US008668539B2

(12) **United States Patent**
Chun et al.

(10) **Patent No.: US 8,668,539 B2**
(45) **Date of Patent: Mar. 11, 2014**

(54) **AMPHIBIOUS PROTECTION APPARATUS**

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(73) Assignee: **Hankookin, LLC.**, Raleigh, NC (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **13/586,150**

(22) Filed: **Aug. 15, 2012**

(65) **Prior Publication Data**

US 2013/0045649 A1 Feb. 21, 2013

Related U.S. Application Data

(60) Provisional application No. 61/524,059, filed on Aug. 16, 2011.

(51) **Int. Cl.**
B63C 9/06 (2006.01)

(52) **U.S. Cl.**
USPC **441/87**; 244/140

(58) **Field of Classification Search**
USPC 441/87
See application file for complete search history.

(56) **References Cited**

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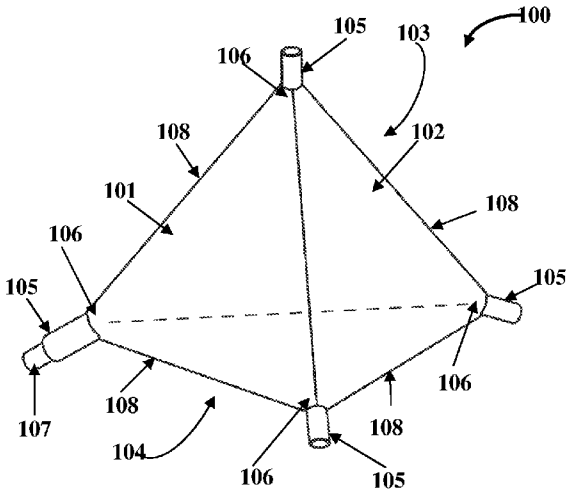
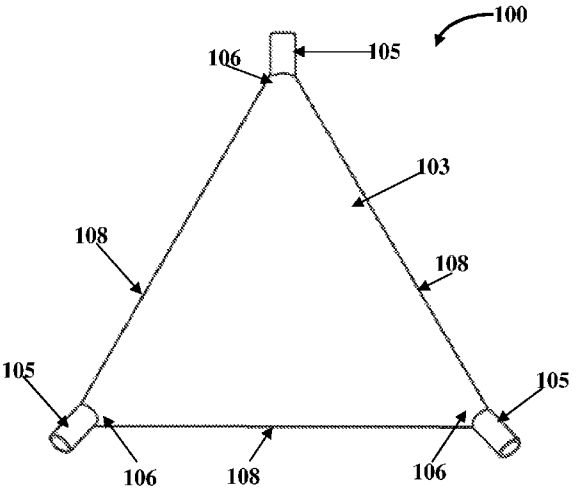
Assistant Examiner — Jovon Hayes
(74) *Attorney, Agent, or Firm* — Ash Tankha; Lipton, Weinberger & Husick

(57) **ABSTRACT**

An amphibious protection apparatus including wall members, an occupancy space, and an access region is provided. Each of the wall members is foldably and detachably connected to the other wall members. Each of the wall members has an enclosed space that is inflatable by a fluid injected into the enclosed space. The inflation of each of the detachably connected wall members forms a buoyant enclosure of a predefined configuration, which bounces on land and floats on water. The occupancy space is defined by the detachably connected wall members and accommodates the users. The access region defined by opening one of the detachably connected wall members provides access to the occupancy space. The amphibious protection apparatus inflated to form the buoyant enclosure protects the users accommodated within the occupancy space from impacts from different directions on land and water and provides safety to the accommodated users on land and water.

20 Claims, 27 Drawing Sheets





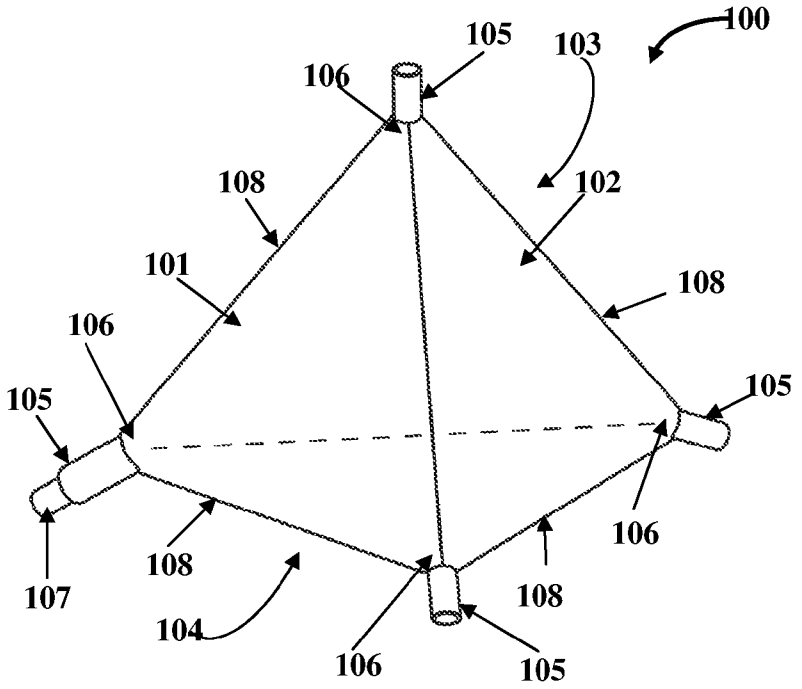

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FIG. 1A

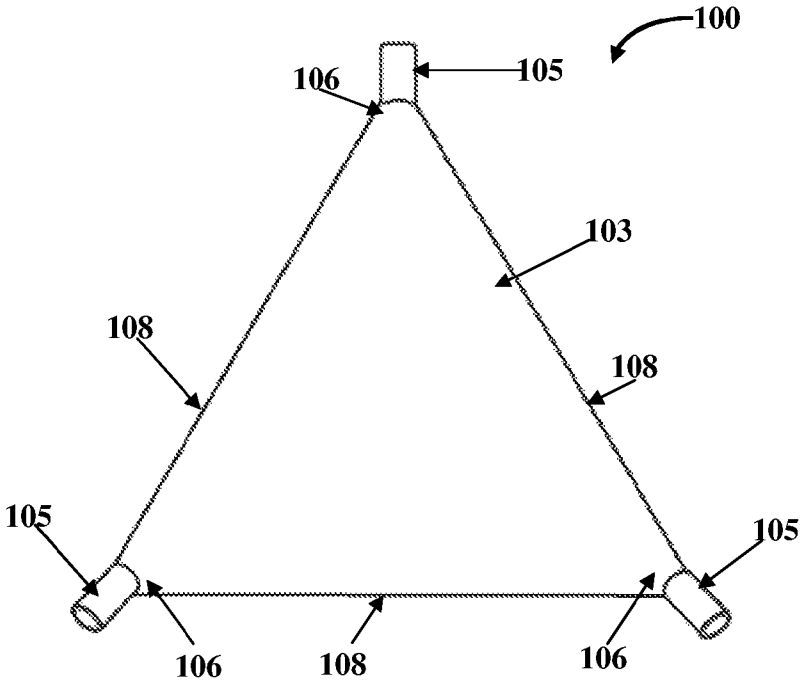
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FIG. 1B

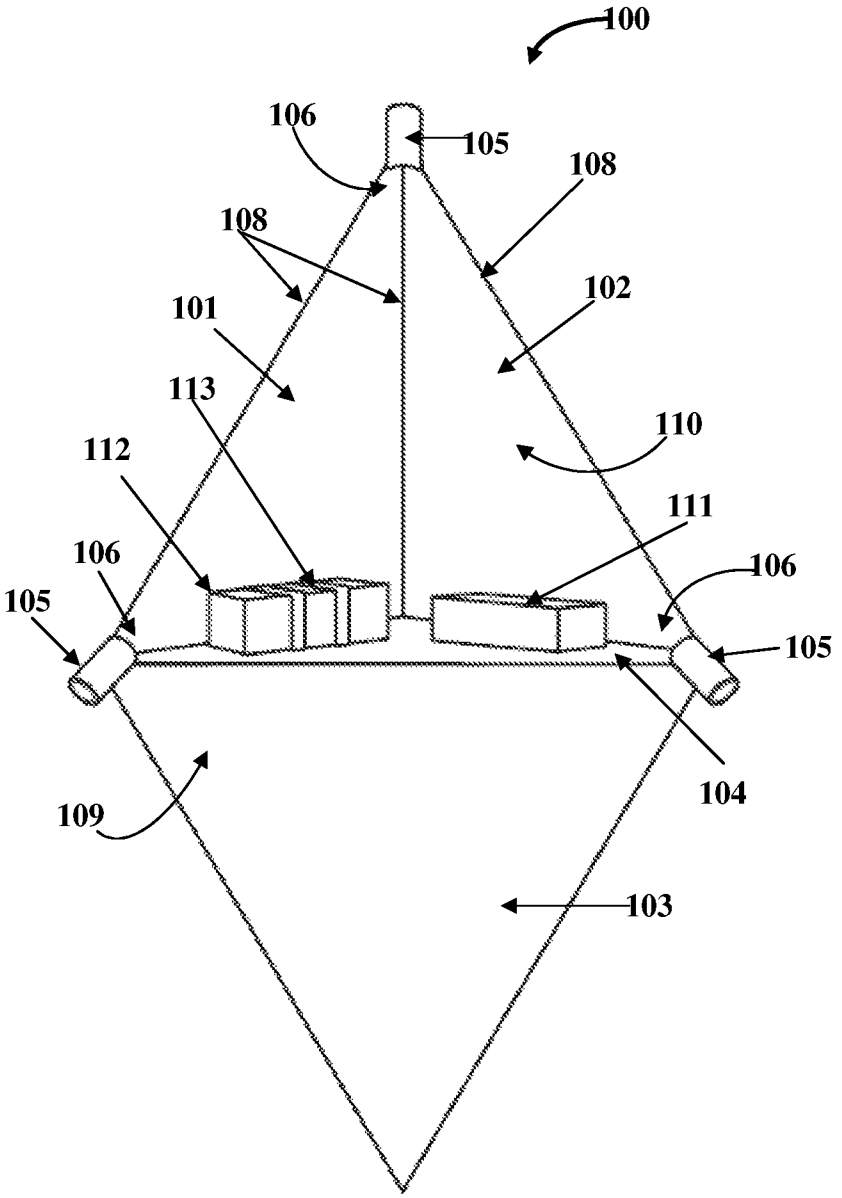
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FIG. 1C

