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(54) BEVERAGE BOTTLE CONVERTIBLE TO STEMMED DRINKING GLASS

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Publication Classification

(51) **Int. Cl.**[7] **B65D 39/00**

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(57) **ABSTRACT**

A beverage container convertible to a stemmed drinking glass and method of fabricating the same. The convertible wine bottle comprises four main elements which are assembled and filled with wine in a bottling process. The wine bottle has basically four integrated components with ancillary structure. These four components are assembled and filled with wine at a bottling plant. Once bottled, the convertible wine bottle may be packaged in 4-, 6-, or 8-packs, as well as individually. The wine bottles can be transported and sold. These four integrated components are manipulated by the consumer to transform the wine bottle into a stemmed drinking glass with an appropriate portion of beverage therein. Such a convertible beverage container provides users the pleasure of drinking their beverage from a stemmed glass. Once completed, the structure may be reassembled and recycled.

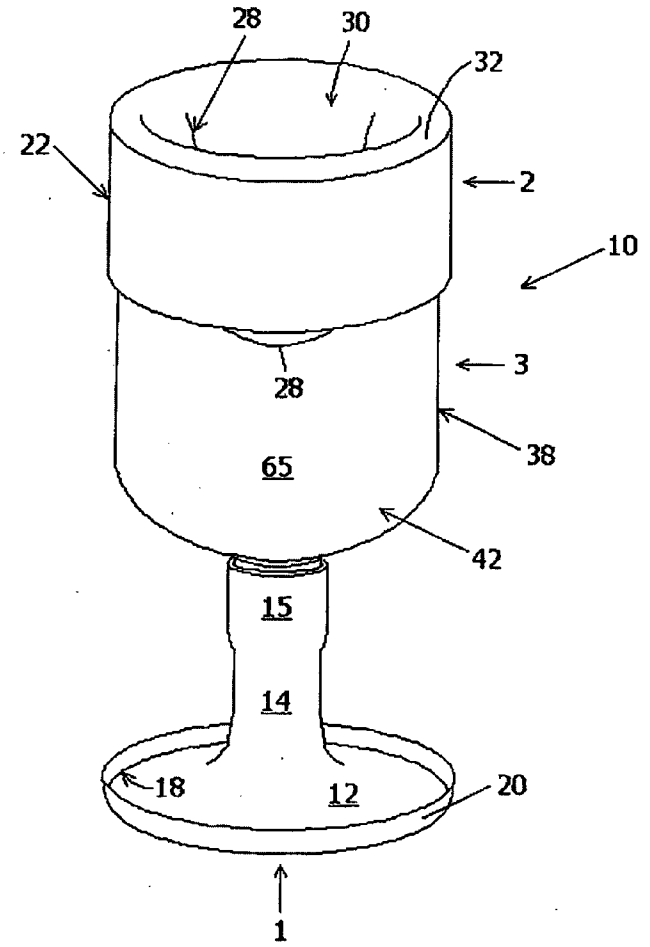

Fig. 1

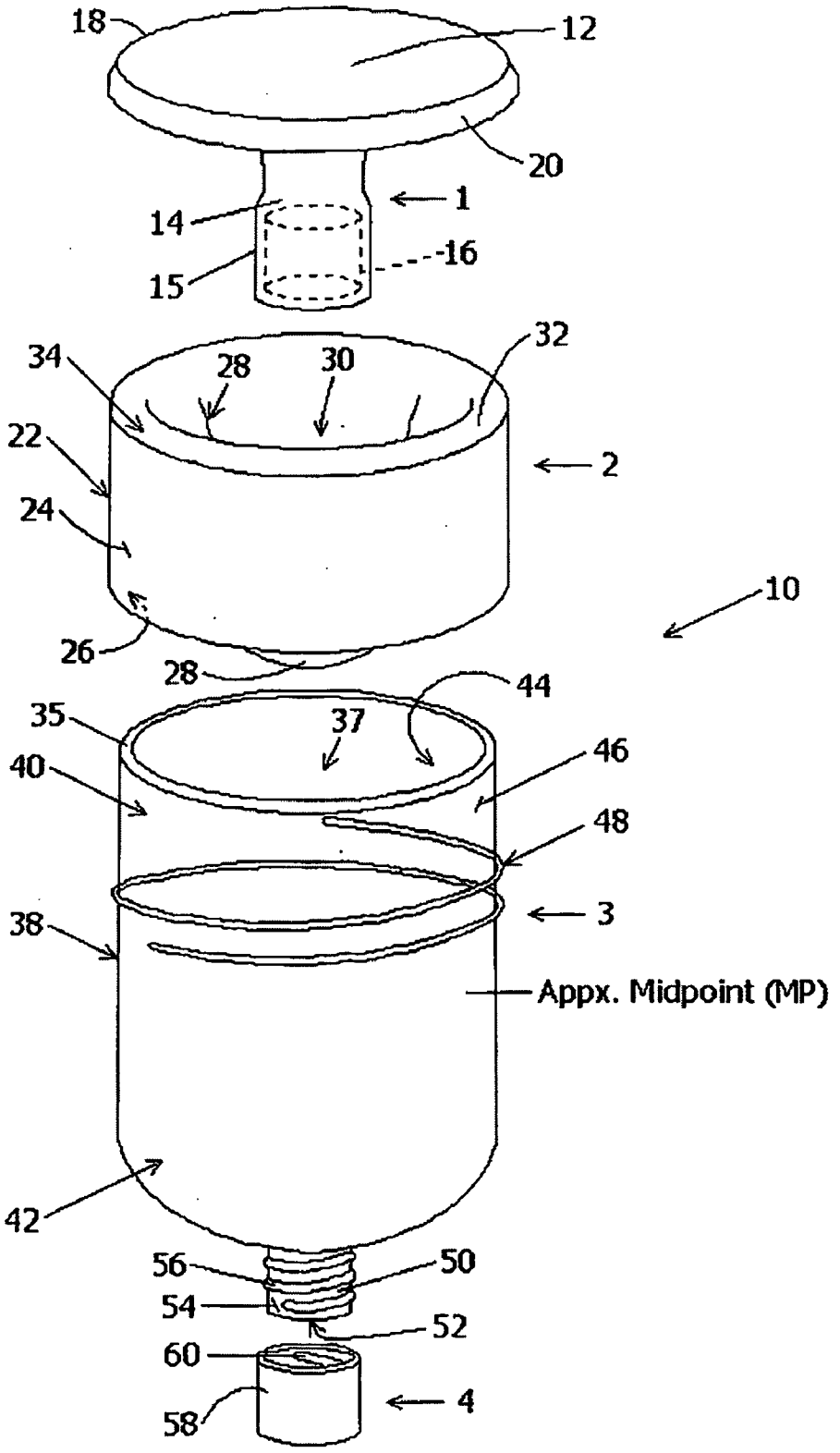
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Fig. 2

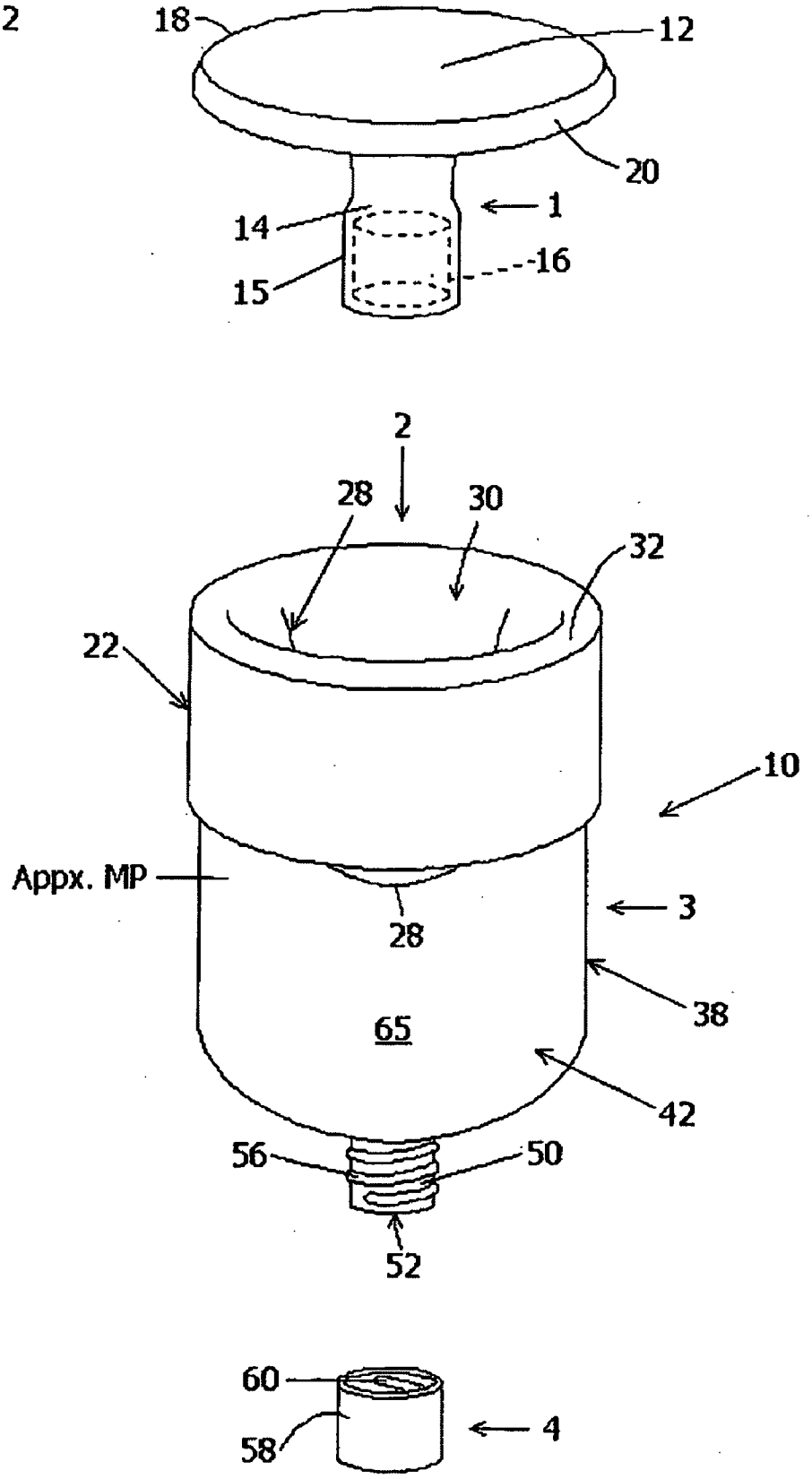
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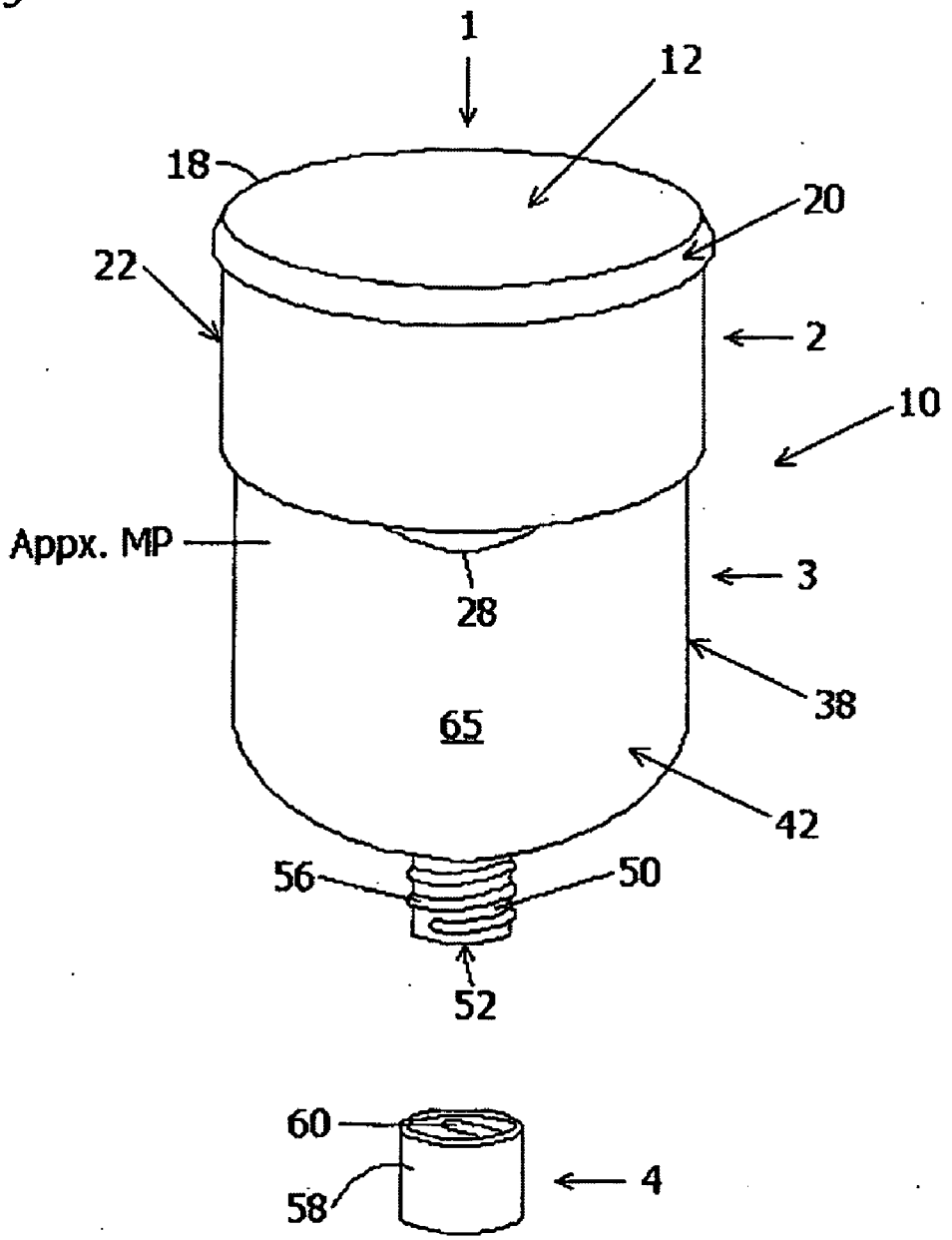
Fig. 3



