



US010717020B2

(12) **United States Patent**
Schramm

(10) **Patent No.:** **US 10,717,020 B2**
(45) **Date of Patent:** **Jul. 21, 2020**

(54) **SPILL RESISTANT CONTAINER AND METHOD OF MANUFACTURE**

(76) Inventor: **Michael R. Schramm**, Perry, UT (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1923 days.

(21) Appl. No.: **13/234,265**

(22) Filed: **Sep. 16, 2011**

(65) **Prior Publication Data**

US 2015/0246294 A1 Sep. 3, 2015

Related U.S. Application Data

(60) Provisional application No. 61/383,399, filed on Sep. 16, 2010.

(51) **Int. Cl.**
A63H 33/28 (2006.01)

(52) **U.S. Cl.**
CPC **A63H 33/28** (2013.01)

(58) **Field of Classification Search**
CPC A63H 33/28
USPC 220/719, 709, 705, 359.1, 694, 735;
215/229, 228, 41; 141/98, 311 A, 333,
141/339, 331; 446/15-21; 401/122
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,858,639 A 11/1958 Lawrence
3,579,898 A * 5/1971 Hein A47K 5/122
446/16
3,781,164 A * 12/1973 McCaffery F21V 35/00
431/291
4,180,938 A 1/1980 LaFata 46/6

4,257,185 A * 3/1981 Tomson A63H 33/28
40/408
4,301,841 A * 11/1981 Sandow B65D 23/10
141/326
4,840,597 A * 6/1989 Perez A63H 3/24
220/719
4,957,464 A 9/1990 Perez 446/16
5,022,559 A * 6/1991 Condon B44D 3/121
15/104.94
5,088,950 A 2/1992 LaFata 446/19
5,105,975 A 4/1992 Patterson 220/709
5,246,046 A 9/1993 Schramm 141/98
5,304,085 A 4/1994 Novak 446/15
5,341,948 A * 8/1994 Gaeta 215/232
5,495,876 A 3/1996 Schramm 141/98
(Continued)

FOREIGN PATENT DOCUMENTS

EP 0094532 11/1983

OTHER PUBLICATIONS

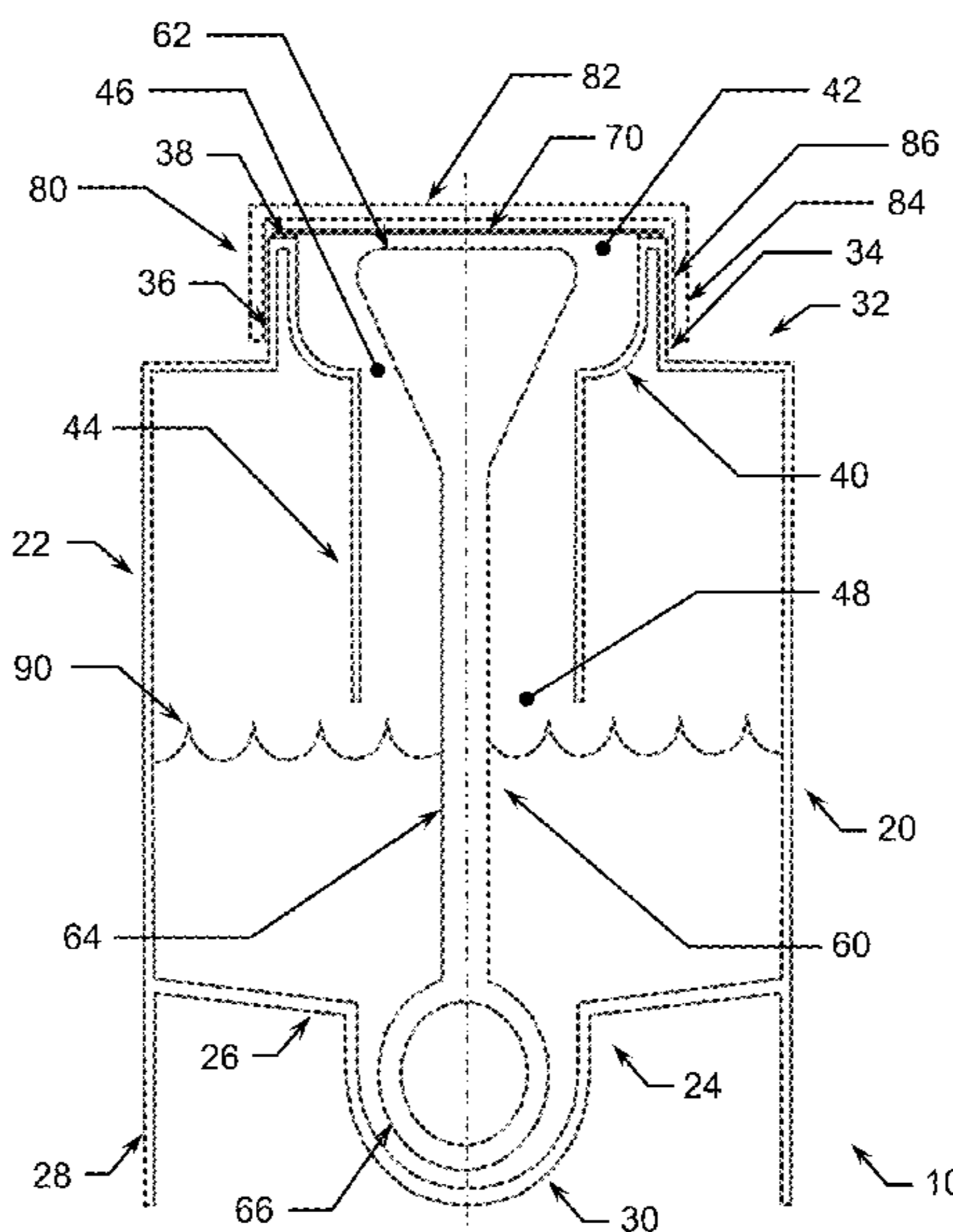
Hasbro, Inc., Spill Resist Cap, Date=Circa 1999, p. 1.
(Continued)

Primary Examiner — Karen K Thomas
(74) *Attorney, Agent, or Firm* — Michael R. Schramm

(57) **ABSTRACT**

The present invention is a spill resistant container apparatus that eliminates the need for pouring of liquid such as bubble solution into or out of the spill resistant container apparatus in order to use the spill resistant container apparatus. The apparatus, which is preferably provided with bubble solution sealingly contained within the apparatus, will, when opened, prohibit the pouring of liquid out of the apparatus regardless of the physical orientation of the apparatus. The apparatus is preferably of such low cost construction that the apparatus is readily disposable after the bubble solution contained within the apparatus is substantially consumed.

39 Claims, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,832,969	A	11/1998	Schramm	141/98
RE36,131	E	3/1999	Schramm	141/98
5,908,057	A	6/1999	Schramm	141/98
6,015,327	A	1/2000	Kovacs	446/15
6,135,842	A *	10/2000	LaFata	446/15
6,186,853	B1	2/2001	Messina	446/15
6,386,138	B1	5/2002	Schramm	118/26
6,520,822	B2	2/2003	Kennedy	446/15
6,595,822	B1 *	7/2003	Thai	A63H 33/28 446/16
6,629,870	B2	10/2003	Robinson	446/16
6,638,131	B1	10/2003	Thai	446/15
6,857,928	B2	2/2005	Thai	446/15
RE39,443	E	12/2006	Schramm	141/98
7,169,007	B1 *	1/2007	Kennedy	446/15
7,244,161	B2	7/2007	Thai	446/15
7,524,230	B2	4/2009	Thai	446/15
7,942,109	B2	5/2011	Schramm	118/13
RE42,610	E	8/2011	Schramm	141/98
2001/0035413	A1	11/2001	Thai	220/213
2002/0129763	A1	9/2002	Schramm	118/13
2002/0187716	A1	12/2002	Kennedy	446/15
2003/0155364	A1	8/2003	Thai	220/714
2004/0084453	A1	5/2004	Thai	220/259.1
2005/0130552	A1	6/2005	Thai	446/74
2008/0289975	A1	11/2008	Sharber	206/207
2011/0081821	A1	4/2011	Temiz	446/16

OTHER PUBLICATIONS

Hasbro, Inc., No Spill Mr. Potato Head, Date=Circa 1999, p. 1.
 Toy Originators, Inc., Bubble Brush, Date=Circa 1992, p. 1.
 Toy Originators, Inc., Spill Resist Cap, Date=Circa 1992, pp. 1-3.
 Tak-A-Toy, Popeye Bubble Factory, Date=Circa 1992, p. 1.
 Remco, Inc., Bubble Blowing Glider, Date=Circa 1992, p. 1.
 Little Kids, Inc., No-Spill Bubble Tumbler, Date=Circa 1993, p. 1.
 Little Kids, Inc., No-Spill Bubble Tumbler Minis, Date=Circa 1998, p. 1.
 Little Kids, Inc., No-Spill Bubble Tumbler Micro Minis, Date=Circa 2004, p. 1.
 Little Kids, Inc., No-Spill Big Bubble Bucket, Date=circa 1996, p. 1.
 Little Kids, Inc., No-Spill Mini Bubble Bucket, Date=circa 2002, p. 1.
 Little Kids, Inc., No-Bubble Mug, Date=circa 1996, p. 1.
 Little Kids, Inc., No-Spill Bubble Holster, Date=circa 2007, p. 1.

