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(54) HANDLE FOR A BOTTLE

(76) Inventor: **Gary J. Egnatski**, Savannah, GA (US)

Correspondence Address:
Gary J. Egnatski
514 Wisconsin Avenue
Savannah, GA 31404 (US)

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(57) **ABSTRACT**

A single elongated arm formed atop into a cylindrical threaded sleeve and spout, and having both male and female threading, the male threads ascending atop the female, and sealed with a cap atop the male, the cap having the female threads, and screwed together with the arm descending diagonally, and then parallel to the vertical, and forming a larger cylindrical band, means of retaining a bottle by screwing the upper female sleeve to the male threads of the bottle spout into the female sleeve extension, with the bottle girded and surrounded by the lower band of the handle, and sealing the contents of the bottle into an airtight envelope, means to lift and pour the contents of the bottle, by unscrewing the cap atop the handle, and releasing the seal, and holding the arm formed between the lower band and the upper sleeve to pour out the contents of the bottle in any position of the hand, by tilting the extended spout formed by the handle downwardly in any angle to release the contents of the bottle, and then resealing the bottle by screwing the cap onto the handle to seal and store the contents within the bottle, whereas the band of the handle has two purposes, one of which provides a constant maintaining structure independent of any change or collapse of the bottle's form, the other of which is used for labeling.

