from the reservoir 204, while FIG. 16D illustrates the body 200 in an open position, where fluid can flow outwardly from the reservoir 204.

[0091] Generally, a seal is created between the diaphragm 350 and the lid body 200. The biasing portion of the diaphragm 350 flexes and when the button is pushed downwardly causes the diaphragm to flex and move downwardly, thus opening the seal on the body. This is illustrated in FIG. 16D with the dashed line 400.

[0092] The cover assembly 300 can be sealed to prevent media or fluid to flow from the reservoir or open to permit media or fluid to flow from the reservoir. In an exemplary embodiment, the button can shift the sealing or opening of the cover assembly between the two available positions.

[0093] In an exemplary embodiment, when the button is up (i.e., not depressed) as illustrated in FIGS. 16B-16C, the diaphragm is in contact with the lid body to seal the reservoir shut. The teeth 332 of the button 330 engage the top of the triangular shaped members 346 of the gear assembly. The diaphragm does not depress and thus remains in contact with the lid body, and prevents media or fluid to exit.

[0094] In an exemplary embodiment, when the button is down (i.e., depressed) as illustrated in FIG. 16D, the diaphragm is not in contact with the lid body and thus opens the reservoir. The teeth 332 of the button 330 disengage from the triangular shaped members 336 of the gear assembly. The biasing member of the diaphragm flexes and thus moves the diaphragm away from the lid body. Media or fluid can flow through the apertures of the diaphragm atop the diaphragm into the body of the lid body and then can be poured therefrom.

[0095] The button can be pushed or depressed and the state of the button can change. When the button is forced down, the button does not interfere with the flow of fluid and thus fluid can flow from the body. When the button is up, the button is a fluid sealing relationship with the collar and the lid body; consequently, fluid/liquid cannot exit the body. In another embodiment, the opposite relationship of the button provides an opposite sealing/opening of the body (e.g., when the button is up, fluid can flow out, while when the button is down fluid is prevented from flowing).

[0096] Embodiments of the present invention relate to a push-button beverage container or a push-button travel mug.

[0097] In another embodiment, the button can change states based on a rotation of the lid assembly, which can cause the button to rise and fall based on the state of the biasing member.

[0098] While the invention has been disclosed in its preferred forms, it will be apparent to those skilled in the art that many modifications, additions, and deletions can be made therein without departing from the spirit and scope of the invention and its equivalents, as set forth in the following claims.

What is claimed is:

1. A beverage container comprising:
 - a body defining a reservoir shaped to contain a fluid;
 - a cover assembly comprising a sealed arrangement to prevent spillage of the fluid contained in the body, and an open arrangement to permit distribution of the fluid, the cover assembly comprising:
 - a lid body;
 - a collar receivable within a portion of the lid body;