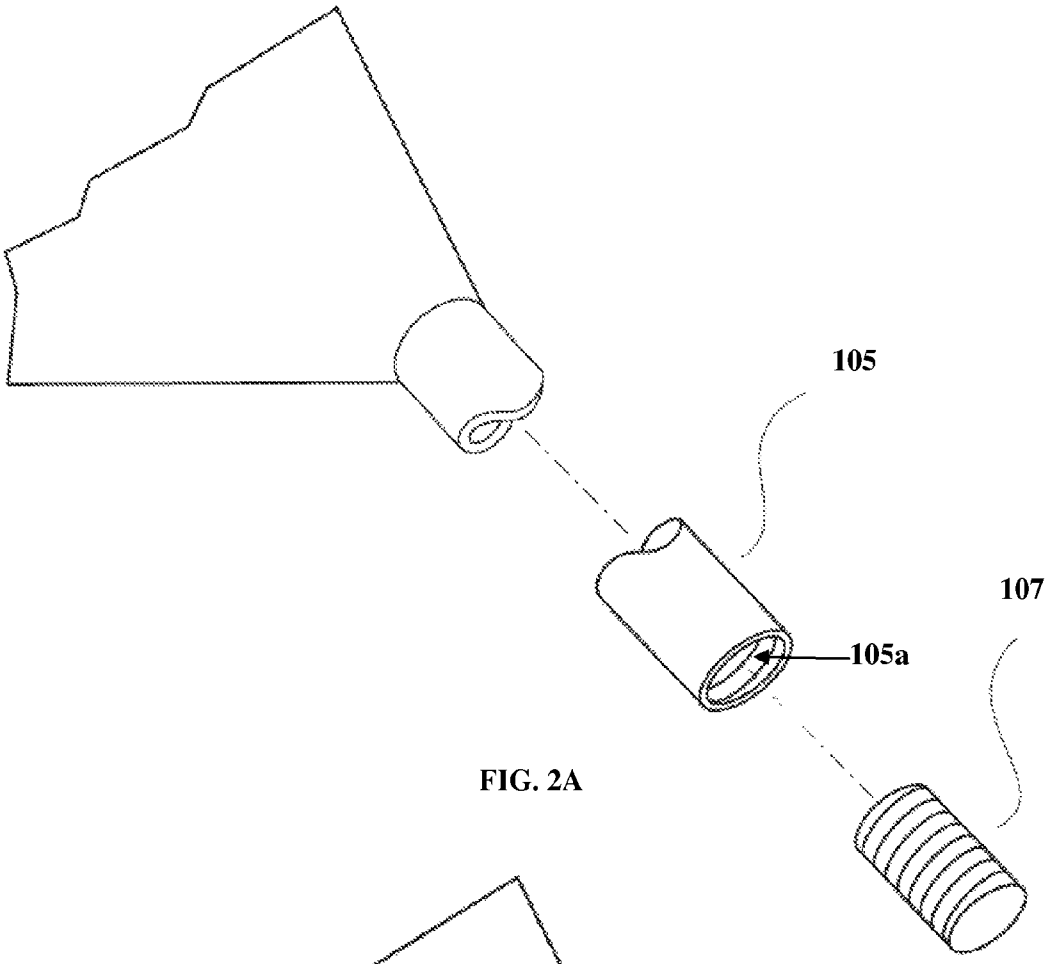

FIG. 2A

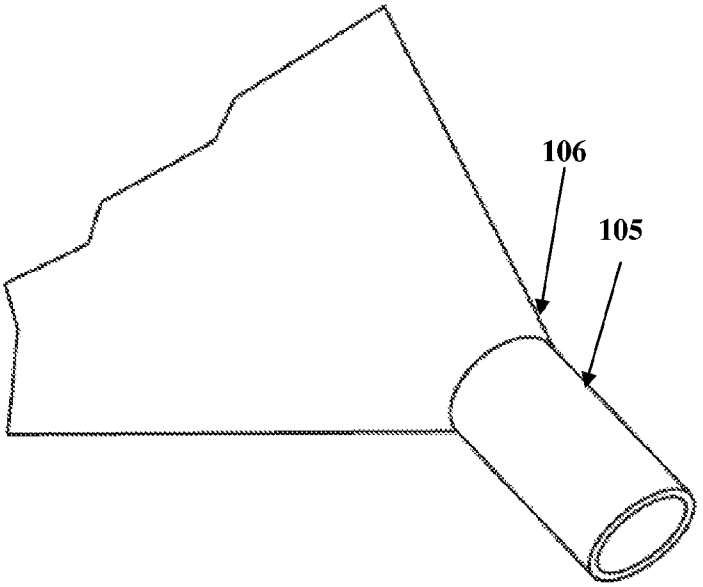

FIG. 2B

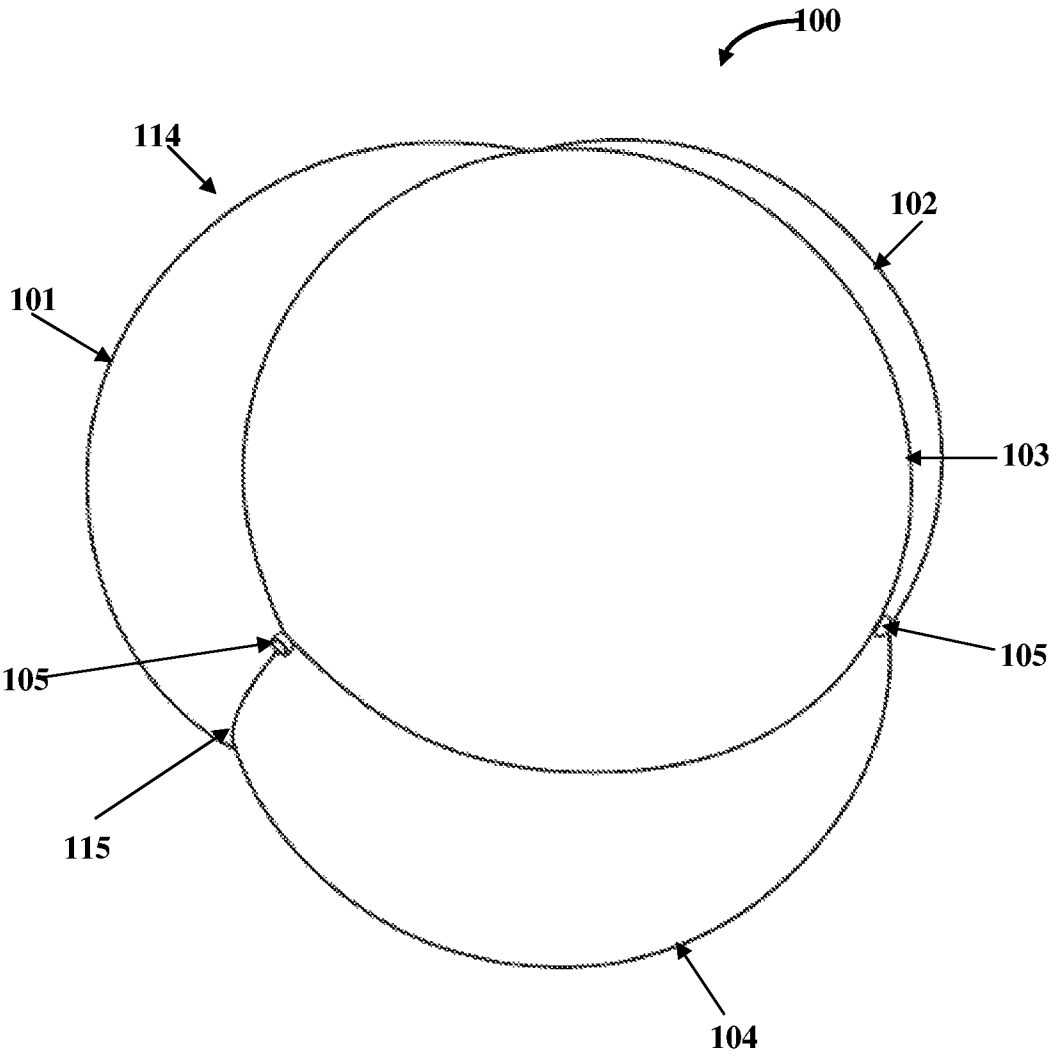

FIG. 3A

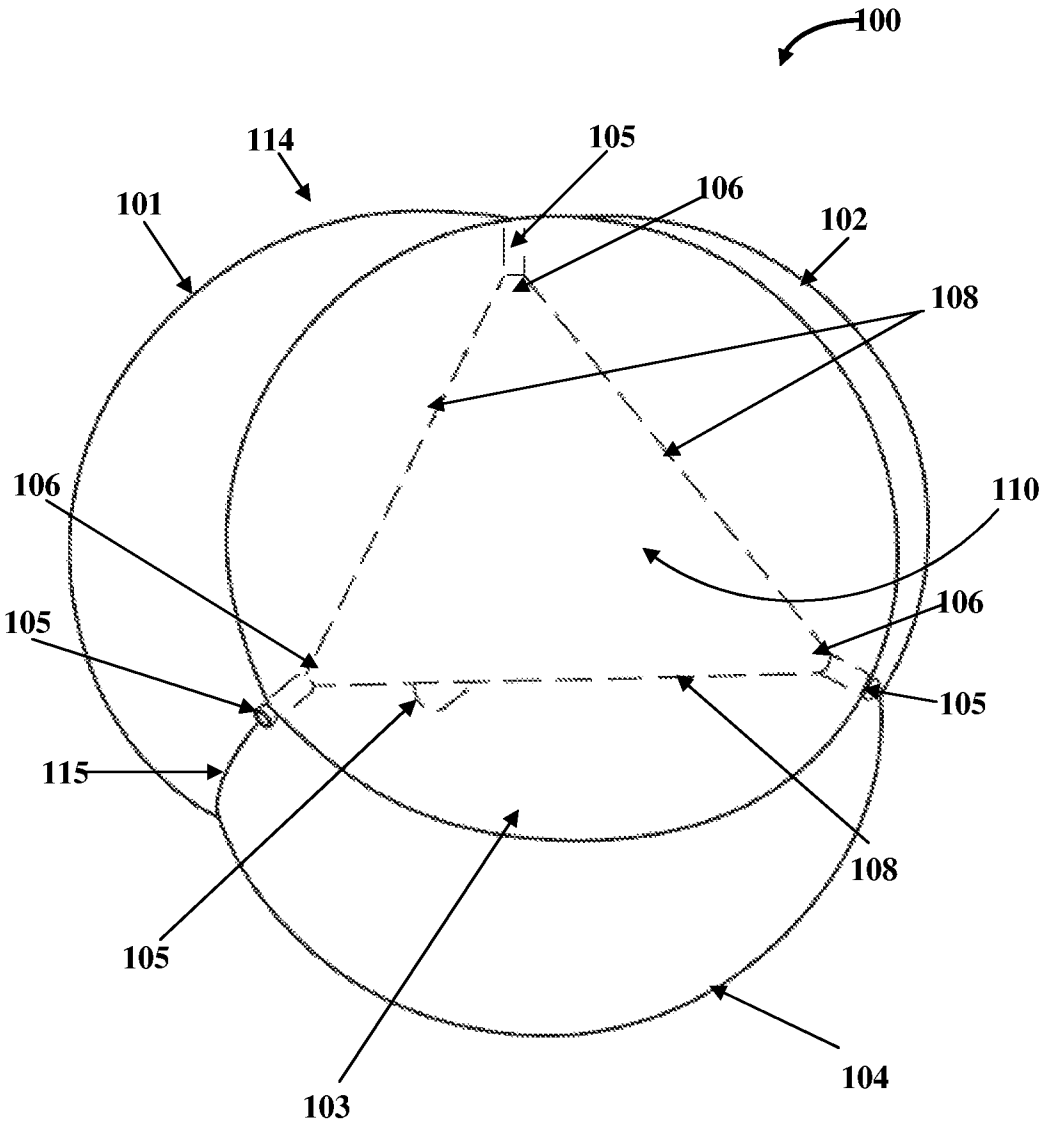
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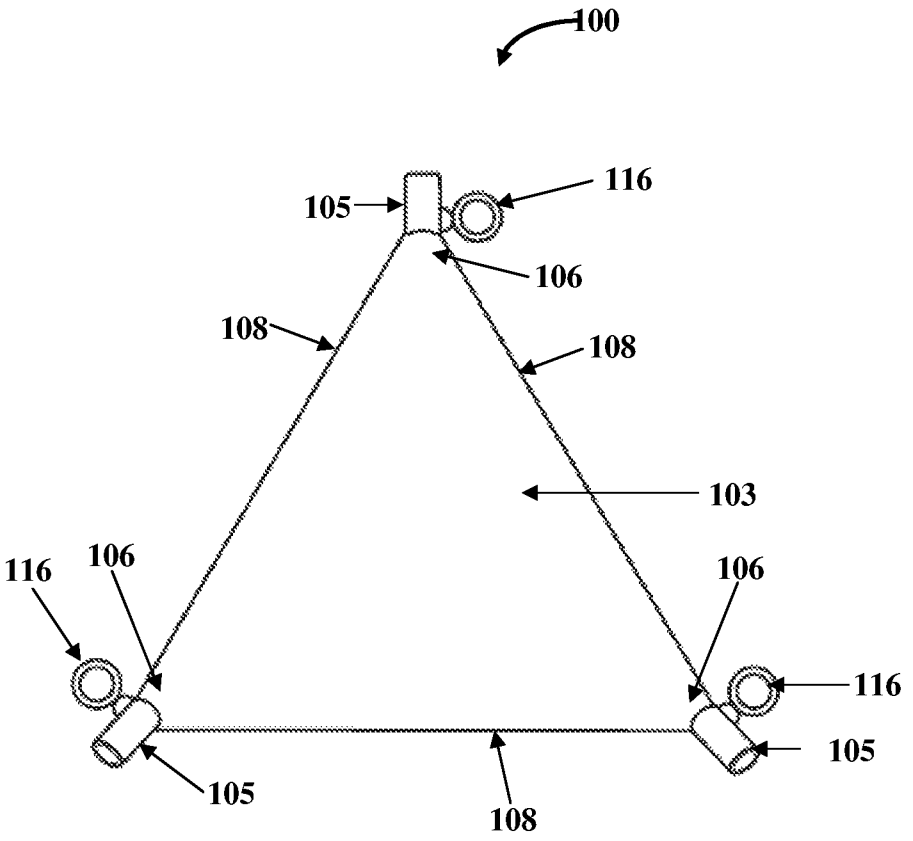
FIG. 3B



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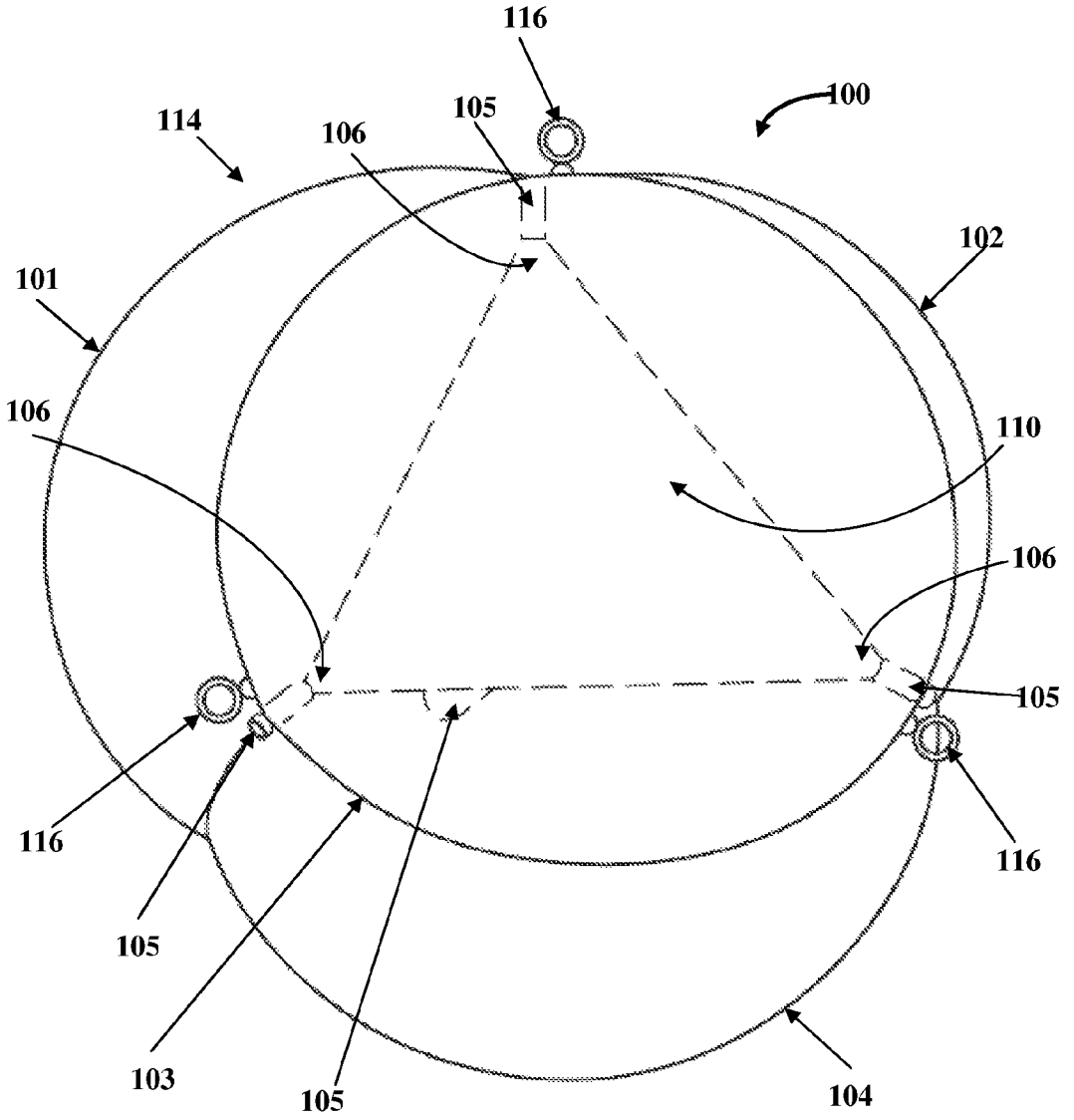
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FIG. 4B

