



US 20130228486A1

(19) **United States**

(12) **Patent Application Publication**
BUCK

(10) **Pub. No.: US 2013/0228486 A1**

(43) **Pub. Date: Sep. 5, 2013**

(54) **TOP MOUNTING BOTTLE CONTAINER**

(52) **U.S. Cl.**

USPC **206/459.1; 206/501; 206/459.5**

(76) Inventor: **Ronald Mark BUCK**, Encinitas, CA
(US)

(57) **ABSTRACT**

(21) Appl. No.: **13/412,602**

Top mounting bottle container that couples with a bottle. A tab and cut-out in the cover provides for spill free snacking from an independent removable vessel. Salty snacks such as BEER NUTS® for example may couple to the top of a beer bottle for example. Various configurations enable the inclusion of fresh food, eating and drinking from a straw if desired while standing and walking and simultaneous access of solid or liquid in the container and bottle. Coupling elements that couple the top mounting bottle container to the bottle, may utilize any type of easily removable or semi-removable technology. Simplifies eating and drinking from one container and bottle in a theater or stadium having seats for example that provide one beverage holder per seat. Provides one free hand to hold a child's hand for safety while in stadiums and amusement parks.

(22) Filed: **Mar. 5, 2012**

Publication Classification

(51) **Int. Cl.**

B65D 21/032 (2006.01)

B65D 85/72 (2006.01)

B65D 43/02 (2006.01)