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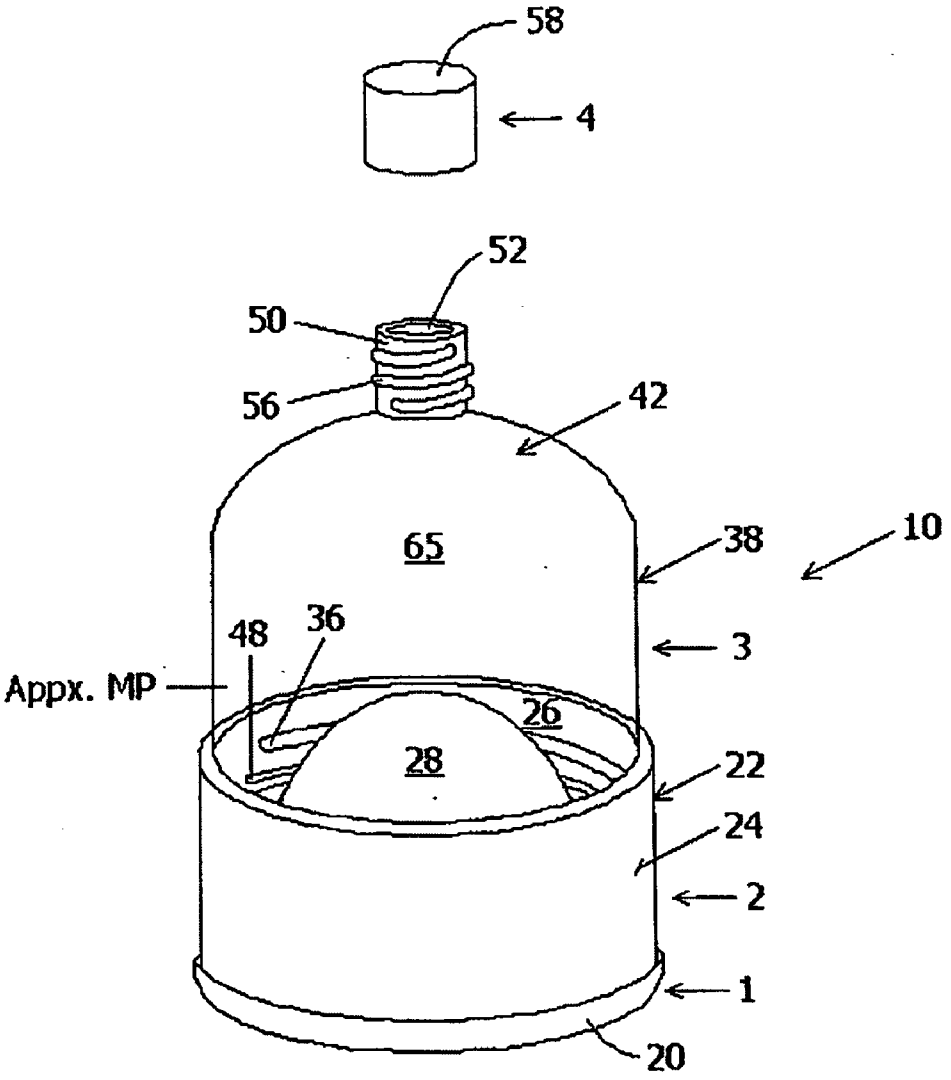

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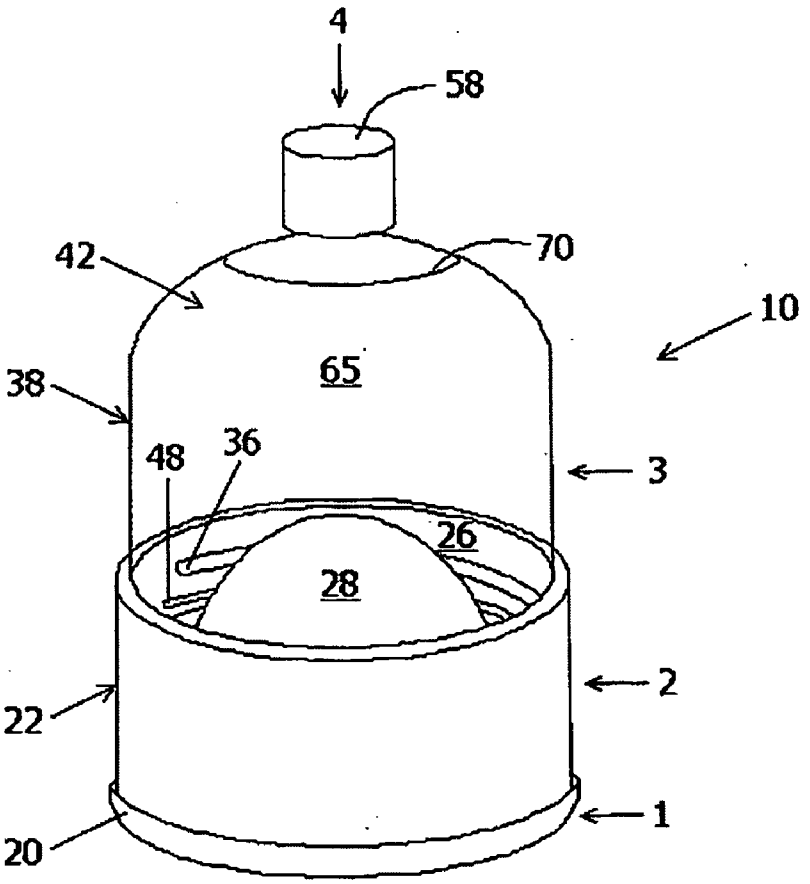

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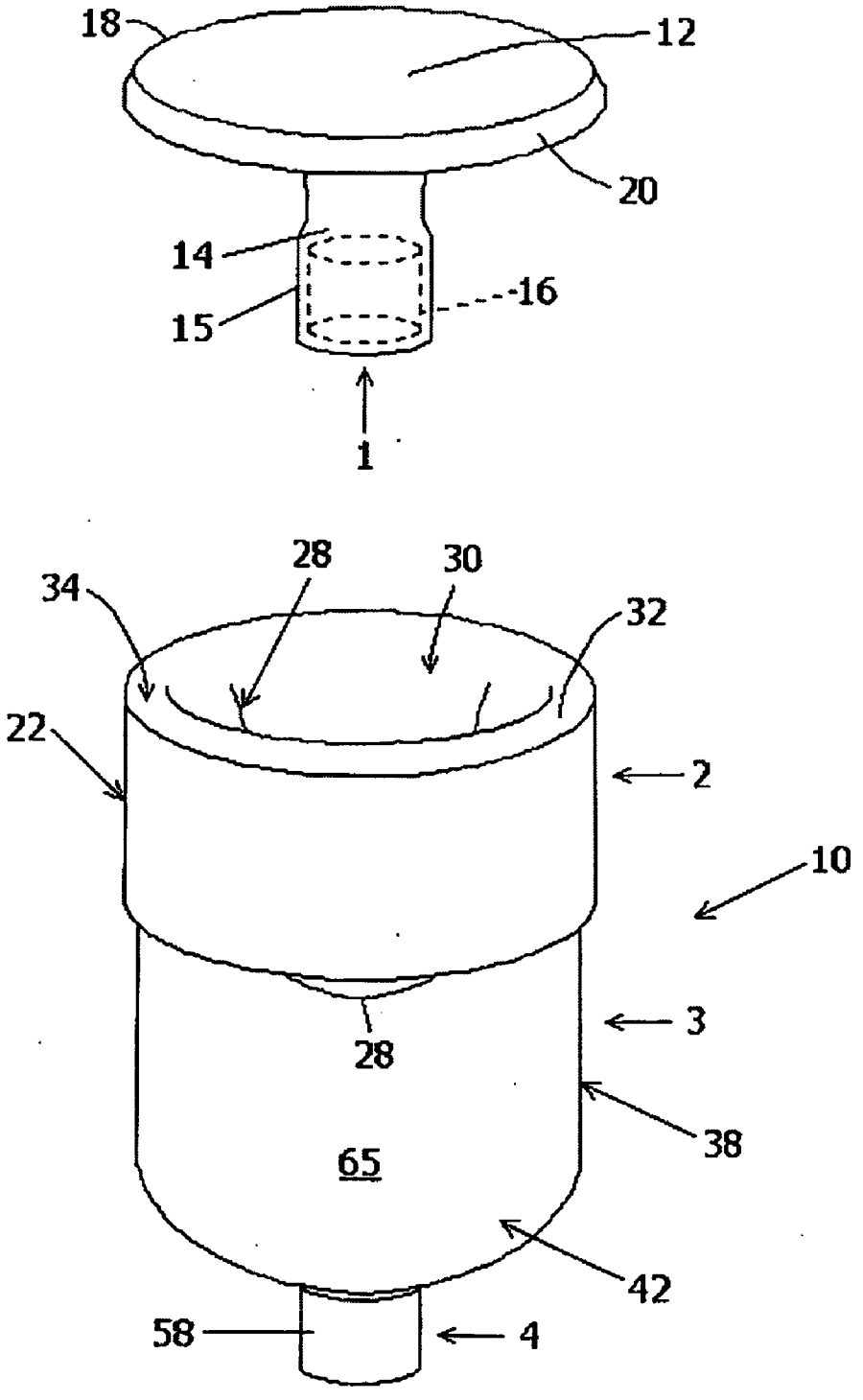

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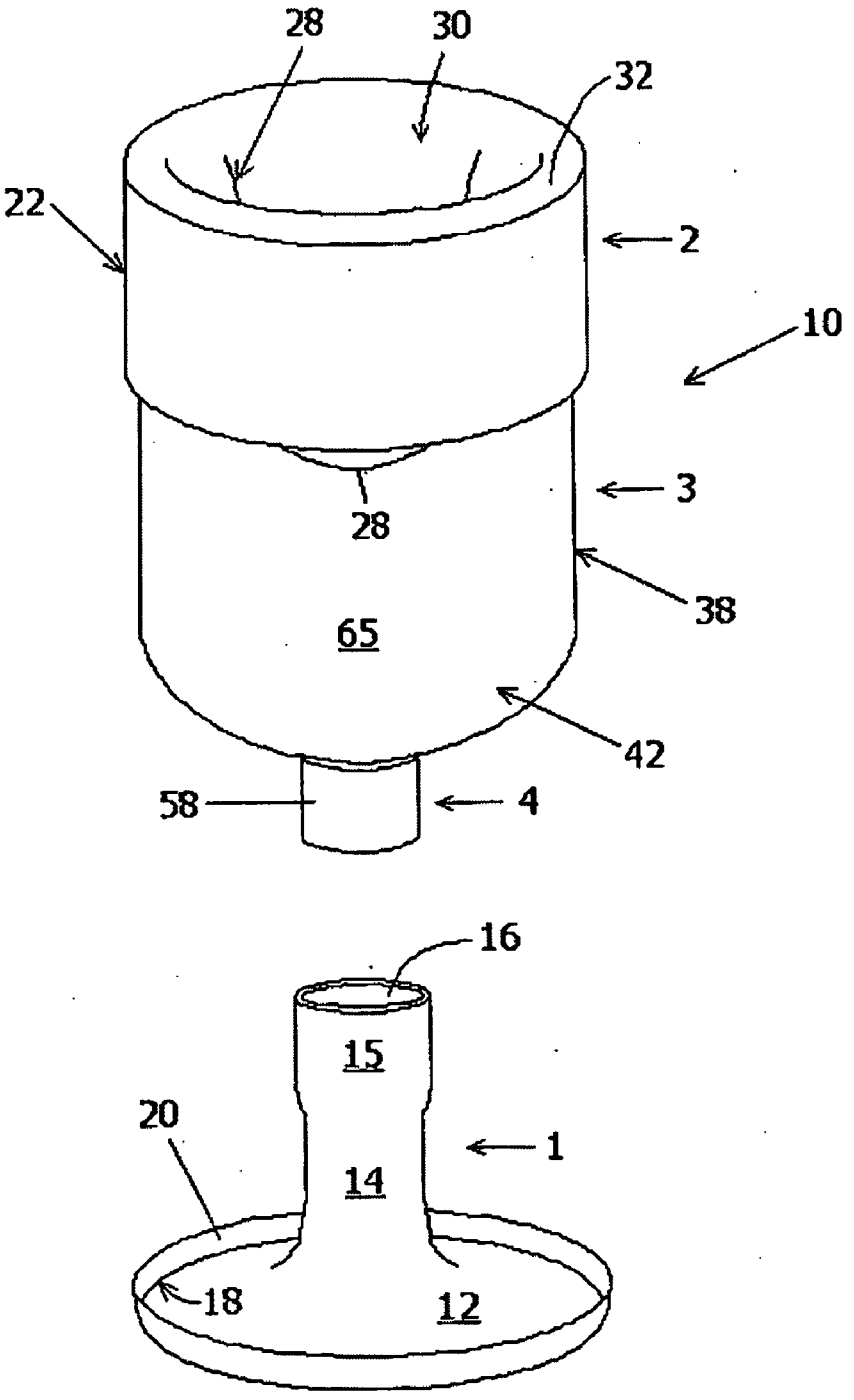