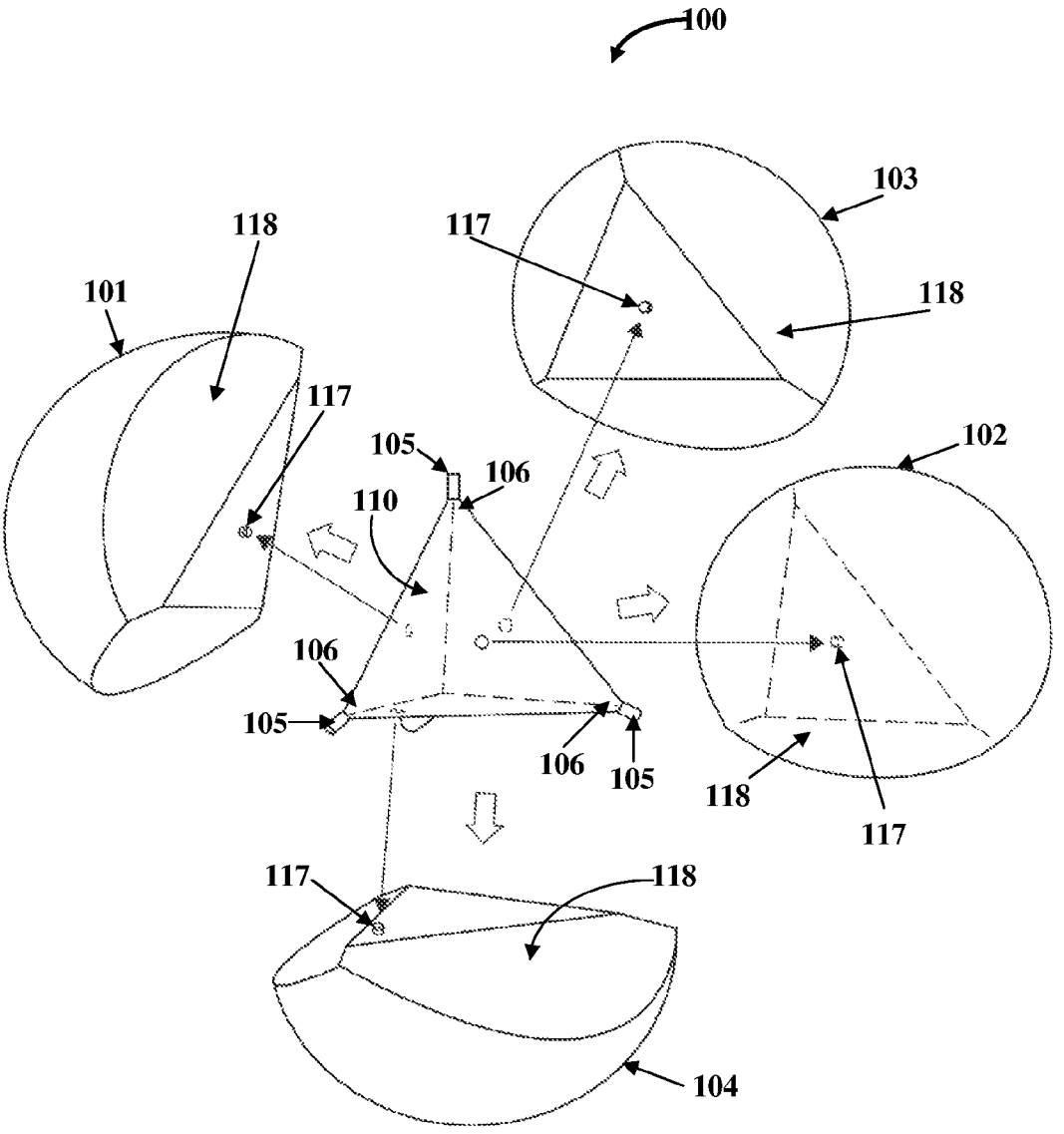
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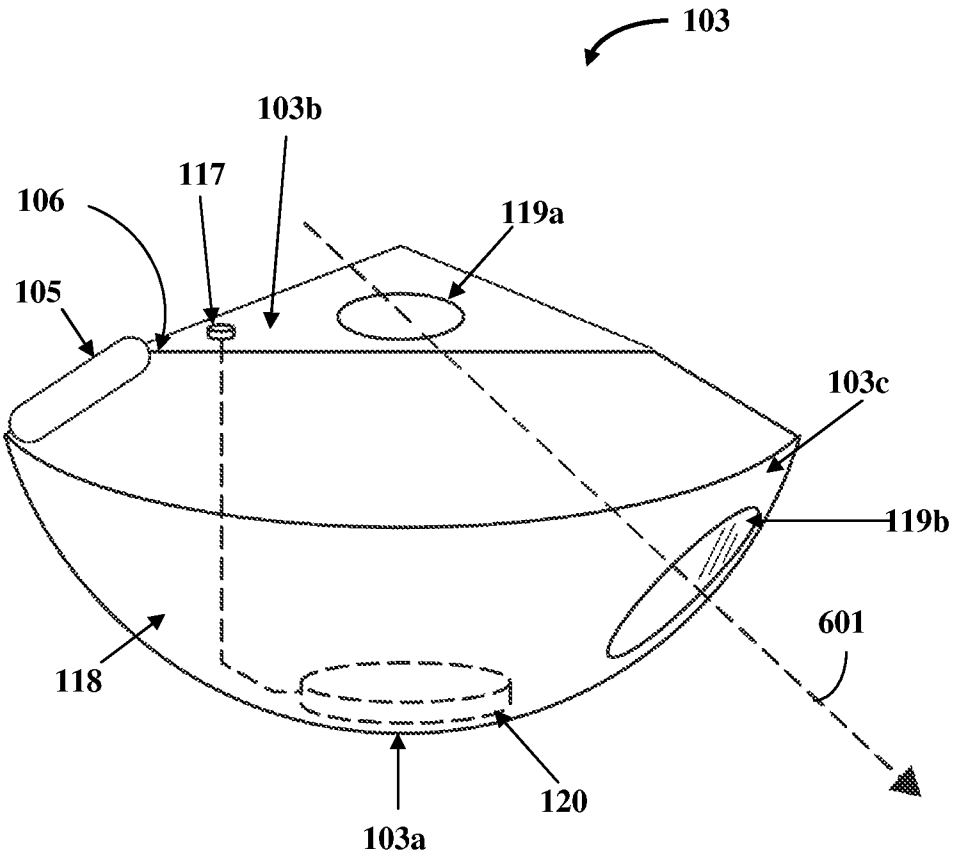
FIG. 5



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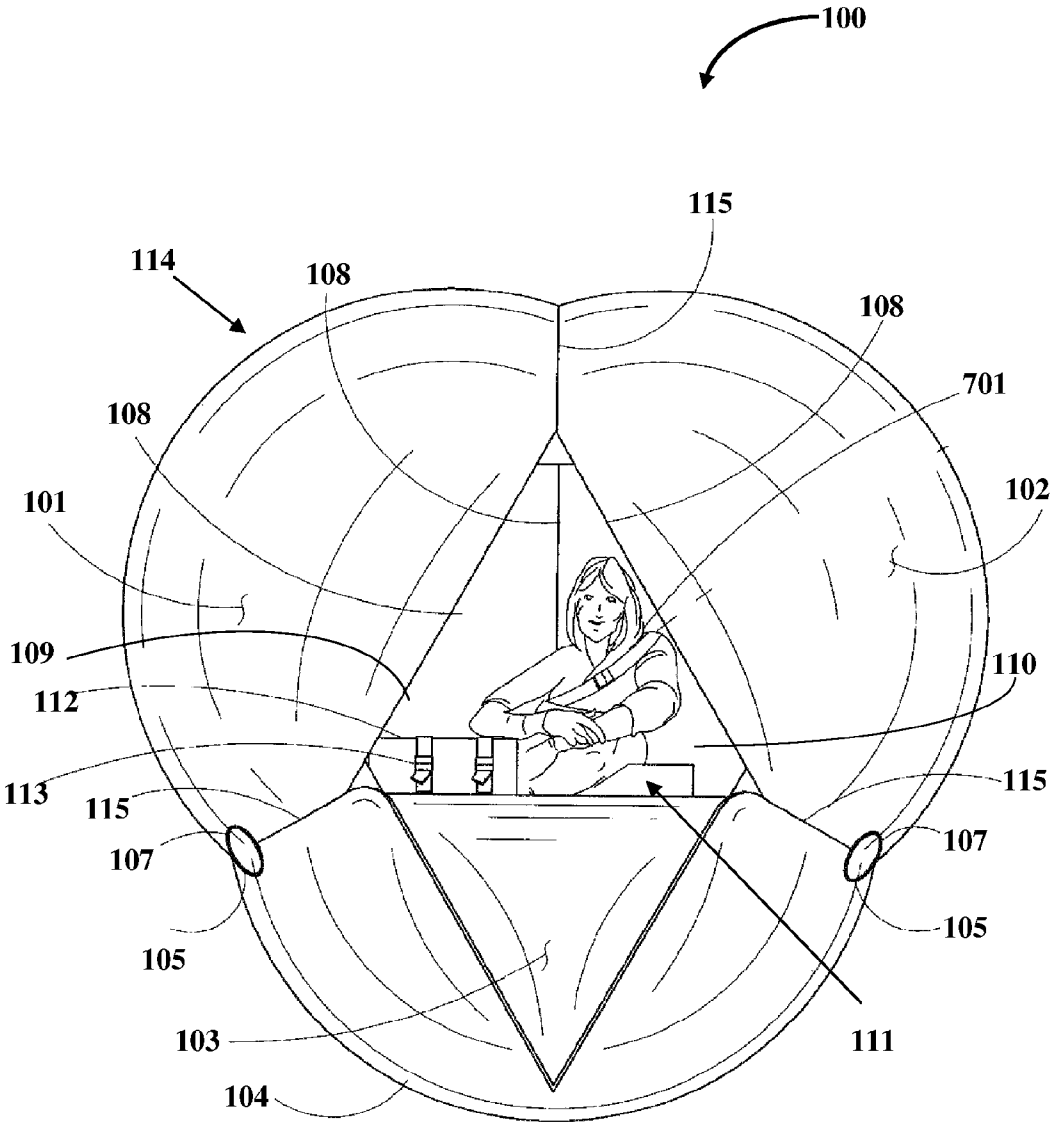
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FIG. 7

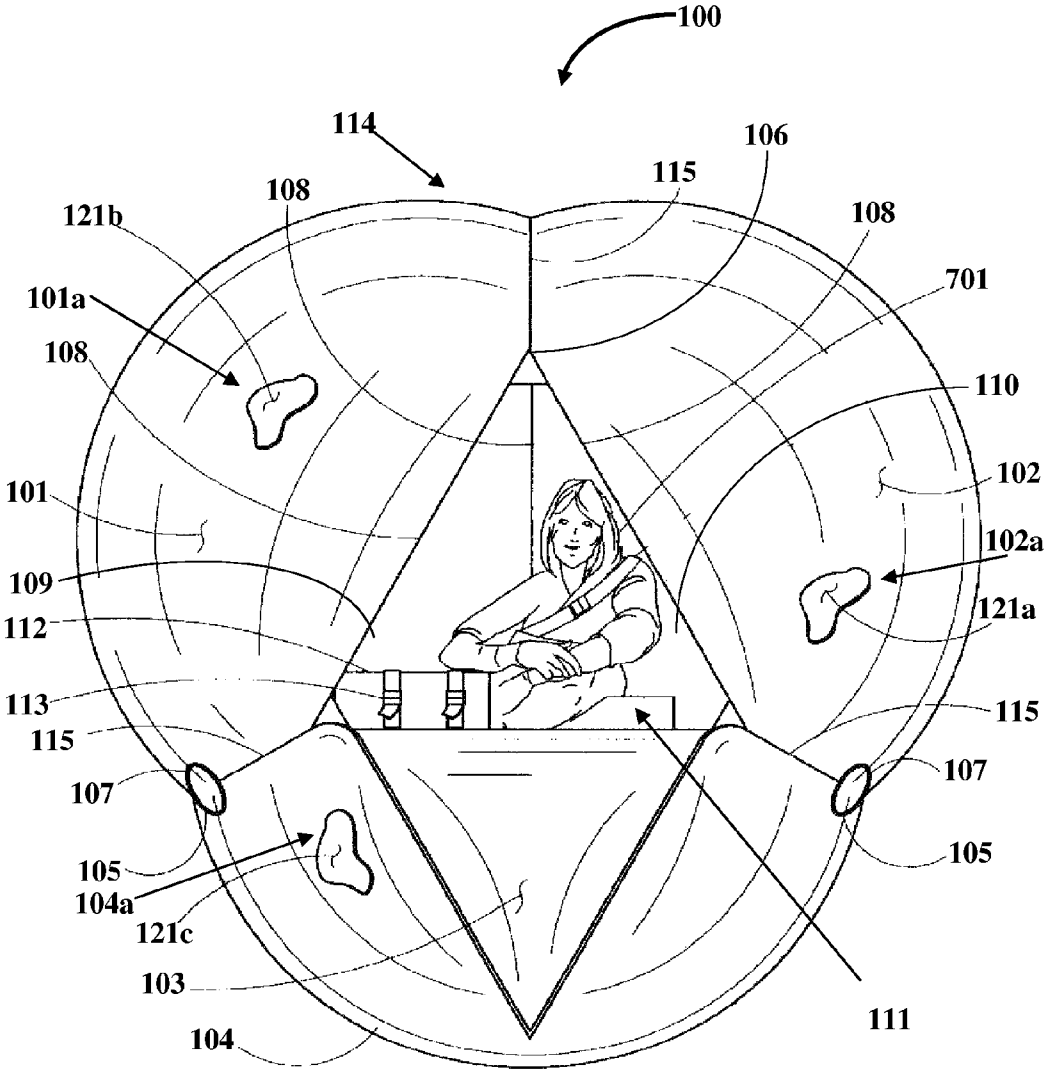
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FIG. 8