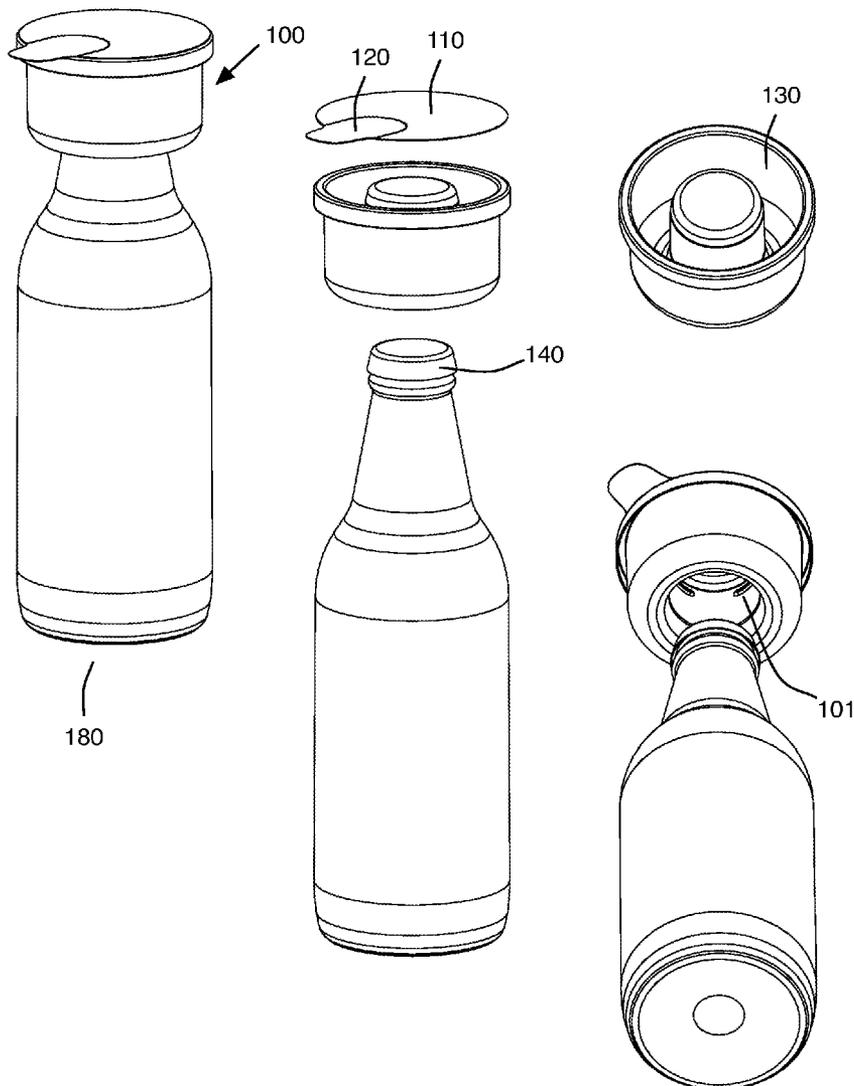


FIGURE 1

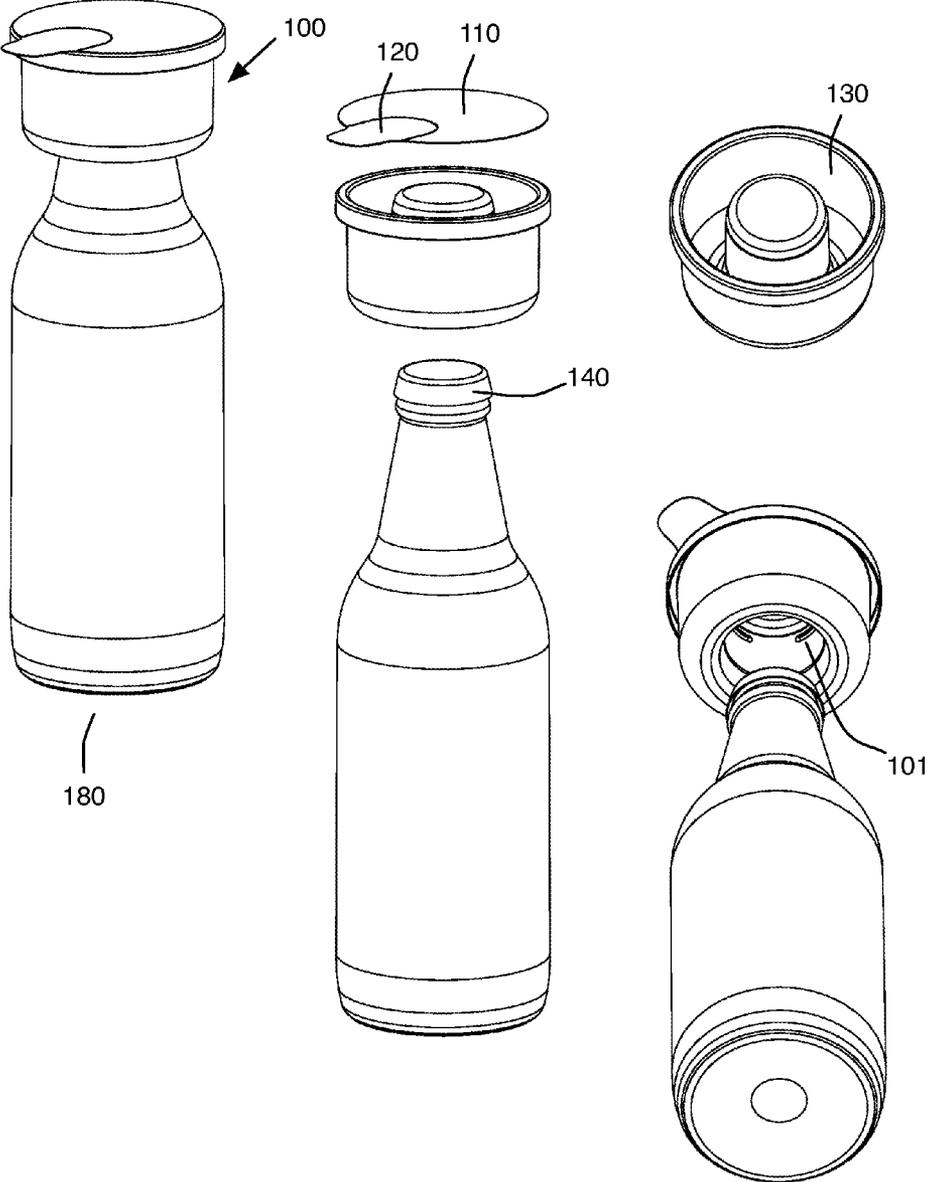