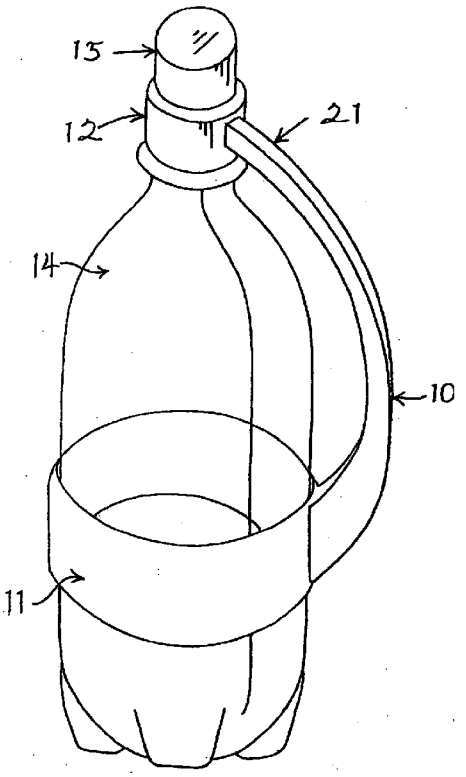


Fig. 1

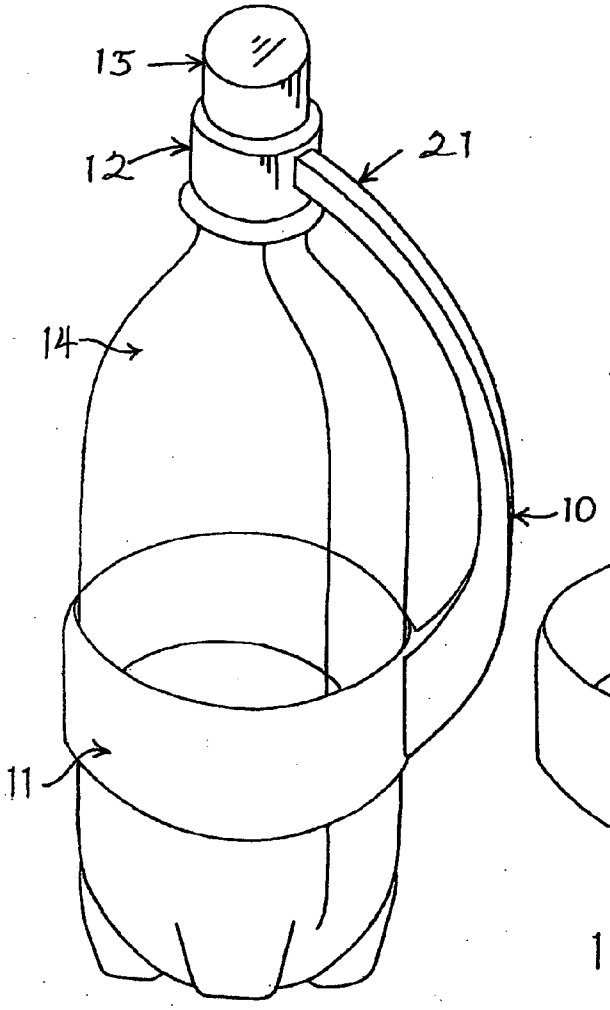


Fig. 2

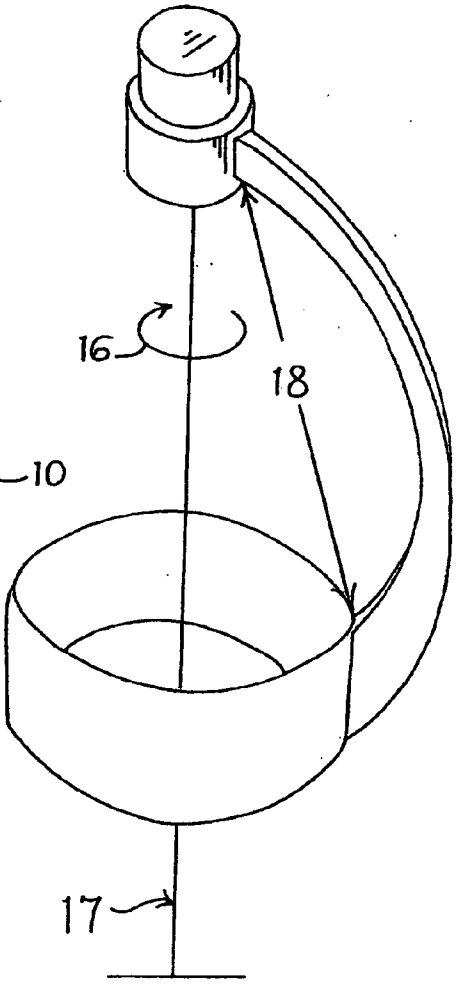