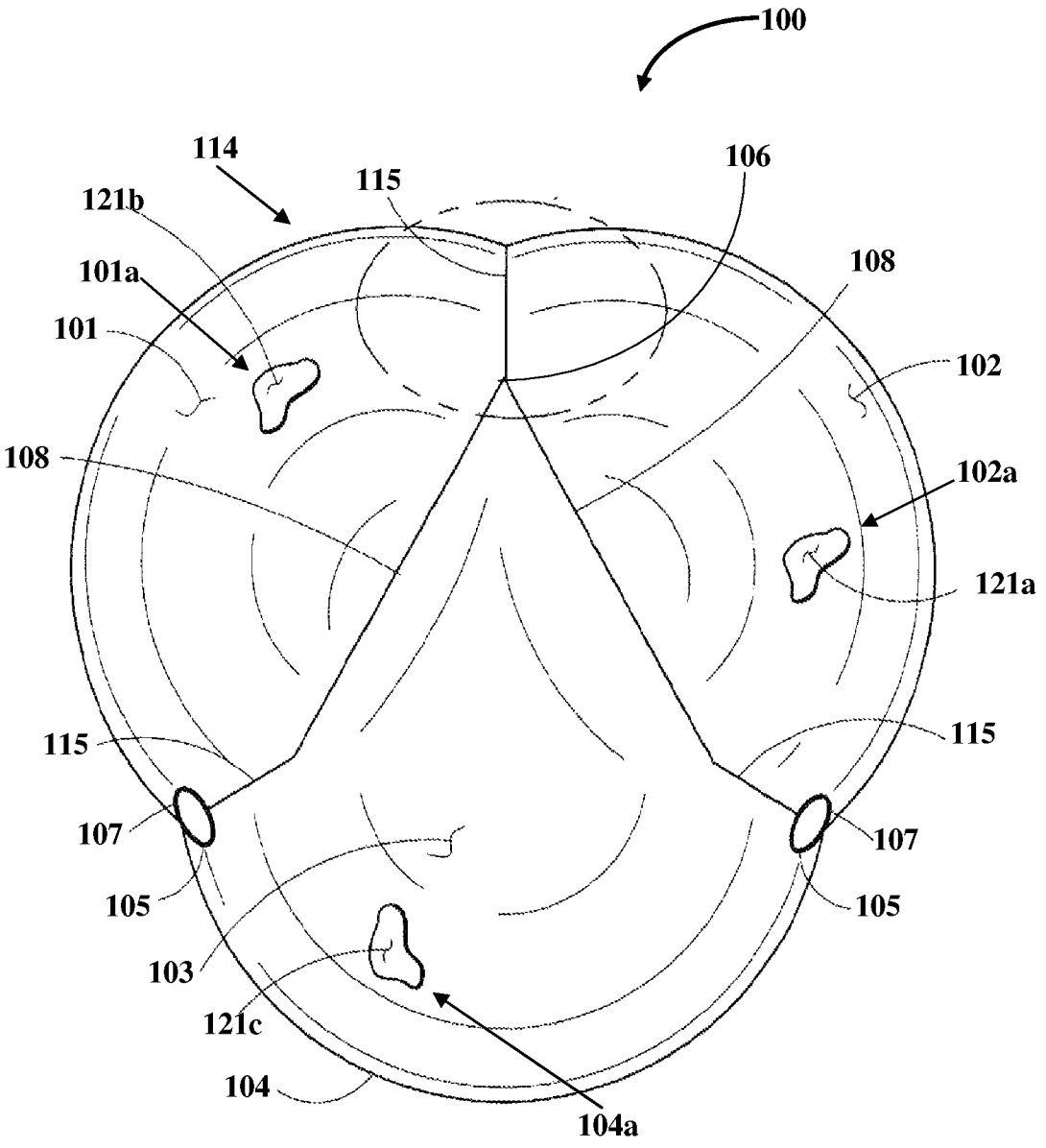
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FIG. 9

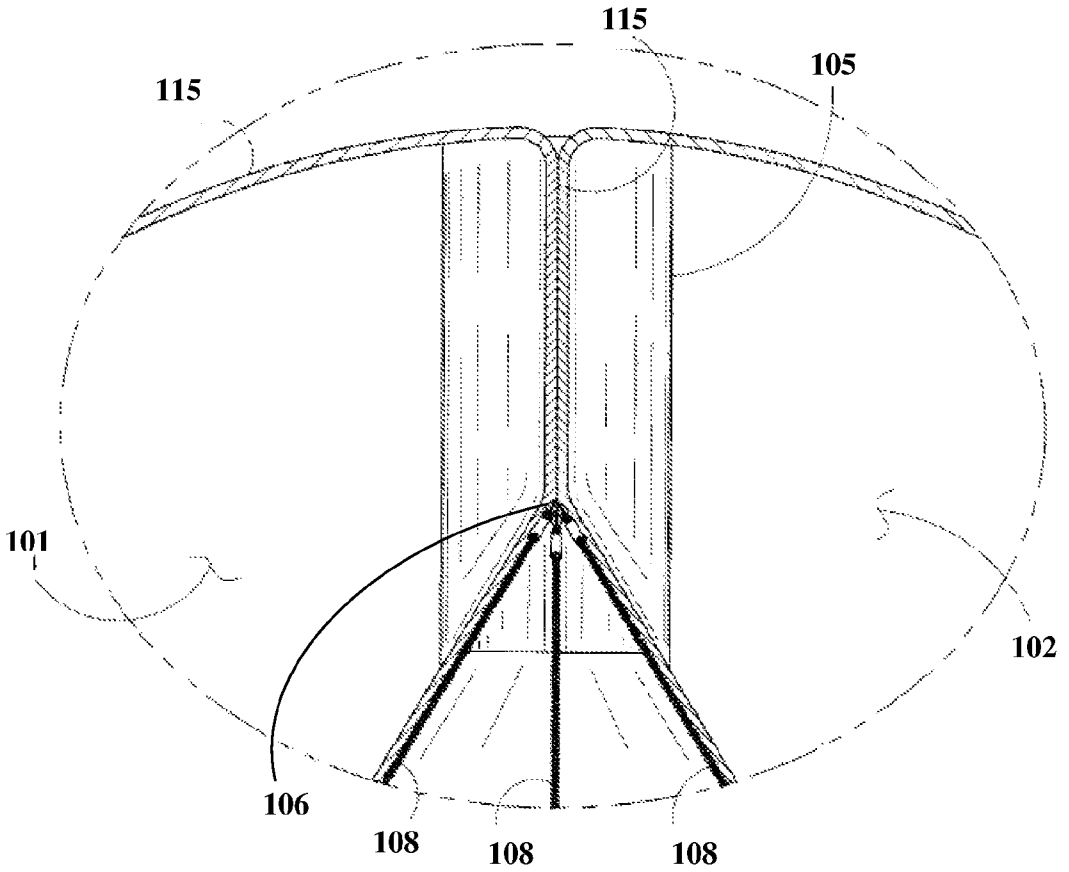
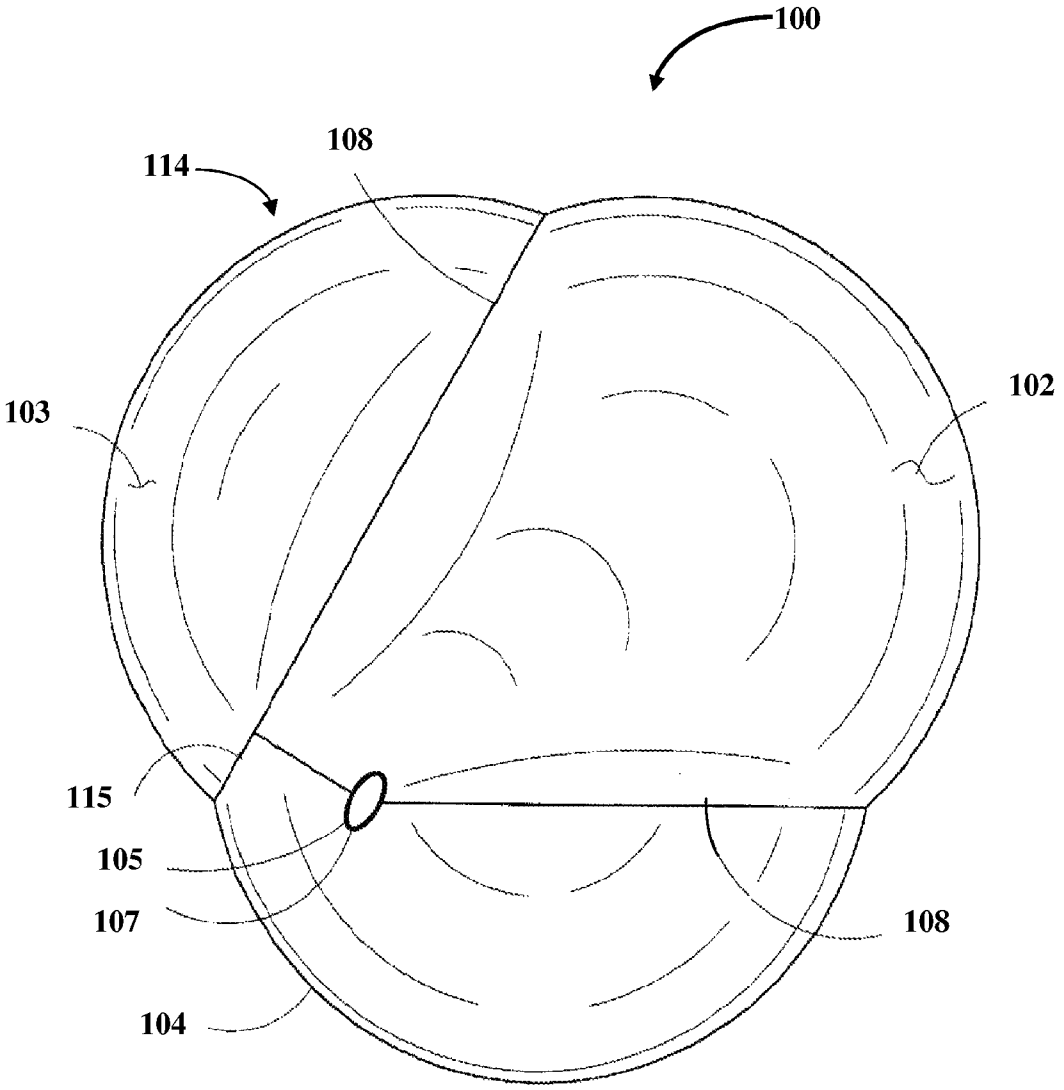