FIGURE 2

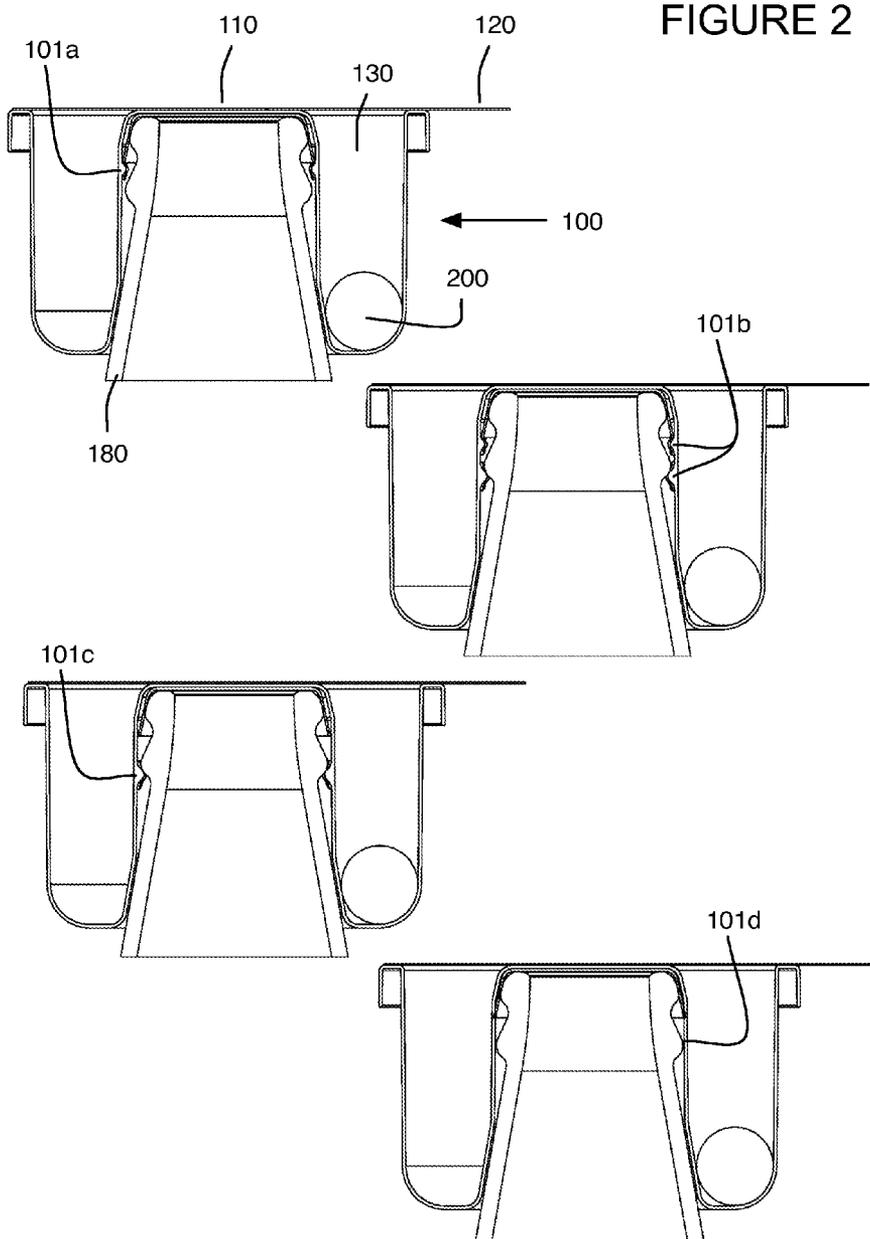


FIGURE 3

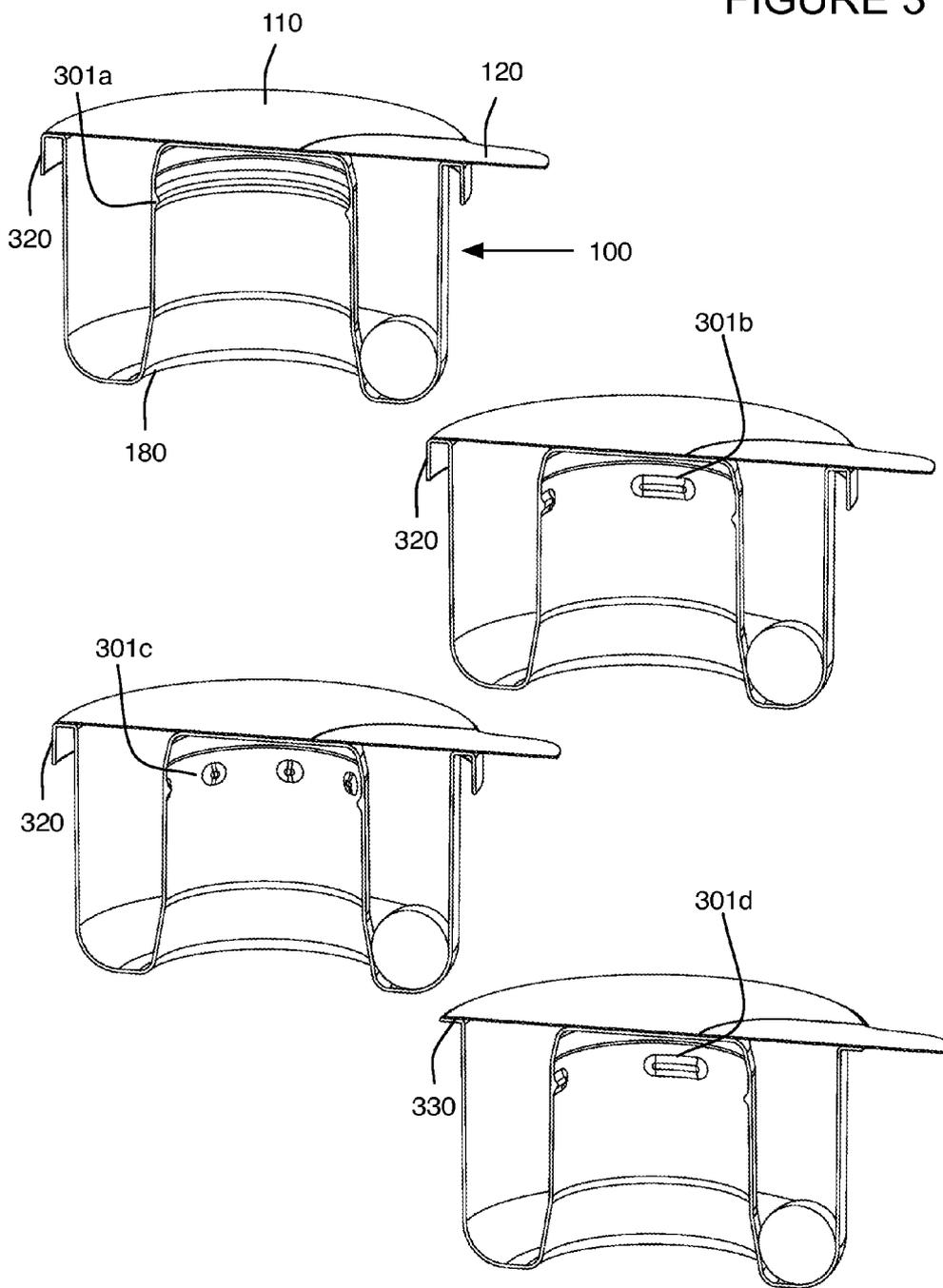