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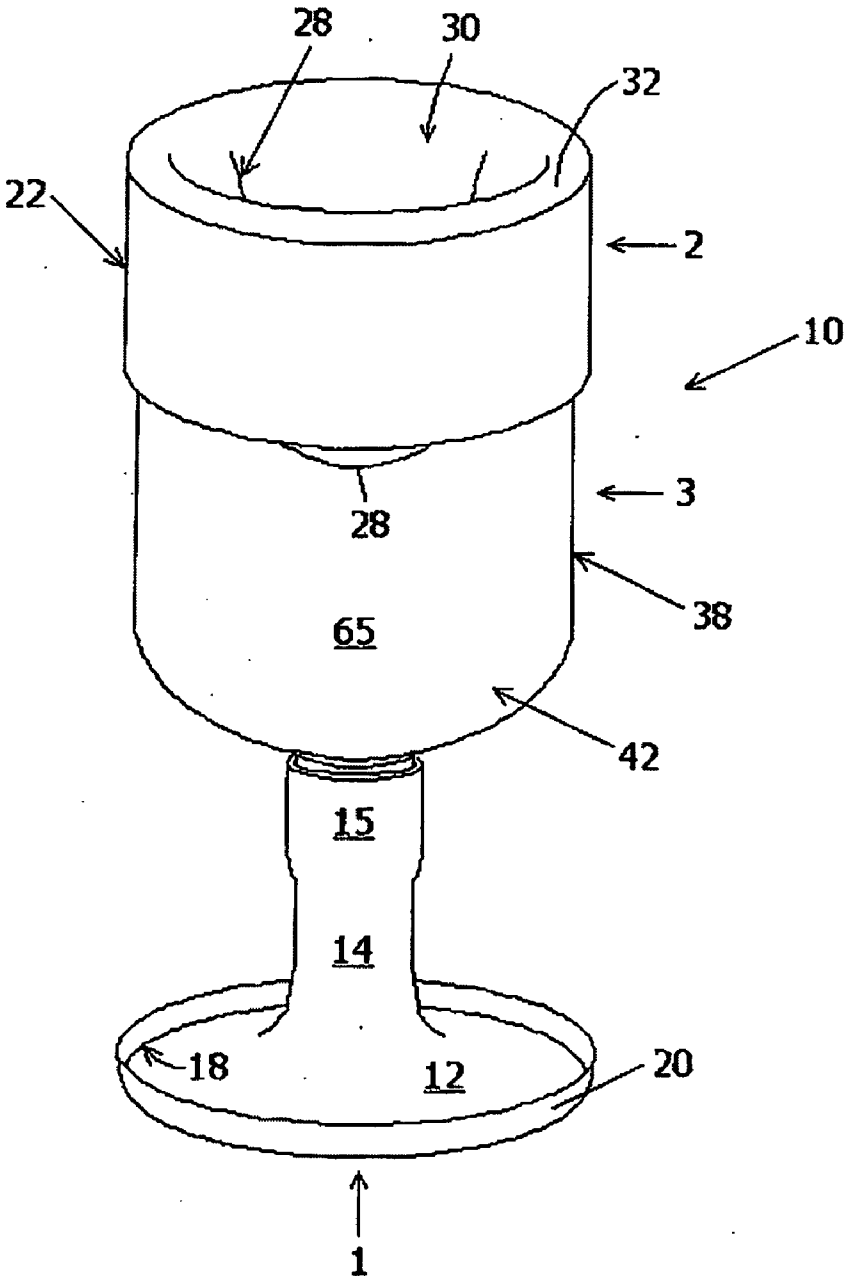

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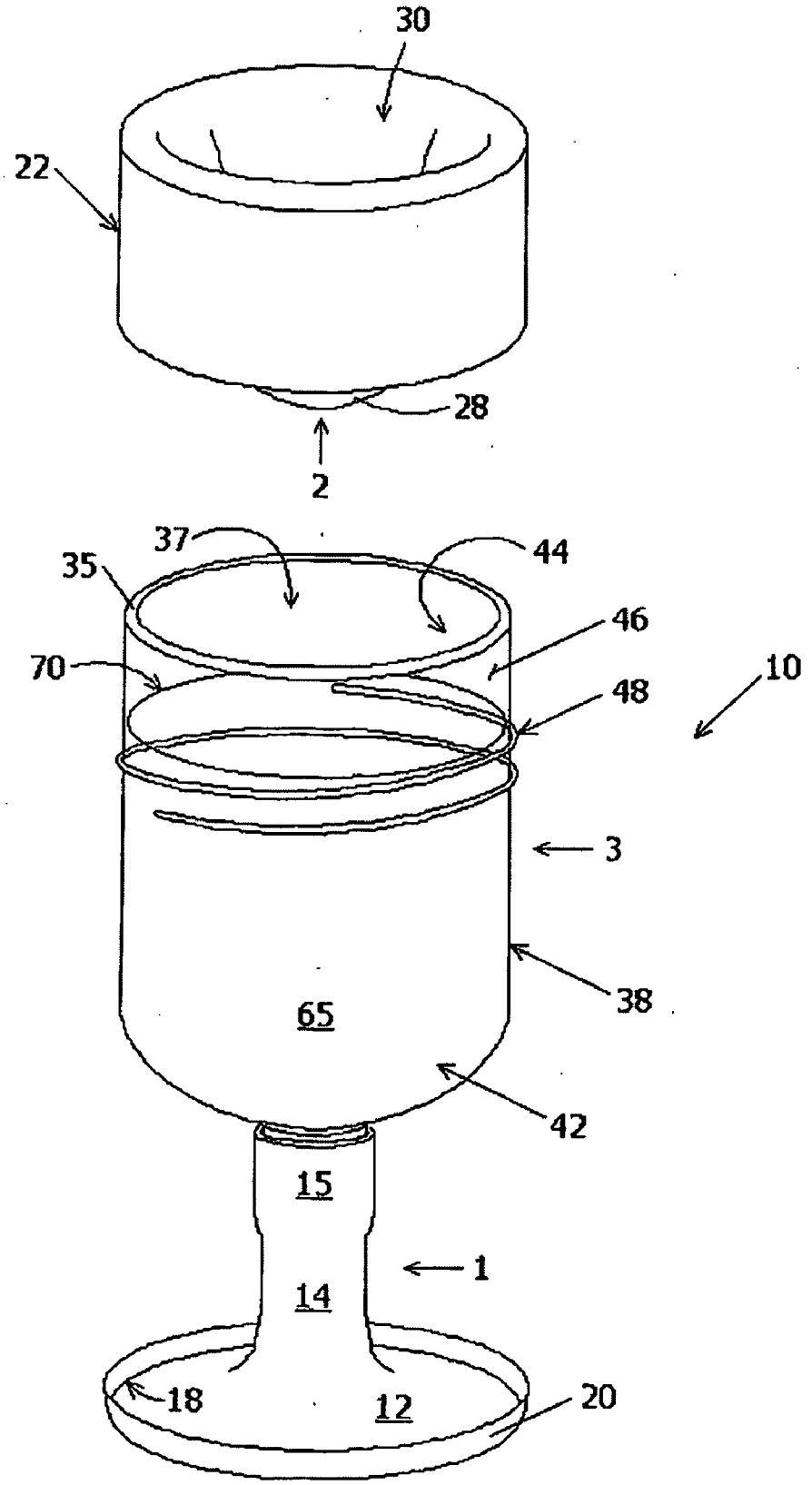

Fig. 10

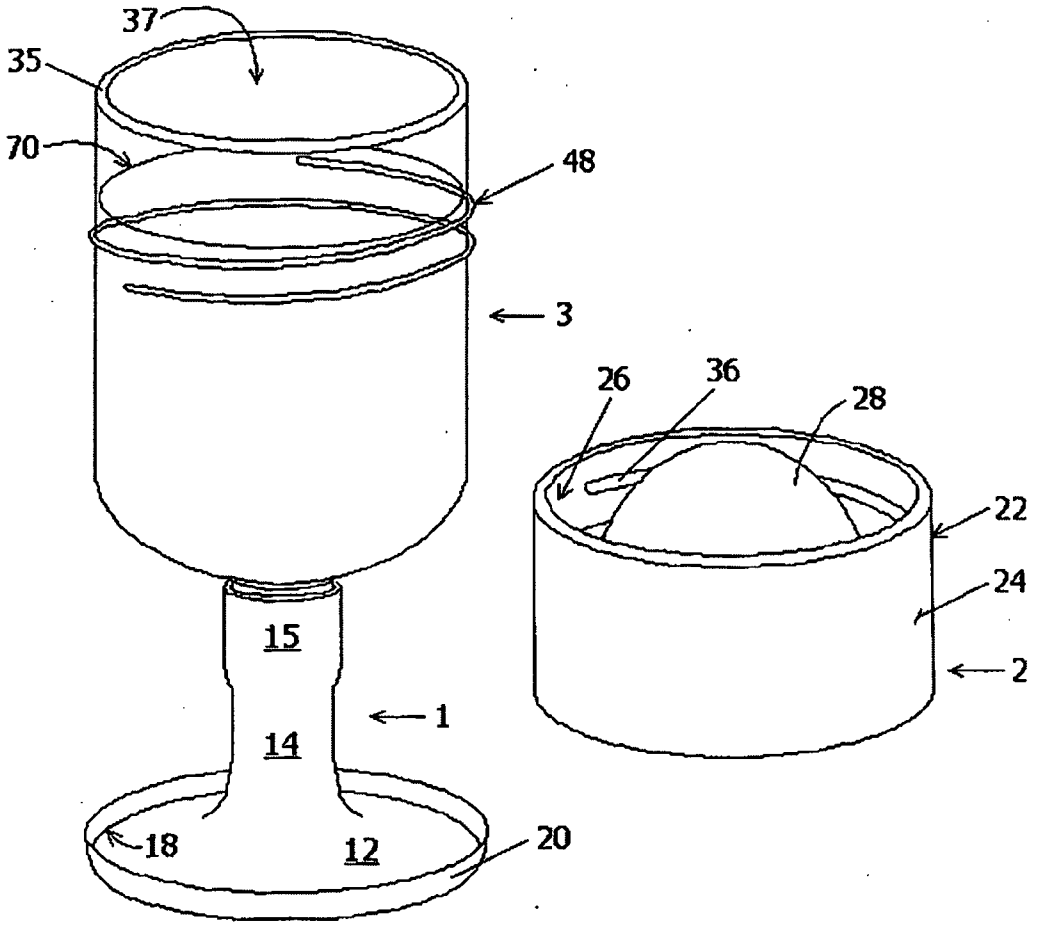

Fig. 11

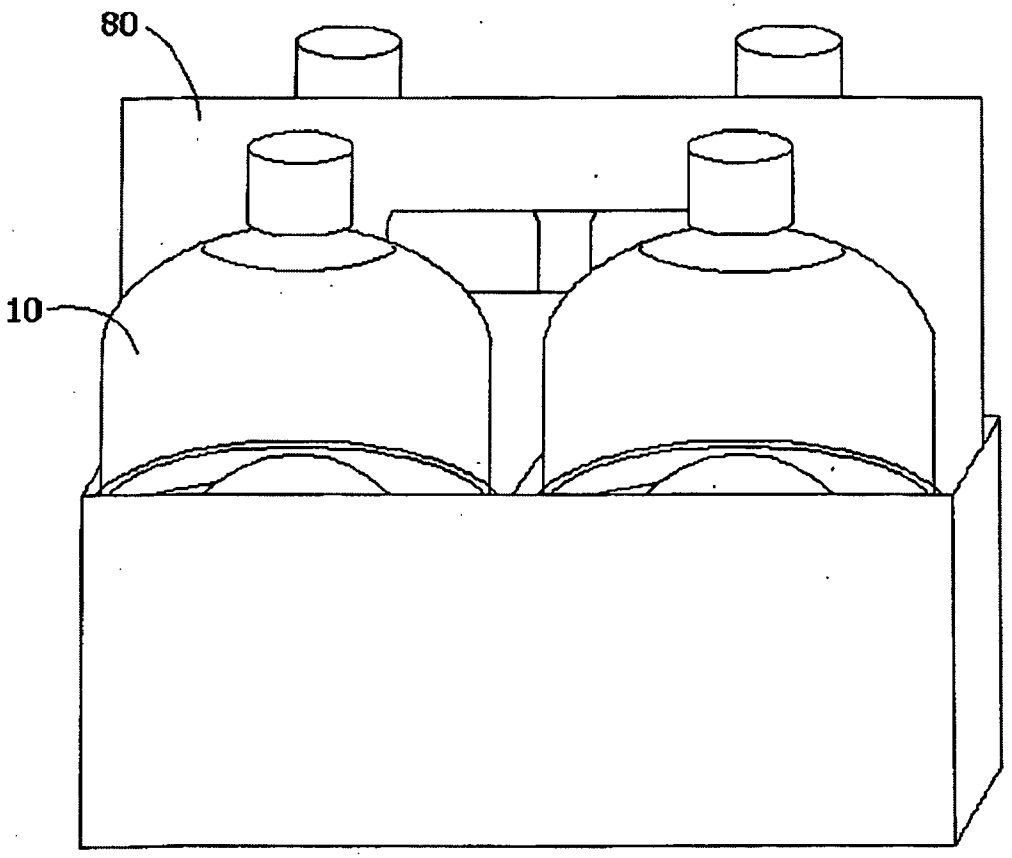

Fig. 12

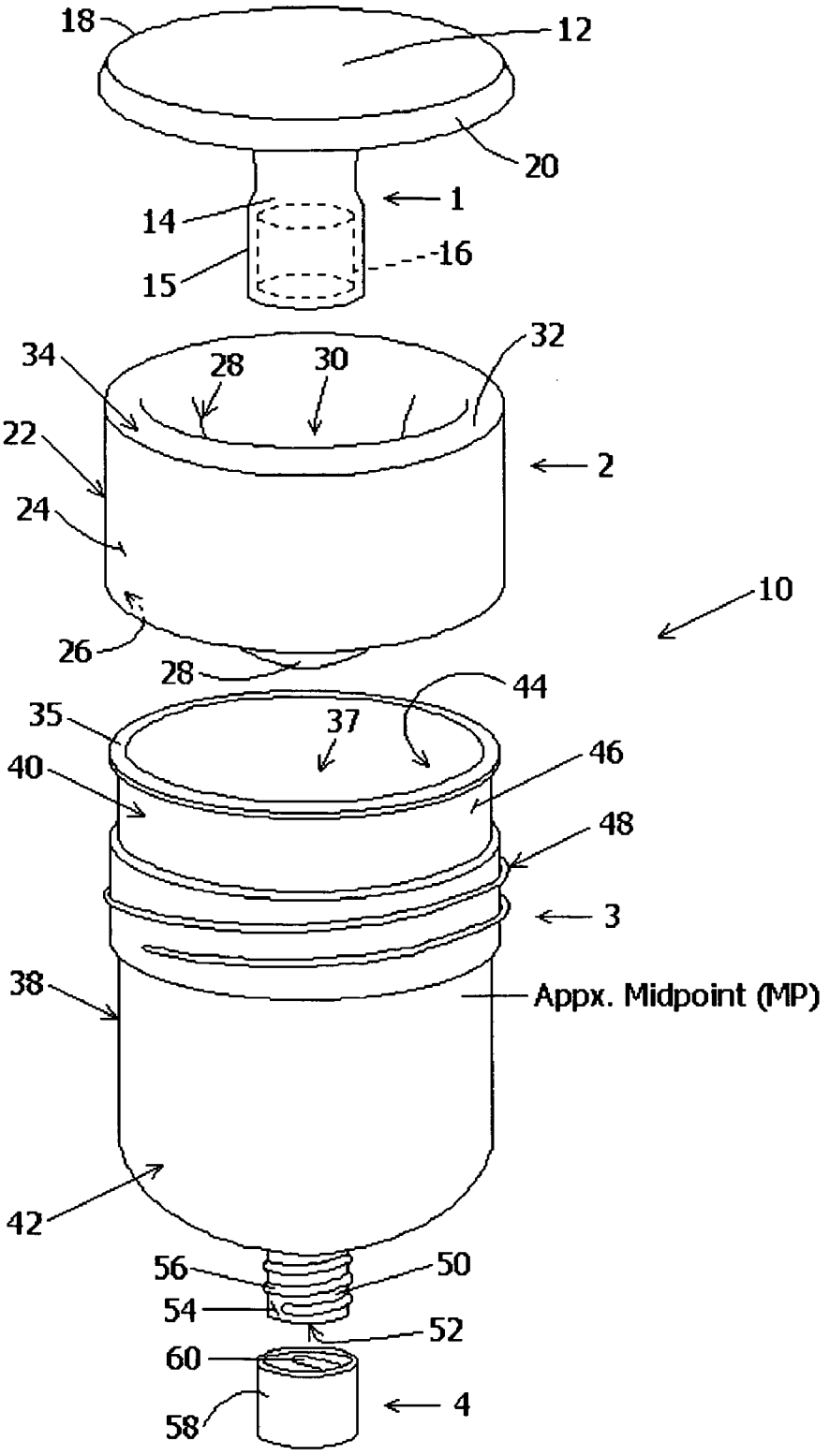
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Fig. 13