FIG. 10



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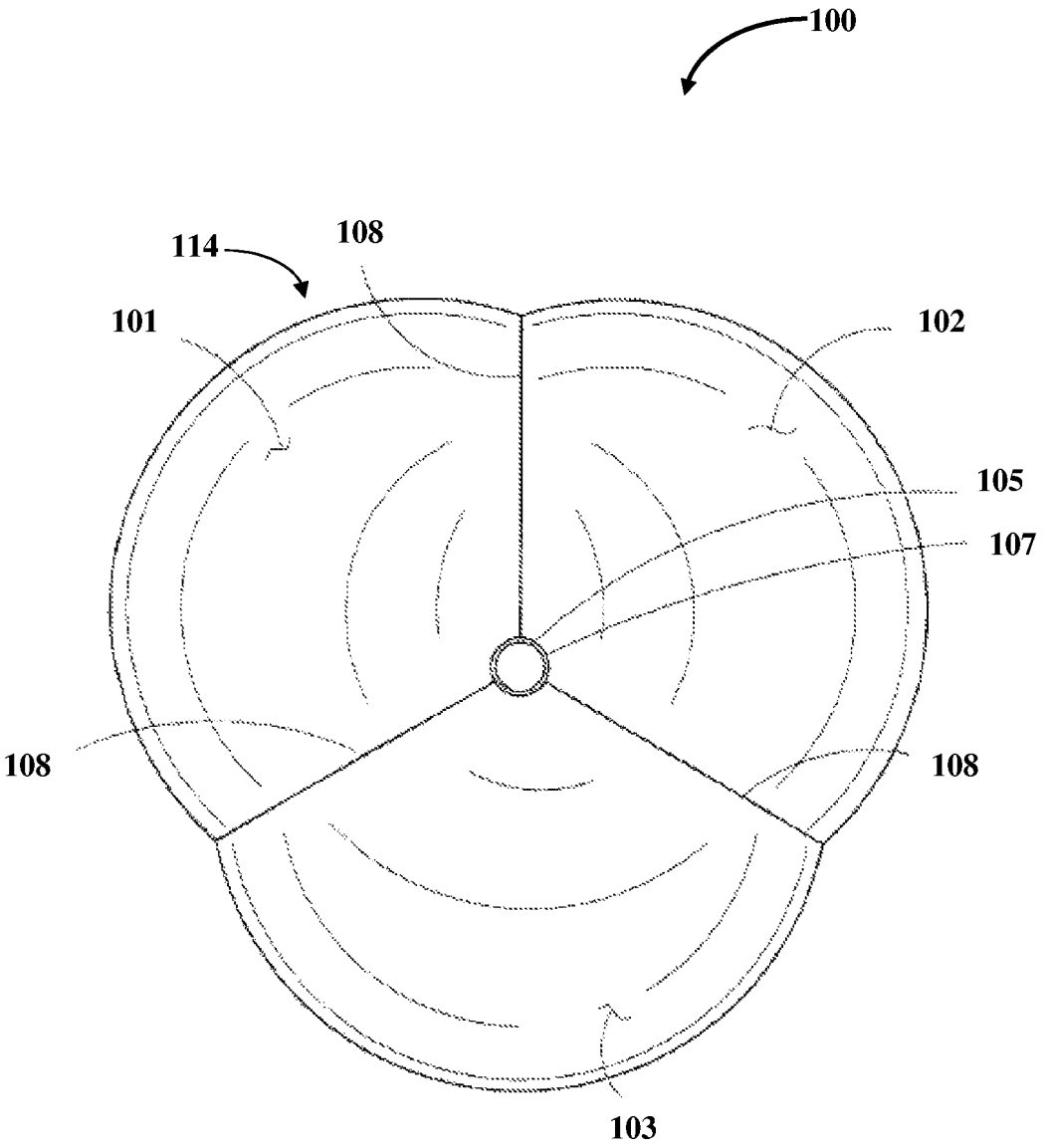
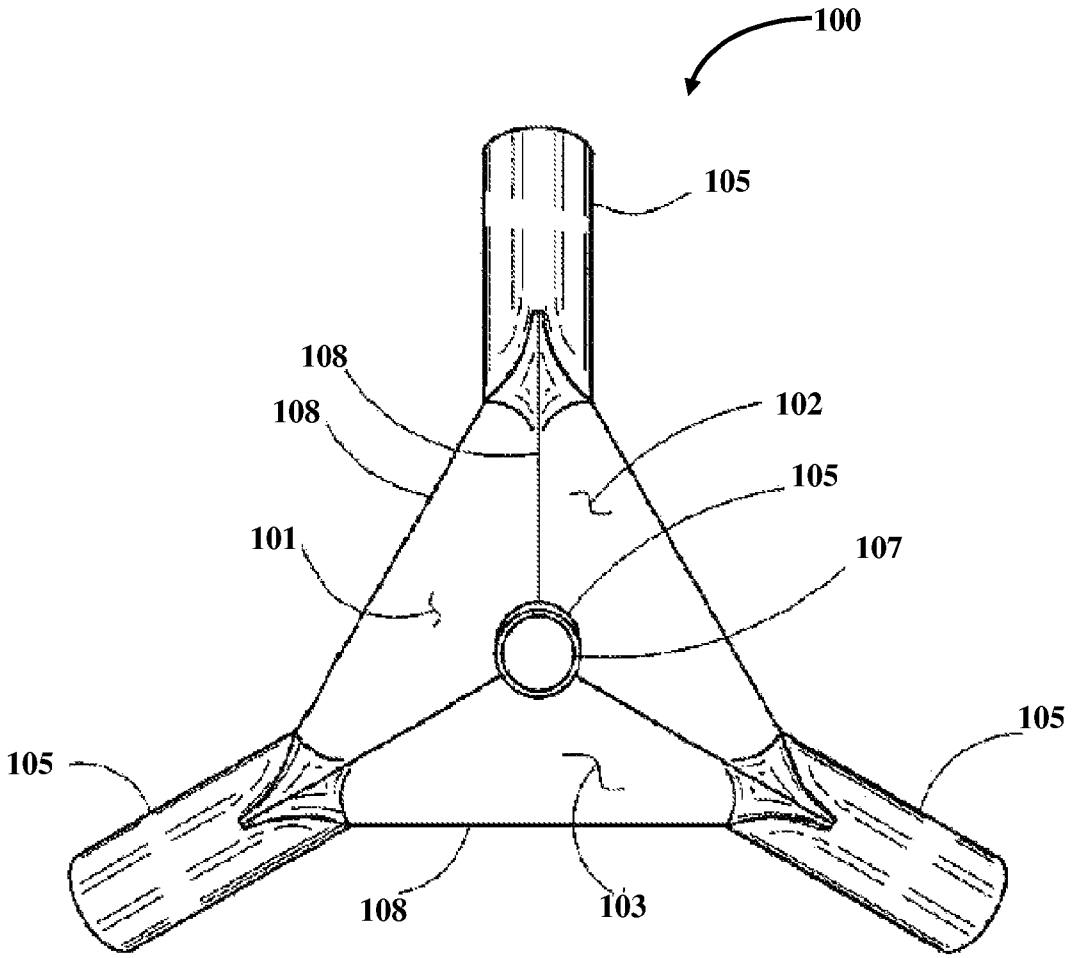


FIG. 12



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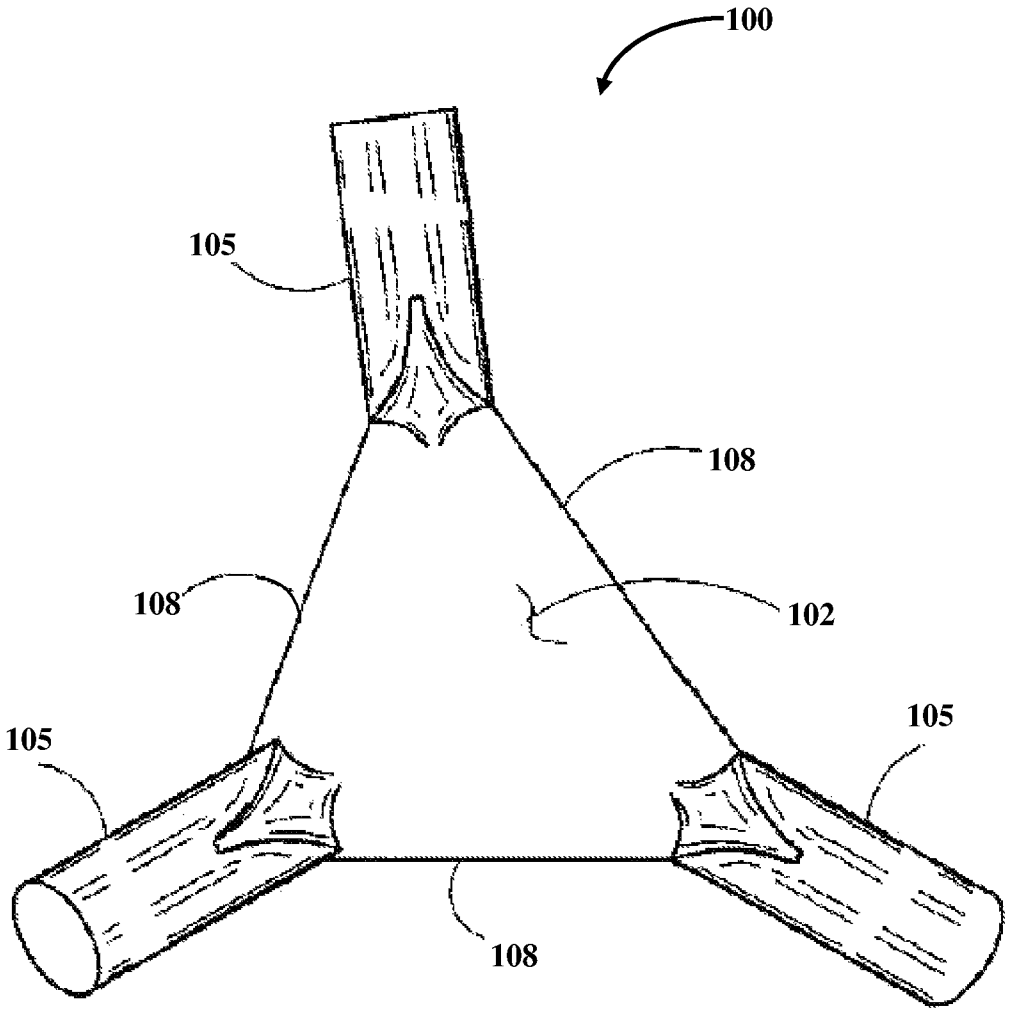