FIGURE 4

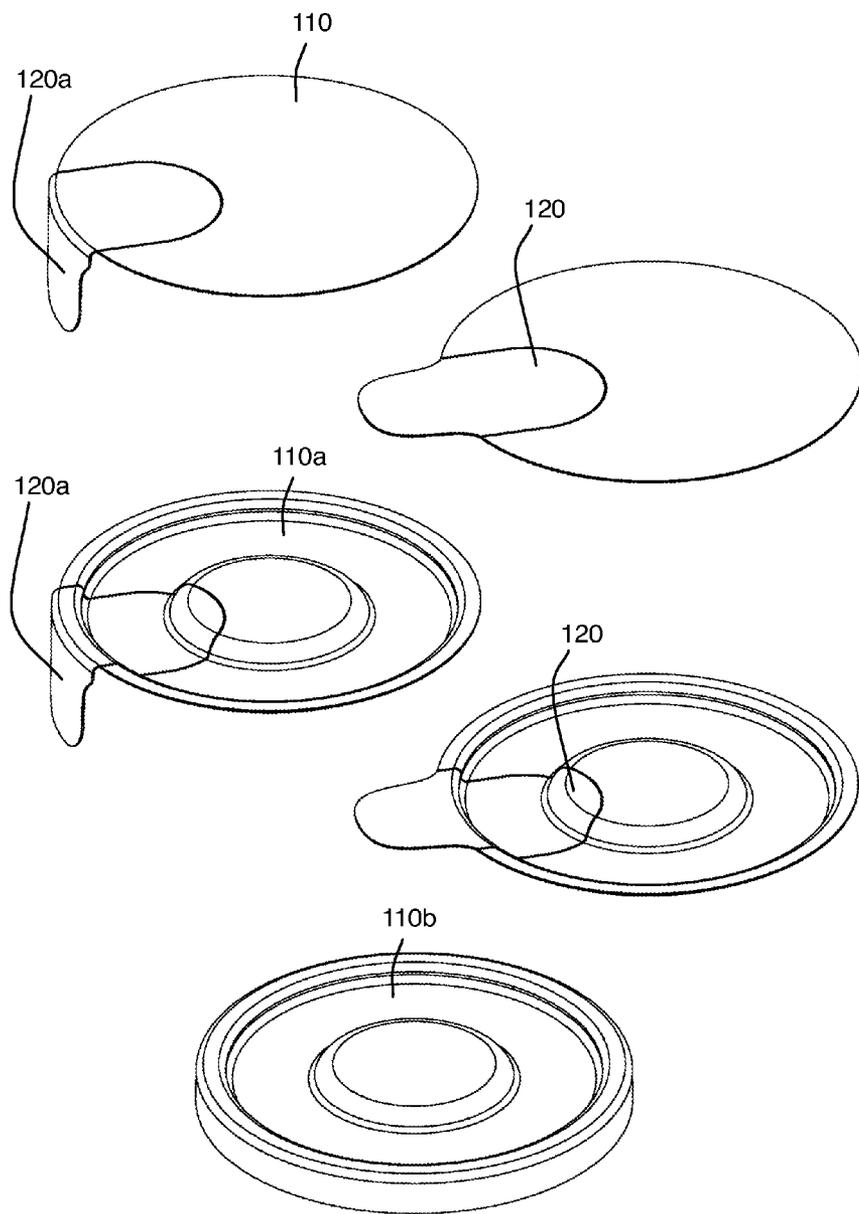
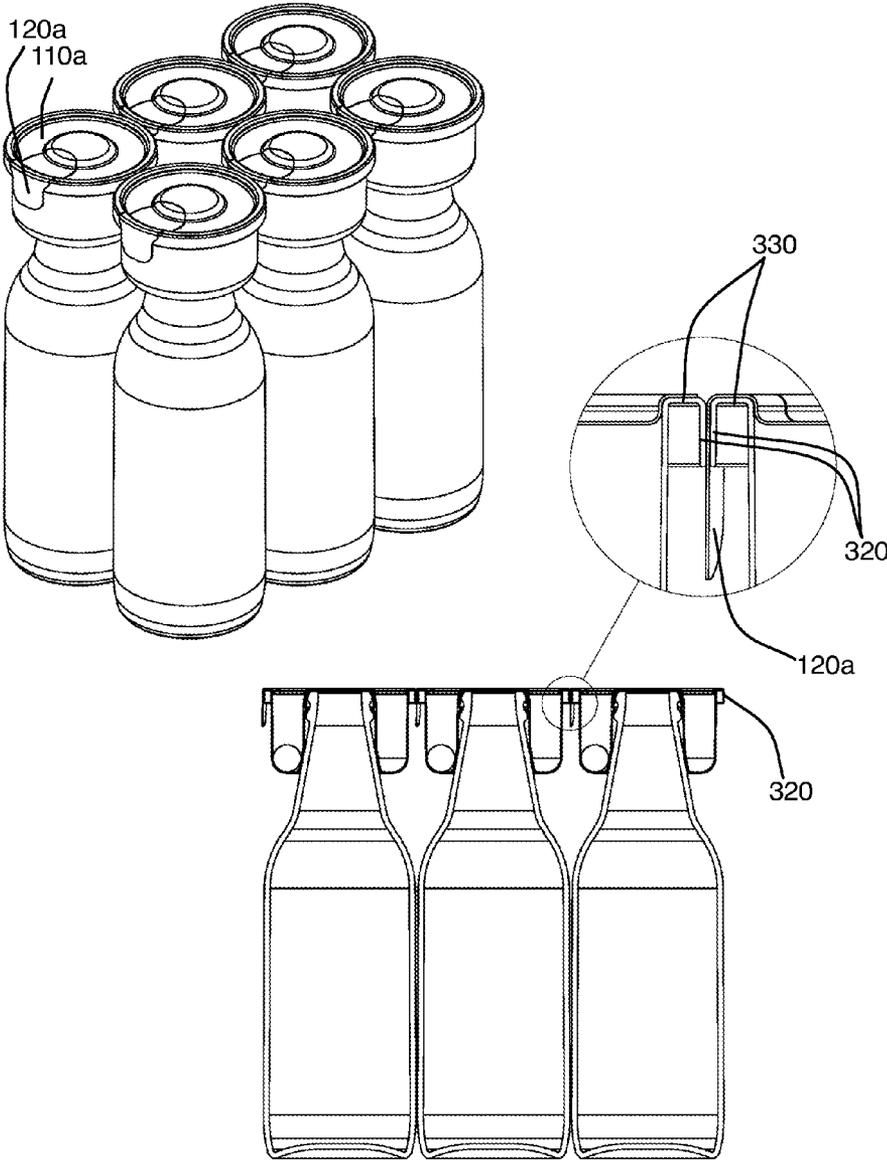