Fig. 3

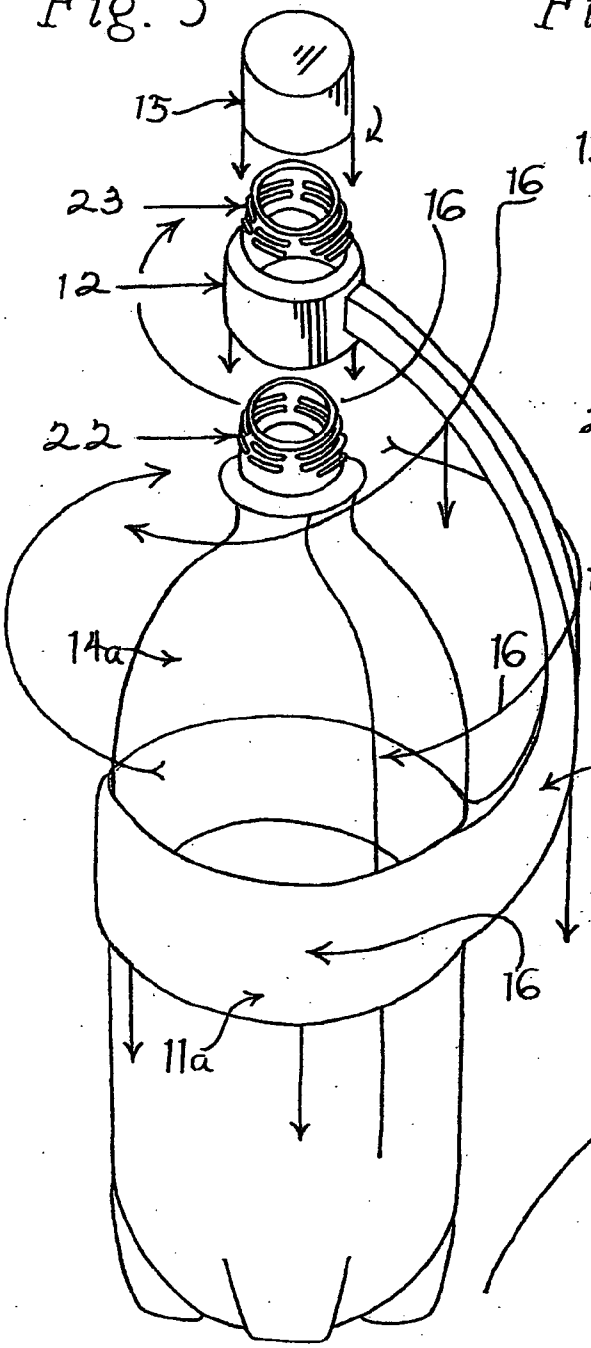


Fig. 4

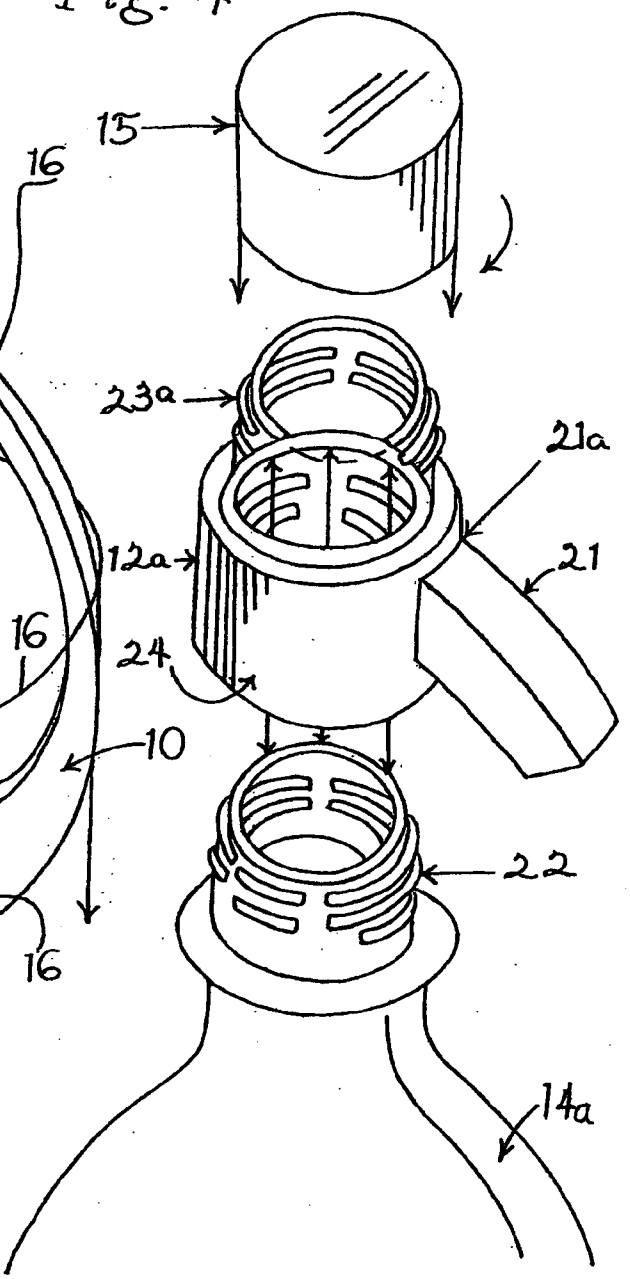


Fig. 5