FIG. 13B

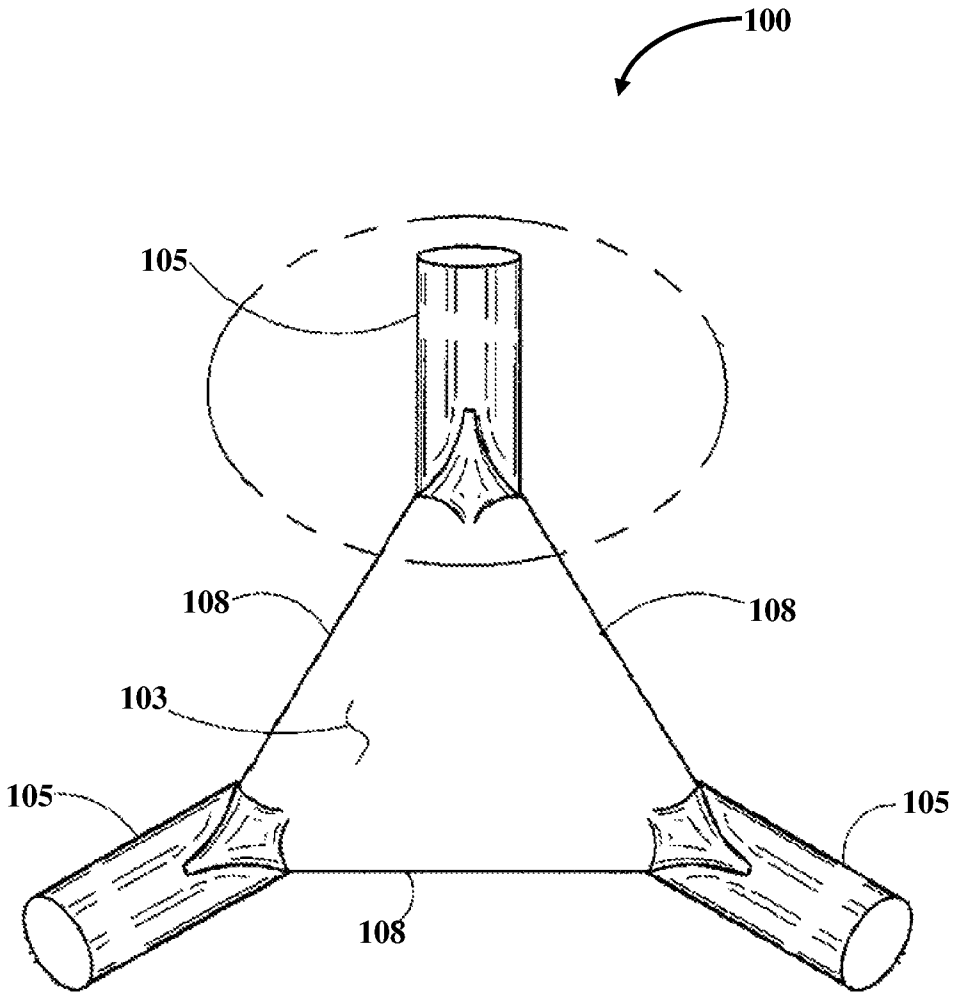

FIG. 13C

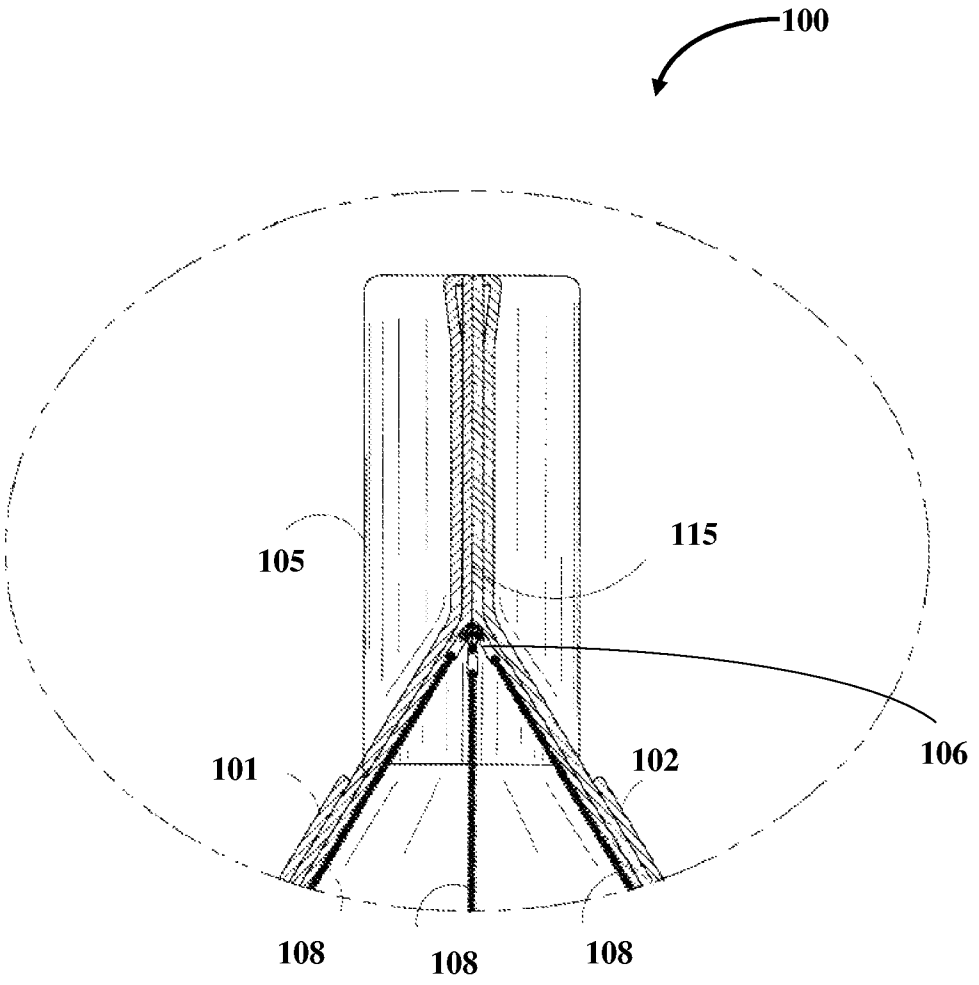

FIG. 13D

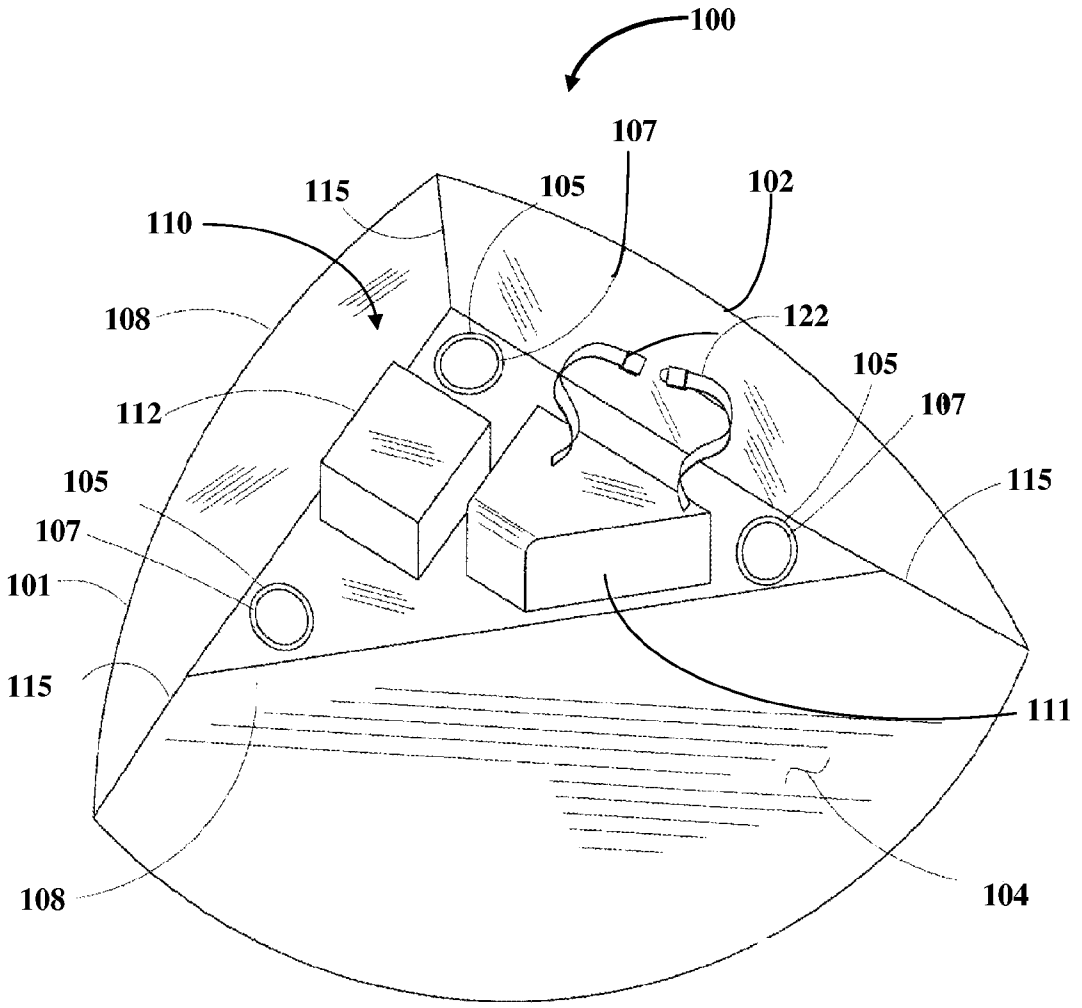
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FIG. 14A

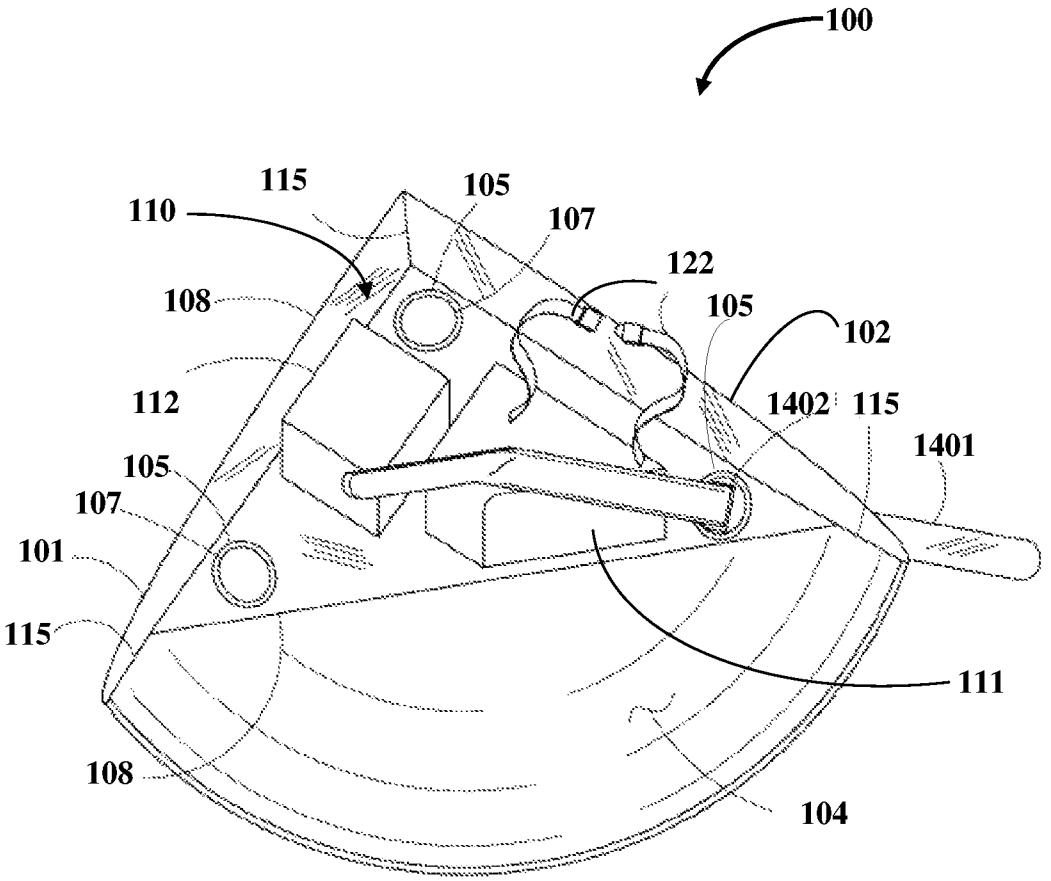
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FIG. 14B

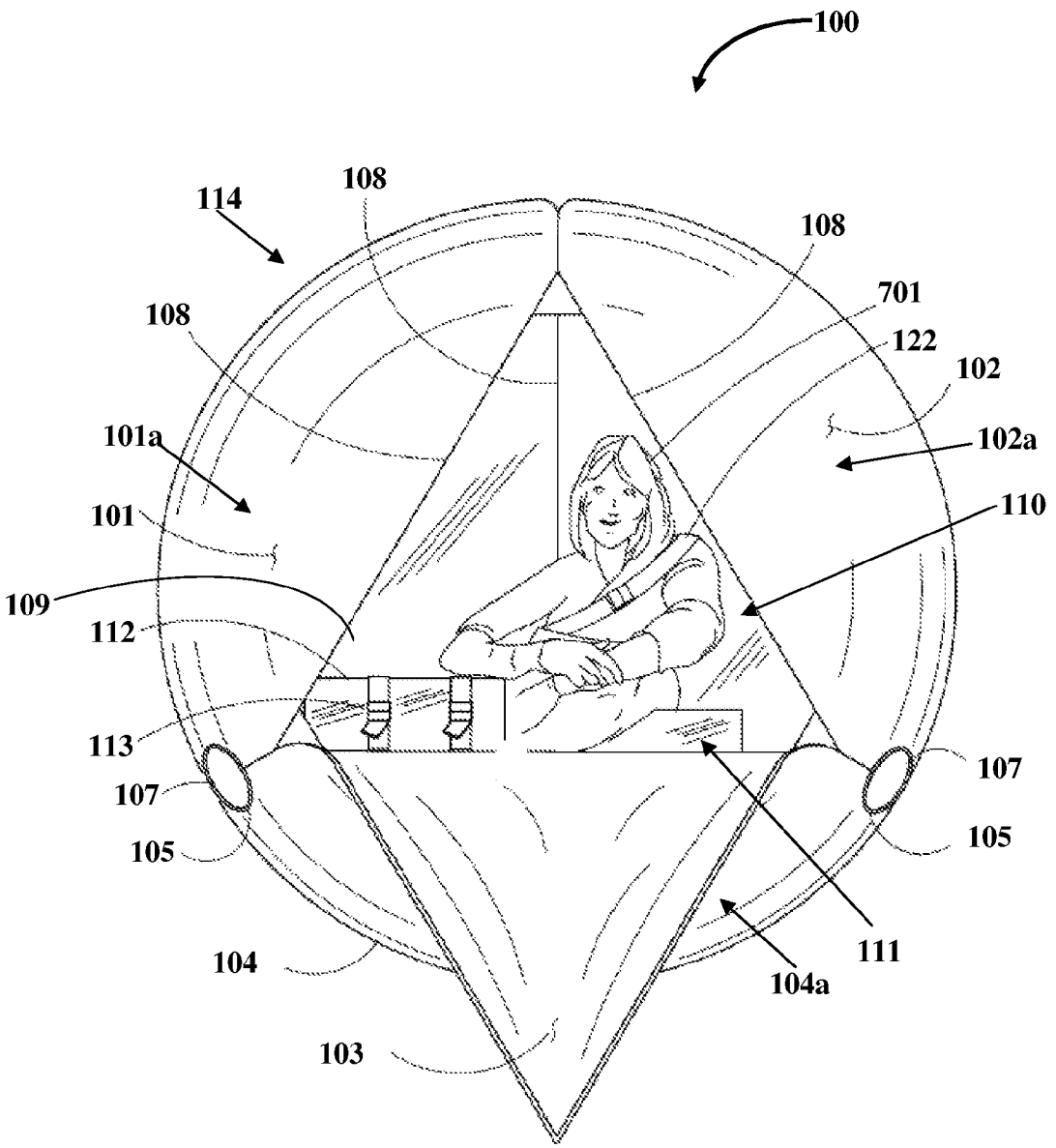
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FIG. 15A

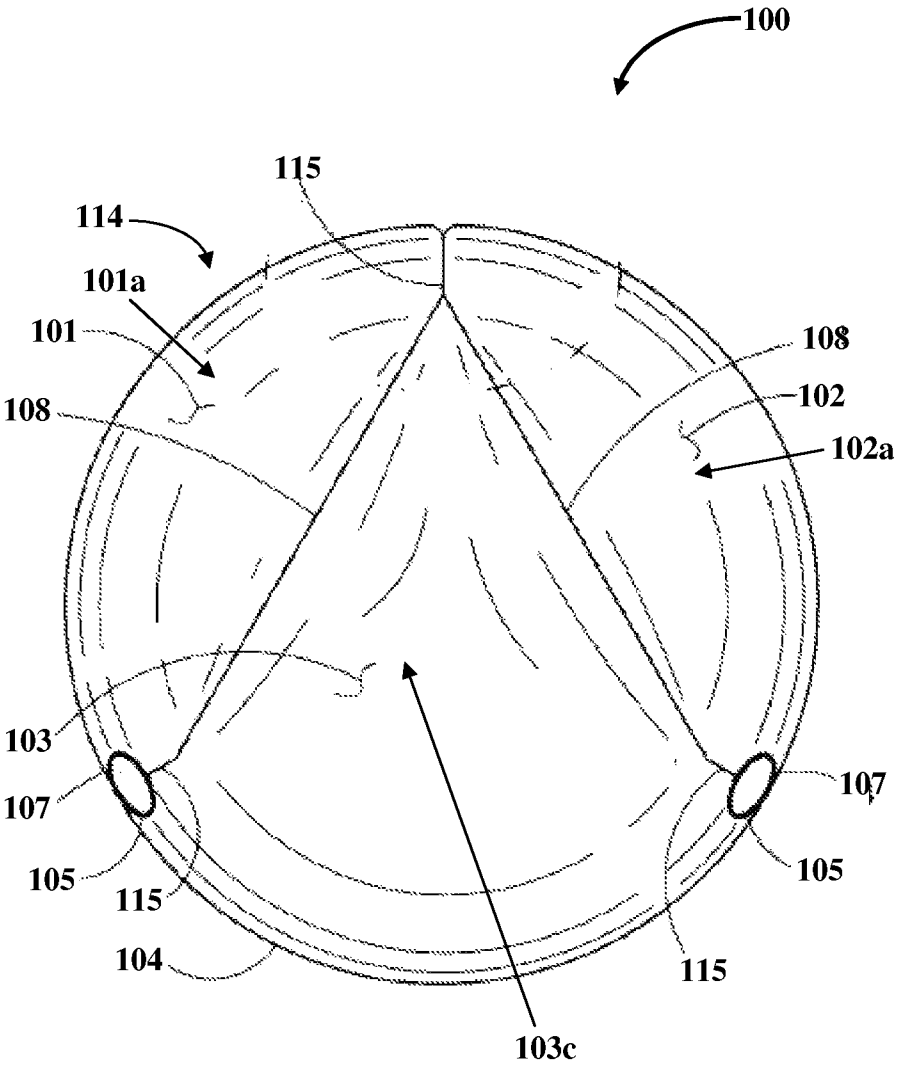
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FIG. 15B

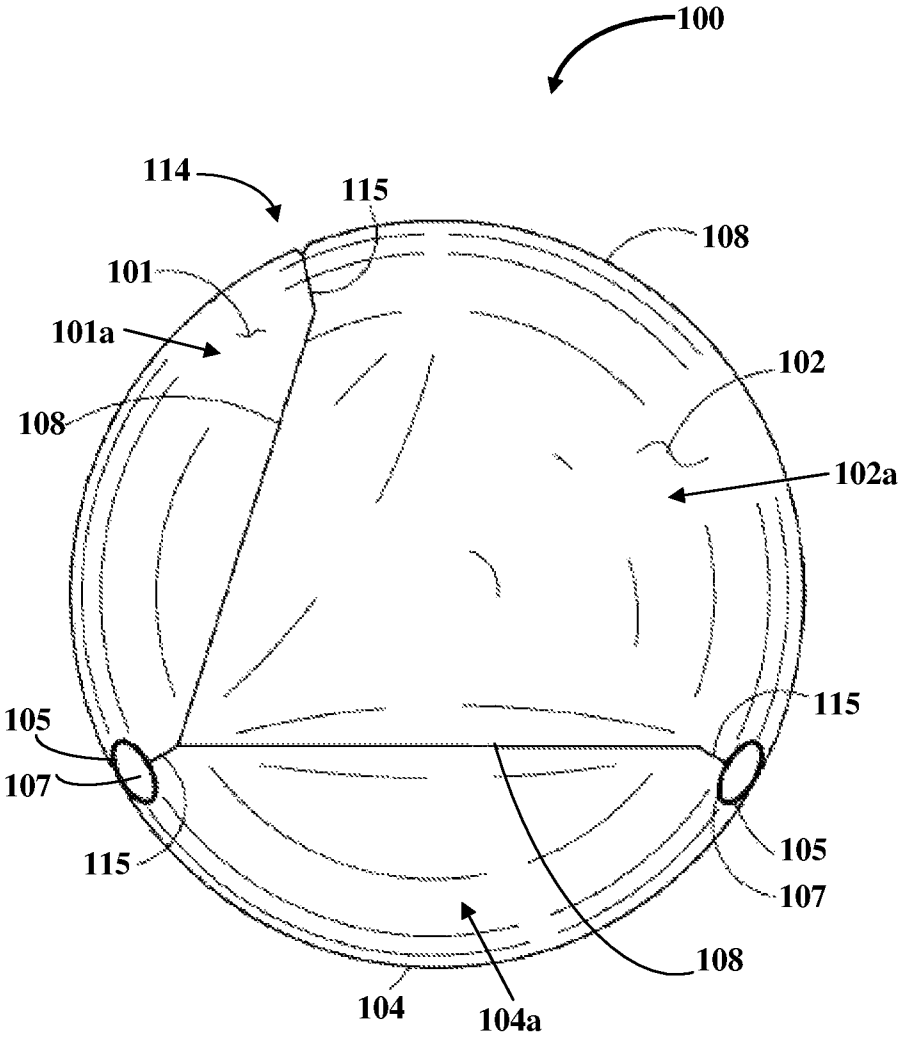
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FIG. 15C