- an activating device movable laterally and rotationally relative to the collar and within the collar;
- a gear assembly in communication with the activating device and adapted to rotate relative to a portion of the activating device as the activating device moves; and
- a diaphragm moveable based on the position of the activating device,
- wherein depending on the position of the activating device the diaphragm can flex to either seal the cover assembly, to prevent spillage of the fluid, or to open the cover assembly, to permit distribution of the fluid.
2. The beverage container of claim 1, the body comprising a thermal insulation layer with a uniform side wall for maintaining a temperature of the fluid contained in the reservoir.
3. The beverage container of claim 1, the body comprising a closed bottom end, a uniform side wall, and an open top end, the uniform side wall extending from the closed bottom end to the open top end.
4. The beverage container of claim 3, the body further comprising a threaded portion in proximity to the open top end along an inner circumference for mating with a threaded portion of the lid body of the cover assembly.
5. The beverage container of claim 1, the lid body of the cover assembly comprising:
- a bottom defining an aperture;
 - a flange providing a edge for drinking purposes; and
 - a side wall extending from the bottom to the flange.
6. The beverage container of claim 1, the collar of the cover assembly defining a conduit extending through its approximate center, and the collar comprising:
- a bottom;
 - a side wall;
 - an outwardly extending wing extending a predetermined distance from the side wall of the collar; and
 - a top in communication with the outwardly extending wing of the collar;
 - a plurality of indentions on an interior of the side wall of the collar; and
 - the side wall of the collar extending from the bottom of the collar to the outwardly extending wing of the collar and forming an approximate cylindrical shape.
7. The beverage container of claim 1, the activating device of the cover assembly comprising a plurality of downwardly extending teeth adapted to engage a portion of the gear assembly.
8. The beverage container of claim 1, the gear assembly comprises a gear defining a conduit, and a plurality of outwardly extending, substantially triangular members, the outwardly extending, substantially triangular members extending outwardly from the conduit.
9. The beverage container of claim 1, the diaphragm comprising:
- a threaded portion adapted to mate with an inner threaded portion of the lid body of the cover assembly;
 - a flexible biasing portion; and
 - an upwardly extending top portion adapted to be received by a portion of the gear assembly.
10. A beverage container comprising:
- a body shaped to contain a medium;
 - a cover assembly for preventing spillage of the medium contained in the body, wherein the cover assembly adapted to open and close the body, the cover assembly comprising:
- a lid body comprising:
 - a bottom defining an aperture;
 - a flange providing a edge for drinking purposes; and
 - a side wall extending from the bottom to the flange;
 - a collar receivable in the aperture of the bottom of the lid body, the collar defining a conduit extending through an approximate center of the collar, the collar comprising:
 - a bottom;
 - a side wall;
 - an outwardly extending wing extending a predetermined distance from the side wall of the collar; and
 - a top in communication with the outwardly extending wing of the collar;
 - a plurality of indentions on an interior of the side wall; the side wall of the collar extending from the bottom of the collar to the outwardly extending wing of the collar and forming an approximate cylindrical shape;
 - an activating device comprising a plurality of downwardly extending teeth, a portion of the teeth adapted to engage the indentions of the collar;
 - a gear assembly comprising a gear defining a conduit, and a plurality of outwardly extending, substantially triangular members, the outwardly extending, substantially triangular members extending outwardly from the conduit; and
 - a diaphragm comprising:
 - a threaded portion adapted to mate the cover assembly to the body;
 - a biasing portion adapted to flex upon depression of the activating device; and
 - a top portion adapted to secure the gear assembly.
11. The beverage container of claim 10, the body having a cylindrical shape comprising a uniform side wall extending about a circumference of the body and defining a reservoir for carrying the medium.
12. The beverage container of claim 11, the body comprising a closed bottom end and an open top end, wherein the side wall extends from the closed bottom end to the open top end, and the side wall comprising a thermal insulation layer.
13. The beverage container of claim 12, the body further comprising a threaded portion in proximity to the open top end along an inner circumference for mating with a portion of the cover assembly.
14. The beverage container of claim 10, the conduit of the diaphragm extending through the approximate center of the diaphragm, the gear of the gear assembly, and the collar.
15. The beverage container of claim 10, the diaphragm further comprising a plurality of apertures sized to permit flow of the medium contained in the body.
16. The beverage container of claim 10, the activating device adapted to move between an up position and a down position, such that when the activating device is in the up position the cover assembly is sealed preventing flow of the medium from the body, and such that when the activating device is in the down position the cover assembly is open allowing flow of the medium out of the body.
17. The beverage container of claim 10, wherein a user can drink from the beverage container from 360 degrees about the flange of the lid body.
18. A cover assembly configured to seal a reservoir of a travel beverage container, the cover assembly comprising:

a lid body;
 a collar receivable in the lid body, the collar defining a conduit extending through an approximate center of the collar;
 an activating device receivable within a portion of the collar;
 a gear assembly in communication with the activating device, wherein the gear assembly rotates relative to movement of the activating device; and
 a flexible diaphragm moveable upon movement or activation of the activating device.

19. The cover assembly of claim **18**,

the lid body comprising:

a bottom defining an aperture;
 a flange providing a edge for drinking purposes; and
 a side wall extending from the bottom to the flange;

the collar comprising:

a bottom;
 a side wall;
 an outwardly extending wing extending a predetermined distance from the side wall of the collar; and

a top in communication with the outwardly extending wing of the collar;
 a plurality of indentions on an interior of the side wall; the side wall of the collar extending from the bottom of the collar to the outwardly extending wing of the collar and forming an approximate cylindrical shape;
 the activating device comprising a plurality of teeth, each of the teeth of the activating device adapted to engage the at least one indention of the plurality of indentions of the collar;
 the gear assembly comprising a gear defining a conduit, and a plurality of outwardly extending, substantially triangular members, the outwardly extending, substantially triangular members extending outwardly from the conduit; and
 the diaphragm comprising:
 a threaded portion adapted to mate the cover assembly to the body;
 a biasing portion adapted to flex upon depression of the activating device; and
 a top portion adapted to secure the gear assembly.

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