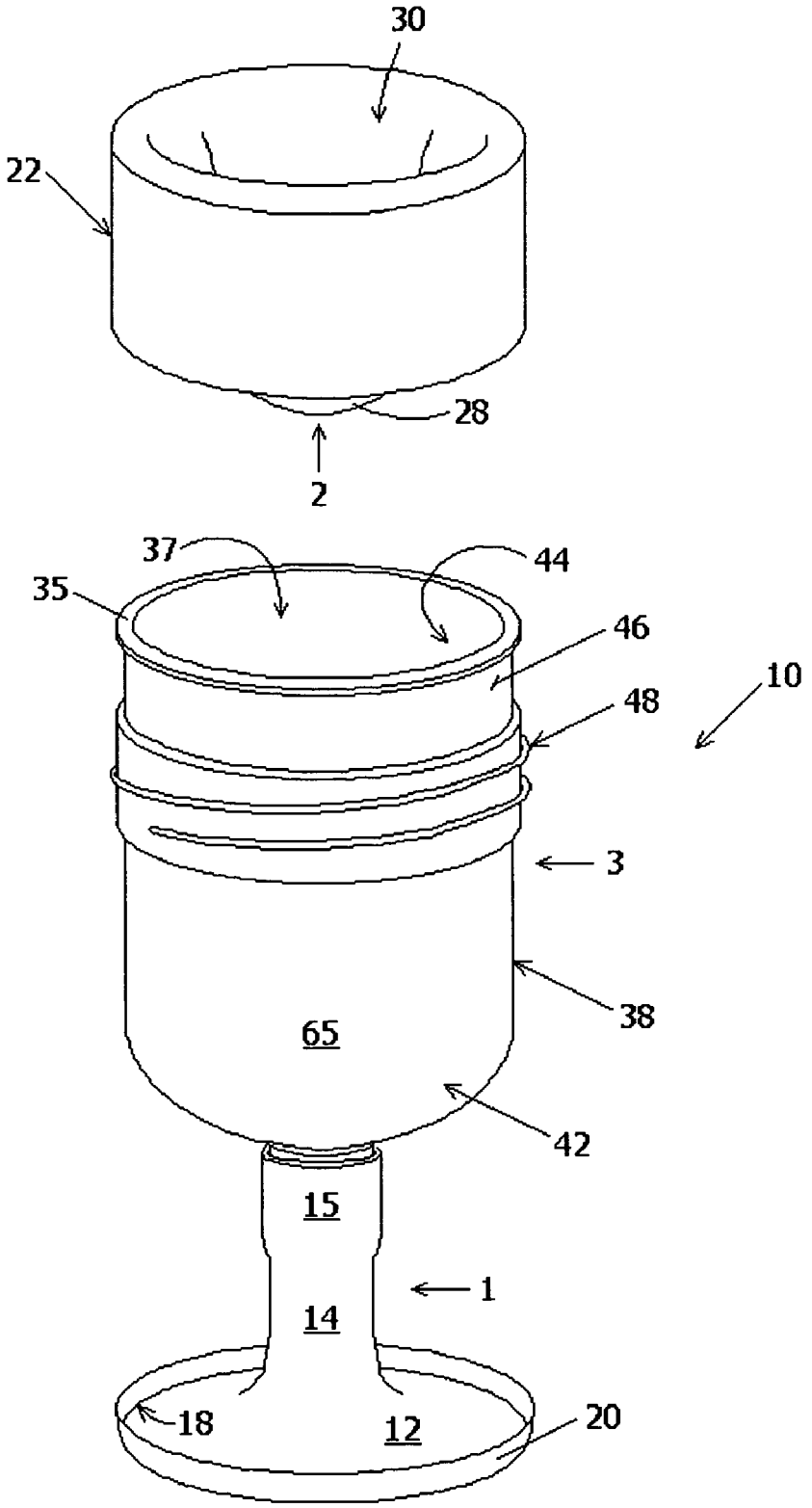
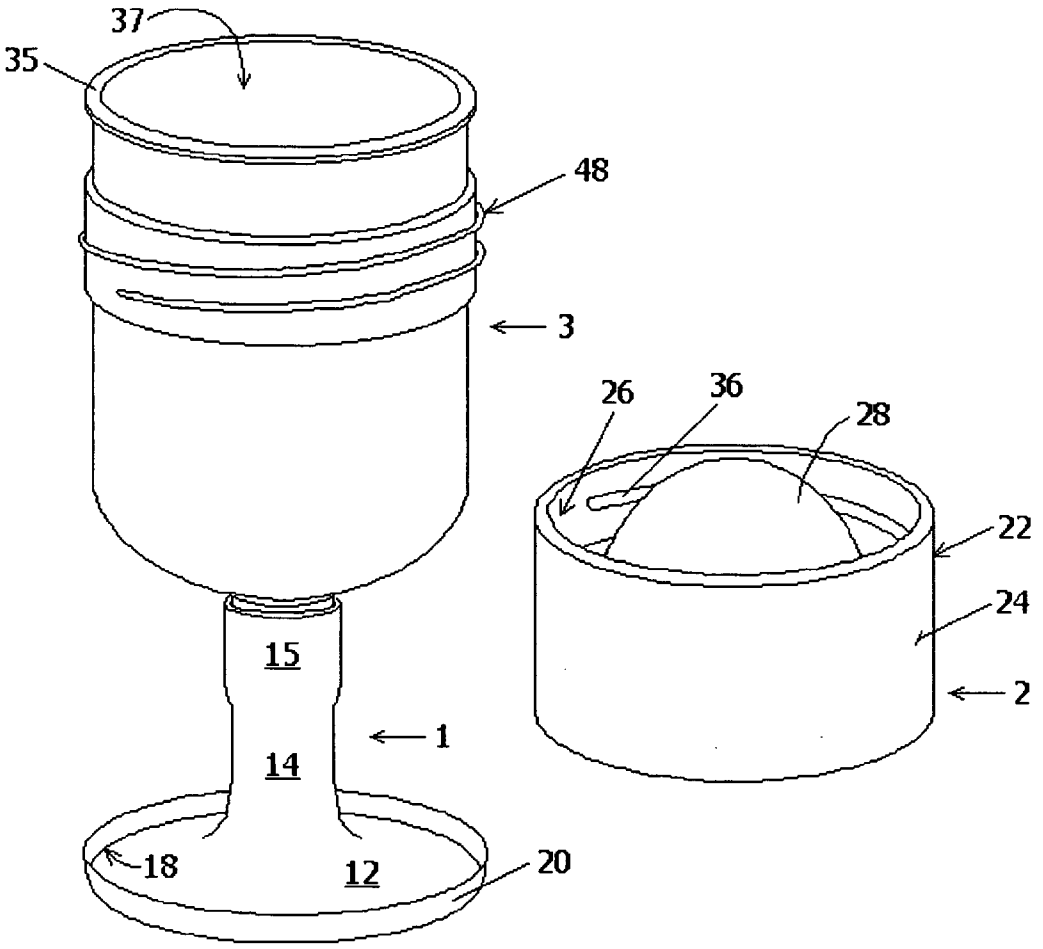


Fig. 14



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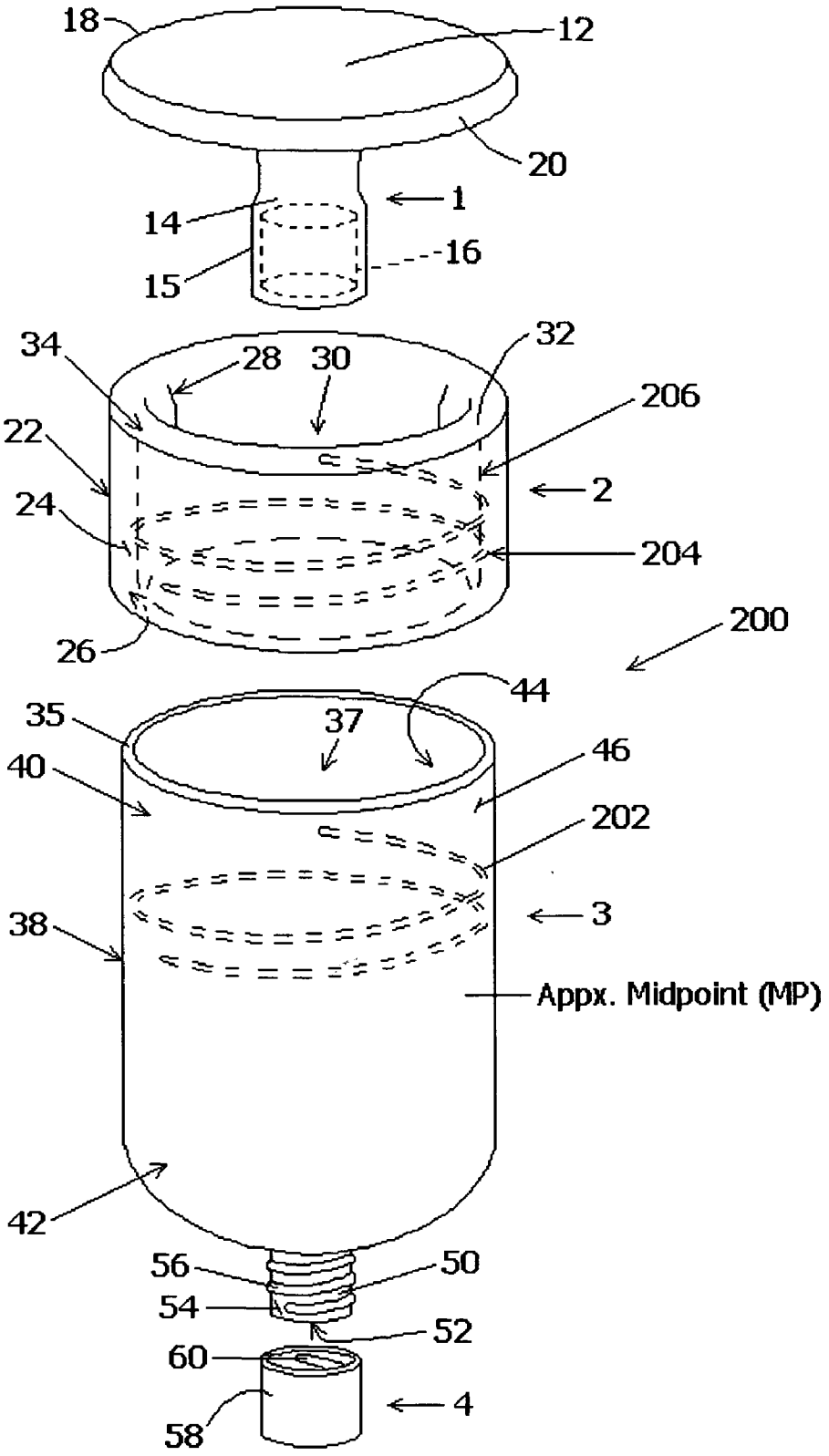
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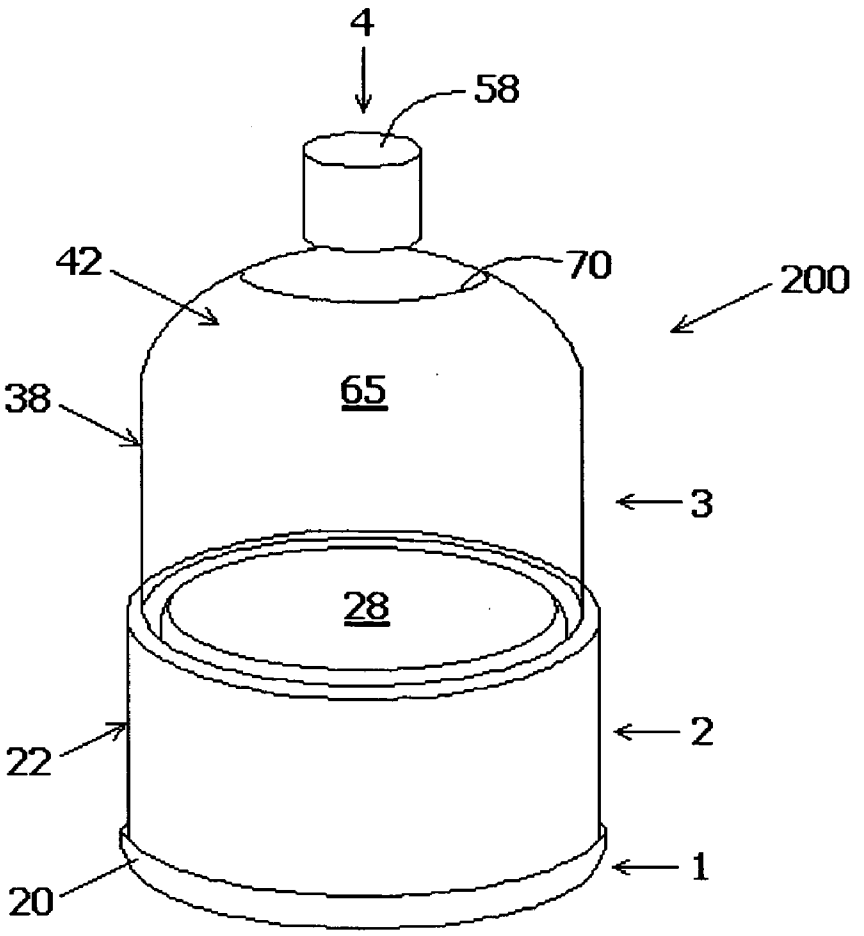
Fig. 16