FIGURE 5



TOP MOUNTING BOTTLE CONTAINER

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] One or more embodiments of the invention are related to the field of containers. More particularly, but not by way of limitation, one or more embodiments of the invention provides for a top mounting bottle container that enables for example one handed carrying of a bottle and container and momentarily removing and reattaching the top mounting container to the bottle.

[0003] 2. Description of the Related Art

[0004] Bottles generally include an inner chamber but do not include an integrated upper container to hold other food items for example. When carrying a bottle, it is cumbersome to also carry a container with food in the same hand. For at least the limitations described above there is a need for a top mounting bottle container.

BRIEF SUMMARY OF THE INVENTION

[0005] One or more embodiments described in the specification are related to a top mounting bottle container. Embodiments of the invention generally provide a cavity, compartment or closed space, wherein the apparatus is configured to couple with the top of a bottle. An alternative configuration is created when the container is removed from the bottle and utilized as a separate unit or vessel. One or more embodiments include a pull tab, that removes a piece of the lid or cover, for example in a half-circle shape along a score line. Embodiments of the invention thus enable snacks to be selectively lifted and shaken into the mouth without the worry of spilling additional contents from the container. In effect, a spill-free container is created. The independent vessel may be reattached to the bottle for carrying, or capping off the liquid in the bottle, and/or storage when desired.

[0006] One or more embodiments may include volumes that extend downward from the plane defined by the circular top of the bottle. In this manner, the bottle and container form at least two or more containment volumes, one volume formed by the bottle itself, and another volume within the container itself. A cover may be included that encloses the container. The cover or lid may be flat or alternatively indented with a circular ring to receive the bottom of a bottle when a bottle is stacked on top of the container. Various embodiments of the invention allow for quick and easy alignment and attachment and detachment of the container to the bottle. A replaceable lid or cover allows for the inclusion of fresh foods. Additionally, it is possible to drink and eat from one hand while standing and walking. Therefore, simultaneous access is provided for the liquid (via a straw, for example) in the bottle and the solid in the container. An easily removable independent unit or vessel facilitates lift and shake style spill-free snacking.

[0007] Embodiments of the invention may be made to fit any size of bottle, for example a beer or soda bottle. Embodiments may be quickly attached and removed and reattached to the bottle. Embodiments may be constructed from vacuum, thermal, injection, or blow molding techniques or in any other manner as desired. Any type of material may be utilized in the construction of one or more embodiments of the invention, for example plastic or polymer. One such plastic may be clear or opaque or any level of translucency. Materials may be chosen for strength and function as required. Common poly-

mers or thermosetting polymers may include epoxy and phenolic materials. Thermoplastic materials that may be utilized include nylon, polyethylene, polystyrene, polyester or PET, HDPE and polypropylene for example. A thin metal or aluminum may be used for the container, while a thin metal or aluminum foil may be used alone or as part of a layered construction for the lid or cover of the container. Any colors or color combinations may be used. One or more embodiments may utilize components of different translucent values, for example a bottom compartment of the container may be clear so the contents may be viewed without opening the container, while the seal-on/peel-off or press-on lid or cover portion of the container may be opaque to provide a solid background for printing corporate names, logos or promotions. Embodiments of the invention may be made from recyclable materials (PET for example) or biodegradable materials as well. One or more embodiments of the invention may utilize side-wall ribs or thicker walls to increase strength depending on the desired implementation. Tapered wall construction enables stackable containers when empty, which is helpful for conserving space during transport. The container may contain a single volume or may include a divider or multiple dividers within the cavity in order to keep food items separate, for example of different types of foods. Other embodiments of the invention may be utilized in combination with existing six-pack plastic ring holders, or six-pack carriers as well. When utilized in six-pack configurations, the containers additionally act as protective packaging, which cushions the bottles and prevents them from rattling and colliding with each other during transport.

[0008] The container cavity may contain a thermal liner, paper liner, or any other type of liner. The cavity may include a single or double wall for extra insulative effect or for any other reason. Thermal sensitive plastics, for example thermochromics may also be utilized to show how hot or cold the item in the container is. These types of plastics change color for example based on their temperature. Graphic symbols and/or letters that for example read "Caution Contents Hot", may be displayed for example when the thermochromic is hot, for example in Red, wherein the letters would not be shown otherwise, or would be shown in Blue for example if the contents of the container were not hot. These colors are exemplary and any color including transparent may be chosen to represent hot and cold in any embodiment of the invention. For embodiments that do not utilize thermochromic materials, any graphical symbols or lettering may be utilized to warn or inform a potential user. Graphical symbols and/or lettering may be placed on the top, sides, or inside of the container or in any other area that may be viewed or touched. Graphical symbols and/or lettering may include logos, advertisements, puzzles, promotions, trivia or any other type of information that is viewable and may include tactile information including Braille.