Little Kids, Inc., No-Spill Motorized Dip 'N Blow Bubbles, Date=2009, p. 1.
 Little Kids, Inc., No-Spill Bubble Doods, Date=2009, p. 1.
 Strombecker, Inc., Mr. Bubbles Spill Proof Bubble Toy, Date=1995, p. 1.
 Strombecker, Inc., Spill Proof Bubble Rocket, Date=1995, p. 1.
 Strombecker, Inc., Spill Proof Elmo's Bubble Fun, Date=circa 1997, p. 1.
 Strombecker, Inc., Spill Proof Marvin the Martian Bubble Spaceship, Date=circa 1999, p. 1.
 Strombecker, Inc., Spill Proof Hunny Pot, Date=circa 1999, p. 1.
 Strombecker, Inc., Spill Proof Tweety Bubble Necklace, Date=circa 1997, p. 1.
 Strombecker, Inc., Spill Proof Container with Aux Handle, Date=circa 2000, p. 1.
 Strombecker, Inc., Mini Spill Proof, Date=circa 2002, p. 1.
 Imperial Toy, Inc., No Spill Miracle Bubbles, Date=circa 1996, p. 1.
 Imperial Toy, Inc., No-Spill Bubble Submarine, Date=circa 1998, p. 1.
 Imperial Toy, Inc., No-Spill Bubble Cell Phone, Date=circa 1998, p. 1.
 Imperial Toy, Inc., No Tip No Spill Bubble Tumbler, Date=circa 2001, p. 1.
 Imperial Toy, Inc., No-Spill Bubbles 'N Sand Bucket, Date=circa 1999, p. 1.
 Imperial Toy, Inc., Spill Stopper, Date=circa 2010, p. 1.
 Little Tykes, Inc., No Spill Bubble Buddy, Date=circa 2001, p. 1.
 Little Tykes, Inc., No Spill Bubble Bucket, Date=circa 2001, p. 1.
 Placo, Inc., Super Non-Spill Double Tumbler, Date=circa 2000, p. 1.
 Placo, Inc., Pivot Top Spill Resistant Bubbles, Date=circa 2002, p. 1.
 Placo, Inc., Spill Resistant Giant Bucket, Date=circa 2004, p. 1.
 Placo, Inc., Spill Resistant Mini Bucket, Date=circa 2004, p. 1.
 Tangent/ToySmith, Inc., Never Spill Resistant Bubbles, Date=circa 2002, p. 1.
 Battat, Inc., Non Spill Bubble tumbler, Date=circa 1996, p. 1.
 Flair/Funrise, Inc., No Spill Tumbler, Date=circa 2002, p. 1.
 Funrise, Inc., Non Spill Bubble Bouncer, Date=circa 2002, p. 1.
 Funrise, Inc., Bubble Wubble Tumbler, Date=2009, p. 1.
 Koosh/Oddzon, Inc., Weeble Wobble Bubble Bottle, Date=circa 1999, p. 1.
 Toys R Us, Inc., No-Spill Bubble Canteen, Date=circa 1996, p. 1.
 Toy Quest, Inc., Barbie Baubles 'N bubbles Bubble Purse, Date=circa 2009, p. 1.
 Pustefix, Inc., No Spill Bubble Bucket, Date=Circa 2011, p. 1.