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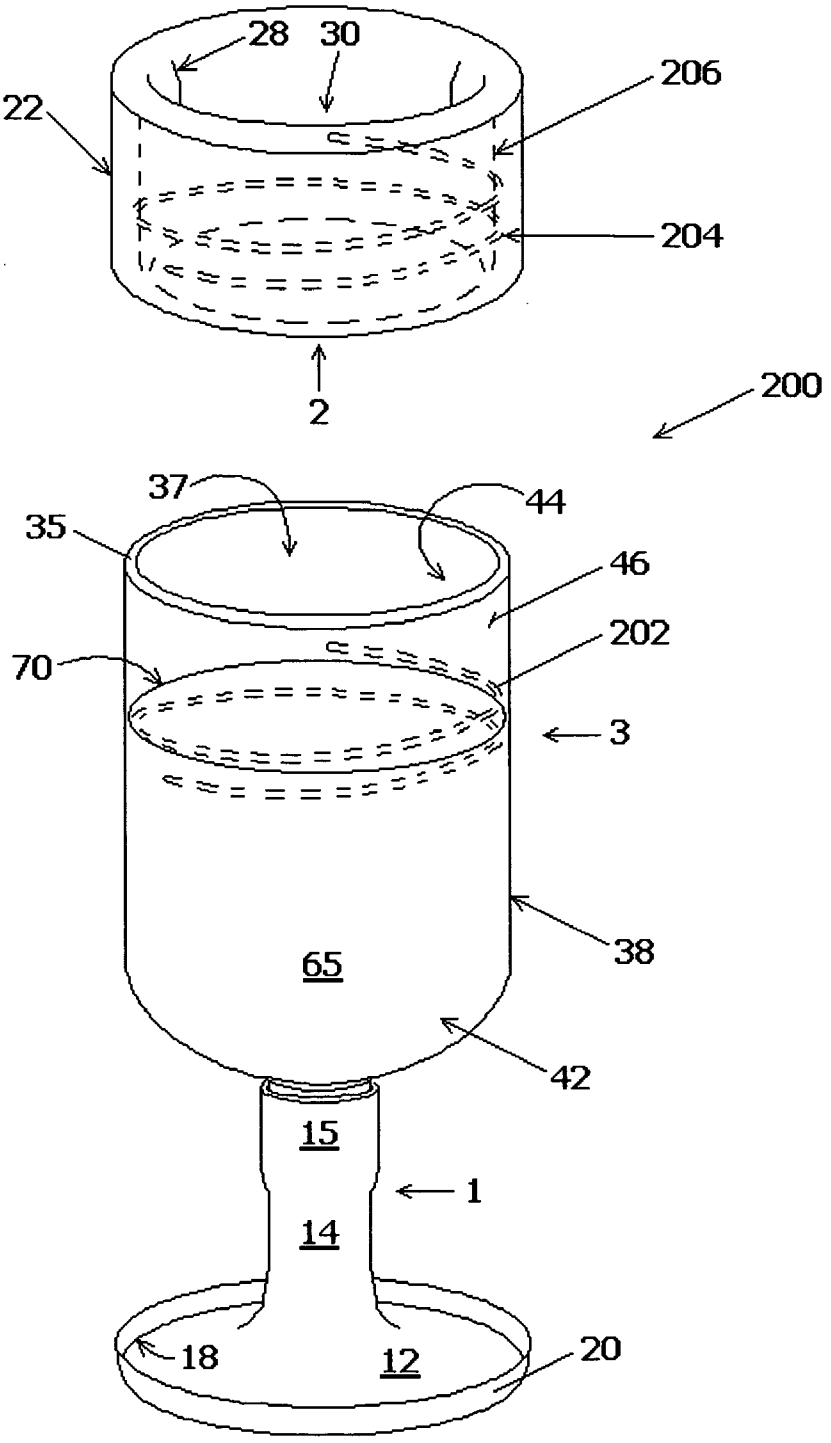

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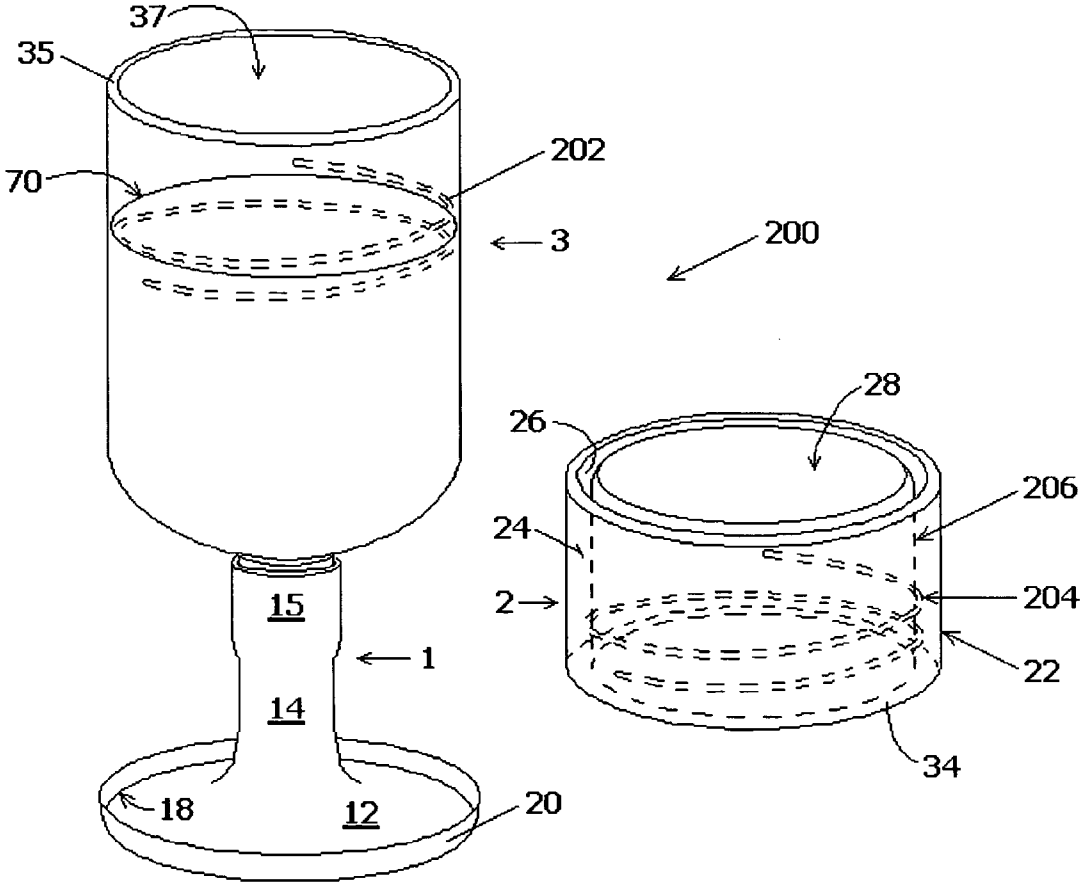


Fig. 19

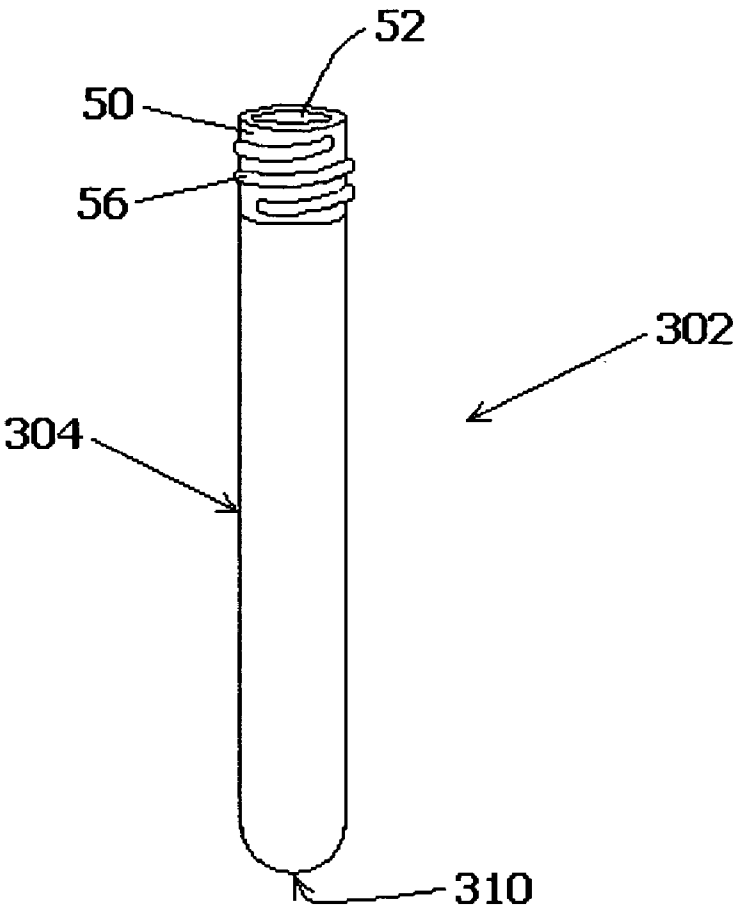
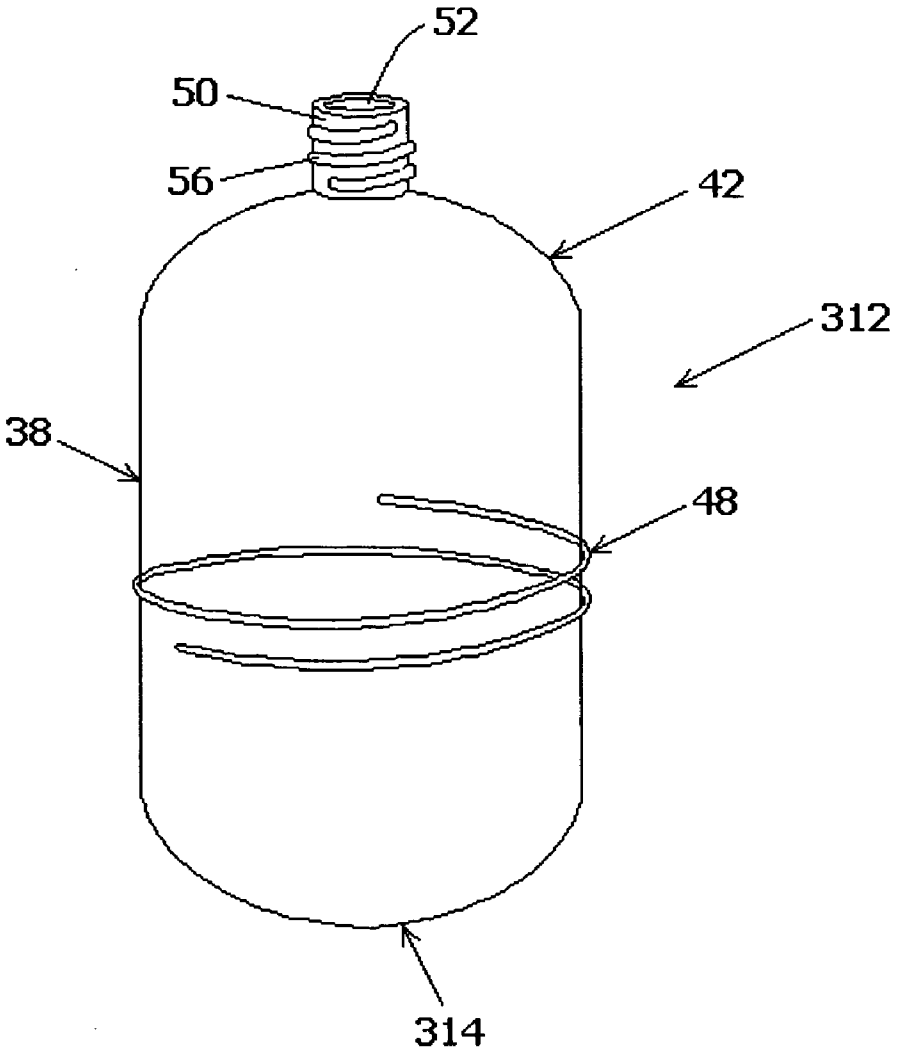