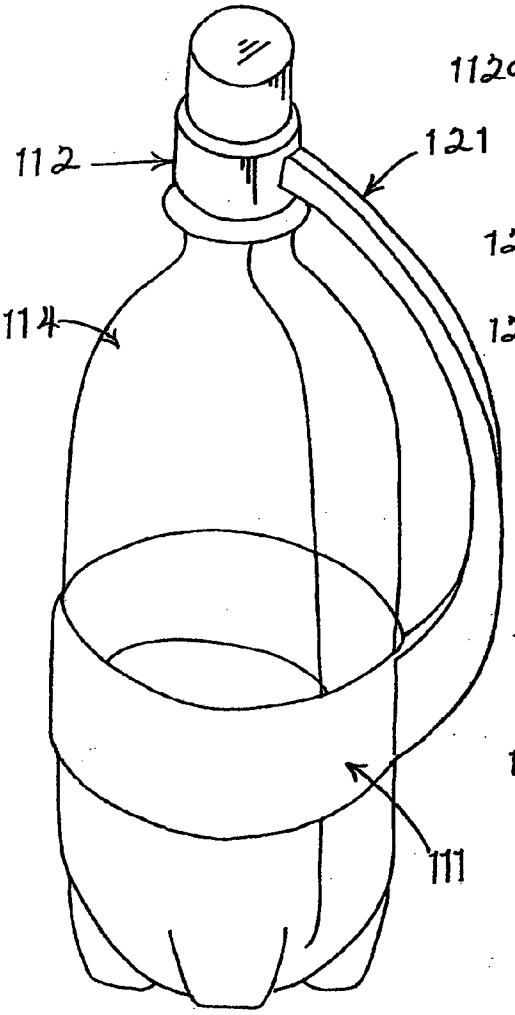


Fig. 6

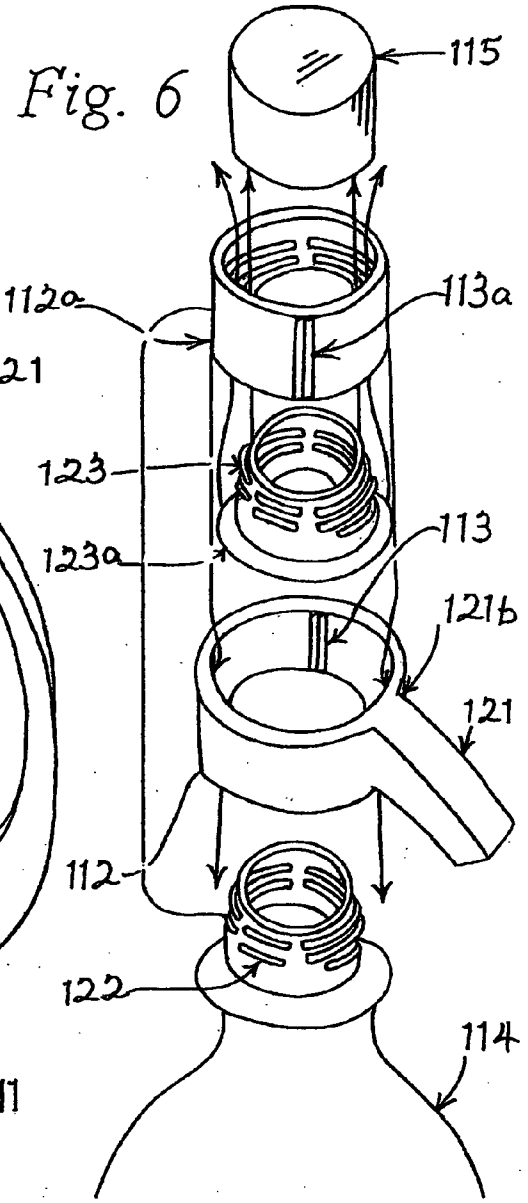


Fig. 7

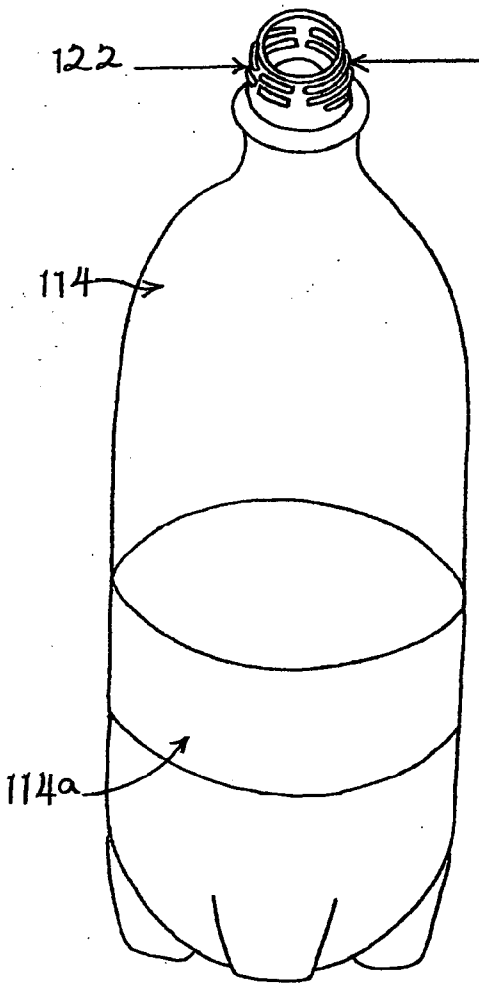


Fig 8