[0009] The vertical dimension of the cavity may vary depending on the intended items to be stored therein. As one skilled in the art will appreciate, any desired dimension of the container may be utilized as desired for the particular application. The outer horizontal dimension of the container may be of a width less than or equal to the diameter of the outside dimension of the bottle, so as to enable compact storage and transport, for example in six pack configurations. The outer horizontal dimension of the container may also exceed the outer dimension of a soda bottle, for example. Strength ribs may be utilized in one or more embodiments of the invention

to increase the strength of the container. These ribs may include vertically thicker beams on the inside or outside of the container, or alternatively or in combination, may also make use of thicker walls on the container to increase strength.

[0010] One or more embodiments of the invention may utilize any type of coupling element, as one skilled in the art will appreciate. For example, indentations, ridges, bumps, or a straight wall tight fit friction area may be utilized to couple embodiments to the top of the bottle. In one or more embodiments, an area located near the top of the bottle includes an outwardly oriented ridge or the bottle cap lower edge provides a ridge that an inwardly oriented indentation, ridge, series of bumps or a straight wall tight fit friction area may be utilized to engage or form a potential well that requires force to overcome and remove the container from the bottle.

[0011] One or more embodiments of the invention may employ a hole such as a straw hole for example, so that liquid in the bottle may be accessed from the bottle after momentarily removing the container, removing the bottle cap and reattaching the container. Any shape of hole or any shape straw, i.e., oblong from a cross-sectional view, for any purpose may be utilized as desired.

[0012] Embodiments of the invention may utilize a lid to cover the container. To avoid confusion, "cover" as utilized herein refers to the lid for the container. Embodiments of covers include seal-on/peel-off, press-on, i.e., external/internal wall friction, or any other type of covers. Seal-on/peel-off covers may be configured using a thermal bonding process involving adhesives or similar or compatible materials, or may utilize adhesive that allows the cover to be removed permanently or temporarily depending on the adhesive, to access the cavity. The seal-on/peel-off cover may comprise several laminated layers of various materials and may include a thin metal or aluminum foil layer as part of a thermal or heat bonding process. Press-on covers are generally plastic covers that may be removed and placed back on the cavity, for example, when placing fresh foods such as nuts within the cavity, or if the contents of the container have not all been removed. Seal-on/peel-off and press-on covers may be utilized in combination, so that after the press-on cover and seal-on/peel-off covers are removed, exposing the contents of the container, then the press-on cover may be placed over the container again to enclose the contents of the container for example. Press-on external/internal wall friction covers may engage or couple in any manner that utilizes friction for the coupling. Press-on type covers may be implemented with a flat portion that is hinged at any peripheral location of the container that allows the lid to flex open in a clamshell fashion, exposing the contents of the container, while retaining the cover such that it remains attached to the exterior wall of the container. Covers may be flat or indented to receive the bottom of a bottle when stacking is involved. The tab may be a separate piece of plastic that utilizes adhesive or heat to bond around all edges of a hole that is cut completely through the lid or cover. Tabs may be flat, bent, thin and flexible; and may utilize score lines and/or half circle cut-outs or any combination thereof with any shape of tab. Tabs may be secured to the lid through various methods of attachment as one skilled in the art will recognize. Tabs may remove the entire seal-on/peel-off cover or a portion of the cover where scored, as desired.

[0013] Items suitable for placement within the container include solids or liquids. For example, items may include any combination of one or more solid and/or liquid alone or in

combination. Example items include one or more doughnuts, chocolates, chips, crackers, nuts, popcorn, candies, ice, fruit pieces, or any other solid or liquid. Salty snacks such as BEER NUTS® may couple to the top of a beer bottle, for example. Items that may be sealed in and stored for use or purchase may be refrigerated after sealing if necessary, or items that are selectively prepared or fresh may be placed into the container and may utilize the press-on cover embodiment if desired based on the particular application.

[0014] Embodiments of the invention allow for one-handed transport and simultaneous access of the contents of the container and bottle (via a straw, for example) when the entire seal-on/peel-off cover has been removed and after momentarily removing the container, opening the bottle by removing the bottle cap, and reattaching the container to the bottle. Although, as specified here within, a clip-on system of engagement of the upper container to the bottom bottle mount element may be utilized, any other coupling mechanism may also be utilized. The clip-on system enables the user to remove or reattach the container as a separate vessel via the bottle mount element as desired. Various embodiments allow for ease of carrying and drinking/eating coffee, soda, cookies, snacks, etc., in malls, public zoos, amusement parks, sports stadiums or in any other venue. For example, this allows a parent in an amusement park to carry food and beverages at the same time with one hand, while providing one hand free to hold the hand of a child for safety. In addition, embodiments of the invention simplify eating and drinking by combining these processes into one container and bottle, which is significantly more convenient in amusement parks or stadiums having seats, for example, which provide a single beverage holder per seat.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The above and other aspects, features and advantages of the invention will be more apparent from the following more particular description thereof, presented in conjunction with the following drawings wherein:

[0016] FIG. 1 illustrates a perspective view of an embodiment of the top mounting bottle container coupled with a bottle along with a cover having a tab. The figure also illustrates an exploded view wherein the container has been removed from the bottle in order to open or provide access to the contents of the bottle. The figure further illustrates a top perspective view of the top mounting bottle container without a cover and a lower perspective view of the coupling element in the inner portion of the container with a cover.