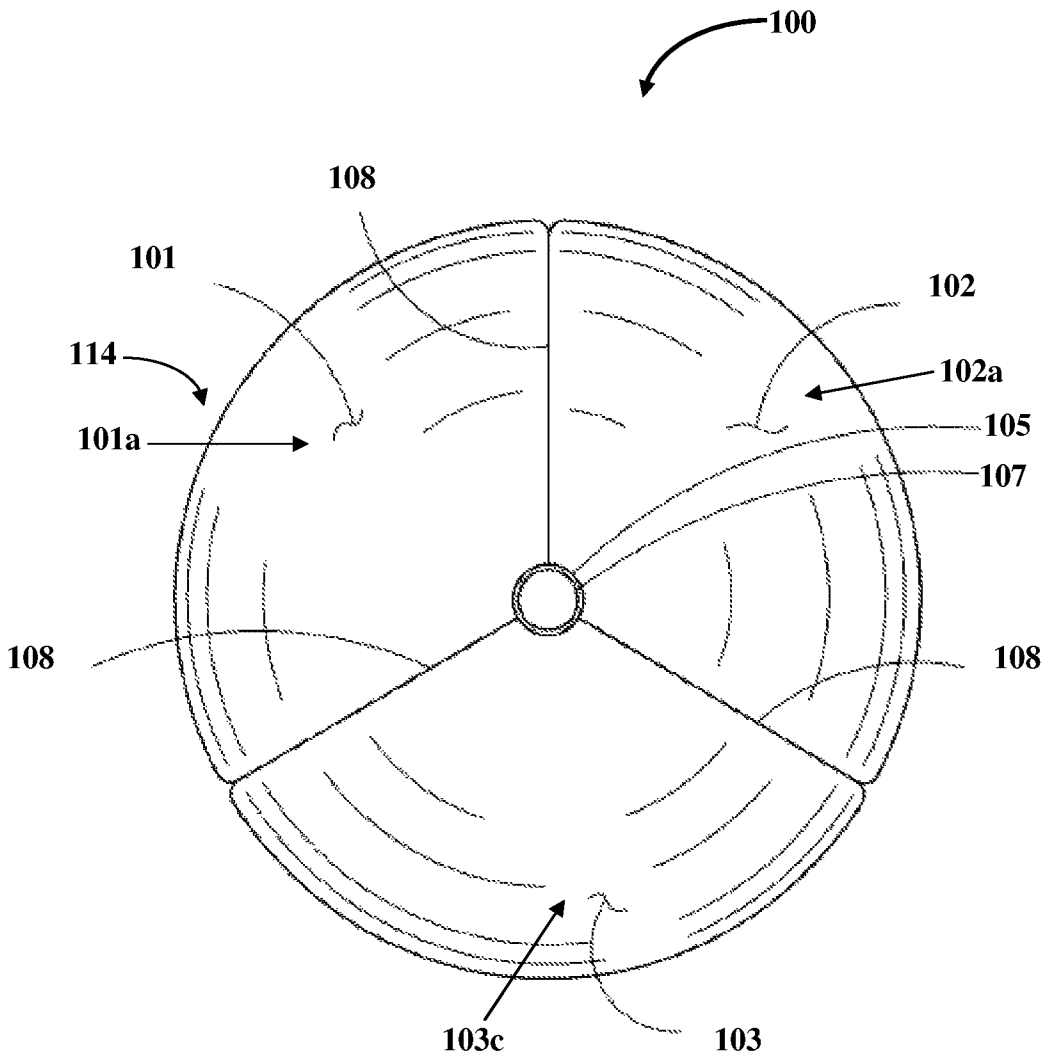
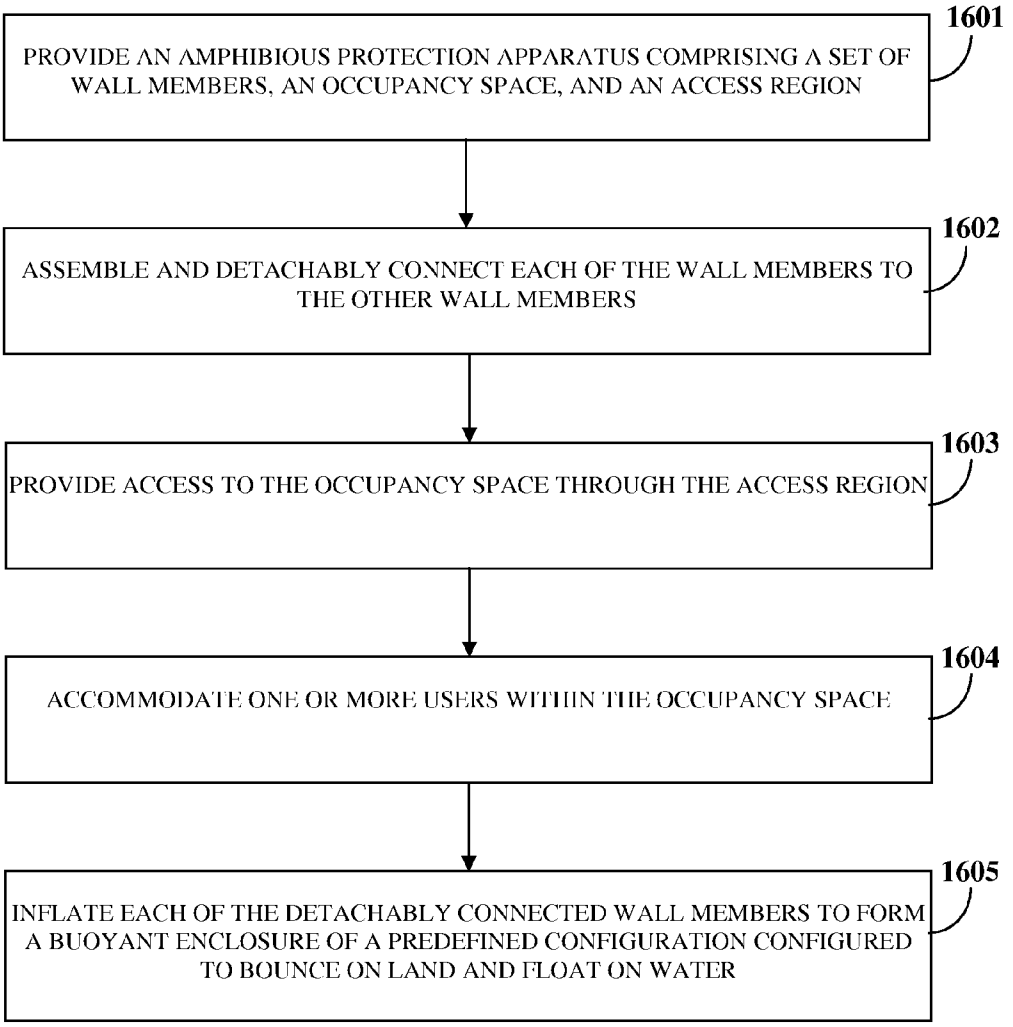


FIG. 15D


PROVIDE AN AMPHIBIOUS PROTECTION APPARATUS COMPRISING A SET OF WALL MEMBERS, AN OCCUPANCY SPACE, AND AN ACCESS REGION
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ASSEMBLE AND DETACHABLY CONNECT EACH OF THE WALL MEMBERS TO THE OTHER WALL MEMBERS
1602
PROVIDE ACCESS TO THE OCCUPANCY SPACE THROUGH THE ACCESS REGION
1603
ACCOMMODATE ONE OR MORE USERS WITHIN THE OCCUPANCY SPACE
1604
INFLATE EACH OF THE DETACHABLY CONNECTED WALL MEMBERS TO FORM A BUOYANT ENCLOSURE OF A PREDEFINED CONFIGURATION CONFIGURED TO BOUNCE ON LAND AND FLOAT ON WATER
1605

FIG. 16

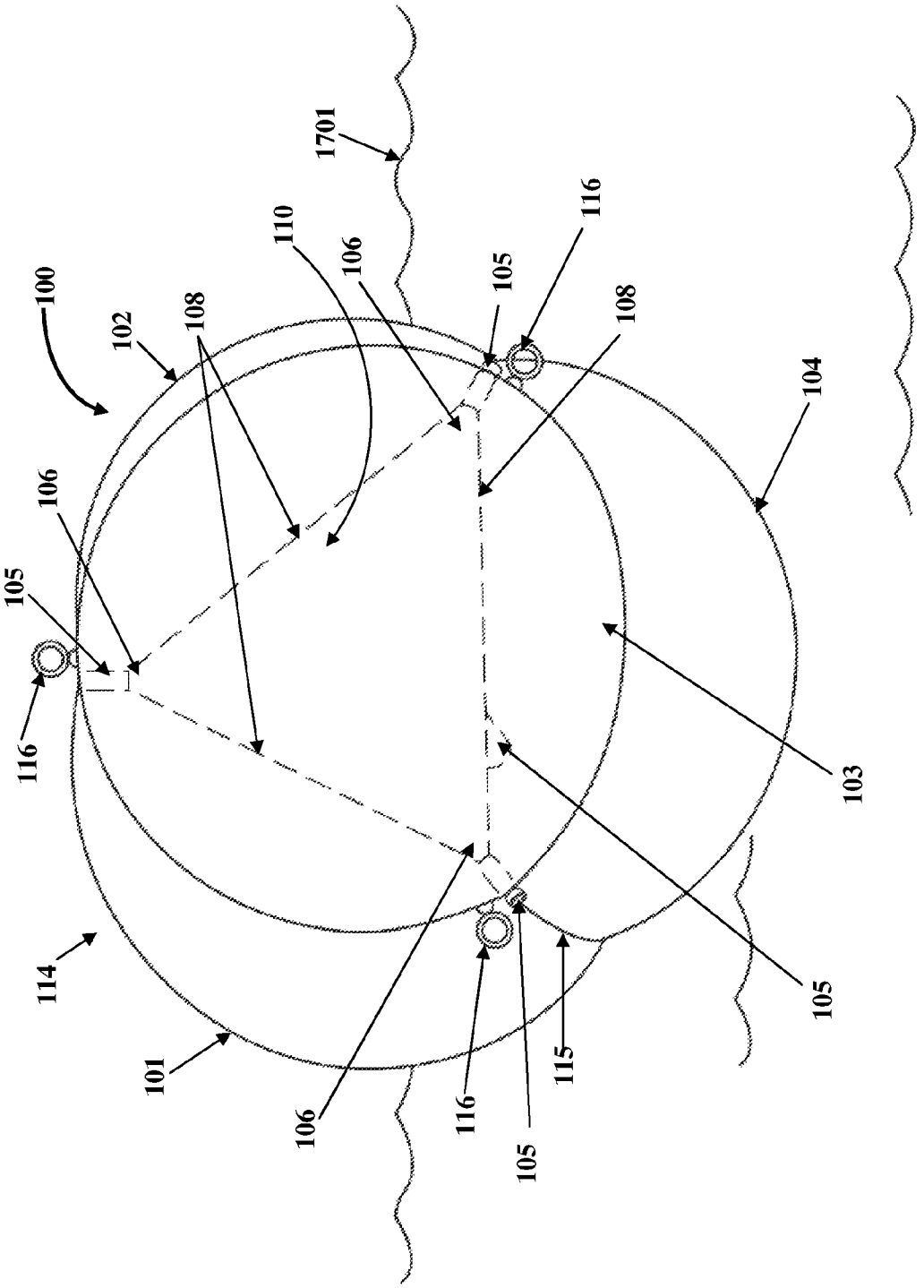
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FIG. 17

AMPHIBIOUS PROTECTION APPARATUS

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of provisional patent application No. 61/524,059 titled "Personal Protective and Flotation Device", filed in the United States Patent and Trademark Office on Aug. 16, 2011.

The specification of the above referenced patent application is incorporated herein by reference in its entirety.

BACKGROUND

During dangerous situations, for example, disastrous natural calamities in water and on land such as a tsunami, flash floods, etc., or other calamities such as sailing accidents, falling from high altitudes, etc., which may lead to drowning, impact from sharp objects and heavy objects, being trapped under confined spaces for prolonged periods of time, etc., there is a need for an apparatus that provides safety to a potential victim, for example, by preventing water from reaching the victim, by cushioning the potential victim against harmful impacts, etc.

In such disastrous situations, people do not have time to react since impact is fast and comes from all directions and the event is of a sudden nature. A lifejacket, which is typically used in these situations, does not protect a victim from external impact from different directions. Therefore, there is a need for an apparatus that can be fabricated and is usable in a short period of time and that protects a victim from impact in multiple directions in land and water.

Hence, there is a long felt but unresolved need for a versatile amphibious protection apparatus that is configured for use on land and in water, that provides safety to one or more users in dangerous situations, that bounces on land and floats on water, and that protects one or more users accommodated therein from impact in multiple directions.

SUMMARY OF THE INVENTION

This summary is provided to introduce a selection of concepts in a simplified form that are further disclosed in the detailed description of the invention. This summary is not intended to identify key or essential inventive concepts of the claimed subject matter, nor is it intended for determining the scope of the claimed subject matter.