* cited by examiner

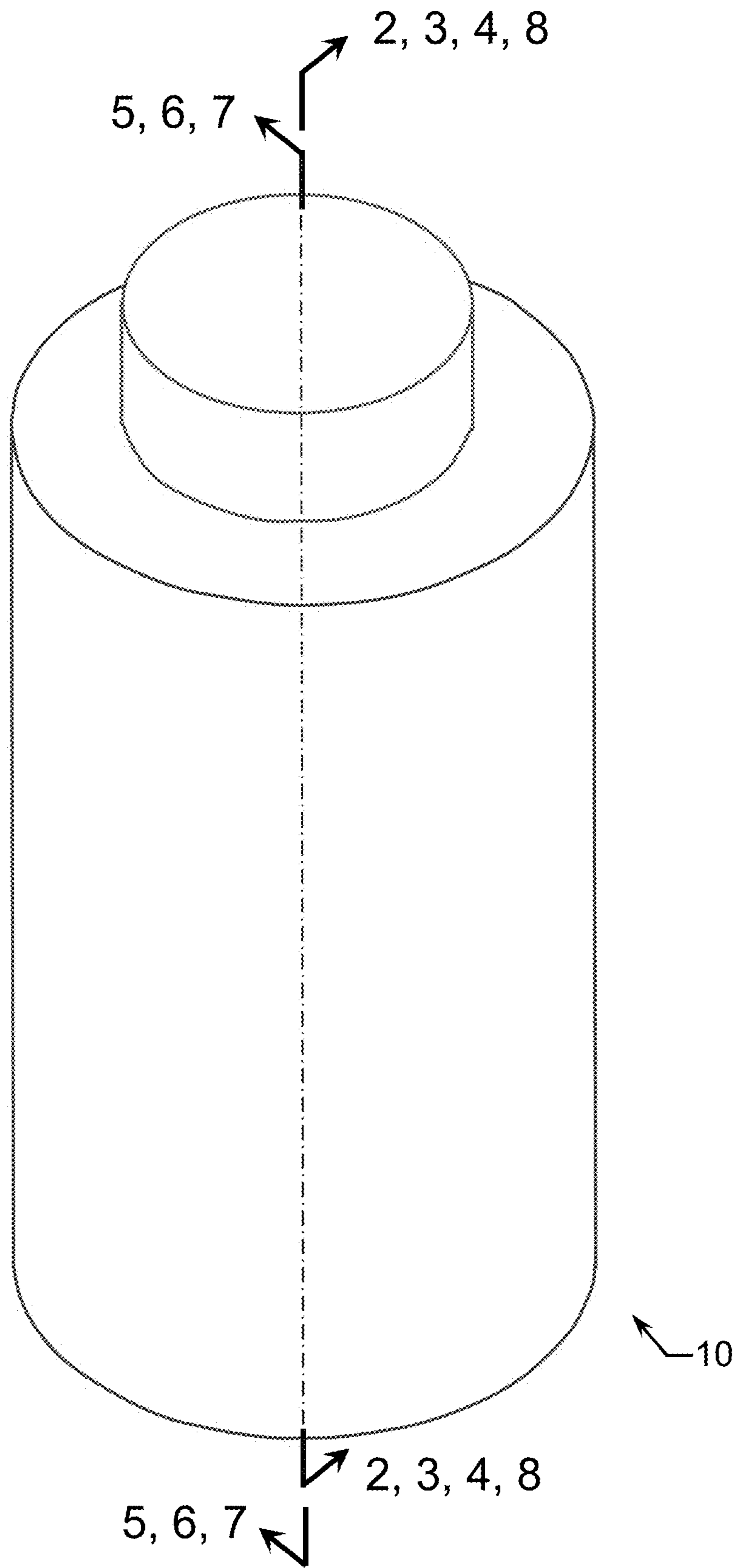


Figure 1

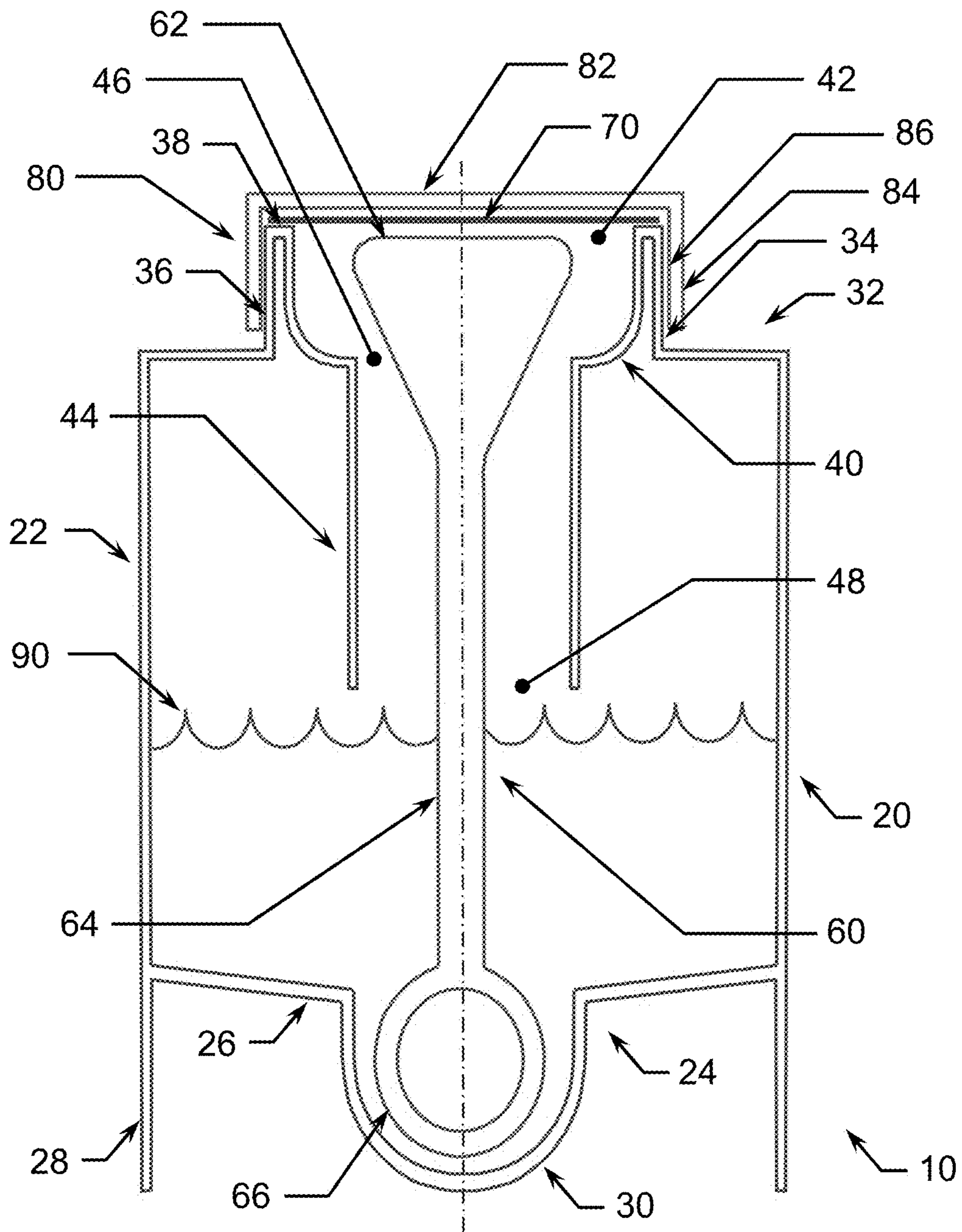


Figure 2

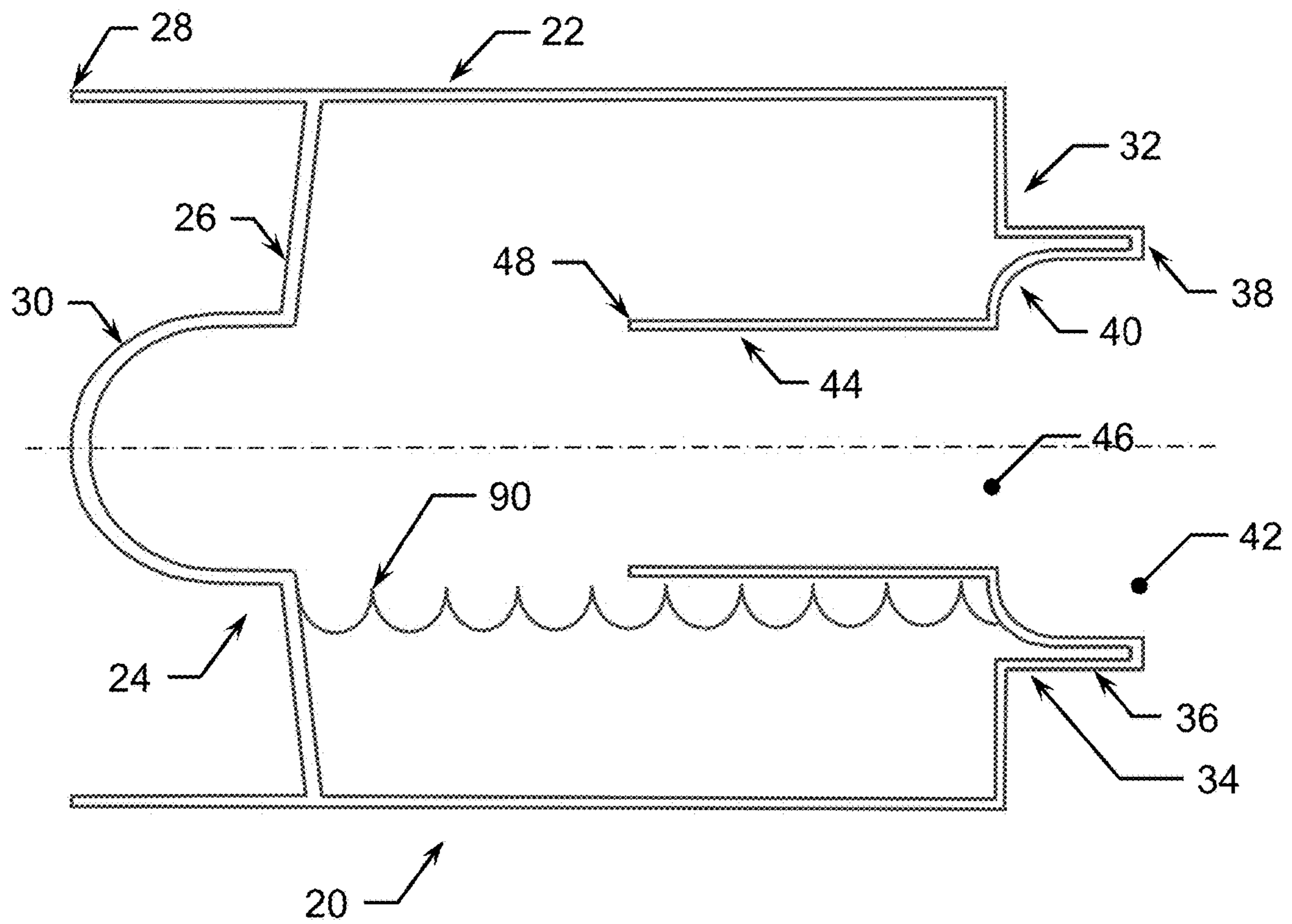


Figure 3

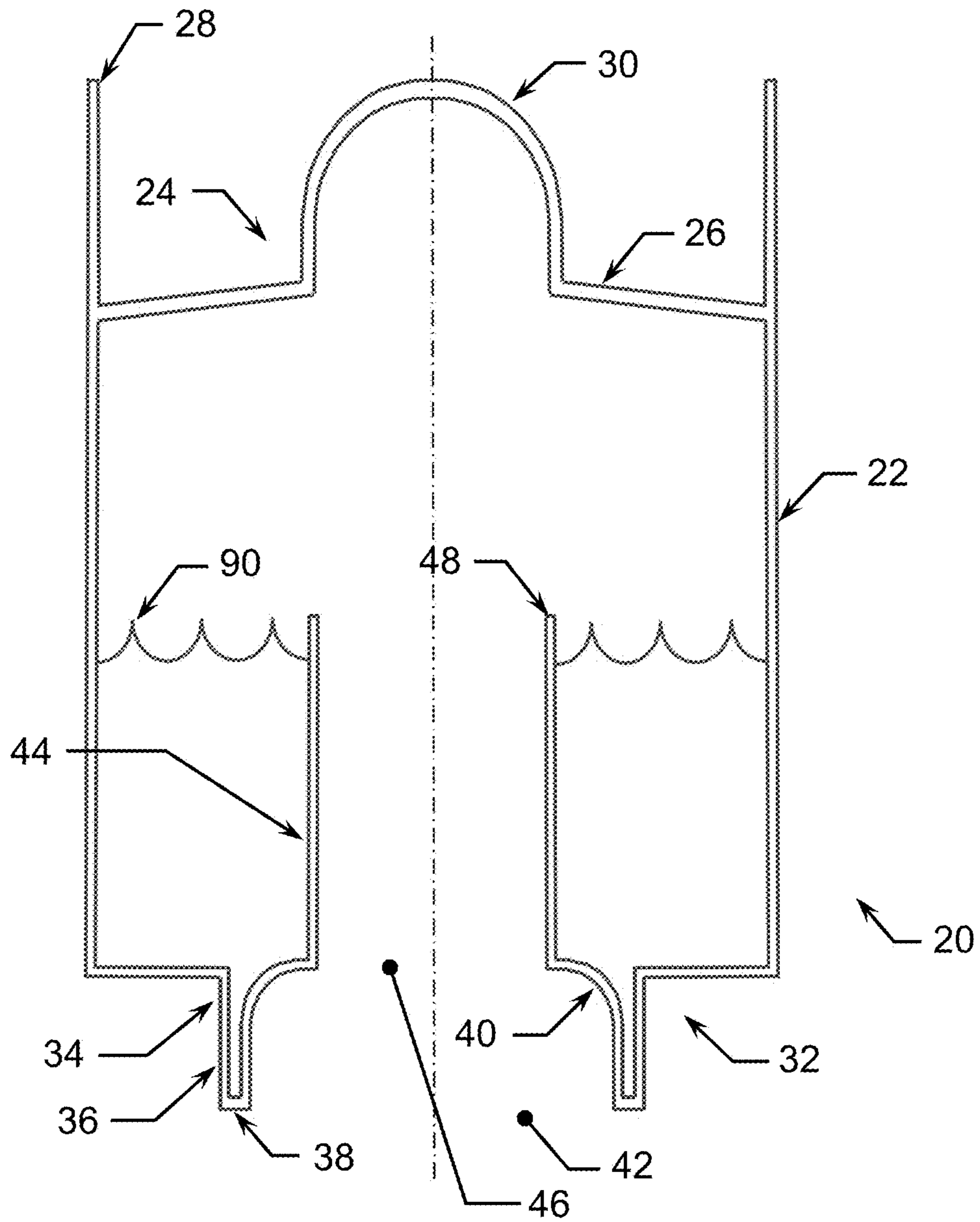


Figure 4