[0017] FIG. 2 illustrates four side cutaway views of various embodiments of the top mounting bottle container having different mounting or coupling elements.

[0018] FIG. 3 illustrates four perspective cutaway views of various embodiments of the top mounting bottle container having different mounting or coupling elements. Additionally, the bottom right configuration shows a container without a downwardly projecting vertical cushioning ring or bumper attached to the top horizontal edge of the container.

[0019] FIG. 4 illustrates a perspective view of various embodiments of the cover and tab.

[0020] FIG. 5 illustrates the ability to couple and/or stack bottles with an embodiment of the invention. The figure also illustrates containers as protective cushioning packaging systems utilized in six-pack configurations. A magnified perspective shows a zero interference tab in a six-pack configuration.

DETAILED DESCRIPTION OF THE INVENTION

[0021] A top mounting bottle container will now be described. In the following exemplary description numerous specific details are set forth in order to provide a more thorough understanding of embodiments of the invention. It will be apparent, however, to an artisan of ordinary skill that the present invention may be practiced without incorporating all aspects of the specific details described herein. In other instances, specific features, quantities, or measurements well known to those of ordinary skill in the art have not been described in detail so as not to obscure the invention. Readers should note that although examples of the invention are set forth herein, the claims, and the full scope of any equivalents, are what define the metes and bounds of the invention.

[0022] FIG. 1 illustrates a perspective view of an embodiment of top mounting bottle container 100 coupled with bottle 180 in the left side of the figure. The figure also illustrates an exploded view showing cover 110 and tab 120 wherein the container has been removed from the bottle in order to open or provide access to the contents of the bottle, for example by removing bottle cap 140. The figure further illustrates a top perspective view of the top mounting bottle container in the upper right side of the figure without a cover and showing volume or cavity 130 for storing items. In one or more embodiments of the invention, the central portion of the container may be die cut with an X slot or hole for a straw, for example. In addition, a lower perspective view of coupling element 101 in the inner portion of the container is shown in the lower right portion of the figure. In one or more embodiments, the coupling element may include threads configured for example to replace the screw-on cap of a bottle, so that in effect, the container become the screw-on cap/container combination.

[0023] FIG. 2 illustrates four side cutaway views of various embodiments of the top mounting bottle container having different mounting or coupling elements. Specifically, bottle mount element 101a of container 100 includes an inwardly oriented projection that travels over the bottle cap lower edge to clip top mounting bottle container 100 to bottle 180 or bottle cap 140. Bottle mount element 101a may include a inwardly oriented projection in the shape of a ring or spiral in the case of threads. Also shown is item 200 in cavity 130. Any number of items 200, such as food items for example may be stored in cavity 130. Bottle mount elements 101b, for example two inwardly pointing ridges on the inside wall of container 100 and configured to clip over both the bottle cap lower edge and the outwardly oriented ridge of the bottle top are shown in the second embodiment down the page. Bottle mount element 101c is shown in the third embodiment, wherein the inwardly oriented projection is configured to fit over the outwardly oriented ridge of the bottle top. The first three embodiments may be injection molded for example due to the inwardly projecting bumps or ridges. The fourth embodiment shows flat bottle mount element 101d, for example that does not employ a ridge of the bottle top, but rather is tight enough to couple directly to the bottle cap and/or ridges via friction for example. This embodiment may be injection molded or thermoformed through various methods including pressure thermoforming, which may lower manufacturing costs for example.

[0024] FIG. 3 illustrates four perspective cutaway views of various embodiments of the top mounting bottle container having different mounting or coupling elements. Bottle mount element 301a includes a circular ridge about the entire

circumference of the inner portion of top mounting bottle container 100. This ridge or ring may be in the shape of a spiral in the case of threads. The second embodiment includes bottle mount element 301b that includes multiple elongated ridges that do not form a single inwardly pointing ridge. The third embodiment includes bottle mount element 301c that includes multiple bumps of any shape that are inwardly pointing. The first three embodiments (top three shown on the page) show container 100 with a vertically oriented circular six-pack cushioning ring or bumper 320 attached to the top horizontal flat surface 330 of container 100 which is shown without connection to a bumper or cushioning ring in the fourth embodiment. Either embodiment with or without the cushioning ring or bumper element 320 is a configuration that keeps within the spirit of the invention.

[0025] FIG. 4 illustrates a perspective view of various embodiments of the cover and tab. For example, the upper embodiment includes flat cover 110 and downward oriented zero interference tab 120a. The second embodiment includes outwardly oriented tab 120 (may be thin and flexible). The third embodiment includes downwardly indented cover 100a, for example that facilitates stacking of bottles and also having downward oriented zero interference tab 120a. The fourth embodiment includes downwardly indented cover 100a, for example that facilitates stacking of bottles and also having outwardly oriented tab 120 (may be thin and flexible). The fifth embodiment shown shows a downwardly oriented press-on cover 110b although flat or upwardly indented press-on covers may also be utilized as one skilled in the art will appreciate. Seal-on/peel-off and press-on covers may be utilized in combination, so that after the press-on cover and seal-on/peel-off covers are removed, exposing the contents of the container, then the press-on cover may be placed over the container again to enclose the contents of the container for example. In one or more embodiments of the invention, a press-on cover may be utilized with a cover having a tab or without a tab, wherein the space between the press-on cover and the second cover may include a promotional item, a cardboard disc, coupon, advertisement, or any other item. Covers may include a tab that is a separate piece of plastic that is heat sealed on the outside edge of the cover with a score line and which allows for the portion of the cover up to the score line to be removed via the tab by lifting the inside portion of the tab closest to the center of the cover. Alternatively, covers may include a separate tab that is heat sealed on the outside edge of the cover and which allows for the entire cover to be removed via the tab by lifting the inside portion of the tab closest to the center of the cover. Any combination of tabs and optional holes via score lines may be utilized on one cover, for example. A tab may remove an entire cover or a portion of a cover along a designated score line.