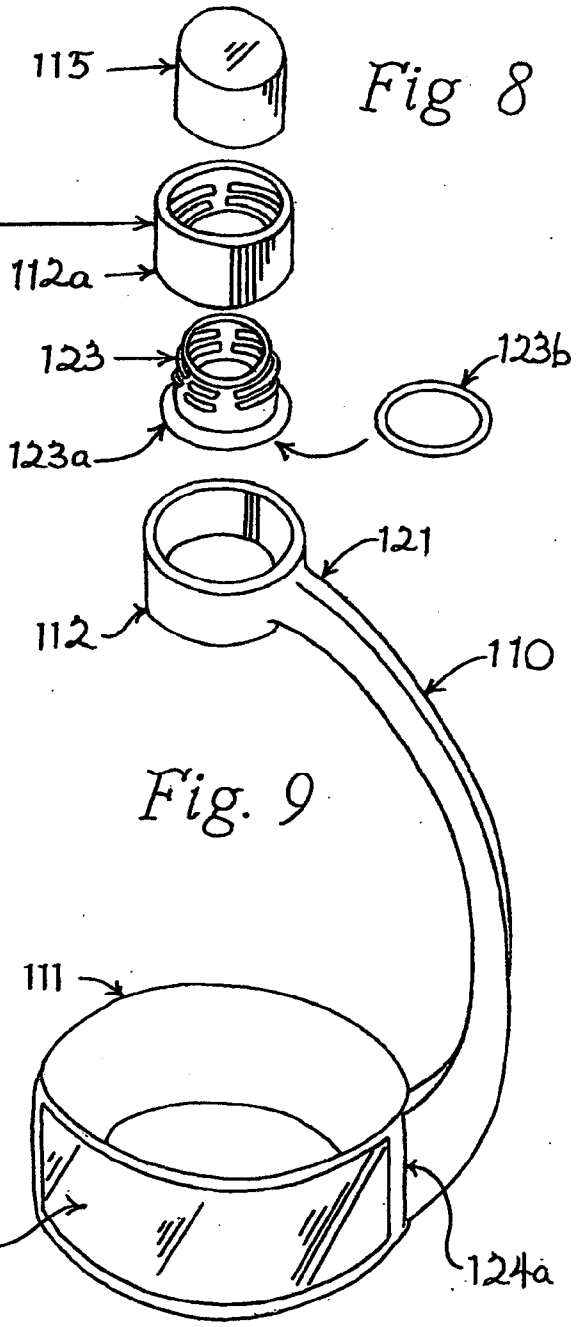


Fig. 9

Fig. 10

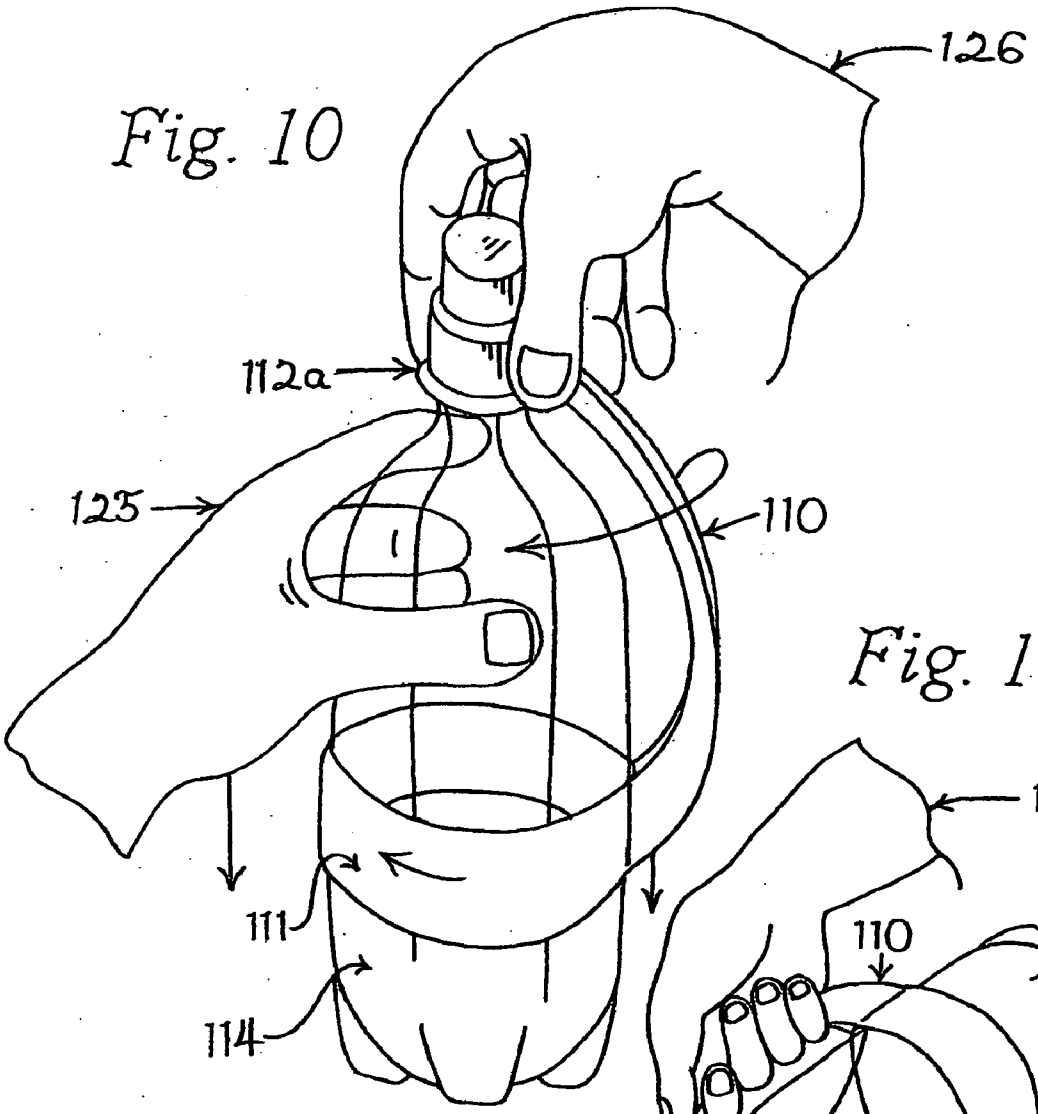
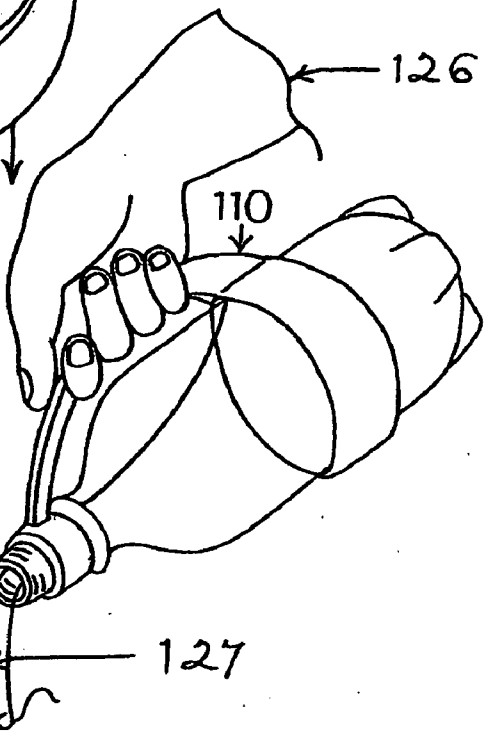