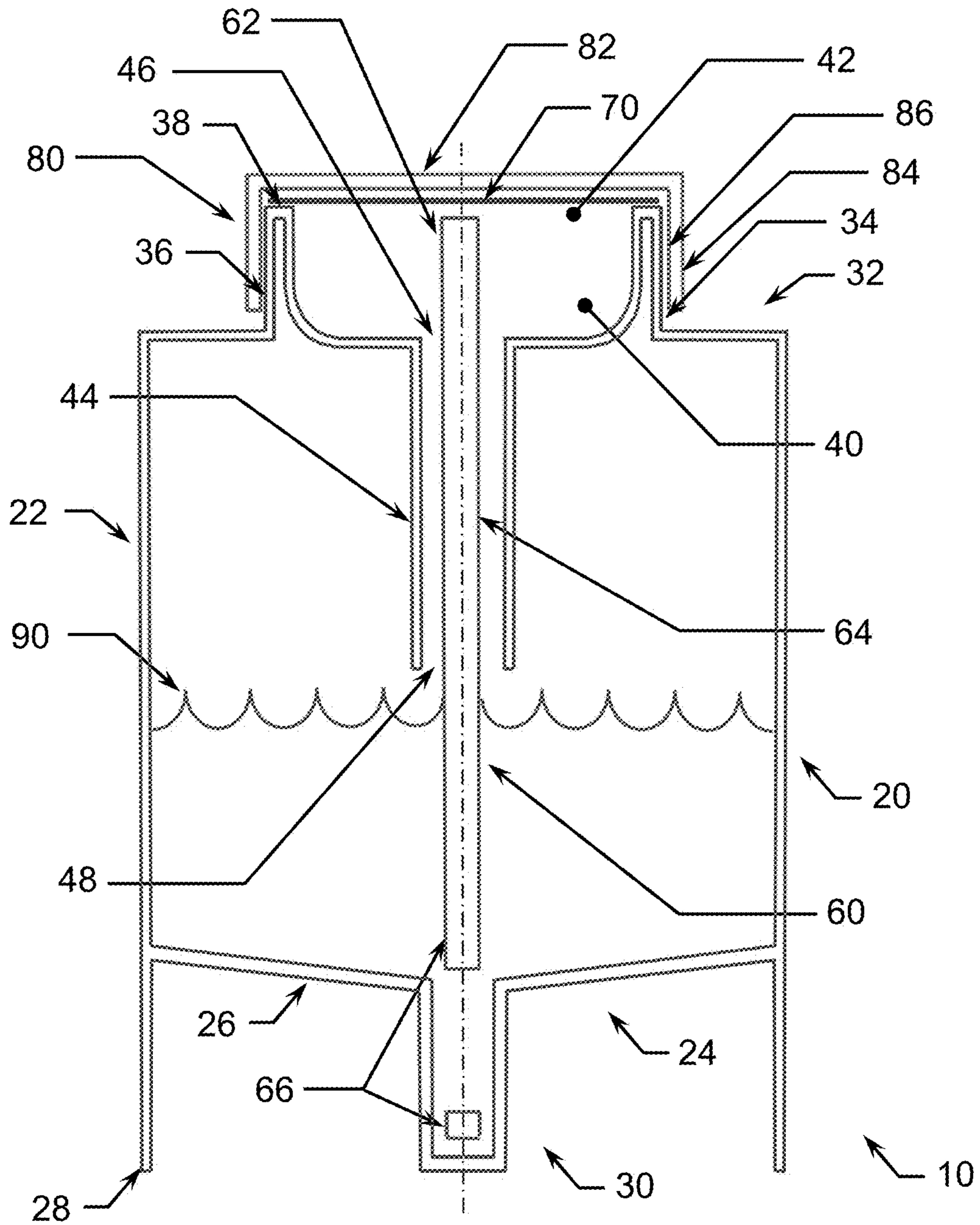


Figure 5

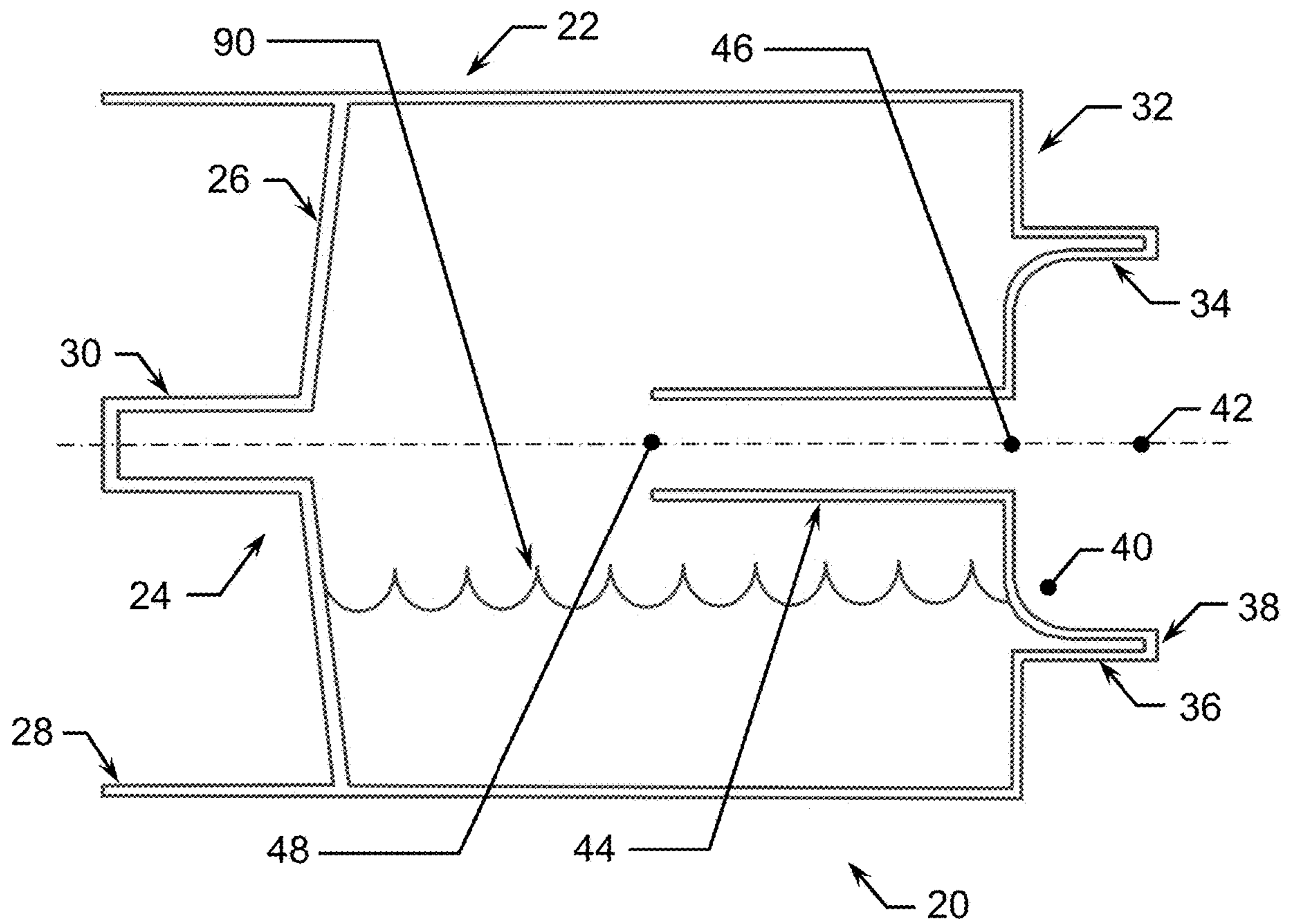


Figure 6

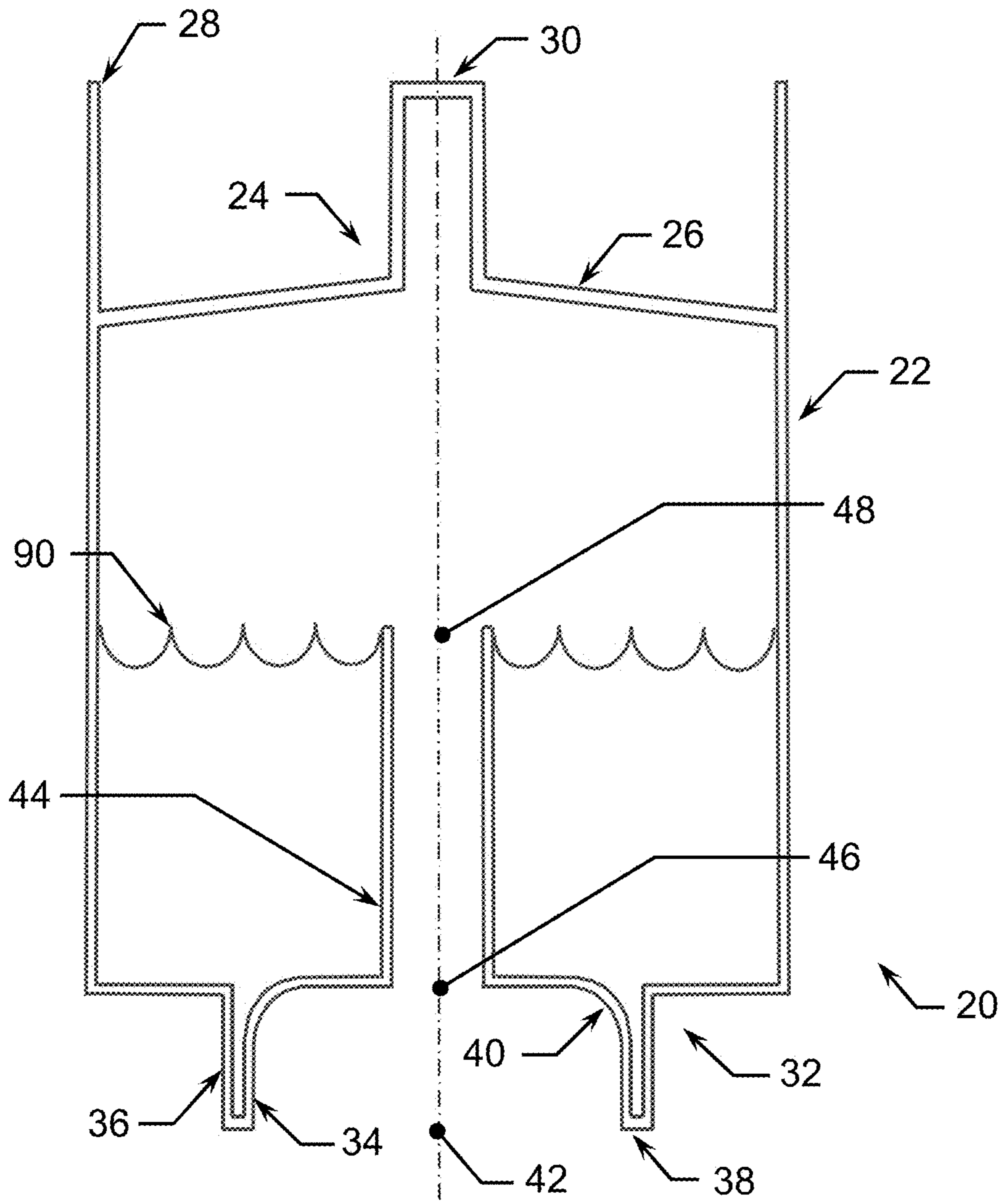


Figure 7

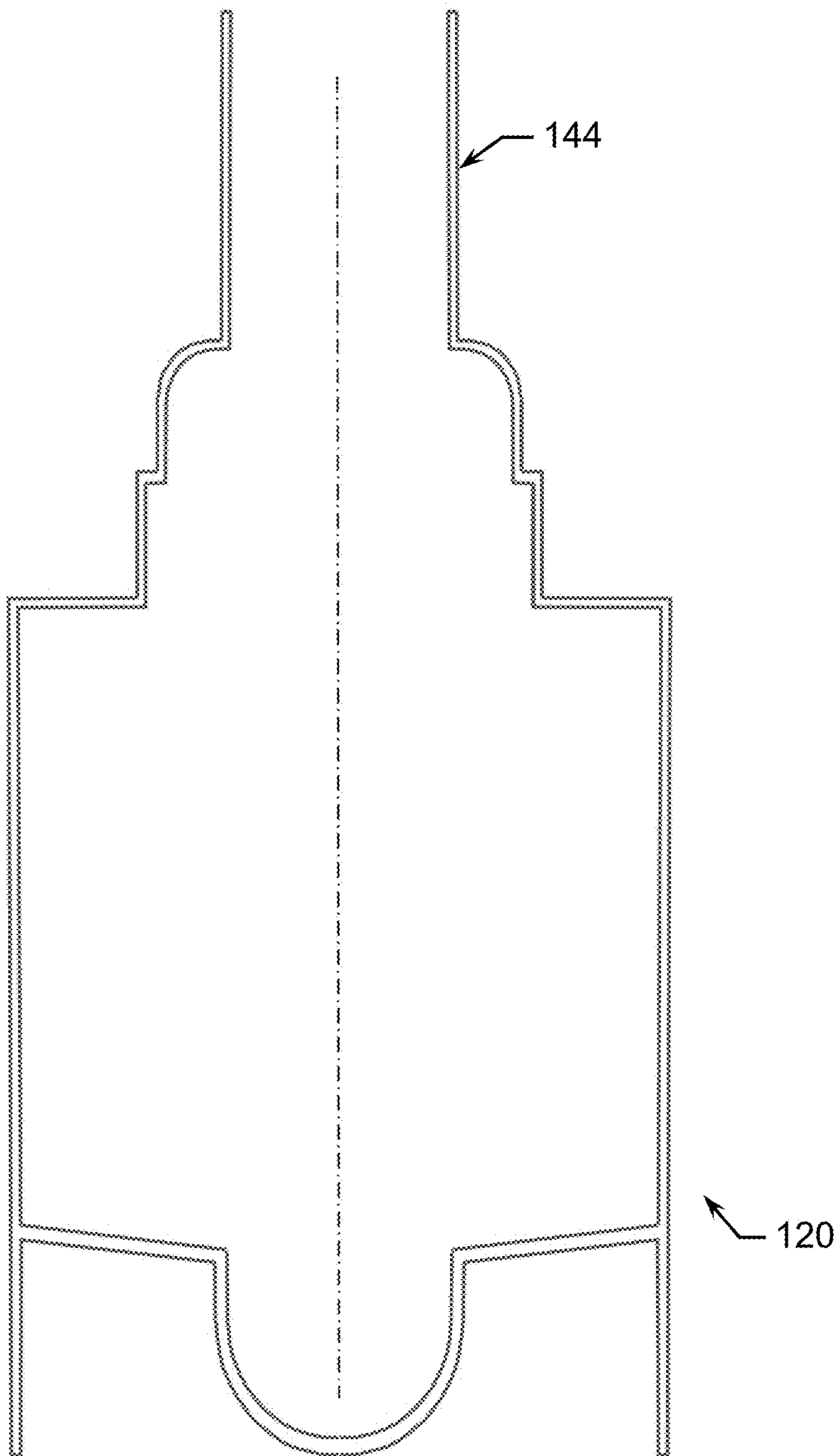


Figure 8

SPILL RESISTANT CONTAINER AND METHOD OF MANUFACTURE

CROSS REFERENCE TO RELATED APPLICATIONS

This nonprovisional utility patent application claims the benefit under 35 U.S.C. § 119(e) of U.S. provisional application No. 61/383,399, filed Sep. 16, 2010, which is incorporated, in its entirety, by this reference.