Fig. 20



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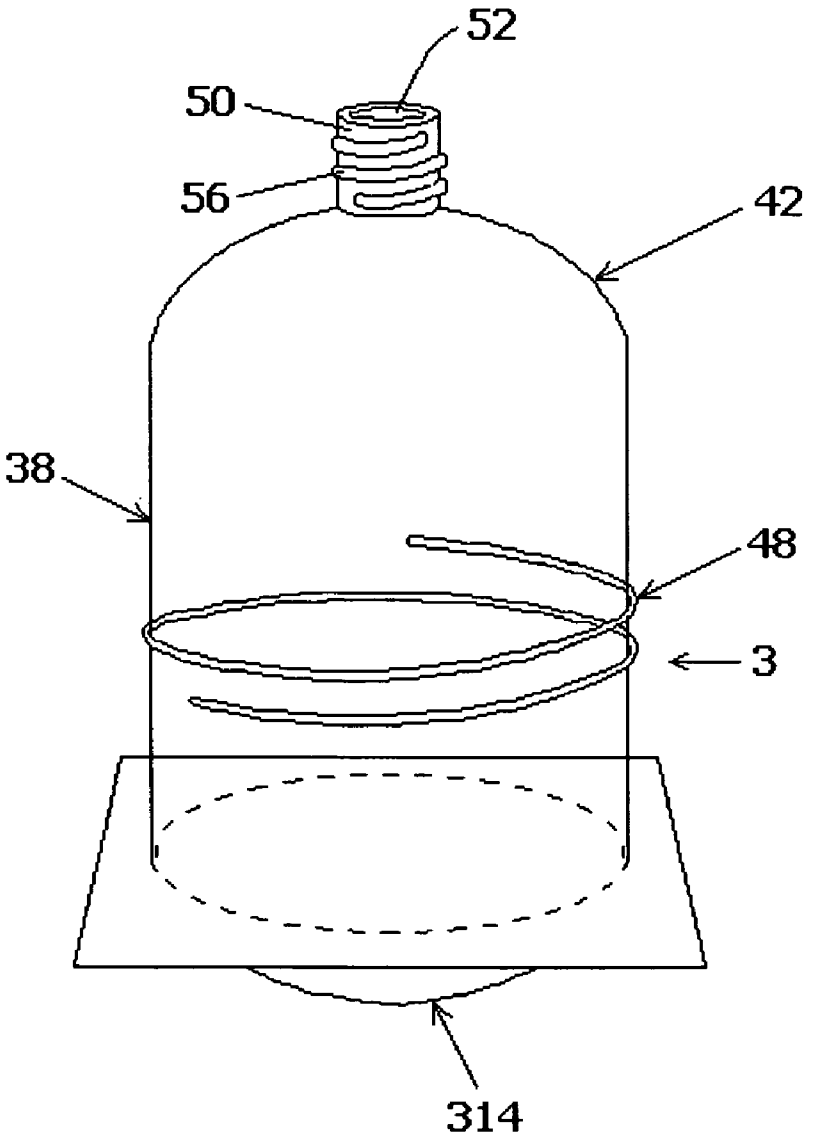
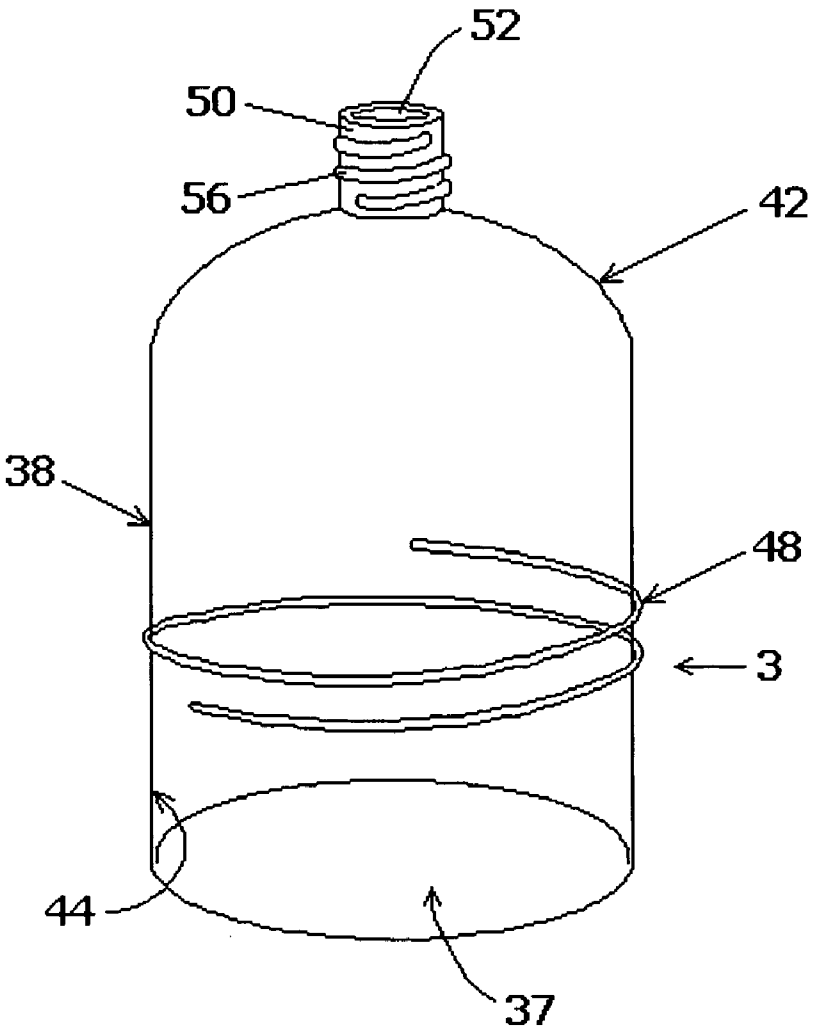


Fig. 22



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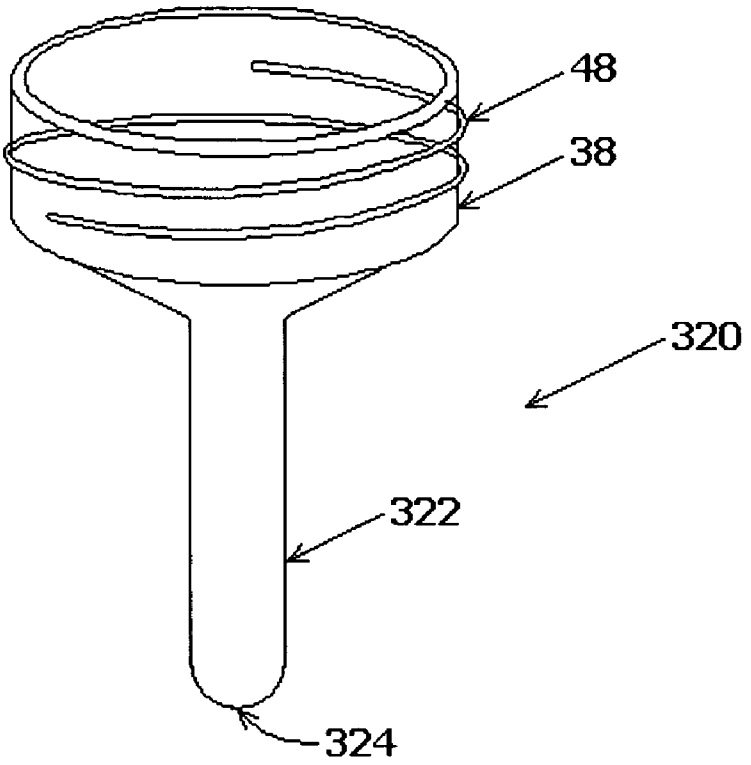


Fig. 24

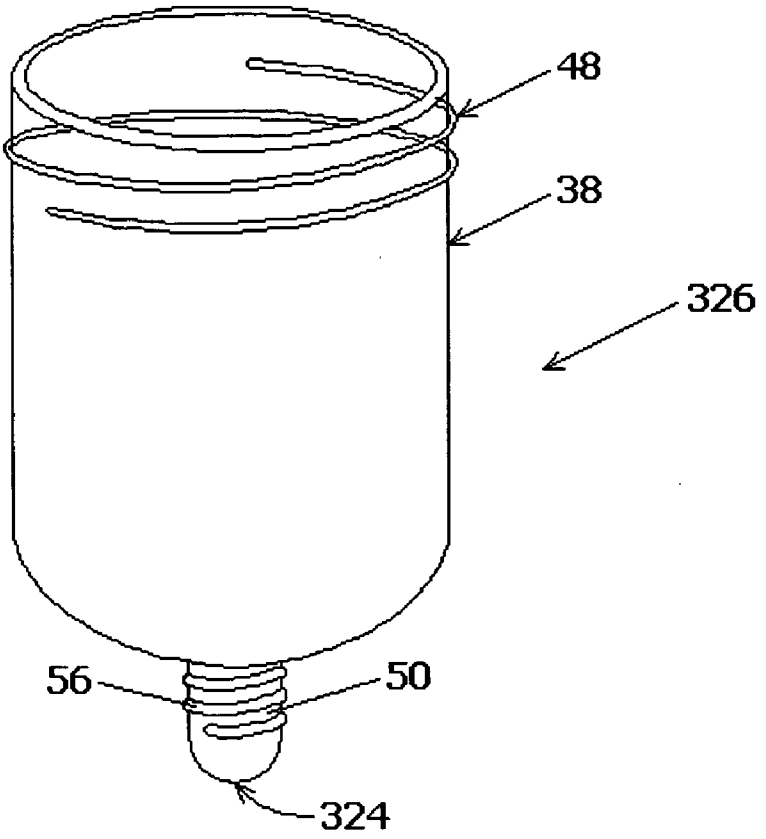


Fig. 25

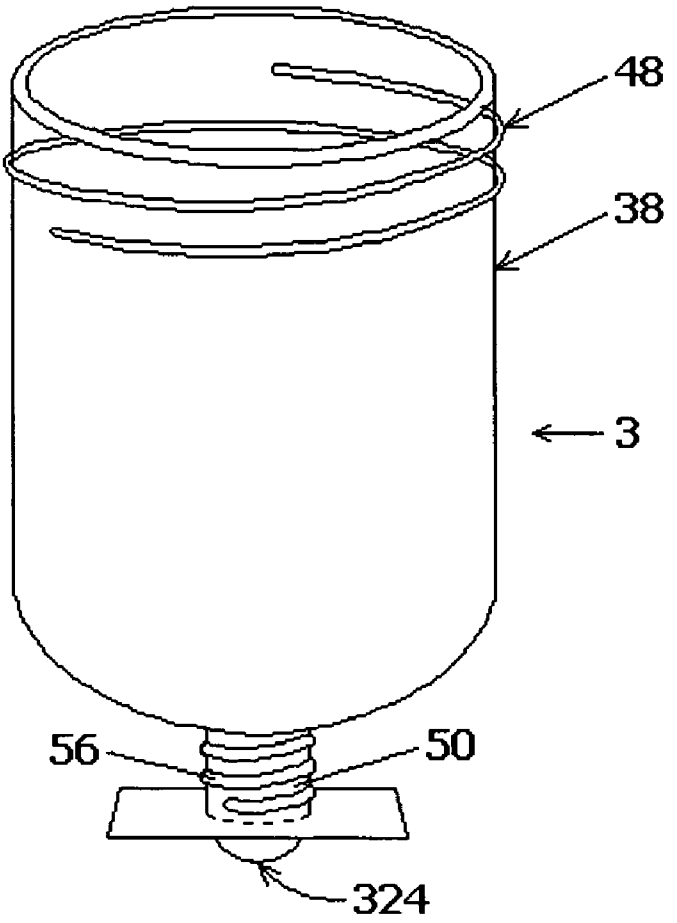
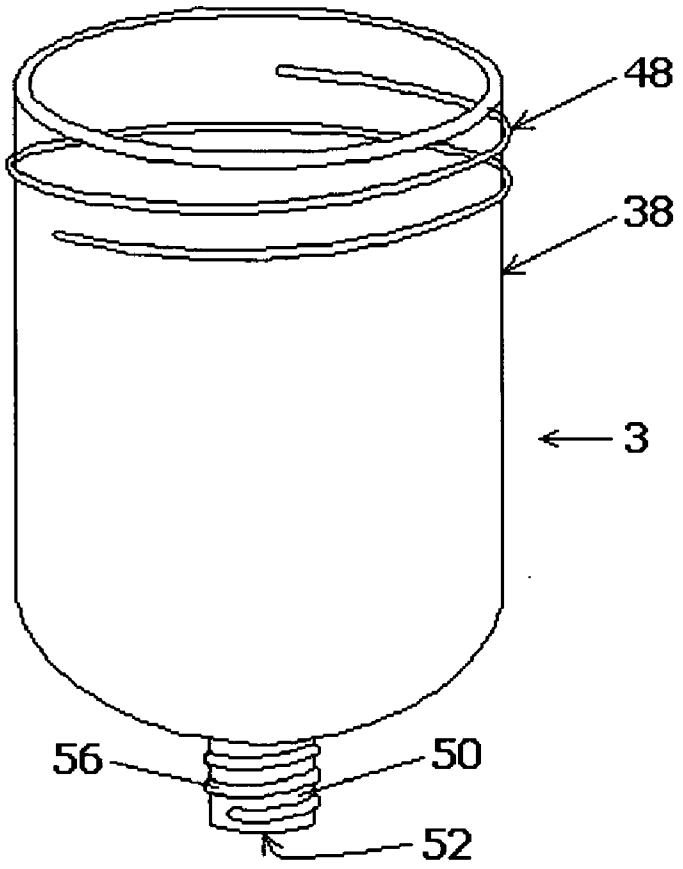


Fig. 26



BEVERAGE BOTTLE CONVERTIBLE TO STEMMED DRINKING GLASS

[0001] This is a continuation-in-part of U.S. patent application Ser. No. 10/706,248, filed Nov. 11, 2003, which is a continuation-in-part of U.S. patent application Ser. No. 10/290,183, filed Nov. 8, 2002, now U.S. Pat. No. 6,662,959. The contents of each of the aforementioned applications and patent are hereby incorporated herein by reference in their entirety. Priority to the aforementioned applications is hereby expressly claimed in accordance with 35 U.S.C. §120 and any other applicable statutes.

FIELD OF THE INVENTION

[0002] The present invention is directed to the conversion of a beverage bottle into a stemmed drinking glass by the consumer.

BACKGROUND

[0003] Single serving wine bottles are known in the art. These are essentially smaller versions of standard 750 ml. wine bottles, and generally have a metal cap. Once purchased, the cap is removed and the contents are poured into a separate glass for consumption. In situations when a glass is not available, one could drink the wine directly from the bottle.

[0004] The instant invention overcomes this problem of requiring a separate glass to be employed with a single serving wine bottle by making the single serving wine bottle convertible into a wine glass. The instant invention is such that if all the wine is not consumed, a cap can be replaced on the bottle until it is so desired to be consumed. A wine bottle which converts easily into a wine glass would find utility in the airline industry, the alcoholic beverage industry, bars, hotels, clubs or anywhere wine is served. Such a device may also be employed with wine coolers or other alcoholic beverages. In addition, the novelty of such a new and convertible device may be of interest to the bottling industry in general, where new ways to package beverages often increases their sales.

SUMMARY OF THE INVENTION

[0005] A wine bottle convertible to a wine glass permitting the consumption of the wine directly therefrom is provided. The wine bottle may be sized to house a single serving of wine. The convertible wine bottle comprises four main elements which are assembled and filled with wine in a bottling process. The wine bottle has basically four integrated components with ancillary structure. These four components are assembled and filled with wine at a bottling plant. Once bottled, the convertible wine bottle may be packaged in 4-, 6-, or 8-packs, as well as individually. The wine bottles would then be transported and sold. These four integrated components are manipulated by the consumer to transform the wine bottle into a wine glass with an appropriate portion of wine therein. Such a convertible bottle of wine would give users the pleasure of drinking their wine from a stemmed glass. Once completed, the structure may be reassembled and recycled.

[0006] The first element (stem and base) is the stem and base of the wine glass. The first element may be manufactured from plastic. The base includes a centrally disposed stem depending vertically therefrom. The base is designed to support the glass when the bottle is converted. The top portion of the stem may include a threaded socket or smooth socket. The base also is designed to be snap-fit or otherwise attached to the bottle prior to conversion to the wine glass.