Fig. 11



HANDLE FOR A BOTTLE

BACKGROUND OF THE INVENTION

[0001] Many bottles that are designed to contain fluids for drinking are predominantly made of plastic and hold two liters of fluid or more or less. These bottles are often found in supermarkets and contain soda, or other like same fluids, not excluding any variety of drinkable substance. The size of the bottles are rather large for the hand to grasp and manipulate, and thus the manufacturers of the bottles only provide a lip toward the top of the structure to hold the bottles.

[0002] Holding the bottles to pour the liquid is cumbersome and takes two hands to manipulate. Also the plastic is usually too thin to hold the bottle's exterior without collapsing the structure once the bottle is open. Because bottles such as these and the like are common place, it is thought that many different people handle and use the bottles to buy, store and pour the liquids with a certain amount of difficulty.

[0003] For example an elderly person who may have trouble with dexterity may have more difficulty than a younger person with more mobility. A child can also be inhibited since the small hands only increase the size of the bottle to an almost impossible task of lifting and pouring. Handicapped persons and those who are crippled and missing limbs also find the bottles are hard to lift, pour and return the bottles to the refrigerator. Because of these examples in general, a novel handle is hereby made through this invention to provide an answer to the problem that gives the user the leverage and ability to lift and pour the bottle with ease, and store the bottle without losing the quality of the seal in keeping the fluids as they are currently stored within the bottle.

[0004] This handle thus combines the use of holding the bottle to lift and pour, with the ability to seal and release the contents, and can be removed or added to the bottle without affecting any permanent changes to the bottle due to the industry standard measurements of the bottle and the handle. The handle can be applied to the bottle and removed from the bottle. In this way the handle can be reused when one empty bottle is discarded for another bottle that is full.

[0005] The surface space of the circular band of the handle can provide an area for a label or logo. In the event a business entity would prefer to advertise upon the band, which in this instance can act as a marketing tool for promoting various products, services, events, movies, etc.

[0006] The band is held to the bottle by the handle, which does not adhere or bind the surface of the bottle. Rather the band skirts the perimeter in support of the weight when various amounts of liquid poured from the bottle create an imbalance, or when the internal pressure changes result in a loss of the integrity of the bottle's structure, or is altered by any reason, and in this instance provides a constant structure regardless of any change or collapse of the bottle's structure.

SUMMARY OF THE INVENTION

[0007] In accordance with this invention a handle comprising a cap with threads that attaches to a threaded spout, is made with a sleeve extension connector that screws onto the spout of the bottle, whereupon an arm is formed from the sleeve and extends diagonally downward and then parallel to the bottle and forms into a circular band that surrounds the perimeter of the bottle and holds the bottle against the handle by sliding the band over the top of the bottle and turning the handle around the bottle which screws the sleeve of the handle onto the bottle's threaded spout, thereby temporarily attaching the handle to the bottle to lift, unseal, pour, reseal and store the bottle.