FIELD OF THE INVENTION

The present invention relates to spill resistant containers and more especially to unitary integral single-structure non-destructively inseparable spill resistant bubble solution containers.

BACKGROUND OF THE INVENTION

Ever since the commercialization of the spill proof bubble solution container invention disclosed in the Schramm U.S. Pat. No. 5,246,046 patent, spill proof bubble solution containers have been widely popular, have become a standard in the industry and have provided autonomy and enjoyment for young children in creating bubbles without the mess that otherwise occurs when using conventional bubble creation devices. Examples of such containers are disclosed in the following patents and applications, all of which are expressly incorporated herein by reference: U.S. Pat. Nos. 7,524,230, 7,244,161, 6,857,928, 6,638,131, 6,629,870, 6,595,822, 6,520,822, 6,386,138, 6,186,853, 6,135,842, 6,015,327, 5,908,057, 5,832,969, 5,495,876, 5,304,085, 5,246,046, 5,105,975, 5,088,950, 4,957,464, 4,840,597, 4,180,938, 3,579,898, 2,858,639, RE42,610, RE39,443, RE36,131, 20110081821, 20080289975, 20050130552, 20040084453, 20030155364, 20020187716, 20020129763, 20010035413, 61/088,722, 12/539,803, and EU0094532.

Over the years, many different embodiments of the spill proof bubble solution container have been produced by many different manufacturers. However, all such prior art spill resistant containers have suffered from a common

problem, namely all such containers, while typically reusable—i.e. they can be repeatedly re-filled with bubble creation solution and re-used in creating bubbles—typically require the user to disassemble the container, pour bubble solution into the container usually to a noted predetermined level (or in one case pour bubble solution out of the container), and reassemble the container prior to use. It is this disassembly, pouring, filling, and reassembly that is the source of much spilling and reduces the autonomy of the user (typically a child who is typically dependent on an adult to disassemble, pour, fill, and reassemble the container). In at least one instance of the prior art, the container does not require disassembly, but in this instance, the funnel opening is of such a small size, that pouring bubble solution into the funnel opening without spilling is extremely difficult. A product table (corresponding to the Non-Patent Literature included in the information disclosure statement filed with this application) has been prepared to provide information on known production spill resistant bubble solution containers. The table includes the respective method of use of the container.

Two known prior art containers are particularly noteworthy examples of the problems with the state-of-the-art product. In a first instance, the “Spill Proof Tweety Bubble Necklace” (NPL C15), in a design aspect atypical from of spill resistant containers, is of non-disassemblable multiple-piece construction, with the only opening of the container being the funnel opening. Thus it is through the funnel opening that bubble solution must be poured in order to use the container. The funnel opening is extremely small rendering the product extremely difficult to fill without spilling. In a second instance, the “No Spill Miracle Bubbles” (NPL C18), is provided with a “full” container of bubble solution (a conventional bottle of bubble solution) and a “No Spill Cap”. In order to use the product, the user must first pour out at least half of the bubble solution from the bottle into some other (not provided) container. Not only is the pouring process highly prone to spilling, but while the user is using the product the extra bubble solution is stored in some “other” container which itself may be highly susceptible to spillage, including by the user as the user is using the product.

PRODUCT TABLE

Product	Company	NPL	Method of Preparation
No-Spill Bubble Tumbler	Little Kids	C1	Unscrew lid from cup. Pour solution into cup.
No-Spill Bubble Tumbler Mini	Little Kids	C2	Unscrew lid from cup. Pour solution into cup.
No-Spill Bubble Tumbler Micro Mini	Little Kids	C3	Unscrew lid from cup. Pour solution into cup.
No-Spill Big Bubble Bucket	Little Kids	C4	Unscrew lid from cup. Pour solution into cup.
No-Spill Mini Bubble Bucket	Little Kids	C5	Unscrew lid from cup. Pour solution into cup.
No-Spill Bubble Mug	Little Kids	C6	Unscrew lid from cup. Pour solution into cup.
Cowboy Bubble Shooter and No-Spill Bubble Holster	Little Kids	C7	Pour solution into (non-disassemblable multiple-piece construction) holster.
No-Spill Motorized Dip ‘N Blow Bubbles	Little Kids	C8	Pour solution into (disassemblable) dip tray.
No-Spill Bubble Doods	Little Kids	C9	Unscrew lid from cup. Pour solution into cup.
Spill Proof Mr. Bubbles	Strombecker	C10	Unscrew funnel from container. Pour solution into container.
Spill Proof Bubble Rocket	Strombecker	C11	Unscrew funnel from container. Pour solution into container.
Spill Proof Elmo’s Bubble Fun	Strombecker	C12	Unscrew lid from cup. Pour solution into cup.
Spill Proof Marvin The Martian Bubble Spaceship	Strombecker	C13	Unscrew funnel from container. Pour solution into container.
Spill Proof Hunny Pot	Strombecker	C14	Unscrew funnel from container. Pour solution into container.
Spill Proof Tweety Bubble Necklace	Strombecker	C15	Pour solution into (non-disassemblable multiple-piece construction) container.
Spill Proof Container with Auxiliary Handle	Strombecker	C16	Unscrew lid from cup. Pour solution into cup.

-continued

PRODUCT TABLE			
Product	Company	NPL	Method of Preparation
Mini Spill Proof	Strombecker	C17	Unscrew lid from cup. Pour solution into cup.
No Spill Miracle Bubbles	Imperial Toy	C18	Unscrew funnel from bottle. Pour solution into (or out of) bottle.
No Spill Bubble Submarine	Imperial Toy	C19	Unscrew funnel from container. Pour solution into container.
No Spill Bubble Cell Phone	Imperial Toy	C20	Remove plug from container. Pour solution into (small) opening in container.
No Tip No Spill Tumbler	Tmnpria1 Toy	C21	Unscrew funnel from container. Pour solution into container.
No Spill Bubbles 'N Sand Bucket	Imperial Toy	C22	Unscrew lid from cup Pour solution into cup.
Spill Stopper	Imperial Toy	C23	Unscrew lid from bottle. Screw spill stopper lid to bottle.
No Spill Bubble Buddy	Little Tykes	C24	Unscrew lid from cup. Pour solution into cup.
No Spill Bubble Bucket	Little Tykes	C25	Unscrew lid from cup. Pour solution into cup.
SuperNon-Spill Double Tumbler	Placo	C26	Unscrew lid from cup. Pour solution into cup.
Pivot Top Spill Resistant Bubbles	Placo	C27	Unscrew lid from cup. Pour solution into cup.
Spill Resistant Giant Bucket	Placo	C28	Unscrew lid from cup. Pour solution into cup.
Spill Resistant (Mini) Bucket	Placo	C29	Unscrew lid from cup. Pour solution into cup.
Never Spill Bubbles	Tanget Toy (ToySmith)	C30	Unscrew lid from (multiple-piece) container. Pour solution into container.
Non Spill Bubble Tumbler	Battat	C31	Unscrew funnel from container. Pour solution into container.
No Spill Tumbler	Flair/Funrise	C32	Unscrew lid from cup. Pour solution into cup.
(Non Spill) Bubble Bouncer	Funrise	C33	Unscrew lid from cup. Pour solution into cup.
Bubble Wubble Tumbler	Funrise	C34	Unscrew lid from cup. Pour solution into cup.
Weeble Wobble Bubble Bottle	Koosh/OddzOn	C35	Unscrew lid from cup. Pour solution into cup.
No-Spill Canteen (Bubble Explorer)	Toys R Us	C36	Unscrew funnel from container. Pour solution into container.
Barbie Baubles 'N bubbles Bubble Purse	Toy Quest	C37	Unsnap top from bottom. Pour solution into bottom.

SUMMARY OF THE INVENTION

The present invention is a spill resistant container apparatus that eliminates the need for spill prone pouring of liquid such as bubble solution. The apparatus preferably includes a single member spill resistant container having a neck and an impending funnel, a bubble creation device, a frangible seal, a lid, and bubble creation solution. The bubble creation device and bubble creation solution, are preferably sealingly contained within the container by the frangible seal and the lid is preferably threadingly and removably attached to the neck of the container. No pouring or filling of bubble creation solution is required for a user in using the apparatus to creating bubbles. In order to use the apparatus in creating bubbles, one need only threadingly remove the lid, tear open the frangible seal, remove the bubble creation device, and blow a bubble. From the point of purchase of the apparatus until the bubble creation solution of the apparatus is consumed, there is never an occasion wherein the container needs to be disassembled or reassembled, and thus there is never an opportunity for gross spillage of the bubble creation solution. By avoiding the disassembly, assembly, and pouring required of the prior art, in contrast to the prior art, there is never a point wherein the instant spill resistant container apparatus invention is rendered non-spill-resistant.