[0007] The second element is a bottom closure which includes a generally cylindrical sidewall which has an interior side and an exterior side. The second element includes a centrally disposed parabolic portion which resides in the interior of the cylindrical sidewall. The interior cylinder sidewall includes threading to securely attach the second element to the third element. The parabolic portion forms a bowl on the exterior side and a displacement element on the interior side. The stem of the first element would reside within the bowl of the parabolic portion in the wine bottle configuration. The second element is manufactured from plastic or metal. It essentially forms a closure which is air and fluid tight with the third element forming a fluid reservoir which may be accessed through an aperture on the opposite side of the third element (the neck).

[0008] The third element comprises the main body of the bottle and has a generally cylindrical sidewall which also has an interior and an exterior side. The cylindrical sidewall has a top portion and a bottom portion along a vertical axis of said cylindrical sidewall. The top portion of the cylindrical sidewall has a neck with an opening. The top portion of the cylindrical sidewall may taper to form the neck. The bottom of the cylindrical sidewall forms a large opening which comprises the lip of the glass from which a user drinks when the bottle is converted to a wine glass. The exterior side of the bottom portion of the cylindrical sidewall has threads. These threads securely engage with the second element's interior sidewall threading. The neck is the portion of the bottle to which a cap will be affixed. Thus, the external portion of the neck is threaded and designed to receive a cap thereon. It is proposed that the third element be manufactured from glass, plastic or other material.

[0009] The third element may also have a lip extending radially outward from cylindrical sidewall at or near the bottom end of the cylindrical sidewall. The lip provides a seal between the second element and the third element, in addition to the seal provided by the engagement of the respective threads. To accommodate the lip, the diameter of the interior side of the cylindrical wall of the second element may be increased, also increasing the diameter of the threads on the interior side. In order to mate with the threads, the cylindrical sidewall of the third element in the area of the threads may thickened to form a band so that the threads can still mate with the threads in the second element's interior sidewall. The thickened band also makes the cylindrical sidewall of the third element stronger and more rigid in the area of the threads. In this way, the seal provided by the threads can withstand greater forces caused by squeezing the bottle or other handling of the bottle.

[0010] In another innovative aspect of the present invention, the threads on the cylindrical sidewall of the third element may be disposed on the interior side of the sidewall, instead of the exterior side as described above. In order to seal effectively to the threads of the interior side of the sidewall, the centrally disposed portion of the second element is cylindrical instead of parabolic. Threads are provided on the exterior side of this centrally disposed cylin-

drical portion which mate with the threads on the interior side of the sidewall. This configuration provides several advantages, such as eliminating the threads on the exterior side of the sidewall in the area where a user's mouth contacts the sidewall when drinking from the glass. Moreover, the seal between the second element and the third element seals the beverage in the bottle at the mating threads before the beverage reaches the interface between the edge of the sidewall at the large opening of the third element and the interior side of the bottom of the second element. Thus, there is no need to provide a fluid tight seal at the interface. This also eliminates the need for using a lip extending radially outward from cylindrical sidewall at or near the bottom end of the cylindrical sidewall as described above.

[0011] The combination of the second element and the third element forms the reservoir which will be filled with wine. The interior side of the parabolic portion of the second side forms a displacement area which alters the amount of fluid which may be placed in the reservoir (in comparison to a second element with no parabolic portion). This displacement area would also effect the amount of air present. Air tends to oxidize wine therefore it should be minimized. Wine has been bottled for years and the amount of air present in the bottling process has been established to maximize flavor and shelf-life.

[0012] In another aspect of the present invention, the third element may be formed by several different methods. In a first method, the third element may be molded (such as injection molding) in essentially its final form. Accordingly, the cylindrical sidewall, the threads on the neck and the threads on the bottom portion of the cylindrical sidewall are molded in their final form. In addition, the neck and bottom of the third element have openings provided by the molding process.

[0013] Alternatively, the third element may be produced in a two-step process utilizing a preform and a blow-molding process. The preform may have various innovative configurations, including being open and clamped at the small neck opening of the third element during the blow-molding process, being open and clamped at the large opening of the third element, or open at both ends and clamped at one end and sealed at the other end of the third element.

[0014] For example, the preform may comprise a tubular piece having a diameter which is smaller than the finished diameter of the cylindrical sidewall of the third element. The top part of the tubular piece is open and forms the neck of the third element. The threads on the neck may or may not be formed on the preform. The bottom of the tubular piece is closed. The threads on the exterior side of the bottom portion may be formed on the preform but are preferably formed during the blow-molding process. The preform is typically produced by injection molding but may be produced by any suitable method. To form the finished third element, the preform is placed in a blow-molding machine having a mold tool in the shape of the final form of the third element. The preform is clamped at the top part of the tubular piece. Pressurized gas is injected into the preform which forces the material of the preform against the mold tool which shapes the preform into the shape of the mold tool. The threads on the exterior side of the bottom portion of the cylindrical sidewall are formed during the blow-molding process (if the threads were not included in the preform). The bottom end of the cylindrical portion is then trimmed to form the large opening.

[0015] In another blow-molding process, the third element may be produced using a preform with a tubular top portion having the same diameter as the bottom portion of the cylindrical sidewall and the large opening. The threads on the exterior of the side of the bottom portion of the sidewall are preferably formed on the preform but may also be formed during the blow-molding process. The large diameter of the preform tapers down to a narrower tubular bottom portion having a closed end which will comprise the neck of the third element after the blow-molding process. Again, the preform may be fabricated by injection molding or other suitable process. The finished third element is produced by placing the preform in a blow-molding machine having a mold tool in the shape of the final form of the third element. The preform is clamped at the tubular top portion of the preform. Pressurized gas is injected into the preform thereby reshaping the preform into the shape of the mold tool. The threads on the neck of the third element are formed during the blow-molding process (if the threads were not included in the preform). The tip of the closed neck end is then trimmed to form the opening in the neck.

[0016] In yet another blow-molding method, the preform for the third element may comprise a tubular piece which is open on both ends. The tubular piece is the same length as the interior of the blow-mold tool and at least a portion of the tubular piece has a smaller diameter than the finished cylindrical sidewall of the third element. The threads on the neck and on the exterior of the bottom portion of the sidewall may be formed in the preform or during the blow-mold process. During the blow-mold process, one open end of the preform is clamped at the pressurized gas source and the other open end of the preform is sealingly pressed or clamped against the end of the interior of the mold. Pressurized gas is injected into the preform thereby reshaping the preform into the shape of the mold tool. The advantage of this particular "two open end" process is that there is no trimming required as in the two blow-molding processes described above. The trimming processes present a risk of deforming the shape of the openings which could produce a poor fit between the bottom cover and the threaded portion of the third element or the cap (described below) and the neck of the third element.

[0017] The fourth element (cap) is a cap which is secured to the neck of the third element. The wine is delivered to the bottle (which is formed by the combination of the second and third element) through the aperture in the top of the neck. Once filled, the fourth element is secured thereto. The cap is designed to be manufactured from metal or plastic and will seal the bottle to prevent air or fluid from passing either direction.

[0018] The above brief description sets forth rather broadly the more important features of the present invention in order that the detailed description thereof that follows may be better understood, and in order that the present contributions to the art may be better appreciated. There are, of course, additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto. These may include the use of sizes other than single serving wine bottles, use with other bottled alcoholic beverages where it is desirable to have

such a convertible bottle, or other non-alcoholic beverages where it is desirable to have such a convertible bottle.

[0019] In this respect, before explaining the invention in detail, it is to be understood that the invention is not limited in its application to the details of the construction and to the arrangements of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood, that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

[0020] As such, those skilled in the art will appreciate that the conception upon which this disclosure is based may readily be utilized as a basis for designing other structures, methods, and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

[0021] It is therefore an object of the present invention to provide a single serving wine bottle which may be converted into a wine glass.

[0022] It is another object of the invention to provide a wine bottle which may be convertible in to a wine glass.

[0023] It is another object of the invention to provide a wine bottle with a central wine reservoir, the wine reservoir including a bottom portion and an intermediate portion, the bottom portion screwed and sealed onto the intermediate portion.

[0024] It is another object of the invention to provide a wine bottle wherein the intermediate portion tapers to a neck, the neck designed to receive a cap thereon.

[0025] It is another object of the invention wherein the bottom portion includes a depression centrally disposed about a lip, the depression designed to receive the stem of the wineglass therein.

[0026] These together with still other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] The invention will be better understood and the above objects as well as objects other than those set forth above will become more apparent after a study of the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

[0028] **FIG. 1** is a view of the wine bottle and the components forming the same.

[0029] **FIG. 2** is a view of the wine bottle showing the connection between the two central elements of the bottle in preparation for bottling.

[0030] **FIG. 3** is a view of the wine bottle showing the connection of a third portion to the central element of the bottle in preparation for bottling.

[0031] **FIG. 4** is a view of the wine bottle just prior to being filled with wine.

[0032] **FIG. 5** is a view showing the cap secured to the filled wine bottle.

[0033] **FIG. 6** is a view of the first step of the wine bottle being converted into a wine glass.

[0034] **FIG. 7** is a view of the second step of the wine bottle being converted into a wine glass.

[0035] **FIG. 8** is a view of the third step of the wine bottle being converted into a wine glass.

[0036] **FIG. 9** is a view of the fourth step of the wine bottle being converted into a wine glass.

[0037] **FIG. 10** is a view of the fifth and final step of the wine bottle being converted to a wine glass, showing the wine glass filled with wine ready to be consumed.

[0038] **FIG. 11** is a view of a plurality of convertible wine bottles packaged for sale.

[0039] **FIG. 12** is a view of a second embodiment of the bottle and its components, in accordance with the present invention.

[0040] **FIG. 13** is a view of the second embodiment of the bottle being converted into a drinking glass.

[0041] **FIG. 14** is a view of the second embodiment of the wine bottle after it has been converted into a drinking glass.

[0042] **FIG. 15** is a view of a third embodiment of the bottle and its components, in accordance with the present invention.

[0043] **FIG. 16** is a view of the third embodiment of the bottle fully assembled.

[0044] **FIG. 17** is a view of the third embodiment of the bottle being converted into a drinking glass.

[0045] **FIG. 18** is a view of the third embodiment of the bottle after it has been fully converted into a drinking glass.

[0046] **FIG. 19** is a view of a preform for producing the third element of the bottle, according to the present invention.

[0047] **FIG. 20** is a view of the blow-molded preform of **FIG. 19**.

[0048] **FIG. 21** is a view of the blow-molded preform of **FIG. 19** which also depicts the trimming procedure.

[0049] **FIG. 22** is a view of the completed third element as produced by the preform of **FIG. 19**.

[0050] **FIG. 23** is a view of another preform for producing the third element of the bottle, according to the present invention.

[0051] **FIG. 24** is a view of the blow-molded preform **FIG. 22**.

[0052] **FIG. 25** is a view of the blow-molded preform of **FIG. 20** which also depicts the trimming procedure.

[0053] **FIG. 26** is a view of the completed third element as produced by the preform of **FIG. 23**.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0054] With reference now to the drawings, a wine bottle convertible to a wine glass embodying the principles and concepts of the present invention will be described. In the case of a bottle being converted into a glass, it is to be understood that this glass is a drinking glass and may be comprised of material other than glass, such as plastic.

[0055] Turning initially to **FIG. 1**, the unassembled wine bottle **10** which is convertible into a wine glass is shown. **FIG. 1** shows the components employed. Element **1** shows the base **12** with a centrally disposed stem **14** depending therefrom. The bottom portion **15** of the stem **14** includes a hollow aperture **16** with an interior which may be smooth or threaded. Other means may be incorporated to increase the frictional holding capacity of the hollow aperture. Such means may include mechanisms which would increase the co-efficient of friction. The base **12** has a perimeter **18**. A lip portion **20** depends around the perimeter **18** of the base **12**.

[0056] Element **2** includes a generally cylindrical sidewall **22** which has an exterior side **24** and an interior side **26**. Element **2** includes a centrally disposed parabolic portion **28** or depression which resides in the interior of the cylindrical sidewall **22**. It describes a parabolic opening **30** which is surrounded on the top **32** by a ring **34**. The parabolic portion **28** is thin and approximates the thickness of the sidewall **22**. On the interior side **26** of the cylindrical sidewall **22** is a first set of threads **36**. The parabolic portion **28** may also be described as a depression. The depression may assume other shapes other than the parabolic portion **28** which is shown in the figures. The interior area of element **2** is best seen in **FIG. 10**.

[0057] Element **1** fits into element **2**. The stem **14** resides in the parabolic opening **30** and the lip portion **20** snap fits about the ring **34** on the top **32** of the second element. Tamper resistant or evident devices may be employed.

[0058] Element **3** also has a generally cylindrical sidewall **38** with a top portion **40** and a bottom portion **42** along a vertical axis of said cylindrical sidewall **38**. The top of element **3** shows the sidewall **38** forming a circular opening **37**. Circular opening **37** is surrounded by lip **35**. Lip **35** would mate with the consumer's mouth when drinking the wine. Element **3** also includes an interior side **44** and an exterior side **46**. A second set of threads **48** are located on the exterior side **46** of the cylindrical sidewall **38** of element **3**. The second set of threads **48** are generally located above the midpoint (MP) between the top portion **40** and the bottom portion **42**. Below the midpoint (MP) the cylindrical sidewall **38** tapers near the bottom portion **42** to a central neck **50** as shown. Central neck **50** includes an opening **52** to the interior side **44** of element **3**. The exterior portion **54** of the central neck **50** includes a third set of threads **56**.

[0059] Element **2** matingly interengages with element **3**. The parabolic portion **28** fits into the circular opening **37** and the first set of threads **36** are mated with and rotated about the second set of threads **48** forming an air and fluid tight seal. Element **3** has a first volume which is reduced proportionally to the amount of the parabolic portion which fits into the interior.

[0060] Element **4** is a cap **58**. Cap **58** includes a fourth set of threads **60**, located on the interior as shown. During the bottling process, once element **2** and element **3** are securely interfit, the bottle or reservoir formed would be filled with wine. At that point cap **58** would be screwed onto element **3** with the third set of threads **56** mating with the fourth set of threads **60** forming an air and fluid tight seal. It is to be noted that once the bottle **10** is filled, cap **58** is sealed.