[0008] In one preferred embodiment the top of the arm is made as a ring that allows a sleeve with inner threads to fit within said ring of the upper part of the arm. The ring can be knurled or ridged along the inside to bind the sleeve, that may also be knurled or ridged outwardly and pressed into place, or forced in place under pressure without the knurl or ridge to combine them together. A threaded spout made separately is pressed through the sleeve and protrudes upwardly through the top opening of the sleeve and attaches to a cap that has inner threads which is the same type of cap the bottle originally includes. The said upper spout inserted through the sleeve of the handle has an outer ridged area at the base for the sleeve and the spout to connect which also acts as a ringed seal that when seated onto the lower horizontal surface of the bottle's spout, seals the connection between the lower spout of the bottle and the upper spout of the handle. The said upper spout is thereby attached through the sleeve which is tightened down against the lip of the bottle's threaded spout by intertwining the threads of the handle's sleeve with the threads of the bottle's spout, thus extending the aperture of the bottle's spout to the upper spout of the handle. The said cap then replaces the original cap used to seal the bottle and is screwed onto the said upper spout of the handle, which seals the bottle and the contents therein.

[0009] In another preferred embodiment a separate pliable ring is used to seal the bottle, and is inserted between the lip of the spout of the bottle and the base of the spout of the handle.

[0010] In another preferred embodiment the arm is made in one piece with the threaded sleeve which the threaded spout is then pressed through.

[0011] In another preferred embodiment the arm is made separate from the threaded sleeve and spout and attaches to the sleeve.

[0012] In another preferred embodiment the threaded sleeve and spout are made as one piece.

[0013] In yet another preferred embodiment the arm, sleeve, and spout are made as one piece of the handle.

[0014] In addition, another preferred embodiment separates the band from the arm as two pieces that are attached.

[0015] In another preferred embodiment the band is formed with the arm as one piece.

[0016] In yet another preferred embodiment the band can be used for a variety of advertisements in the area of the width of the band which can vary. The band can be molded or shaped to include an artistic expression, or a three dimensional image or design, and is predominantly used for labeling in this instance.

[0017] Further the handle overall or the like is not limited to the size of the bottle in any scale, nor is limited to the type of material the bottle or handle consists of.

[0018] Any combination of these parts make up the invention whether lesser or greater in number and does not detract from the purposes of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] FIG. **1** is a schematic perspective view of an embodiment of the complete attachment of the invention to the bottle.

[0020] FIG. **2** is a view of the invention as it stands alone.

[0021] FIG. **3** is a top plan view of the invention's parts in one preferred embodiment.

[0022] FIG. **4** is a sectional fragmentary view of the interior and exterior of the extension sleeve and spout connected to the upper part of the arm.

[0023] FIG. **5** is a view of the invention in another preferred embodiment attached to the bottle.

[0024] FIG. **6** is a perspective view of the assembly of the preferred embodiment in FIG. **5** showing the parts make up the upper part of the handle.

[0025] FIG. **7** shows a plain bottle that can be made to hold 2 liters of liquid, or any larger or smaller size.

[0026] FIG. **8** is a sectional perspective showing the addition of a washer in another preferred embodiment.

[0027] FIG. **9** is a view of the band and arm of the handle, and shows where labels may be placed.

[0028] FIG. **10** shows the hands affixing the invention to a bottle by turning the handle.

[0029] FIG. **11** shows a hand pouring the contents of the bottle using the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0030] Shown in FIGS. **1-4** is a handle, generally **10** in accordance with one embodiment of this invention. The handle includes an arm, **21** the length of which can vary **18**, depending on the size of the bottle or the placement of the invention inside a refrigerator **17**, which determines the height of the band **11** in conjunction with said arm, the band of which encircles the perimeter of the bottle **14**. The upper portion of the handle **21** becomes a threaded sleeve with a threaded spout **12**, that screws onto the spout of the bottle. A separation **21***a* between **21** upper portion of the arm, and **12***a* sleeve in this preference is optional. The cap **15** seals the extension made by the sleeve and is generally the same duplicate cap removed from the bottle that attaches to the handle **10**.

[0031] The bottle with the cap removed **14***a* is inserted through the band **11***a*, by placing the bottle on a table and placing the invention **10** over the top of the bottle, and turning the handle **16** until the sleeve **12** tightens down on the spout of the bottle in the place of the cap.

[0032] FIG. **3** shows this preferred embodiment separating the two spouts **22** and **23** where **23** is formed as one piece with the sleeve **12** and showing the bottle's spout separated from the cap **15**.