DESCRIPTION OF DRAWINGS

In order that the advantages of the invention will be readily understood, a more particular description of the invention briefly described above will be rendered by reference to specific embodiments that are illustrated in the

35 appended drawings. Understanding that these drawings depict only typical embodiments of the invention and are not therefore to be considered to be limiting of its scope, the invention will be described and explained with additional specificity and detail through the use of the accompanying drawings, in which:

40 FIG. 1 is an isometric view of a first embodiment of the spill resistant container apparatus;

45 FIG. 2 is an orthographic side section view a first embodiment of the spill resistant container apparatus taken substantially at the location of section arrows 2 shown in FIG. 1 and is shown in a pre-opened configuration with the bubble creation solution and bubble creation device sealed within the container and the lid threaded onto the container, and with the apparatus in an upright orientation with bubble solution shown positioned in the trough and bottom portion of the container;

50 FIG. 3 is substantially identical to FIG. 2 except that in FIG. 3 the spill resistant container apparatus is shown in a post-opened configuration without the bubble creation device, seal, and lid, and with the apparatus shown in a sideways orientation with bubble creation solution shown positioned a side portion of the container;

55 FIG. 4 is substantially identical to FIG. 2 except that in FIG. 4 the spill resistant container apparatus is shown in a post-opened configuration without the bubble creation device, seal, and lid, and with the apparatus shown in an upside-down orientation with bubble creation solution shown positioned in the top portion of the container;

60 FIG. 5 is an orthographic side section view a first embodiment of the spill resistant container apparatus taken substantially at the location of section arrows 5 shown in FIG. 1 and is shown in a pre-opened configuration with the bubble

5

creation solution and bubble creation device sealed within the container and the lid threaded onto the container, and with the apparatus in an upright orientation with bubble solution shown positioned in the trough and bottom portion of the container;

FIG. 6 is substantially identical to FIG. 5 except that in FIG. 6 the spill resistant container apparatus is shown in a post-opened configuration without the bubble creation device, seal, and lid, and with the apparatus shown in a sideways orientation with bubble creation solution shown positioned a side portion of the container;

FIG. 7 is substantially identical to FIG. 5 except that in FIG. 7 the spill resistant container apparatus is shown in a post-opened configuration without the bubble creation device, seal, and lid, and with the apparatus shown in an upside-down orientation with bubble creation solution shown positioned in the top portion of the container, and;

FIG. 8 is an orthographic side section view a pre-form of the spill resistant container taken substantially at the location of section arrows 8 shown in FIG. 1 and is shown in a partially molded stage with the funnel protruding externally from the cavity of the spill resistant container.

DETAILED DESCRIPTION OF THE INVENTION

Reference throughout this specification to “one embodiment,” “an embodiment,” or similar language means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, appearances of the phrases “in one embodiment,” “in an embodiment,” and similar language throughout this specification may, but do not necessarily, all refer to the same embodiment.

Furthermore, the described features, structures, or characteristics of the invention may be combined in any suitable manner in one or more embodiments. In the following description, numerous specific details are included to provide a thorough understanding of embodiments of the invention. One skilled in the relevant art will recognize, however, that the invention can be practiced without one or more of the specific details, or with other methods, components, materials, and so forth. In other instances, well-known structures, materials, or operations are not shown or described in detail to avoid obscuring aspects of the invention.

In order to facilitate the understanding of the present invention in reviewing the drawings accompanying the specification, a feature table is provided below. It is noted that like features are like numbered throughout all of the figures.

FEATURE TABLE	
#	Feature
10	Spill resistant container apparatus
20	Spill resistant container
22	Container side
24	Container bottom
26	Container floor
28	Container stand
30	Container trough
32	Container top
34	Container neck
36	Container threads
38	Container seal surface
40	Container bowl

6

-continued

FEATURE TABLE	
#	Feature
42	Container opening
44	Container funnel
46	Funnel upper opening
48	Funnel lower opening
60	Bubble creation wand
62	Wand handle
64	Wand stem
66	Wand ring
70	Seal
80	Lid
82	Lid top
84	Lid flange
86	Lid threads
90	Bubble creation solution
120	Spill resistant container pre-form
146	Container pre-form funnel

Referring now to the drawings, and in particular to FIGS. 1 through 7, the first embodiment of the invention is a spill resistant container apparatus 10 for use in creating bubbles without the otherwise attendant spillage of bubble solution resulting in pouring bubble solution into or out of the apparatus comprising a spill resistant container 20, a bubble creation wand 60, a seal 70, a lid 80, and bubble creation solution 90. Spill resistant container 20 defines a generally cylindrical shaped preferably one-piece plastic container defining an inner cavity and having a side portion 22, a bottom portion 24, a floor 26, a stand 28, a trough 30, a top portion 32, a neck 34, threads 36, a seal faying surface 38, a bowl 40, a container opening 42, a funnel 44, a funnel upper opening 46, and a funnel lower opening 48. Spill resistant container 20 preferably defines a liquid tight container such that liquid contained within spill resistant container 20 may not run, leak or seep out of spill resistant container 20 except that liquid may enter or exit through opening 42. Funnel 44 preferably extends approximately to (funnel lower opening 48 is located approximately at) the volumetric and geometric center of spill resistant container 20 so as to provide a container having a spill resistant capacity (the capacity of liquid that will not run out of the container regardless of the orientation of the container) that approaches one-half of the overall capacity of spill resistant container 20. Spill resistant container 20 is preferably constructed so as to be of significantly low cost and preferably disposable after the bubble solution that is provided seal within spill resistant container 20 is consumed. More particularly, spill resistant container 20 preferably defines a blow molded plastic container. It is noted that blow molding is a process used to economically create plastic, typically hollow parts of generally uniform wall thickness, by extruding a unit of molten plastic, termed a parison, onto a nozzle and then blowing air through the nozzle and into the parison to cause the parison to expand and to form to the shape of a mold cavity such as is taught in appendix A which is incorporated herein in its entirety. Given the potential challenge of blow molding spill resistant container 20 (having an impending funnel 44) in a single step, spill resistant container 20 is optionally molded by first blow molding spill resistant container pre-form 120 which is substantially similar to spill resistant container 20 but instead of inwardly extending funnel 44, spill resistant container pre-form 120 includes an externally extending funnel 146 as shown in FIG. 8. In a secondary step, external funnel 146 is inverted into the inner cavity of spill resistant container pre-form 120

to result in spill resistant container **20**. Bubble creation wand **60** defines a generally elongated wand preferably plastic injection molded wand having a handle **62**, a stem **64**, and at least one bubble ring **66**. Bubble ring **66** preferably includes a plurality of fins extending from bubble ring **66** to increase the surface area of bubble ring **66** resulting in an increased bubble solution retention capacity. Seal **70** preferably defines an adhesively bondable disk shaped frangible metal foil seal but alternately may be of other shapes and may be of other seal material such as a non-metal seal. Seal **70** preferably includes a tab portion that may be grasped in order to break open or peel open seal **70**. Lid **80** preferably defines conventional generally cylindrically shaped injection molded plastic lid having a top **82**, a flange **84**, and threads **86**. Bubble creation solution **90** defines a conventional liquid bubble creation solution such as a glycerin based liquid bubble creation solution.

Spill resistant container apparatus **10** is assembled by adding a predetermined quantity of bubble creation solution **90** (preferably a quantity such that bubble creation solution **90** will not run out of spill resistant container **20** regardless of the spatial orientation of spill resistant container **20**) such as by metering the predetermined quantity of bubble creation solution **90** into spill resistant container **20** via a fill nozzle connected to a filling machine. Bubble creation wand **60** is then placed into spill resistant container **20** by inserting bubble creation wand **60** through opening **42** and into funnel **44** preferably such that bubble creation wand **60** does not extend beyond an outer surface of spill resistant container **20** substantially as shown in FIGS. **2** and **5**. Seal **70** is then sealingly attached to spill resistant container **20** by adhesively bonding seal **70** to seal surface **38** such that the combination of spill resistant container **20** and bonded seal **70** preferably form a substantially hermetically sealed container assembly. Lid **80** is threadingly connected to spill resistant container **20** by engaging threads **86** and threads **36** and by rotating or screwing lid **80** onto neck **34** of spill resistant container **20**.