[0026] FIG. 5 illustrates the ability to couple and/or stack bottles that are coupled with an embodiment of the invention, for example that includes downward oriented zero interference tab 120a. As shown in the bottom right portion of the figure, downward oriented tab 120a does not interfere with the tight stacking that is enabled by embodiments of the invention. Vertically oriented circular six-pack cushioning ring or bumper 320 is shown where two of these vertical rings meet face to face (see magnified view in the right center portion of the figure) to prevent bottles from rattling or colliding for secured packaging during transport. Each of the cushioning rings or bumpers 320 couple with or are formed together with top horizontal flat surface 330 respectively.

Embodiments may or may not employ cushioning ring or bumper 320 as desired for the particular application. See also FIG. 3.

[0027] While the invention herein disclosed has been described by means of specific embodiments and applications thereof, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope of the invention set forth in the claims.

What is claimed is:

1. A top mounting bottle container comprising:

at least one container configured to store a first solid or a liquid separate from a second solid or liquid stored in a bottle wherein said bottle comprises a diameter and an opening area situated near a top portion of said bottle; a bottle mount element configured to couple said at least one or more container to said top portion of said bottle; said at least one container configured to enable access of said first solid or liquid and said second solid or liquid after said bottle is opened and after said bottle mount element is coupled to said bottle;

wherein each of said at least one container comprises

a top flat horizontal surface substantially level with a plane defined by said top portion of said bottle wherein said at least one container defines a volume that extends downward from said plane define by said top portion of said bottle, and

wherein a diameter of each of said at least one container does not exceed said diameter of said bottle.

2. (canceled)

3. The top mounting bottle container of claim 1, wherein said bottle mount element comprises two inwardly oriented rings that are vertically offset from one another that are configured to couple with an outwardly oriented projection on a top portion of said bottle or configured to couple with a projection of a bottom edge of a bottle cap that couples with said bottle.

4. The top mounting bottle container of claim 1, wherein said bottle mount element comprises at least one inwardly oriented elongated ridge, or broken ridge or bump configured to couple with an outwardly oriented projection on a top portion of said bottle or configured to couple with a projection of a bottom edge of a bottle cap that couples with said bottle.

5. The top mounting bottle container of claim 1, wherein bottle mount element comprises a smooth wall tight fit friction mount coupling.

6. The top mounting bottle container of claim 1, wherein said at least one container is configured to enable access of said first solid or liquid in said at least one container and said second solid or liquid in said bottle through a centrally located perforation or hole in said at least one container without disengagement of said bottle mount element from said bottle.

7. The top mounting bottle container of claim 1, further comprising a cover that couples with the top of said at least one container.

8. The top mounting bottle container of claim 1, further comprising a cover that couples with the top of said at least one container and wherein said cover comprises a tab wherein said tab is configured to remove said cover or a portion of said cover up to a score line.

9. The top mounting bottle container of claim 1, further comprising a cover that couples with the top of said at least one container and wherein said cover comprises a tab that extends outwardly.

10. (canceled)

11. The top mounting bottle container of claim 1, further comprising a cover that seals to or couples with the top of said at least one container and wherein said cover comprises a tab and a score line.

12. The top mounting bottle container of claim 1, further comprising a cover that seals to or couples with the top of said at least one container and wherein said cover comprises a tab that is a separate die-cut piece of plastic or foil.

13. The top mounting bottle container of claim 1, further comprising a cover that couples with the top of said at least one container and wherein cover comprises a downward vertical ring shaped indentation to enable stacking of a bottle on top of said at least one container.

14. The top mounting bottle container of claim 1, further comprising a cover comprising a foil or a cover having composite layers, one of which comprises foil.

15. The top mounting bottle container of claim 1, further comprising a paper or thermal liner configured to reside within said at least one container.

16. The top mounting bottle container of claim 1, further comprising a promotional item.

17. The top mounting bottle container of claim 1, wherein said at least one container comprises a thermoplastic configured to change color based on a temperature of said first solid or liquid.

18. The top mounting bottle container of claim 1, wherein said at least one container comprises graphic symbols or lettering or both graphic symbols and lettering of visual or tactile form or logos, advertisements, puzzles, promotions, trivia or information.

19. The top mounting bottle container of claim 1, wherein said at least one container comprises an area configured to enable access of said first liquid or solid in said bottle.

20. The top mounting bottle container of claim 1, wherein said at least one container comprises a bumper wherein said bumper is coupled with or part of said top horizontal flat surface and wherein said bumper extends in a downward direction.

21. The top mounting bottle container of claim 18, wherein said at least one container is configured to display graphic symbols, colors, and/or letters describing the temperature of the solid and/or liquid.

22. The top mounting bottle container of claim 18, wherein said tactile information includes Braille.

* * * * *