[0061] **FIGS. 1-5** show the construction of the wine bottle**10** at the bottling plant and **FIG. 11** shows a possible packaging. **FIG. 1** has been discussed above and basically lays out the components and ancillary structure located thereon. Referring now specifically to **FIG. 2**, the first step in the construction of the bottle **10** is screwing element **2** about element **3**. This is done by mating the first set of threads **36** into the second set of threads **48** and turning until sealed. It is to be understood that additional devices or structures may be incorporated into this mating arrangement in order to facilitate an air and fluid tight seal. Once element **2** is affixed securely to element **3**, an interior chamber **65** is formed with a single aperture **52**.

[0062] Referring now specifically to **FIG. 3**, the next step in the construction of the bottle **10** is placing element **1** into the combination of element **2** and element **3**. The stem **14** is received in the parabolic opening **30** and the lip portion **20** snap fits atop top element **32** of element **2**.

[0063] Referring now to **FIG. 4**, the bottle **10** is shown in an orientation which places the cap **58** and the aperture **52** on top. It is at this junction where the interior chamber **65** is filled with wine. Once filled to an appropriate level, certainly above the midpoint (MP), the bottle **10** has the cap **58** placed securely thereon. This is accomplished by mating the third set of threads **56** with the fourth set of threads **60** and screwing the cap on. Again, it is to be understood that additional devices or structures may be incorporated into this mating arrangement in order to facilitate an air and fluid tight seal.

[0064] **FIG. 5** shows bottle **10** in its completed form. It can clearly be seen the inter-relationship between element **1**, element **2**, element **3** and element **4**. The interior chamber **65** is shown filled with wine to a level indicated at **70**. This level **70** in no way indicates the desired level, it is for illustrative purposes only. Although the bottle is basically designed to serve a single wine serving, the serving size may vary with type of wine, with the meal that the wine is served with, cultural factors and manufacturing limitations. One of the main embodiments of the invention would be use of such a single serving convertible wine bottle to wine glass on an airline. Referring now specifically to **FIG. 11**, a four pack **80** of convertible bottles **10** are shown, ready for sale and consumption.

[0065] **FIGS. 6-10** will show the conversion of the wine bottle **10** to a wine glass. This conversion will most likely take place by the consumer, although a flight attendant, waitress or waiter, bartender or partner may actually perform the conversion prior to being handed to the consumer. The conversion is easily performed, so that anyone can easily perform the steps. The first step is removing element **1** from element **2**. This is done by grasping the base **12** and unsnapping the lip portion **20** from the top portion **32** of element **2**.

[0066] The second step is shown in **FIG. 7**. Hollow aperture **16** is aligned with cap **58**. Hollow aperture **16** has

been chosen to be sized so that it frictionally fits atop cap **58** in a secure fashion. The hollow aperture **16** may also be known as a recess. It is to be understood that additional devices or structures may be incorporated into this mating arrangement in order to facilitate a tight seal. Such an arrangement may include threads. **FIG. 8** shows the stem **14** and base **12** of element **1** mated with element **4**. It can be seen that interior chamber **65** with the wine therein is oriented in the proper direction to be consumed.

[**0067**] **FIGS. 9 and 10** shows the removal of the element **2** from element **3**, essentially opening the wine bottle **10** and leaving the wine bottle converted into a wine glass. The second set of threads **48** remain on the exterior side **46** of the generally cylindrical sidewall **38**. This may help the user grasp the glass. In addition, the second set of threads are down low enough on the exterior side **46** of the cylindrical sidewall **38** to prevent one from becoming engaged with it while drinking from the glass.

[**0068**] Turning to **FIGS. 12-14**, a second embodiment of a bottle which is convertible into a drinking glass is shown. This bottle **100** is identical to the bottle described above with respect to **FIGS. 1-11**, except that the third element further comprises a lip **102** and element **2** and element **3** are modified to accommodate the addition of the lip. Accordingly, like reference numerals in this second embodiment refer to like elements in **FIGS. 1-11** and the description above is equally applicable to the second embodiment.

[**0069**] The lip **102** extends radially outward from cylindrical sidewall **38** at the circular opening **37** at the top of element **3**. When element **2** is screwed tightly onto element **3**, the lip **102** seals tightly against the interior side **26** of the bottom of element **2**. The lip **102** provides a seal between element **2** and element **3**, in addition to the seal provided by the engagement of the threads **36** and **48**. To accommodate the lip **102**, the diameter of the interior side **26** of the cylindrical wall **22** of element **2** must be increased, also increasing the diameter of the threads **36** on the interior side **26**. In order to mate with the threads **36**, the cylindrical sidewall **38** of element **3** in the area of the threads **48** are thickened to form a band **104** so that the threads **48** will mate with the threads **36** in interior side **26** of element **2**. The band **104** also makes the cylindrical sidewall **38** of element **3** stronger and more rigid in the area of the threads **48**. Therefore, the seal provided by the threads **36** and **48** can withstand greater forces caused by squeezing the bottle **100** or other handling of the bottle **100**.

[**0070**] Referring now to **FIGS. 15-18**, a third embodiment of a bottle which is convertible into a drinking glass is shown. This bottle **200** is very similar to the bottles **10** and **100** described above with respect to **FIGS. 1-14**, except that the connection between element **2** and element **3** is provided by threads disposed on the interior side **44** of the sidewall **38** and mating threads on the exterior side of the centrally disposed portion or depression of element **2**. Accordingly, like reference numerals in this third embodiment refer to like elements in **FIGS. 1-14** and the descriptions above are equally applicable to this third embodiment.

[**0071**] As shown in **FIGS. 15-18**, element **3** has threads **202** located on the interior side **44** of the sidewall **38**. The threads **202** may be located any desired distance down from the lip **35**, so long as the exterior side **206** of the centrally disposed portion **28** is long enough so that the threads **204** can mate with the threads **202**. Similar to the band **104** described above with respect to the bottle **100**, the cylindrical sidewall **38** in the area of the threads **202** may be thickened to form a band (not shown in **FIGS. 15-18**).

[**0072**] Element **2** is modified from the configuration shown and described for bottles **10** and **100** so that element **2** will sealingly mate with the modified element **3** of bottle **200**. First, the centrally disposed portion **28** of element **2** is cylindrical instead of parabolic as in bottles **10** and **100**. Threads **204** are located on the exterior side **206** of the centrally disposed portion **28**. The threads **204** sealingly mate with the threads **202** on element **3**.

[**0073**] The bottle **200** is filled and assembled into a filled bottle **200** as shown in **FIG. 16** the same as described above for bottles **10** and **100**. Furthermore, the procedure for converting the bottle **200** into a wine glass as shown in **FIGS. 17 and 18** is also the same procedure as described above for bottles **10** and **100**.

[**0074**] The present invention also includes several innovative methods of fabricating element **3** utilizing a preform and a blow-molding process. With reference to **FIGS. 19-22**, a first method for fabricating element **3** will be described. **FIG. 19** shows a preform **302** comprising a tubular piece **304**. The tubular piece **304** has a smaller diameter than the finished diameter of the sidewall **38** of element **3**. The preform also has the neck **50** having the open end **52** and threads **56**. The threads **56** may be formed on the preform **302** as shown or may alternatively be formed during the blow-molding process. The preform has a closed bottom **310**. The preform is preferably produced by injection molding for plastic parts, or other suitable method considering the type of raw material. A blow-molding mold tool (not shown) is provided which has substantially the shape of the final form of element **3**. To form element **3**, the preform **302** is placed in the mold tool on a blow-molding machine (not shown). The mold tool clamps onto the neck **50** of the preform **302**. The preform **302** is then blow-molded by injecting pressurized gas into the preform **302** thereby producing the blow-molded preform **312** shown in **FIG. 20**. The threads **48** on the sidewall **38** of element **3** are formed during the blow-molding process. In the case of fabricating element **3** for bottle **200**, the threads **202** should be should be included on the preform **302** because it will be difficult to form threads **202** on the interior side **44** of the sidewall **38** by blow-molding. **FIG. 21** depicts the final step in the fabrication process which is to trim the bottom surface **314** to create the opening **37**. The result is the final fabricated element **3** as shown in **FIG. 22**.

[**0075**] Another method of fabricating element **3** will now be described with reference to **FIGS. 23-26**. The preform **320** shown in **FIG. 23** comprises a portion of the cylindrical sidewall **38** of element **3** and the threads **48** (or threads **202** if producing element **3** of bottle **200**) in the form of the final element **3**. The preform **320** tapers down to a narrower tubular bottom portion **322** having a closed end **324**. As with the preform **302**, the preform **320** may be produced by injection molding or other suitable method depending on the raw material. A blow-molding mold tool (not shown) is provided which has substantially the shape of the final form of element **3**. To form element **3**, the preform **320** is placed in the mold tool on a blow-molding machine (not shown). The mold tool clamps onto the portion of the sidewall **38**.

The preform **320** is then blow-molded by injecting pressurized gas into the preform **320** thereby producing the blow-molded preform **326** shown in **FIG. 24**. The threads **56** on the neck **50** of element **3** are formed during the blow-molding process. The final step in the fabrication process is trimming the closed end **324** as depicted in **FIG. 25** to create the opening **52**. The result is the final fabricated element **3** as shown in **FIG. 26**.

[**0076**] Again, it is to be understood that wine is just one of the beverages which may be utilized with the instant invention. Wine coolers, other low alcohol content mixed style drinks and other beverages may be employed with the convertible bottle.

[**0077**] It is apparent from the above that the present invention accomplishes all of the objectives set forth by providing a single serving wine bottle which is convertible to a wine glass.

[**0078**] With respect to the above description, it should be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to those skilled in the art, and therefore, all relationships equivalent to those illustrated in the drawings and described in the specification are intended to be encompassed only by the scope of appended claims.

[**0079**] While the present invention has been shown in the drawings and fully described above with particularity and detail in connection with what is presently deemed to be the invention, it will be apparent to those of ordinary skill in the art that many modifications thereof may be made without departing from the principles and concepts set forth herein. Hence, the proper scope of the present invention should be determined only by the broadest interpretation of the appended claims so as to encompass all such modifications and equivalents.

I claim:

1. A bottle which can be converted into a stemmed drinking container comprising:

a) a base having an elongated stem;

b) a first closure having a bottom, an external sidewall extending from said bottom and an internal sidewall which is inside said external sidewall, said internal sidewall having a first set of threads;

c) a container body having a body sidewall defining a top portion and a bottom portion, said top portion of said body sidewall having a second set of threads which mate with said first set of threads, said bottom portion having a neck portion and said neck portion having an opening;

d) a second closure which attaches to said neck portion to form a fluid tight seal; and wherein said first closure is connected to said container portion by screwing said mating said first set of threads with said second set of threads, said bottom closure and said container body thereby forming a sealed reservoir which may be filled with a fluid, and said stem may be attached to said container body.

2. The bottle of claim 1 wherein said stem may be affixed to said container portion via attachment to said closure.

3. The bottle of claim 2 wherein said stem snap-fits onto said closure.

4. The bottle of claim 2 wherein said second closure is a screw cap.

5. The bottle of claim 1 wherein said container body further comprises a lip at the top end of said top portion and said second sidewall has a thickened band in the area of the second set of threads.

6. The bottle of claim 1 wherein said base, said first closure, said second closure and said container body are made of one of plastic or metal.

7. The bottle of claim 1 wherein said container body is made of glass and said first element, said base and said second closure are made of one of plastic or metal.

8. The bottle of claim 1 wherein said container body, said first closure and said base are made of plastic and said second closure is made of metal.

9. The bottle of claim 1 wherein said body sidewall has a first interior side and a first exterior side, said internal sidewall has a second interior side and a second exterior side, and said first set of threads is provided on the surface of said second exterior side and said second set of threads is provided on the surface of said first interior side.

10. A method of converting a bottle into a stemmed drinking container, comprising the steps of:

a) providing a bottle comprising

i) a base having an elongated stem,

ii) a first closure having a bottom, an external sidewall extending from said bottom, and an internal sidewall which is inside said external sidewall, said internal sidewall having a first set of threads,

iii) a container body having a body sidewall defining a top portion and a bottom portion, said top portion of said body sidewall having a second set of threads mated with said first set of threads, said container body having a neck portion and said neck portion having an opening; and

iv) a second closure mated with said neck portion to form a fluid tight seal;

b) attaching said elongated stem to said neck portion;

c) removing said first closure from said container body by unscrewing said first set of threads from said second set of threads.

11. The bottle of claim 10 wherein said stem may be affixed to said container body via attachment to said second closure.

12. The bottle of claim 11 wherein said stem fits onto said second closure by an interference fit.

13. The bottle of claim 11 wherein said second closure is a screw cap.

14. The bottle of claim 10 wherein said container body further comprises a lip at the top end of said top portion and said body sidewall has a thickened band in the area of said second set of threads.

15. The bottle of claim 10 wherein said base, said bottom element, said closure and said container portion are made of one of plastic or metal.

16. The bottle of claim 10 wherein said container portion is made of glass and said bottom element, said base and said closure are made of one of plastic or metal.

17. The bottle of claim 10 wherein said container portion, said bottom element and said base are made of plastic and said closure is made of metal.

18. A method of manufacturing a container body for a bottle which can be converted into a stemmed drinking container, comprising the steps of:

a) providing a preform comprising a tubular portion having a cross-section which is smaller than the finished container body and a neck having an opening;

b) placing said preform into a mold tool on a blow-molding machine, said mold tool having a surface substantially in the shape of the finished container body, said neck being clamped onto said mold tool;

c) blow-molding said preform into the shape of the finished container body wherein said neck of said preform forms a neck of said container body.

19. The method of claim 18 wherein said tubular portion of said preform has a closed bottom distal of said neck and said method further comprises the step of trimming the blow-molded preform to remove the material which was the closed bottom of said preform.

20. A method of manufacturing a container body for a bottle which can be converted into a stemmed drinking container, said container body having a body sidewall defining a top portion and a bottom portion, said top portion having a large cross-section which tapers down to a neck at said bottom portion, the method comprising the steps of:

a) providing a preform comprising a tubular portion having a first portion which is substantially in the form of the top portion of the finished container body and a second portion which tapers down to a smaller cross-section, said first portion having an opening;

b) placing said preform into a mold tool on a blow-molding machine, said mold tool having a surface substantially in the shape of the finished container body, said first portion of said preform being clamped onto said mold tool;

c) blow-molding said preform into the shape of the finished container body.

21. The method of claim 20 wherein said second portion of said preform has a closed end distal of said top portion and said method further comprises the step of trimming the blow-molded preform to remove the material which was the closed end of said preform.

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