In practice, spill resistant container apparatus **10** is purchased as defined above with bubble creation solution **90** sealingly contained within spill resistant container **20**. A user, such as a young child, detaches lid **80** from spill resistant container **20** by unscrewing lid **80** from neck **34** of spill resistant container **20**. The user then breaks seal **70** and withdraws bubble creation wand **60**, which is charged with bubble creation solution **90**, from spill resistant container **20** by placing the users fingers within bowl **40**, grasping handle **62**, and pulling bubble creation wand **60** out of funnel **44**. The user then creates bubbles by blowing into wand ring **66**. Once bubble creation solution **90** is consumed from bubble creation wand **60**, bubble creation wand **60** is again inserted into spill resistant container **20** by moving bubble creation wand **60** through funnel **44**. The bubble creation process is then repeated until the user tires of creating bubbles or until bubble creation solution **90** contained within spill resistant container **20** is consumed. If bubble creation solution **90** contained within spill resistant container **20** is not consumed but the user tires of creating bubbles, lid **80** is replaced onto spill resistant container **20** so as to prevent debris ingress and evaporation and spill resistant container apparatus **10** is stored for subsequent use. If bubble creation solution **90** previously contained within spill resistant container **20** is consumed, the user merely discards spill resistant container apparatus **10**. It is noted that spill resistant container **20** will prevent spillage of bubble creation solution **90** regardless of the orientation in which spill resistant container **20** may be positioned. It is further noted that short of destructively

altering spill resistant container **20**, the user is prevented from ever pouring bubble creation solution **90** out of spill resistant container **20**, and that the user need never pour bubble creation solution into or out of spill resistant container **20** in order to use spill resistant container apparatus **10**, thus furthering the spill resistant utility of spill resistant container apparatus **10**.

In an alternate embodiment of the spill resistant container apparatus, the spill resistant container apparatus is substantially identical to spill resistant container apparatus **10** except that rather than having the one-piece structure of spill resistant container **20**, the alternate spill resistant container apparatus includes a spill resistant container having a multi-piece structure. Such multi-piece structure preferably defines a spill resistant container comprising a liquid-tight bonded assembly of non-destructively inseparable discrete pieces (i.e. as opposed to the prior art which typically includes at least a separable cup portion and funnel portion, the discrete pieces may not be separated or opened without permanently or destructively altering the spill resistant container).

The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

What is claimed is:

1. A container having an inner cavity and a piston-free funnel extending into said inner cavity, wherein said container having a piston-free funnel defines a single non-assembly discrete integral structural member, and wherein said container includes a frangible seal adhered to said container so as to substantially seal said inner cavity from the exterior of said container.

2. The container of claim **1**, wherein said piston-free funnel is open and provides communication between said inner cavity and the exterior of said container, and wherein when said container contains a non-gaseous fluid and is oriented in any orientation, at least a portion of said non-gaseous fluid is prevented from running out of said container.

3. The container of claim **1**, wherein said container contains at least one of a quantity of bubble creation solution and a bubble creation device.

4. The container of claim **1**, wherein said container contains a quantity of bubble creation solution and a bubble creation device.

5. The container of claim **1**, wherein said container further defines at least one of a container that includes a bottom having a generally disk shaped trough formed therein, and a container wherein a cross-section of said piston-free funnel defines a substantially rectangular shaped cross-section.

6. The container of claim **1**, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

7. A container having an inner cavity and at least one piston-free opening providing communication between said inner cavity and the exterior of said container, wherein said container is adapted such that when said container contains

a non-gaseous fluid and is oriented in any orientation, at least a portion of said non-gaseous fluid is prevented from running out of said container, and wherein said container having at least one piston-free opening defines a single non-assembly discrete integral structural member, and wherein said container includes a frangible seal adhered to said container so as to substantially seal said inner cavity from the exterior of said container.

8. The container of claim 7, wherein said container contains at least one of a quantity of bubble creation solution and a bubble creation device.

9. The container of claim 7, wherein said container contains a quantity of bubble creation solution and a bubble creation device.

10. The container of claim 7, wherein said container further defines at least one of a container that includes a bottom having a generally disked shaped trough formed therein, and a container having a funnel extending into said inner cavity wherein a cross-section of said funnel defines a substantially rectangular shaped cross-section.

11. The container of claim 7, wherein said container includes a funnel extending into said inner cavity.

12. The container of claim 7, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

13. A container apparatus comprising a container having a seal adhered thereto such that at least one of a bubble creation device and bubble creation solution is substantially watertightly sealed within said container, wherein said container includes an inner cavity and a piston-free funnel extending into said inner cavity.

14. The container apparatus of claim 13, wherein said piston-free funnel is open and provides communication between said inner cavity and the exterior of said container, and wherein when said container contains a non-gaseous fluid and is oriented in any orientation, at least a portion of said non-gaseous fluid is prevented from running out of said container.

15. The container apparatus of claim 13, wherein said seal defines a frangible seal adhered to said container so as to substantially hermetically seal said inner cavity from the exterior of said container.

16. The container apparatus of claim 13, wherein said container defines at least one of a single non-assembly discrete integral structural member container and a non-destructively inseparable container.

17. The container apparatus of claim 13, wherein said container further defines at least one of a container that includes a bottom having a generally disked shaped trough formed therein, and a container wherein a cross-section of said piston-free funnel defines a substantially rectangular shaped cross-section.

18. The container apparatus of claim 13, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

19. A container having an inner cavity and at least one piston-free opening to provide communication between said

inner cavity and the exterior of said container, wherein said at least one piston-free opening includes a frangible seal sealingly connected thereto, and wherein said container is adapted such that said container inner cavity is sealed substantially watertight from the exterior of said container, and such that when said container contains a non-gaseous fluid and is oriented in any orientation and said frangible seal is broken, said non-gaseous fluid is prevented from running out of said container.

20. The container of claim 19, wherein said container defines at least one of a single non-assembly discrete integral structural member container and a non-destructively inseparable container.

21. The container of claim 19, wherein said container further defines at least one of a container that includes a bottom having a generally disked shaped trough formed therein, and a container having a funnel extending into said inner cavity wherein a cross-section of said funnel defines a substantially rectangular shaped cross-section.

22. The container of claim 19, wherein said container includes a funnel extending into said inner cavity.

23. The container of claim 19, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

24. The container of claim 19, wherein said container contains at least one of a quantity of bubble creation solution and a bubble creation device.

25. A container apparatus comprising a container having an inner cavity and a piston-free funnel extending into said inner cavity and an unobstructedly accessible bubble creation device removably contained at least partially within said container, wherein said bubble creation device does not extend beyond an outer surface of said container.

26. The container apparatus of claim 25, wherein said piston-free funnel is open and provides communication between said inner cavity and the exterior of said container, and wherein when said container contains a non-gaseous fluid and is oriented in any orientation, at least a portion of said non-gaseous fluid is prevented from running out of said container.

27. The container apparatus of claim 25, wherein said container contains a quantity of bubble creation solution.

28. The container apparatus of claim 25, wherein said container includes a frangible seal adhered to said container so as to substantially seal said inner cavity from the exterior of said container.

29. The container apparatus of claim 25, wherein said container further defines at least one of a container that includes a bottom having a generally disked shaped trough formed therein, and a container wherein a cross-section of said piston-free funnel defines a substantially rectangular shaped cross-section.

30. The container apparatus of claim 25, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

31. The container apparatus of claim 25, wherein said container defines at least one of a single non-assembly

11

discrete integral structural member container and a non-destructively inseparable container.

32. A container apparatus comprising a container having an inner cavity and a piston-free funnel extending into said inner cavity and a bubble creation device and bubble creation solution substantially hermetically sealed within said container.

33. The container apparatus of claim 32, wherein when said apparatus is unsealed, said bubble creation device and said bubble creation solution are accessible but said bubble creation solution is prevented from running out of said container regardless of the orientation of said container.

34. The container apparatus of claim 32, wherein said bubble creation device defines a bubble creation wand having at least one bubble ring.

35. The container apparatus of claim 32, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

36. A container apparatus comprising a container having an inner cavity and a piston-free opening to provide communication between said inner cavity and the exterior of said

12

container, a bubble creation device, bubble creation solution, and a frangible seal, wherein said frangible seal is affixed to said container such that said bubble creation device and said bubble creation solution are substantially hermetically sealed within said container, and wherein said apparatus is adapted such that when said frangible seal is broken or removed, said bubble creation device and said bubble creation solution are accessible but said bubble creation solution is prevented from running out of said container regardless of the orientation of said container.

37. The container apparatus of claim 36, wherein said bubble creation device defines a bubble creation wand having at least one bubble ring, and wherein when said frangible seal is broken or removed, said bubble creation device is readily removable from said container.

38. The container apparatus of claim 36, wherein said container includes a funnel extending into said inner cavity.

39. The container apparatus of claim 36, wherein said container further defines at least one of a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially disassembling or assembling said container and a container adapted such that bubble creation solution may be spill resistantly accessed within said container without initially pouring bubble solution into or out of said container.

* * * * *