[0033] A larger perspective from FIG. **3** showing the inner and outer threads of the upper portion of the handle in FIG. **4** shows a fragmentary perspective of the inner threads of the sleeve **24** placed over an attached spout **23***a*, protruding upwardly through the sleeve. Cap **15** is the same type of cap originally unscrewed from the bottle's spout, and is replaced with the sleeve of the handle **12***a* onto to the bottle **14***a*, whereupon the said cap **15** is then replaced onto the spout of the handle **10** to reseal the bottle.

[0034] In another preferred embodiment FIG. **5** shows a completed form of the invention attached to a bottle. FIGS. **1-4** have reference numerals which differ by 100 from the reference numerals of the handle **10**. In this regard the handle **110** of FIGS. **5-11** has an arm **121**, a ringed sleeve **112**, an inner threaded sleeve insert **112***a*, a spout **123** with a lip **123***a*, and the spout of the bottle **122**. FIG. **6** shows the identical cap **115** from the original bottle **114** placed over the handle's spout **123** and lip **123***a*, which protrudes through the threaded sleeve insert **112***a* and screws into the said cap **115**. The threaded sleeve insert **112***a* is pressed into the ringed sleeve **112** under pressure, or is attached with the assistence of a ridged texture **113** formed on the inside of the ring **112**, and a ridged texture **113***a* formed on the outside of the sleeve insert **112***a*.

[0035] A separation **121***b* between the upper portion of the arm **121**, and the ring sleeve **112** is optional. The complete handle **110** in FIG. **5** results from the combination of the assembled parts viewed in FIG. **6**, by sliding the band **111** in FIG. **5** over the bottle **122** and screwing the threaded sleeve insert **112***a* contained in the sleeve **112** onto the bottle's threaded spout **122**, and turning the handle **110** around the perimeter of the bottle **114**.

[0036] FIG. **7** shows a conventional bottle **114** of the 2 liter capacity which in general represents larger or smaller bottles of this type that apply to this invention.

[0037] In FIG. **9** the area allocated for labels to be placed **114***b* upon the band **111** is shown where said band **111** is situated at the base of the arm **121**, and in FIG. **7** the general location of the band which would include a label appears at **114***a*.

[0038] FIG. **8** combines the parts of FIG. **6** with the addition of a washer **123***b* that is interposed between the lip of the spout of the bottle **122** and the base of the handle's spout **123***a*.

[0039] In FIG. **9** the arm **121** and band **111** are attached together at **124***a*, unlike the other preferred embodiments where said arm and band are made as one piece.

[0040] Any combination of these assemblies results in providing the same purpose of the handle or the like.

[0041] In FIG. **10** hands are depicted where the left hand **125** in this instance holds the bottle **114** stationary upon a platform while the right hand **126** positions the handle **110** over the bottle and slides the band **111** downward over the bottle's longitudinal perimeter, until the spout of the bottle inserts into the handle's sleeve **112**, which the hand **126** then turns the sleeve in rotation until the handle **110** tightens onto the spout of the bottle.

[0042] FIG. **11** is a schematic perspective of the right hand **126** pouring fluid **127** from the bottle **114** that has been attached to the handle **110**, showing the ease of the operation of the handle.

[0043] It is conceived that using either of the two hands to carry out any of the functions is not limited to the left or right hand for a specific purpose. In handicapped persons where there may be only one apendage or where hands and limbs are sorely contricted, or in children whose hands are smaller and weaker than the adults.

[0044] It is considered that the invention and many of it's attendant advantages will be understood from the foregoing description and that it would be apparent that various changes can be made in the elements of the described handle without departing from the spirit and scope of the invention or sacrificing all of it's material advantages, the handle **10** and **110** hereinbefore described, be merely preferred embodiments.

1. A single elongated arm formed atop into a cylindrical threaded sleeve and spout, and having both male and female threading, the male threads ascending atop the female, and sealed with a cap atop the male, the cap having the female threads, and screwed together with the arm descending diagonally, and then parallel to the vertical, and forming a larger cylindrical band, means of retaining a bottle by screwing the upper female sleeve to the male threads of the bottle's spout into the female sleeve extension, with the bottle girded and surrounded by the lower band of the handle, and sealing the contents of the bottle into an airtight envelope, means to lift and pour the contents of the bottle, by unscrewing the cap atop the handle, and releasing the seal, and holding the arm formed between the lower band and the upper sleeve to pour out the contents of the bottle in any position of the hand, by tilting the extended spout formed by the handle downwardly in any angle to release the contents of the bottle, and then resealing the bottle by screwing the cap onto the handle to seal and store the contents within the bottle, whereas the band of the handle has two purposes, one of which provides a constant maintaining structure independent of any change or collapse of the bottle's form, the other of which is used for labeling.

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