The amphibious protection apparatus disclosed herein addresses the above mentioned needs for a versatile apparatus configured for use on land and in water and that provides safety to one or more users in dangerous situations such a natural calamities, that bounces on land and floats on water, and that protects one or more users accommodated therein from impact in multiple directions. The amphibious protection apparatus disclosed herein protects the users during disastrous natural calamities in water and on land such as a tsunami, flash floods, etc., and other calamities such as sailing accidents, falling from high altitudes, etc., from drowning, impacts from sharp objects and heavy objects, being trapped under confined spaces for prolonged periods of time, etc. The amphibious protection apparatus disclosed herein is configured to inflate and expand at the time of use.

The amphibious protection apparatus disclosed herein comprises a set of wall members that define an occupancy space, and an access region. Each of the wall members is foldably and detachably connected to each other. In an embodiment, the amphibious protection apparatus disclosed herein further comprises a fastener connected at a periphery of each of the wall members. The fastener is configured to attach and detach each of the wall members. The fastener is, for example, a zipper, a hook and loop fastener such as Velcro® of Velcro Industries, etc. Each of the wall members is configured as an inflatable air receptacle with an enclosed space. The enclosed space is configured to be inflated by a fluid, for example, air injected into the enclosed space. Each of the detachably connected wall members can be inflated to form a buoyant enclosure of a predefined configuration configured to bounce on land and float on water. The predefined configuration of the buoyant enclosure formed by the inflation of each of the detachably connected wall members is, for example, a polyhedral configuration such as a tetrahedron, a spherical configuration, a cubic configuration, a cuboidal configuration, etc.

Each of the wall members is made of a flexible and impact resistant material to absorb shock and cushion one or more users accommodated within the occupancy space of the amphibious protection apparatus from impact of external objects such as sharp objects, heavy objects, etc. In an embodiment, the amphibious protection apparatus disclosed herein further comprises an inflation unit operably connected to each of the wall members. The inflation unit is configured to inject a fluid, for example, air into the enclosed space in each of the wall members to instantly inflate each of the wall members. In an embodiment, the amphibious protection apparatus disclosed herein further comprises a valve operably positioned on each of the wall members. The valve is configured to inject a fluid, for example, air into the enclosed space of each of the wall members for inflating each of the wall members or to eject the fluid out of the enclosed space of each of the wall members for deflating each of the wall members.

The occupancy space of the amphibious protection apparatus disclosed herein is defined within the detachably connected wall members. The occupancy space is configured to accommodate one or more users. The buoyant enclosure encloses the accommodated users within the occupancy space to protect the accommodated users from impacts from different directions on land and in water. The access region of the amphibious protection apparatus disclosed herein is defined by opening one of the detachably connected wall members. The access region is configured to provide access to the occupancy space. In an embodiment, the amphibious protection apparatus disclosed herein further comprises a seating member rigidly positioned on a bottom wall member within the occupancy space. The seating member is configured to seat one or more users. In another embodiment, the amphibious protection apparatus disclosed herein further comprises a restraining system operably connected to the seating member. The restraining system is configured to be fastened on each user's body part to secure each user within the occupancy space and to protect each user from contacting the wall members.

In an embodiment, the amphibious protection apparatus disclosed herein further comprises one or more buoyancy members attached to an external surface of each of the wall members. The buoyancy members are configured to provide buoyancy to bounce and float the amphibious protection apparatus on land and in water respectively, and to provide shock absorbing characteristics to the amphibious protection apparatus. In an embodiment, the amphibious protection apparatus disclosed herein further comprises an access port positioned at a vertex where at least three of the wall members meet. The access port is configured, for example, to introduce a navigation member such as a rudder into the occupancy space for navigating the amphibious protection apparatus on

water, to allow entry of air into the occupancy space, to dispose waste matter from the occupancy space, etc. In an embodiment, the amphibious protection apparatus further comprises a plug operably connected to the access port. The plug is configured to internally seal the access port for preventing a fluid external to the occupancy space, for example, water from entering the occupancy space.

In an embodiment, the amphibious protection apparatus disclosed herein further comprises a rescue identifier, for example, a bright color, an array of lights, audio indicators, etc., defined on the external surface of each of one or more of the wall members. The rescue identifier is configured for identification by rescuers. In another embodiment, the amphibious protection apparatus disclosed herein further comprises one or more storage compartments connected to one or more of the wall members within the occupancy space. The storage compartments are configured to store multiple supplies, for example, food supplies, oxygen tanks, a first aid kit, safety equipment, helmets, etc. In an embodiment, the amphibious protection apparatus disclosed herein further comprises one or more viewing members disposed on one or more of the wall members. The viewing members are configured to aid the accommodated users to view outside the amphibious protection apparatus from within the occupancy space.

The buoyant enclosure of the predefined configuration formed by the inflation of each of the detachably connected wall members allows the amphibious protection apparatus disclosed herein to bounce on land and float on water, thereby protecting the users accommodated within the occupancy space accessed through the access region, from impacts in the different directions on land and in water, and providing safety to the accommodated users on land and water.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing summary, as well as the following detailed description of the invention, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the invention, exemplary constructions of the invention are shown in the drawings. However, the invention is not limited to the specific methods and components disclosed herein.

FIG. **1**A exemplarily illustrates an isometric view of an amphibious protection apparatus prior to inflation.

FIG. **1**B exemplarily illustrates a front elevation view of the amphibious protection apparatus prior to inflation.

FIG. **1**C exemplarily illustrates a front elevation view of the amphibious protection apparatus prior to inflation, showing an open access region.

FIG. **2**A exemplarily illustrates a partial exploded view showing an access port and a plug.

FIG. **2**B exemplarily illustrates a partial view showing an access port extending from a vertex.

FIGS. **3**A-**3**B exemplarily illustrate isometric views of the amphibious protection apparatus after inflation.

FIG. **4**A exemplarily illustrates a front elevation view of the amphibious protection apparatus prior to inflation, showing ring members.

FIG. **4**B exemplarily illustrates an isometric view of the amphibious protection apparatus after inflation, showing the ring members.

FIG. **5** exemplarily illustrates an exploded view of the amphibious protection apparatus after inflation.

FIG. **6** exemplarily illustrates a perspective view of one of the inflated wall members of the amphibious protection apparatus, showing an inflation unit and viewing members.

FIG. **7** exemplarily illustrates a front elevation view of the amphibious protection apparatus, showing an open access region.

FIG. **8** exemplarily illustrates a front elevation view of an embodiment of the amphibious protection apparatus, showing buoyancy members.

FIG. **9** exemplarily illustrates a front elevation view of the embodiment of the amphibious protection apparatus, showing a closed access region.

FIG. **10** exemplarily illustrates an enlarged view of an access port of the amphibious protection apparatus after inflation of the wall members.

FIG. **11** exemplarily illustrates a right side elevation view of the amphibious protection apparatus with inflated wall members.

FIG. **12** exemplarily illustrates a plan view of the amphibious protection apparatus with inflated wall members.

FIG. **13**A exemplarily illustrates a plan view of the amphibious protection apparatus prior to inflation of the wall members.

FIG. **13**B exemplarily illustrates a right side elevation view of the amphibious protection apparatus prior to inflation of the wall members.

FIG. **13**C exemplarily illustrates a front elevation view of the amphibious protection apparatus prior to inflation of the wall members.

FIG. **13**D exemplarily illustrates an enlarged view of an access port of the amphibious protection apparatus prior to inflation of the wall members.

FIG. **14**A exemplarily illustrates a cutaway view of the amphibious protection apparatus, showing an occupancy space defined by the detachably connected wall members.

FIG. **14**B exemplarily illustrates a cutaway view of an embodiment of the amphibious protection apparatus, showing a navigation member inserted into one of the access ports.

FIG. **15**A exemplarily illustrates a front elevation view of an embodiment of the amphibious protection apparatus, showing an open access region.

FIG. **15**B exemplarily illustrates a front elevation view of the embodiment of the amphibious protection apparatus, showing a closed access region.

FIG. **15**C exemplarily illustrates a right side elevation view of the embodiment of the amphibious protection apparatus.

FIG. **15**D exemplarily illustrates a plan view of an embodiment of the amphibious protection apparatus.

FIG. **16** illustrates a method for providing safety to one or more users.

FIG. **17** exemplarily illustrates an application of the amphibious protection apparatus on water.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1**A exemplarily illustrates an isometric view of an amphibious protection apparatus **100** prior to inflation. The amphibious protection apparatus **100** disclosed herein comprises a set of wall members **101**, **102**, **103**, and **104**. Each of the wall members **101**, **102**, **103**, and **104**, for example, a left wall member **101**, a right wall member **102**, a front wall member **103**, and a bottom wall member **104** are foldably and detachably connected to each other. Each of the wall members **101**, **102**, **103**, and **104** is configured as an inflatable air receptacle with an enclosed space **118** as exemplarily illustrated in FIGS. **5**-**6**. The enclosed space **118** is configured to be inflated by a fluid, for example, air injected into the enclosed space **118** via a valve **117** positioned on each of the wall members **101**, **102**, **103**, and **104** as exemplarily illustrated in FIGS. **5**-**6**. In an embodiment, the amphibious pro-

tection apparatus **100** disclosed herein further comprises a fastener **108** connected at a periphery of each of the wall members **101**, **102**, **103**, and **104** as disclosed in the detailed description of FIG. **10**.

In an embodiment, the amphibious protection apparatus **100** disclosed herein further comprises an access port **105** positioned at a vertex **106** where at least three of the wall members **101**, **102**, **103**, and **104** meet as disclosed in the detailed description of FIGS. **2**A-**2**B and FIG. **10**. The access port **105** is configured, for example, to introduce a navigation member **1401** such as a rudder into an occupancy space **110** defined by the detachably connected wall members **101**, **102**, **103**, and **104**, as exemplarily illustrated in FIG. **14**B, for navigating the amphibious protection apparatus **100**, to allow entry of air into the occupancy space **110**, to dispose waste matter from the occupancy space **110**, etc. In an embodiment, the amphibious protection apparatus **100** further comprises a plug **107** operably connected to the access port **105** as disclosed in the detailed description of FIG. **2**A.

FIG. **1**B exemplarily illustrates a front elevation view of the amphibious protection apparatus **100** prior to inflation. Each of the wall members **101**, **102**, **103**, and **104** of the amphibious protection apparatus **100** exemplarily illustrated in FIGS. **1**A-**1**C, is made of a flexible and impact resistant material, for example, a strong resilient rubber, a nylon coated material, a silicone coated material, etc., that is air tight and can absorb shock and cushion a user **701** accommodated within the occupancy space **110** as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A, from impact of external objects. The materials used for construction of the wall members **101**, **102**, **103**, and **104** may be commercially available strong, flexible, water-resistant or air tight materials used, for example, in water rafting tubing, parachutes, lifesavers, etc. The materials used for constructing the wall members **101**, **102**, **103**, and **104** comprise, for example, polyvinyl chloride (PVC) tarpaulin, thermoplastic elastomers, polyester fabrics, synthetic fibers, etc. In order to increase its strength, a rubber and a silicone can be fused into strong nylon fabrics for constructing the wall members **101**, **102**, **103**, and **104**. Each of the wall members **101**, **102**, **103**, and **104** is pre-shaped in its collapsed state, and folded like an automobile airbag. When inflated with a fluid, for example, air, the wall members **101**, **102**, **103**, and **104** take their expanded shape as exemplarily illustrated in FIGS. **3**A-**3**B and FIG. **4**B.

FIG. **1**C exemplarily illustrates a front elevation view of the amphibious protection apparatus **100** prior to inflation, showing an open access region **109**. The amphibious protection apparatus **100** disclosed herein comprises wall members **101**, **102**, **103**, and **104** that define an occupancy space **110** for accommodating one or more users **701** as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A, and an access region **109** to allow the users **701** to enter the occupancy space **110**. Each of the wall members **101**, **102**, **103**, and **104** are detachably connected to define the occupancy space **110** that is configured to accommodate one or more users **701** as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A. As exemplarily illustrated in FIG. **1**C, the amphibious protection apparatus **100** disclosed herein is constructed and arranged such that a user **701** is able to enter the occupancy space **110** through the access region **109** and be seated in the occupancy space **110**. The access region **109** of the amphibious protection apparatus **100** disclosed herein is defined by opening one of the detachably connected wall members **101**, **102**, **103**, and **104**, for example, the front wall member **103** as exemplarily illustrated in FIG. **1**C, FIGS. **7**-**8**, and FIG. **15**A. The access region **109** is configured to provide access to the occupancy space **110**.

In an embodiment, the amphibious protection apparatus **100** disclosed herein comprises a seating member **111** rigidly positioned on the bottom wall member **104** within the occupancy space **110**. The seating member **111** is configured to seat one or more users **701** as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A. In another embodiment, the amphibious protection apparatus **100** disclosed herein further comprises one or more storage compartments **112** connected to one or more of the wall members **101**, **102**, **103**, and **104** within the occupancy space **110**. The storage compartments **112** are configured to store multiple supplies, for example, food supplies, oxygen tanks, a first aid kit, safety equipment, helmets, manually inflatable air cushions, etc. As exemplarily illustrated in FIG. **1**C, FIGS. **7**-**8**, FIGS. **14**A-**14**B, and FIG. **15**A, a single storage compartment **112** is connected to the bottom wall member **104**. The storage compartment **112** has storage tie down straps **113** for securely and firmly storing the supplies.

FIG. **2**A exemplarily illustrates a partial exploded view showing an access port **105** and a plug **107**. The access port **105** extends from a vertex **106** as exemplarily illustrated in FIG. **2**B. The plug **107** operably connected to the access port **105** is configured to internally seal the access port **105** for preventing a fluid external to the occupancy space **110**, for example, water from entering the occupancy space **110**. The plug **107** is configured, for example, as a screw head. The inner surface **105***a* of the access port **105** comprises a screw lining that is configured to engage with the plug **107**. A user **701** accommodated within the occupancy space **110** as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A, can engage the plug **107** into the access port **105**, from within the occupancy space **110**, to form a seal and can disengage the plug **107** from the access port **105** to open the access port **105**. The user **701** accommodated within the occupancy space **110**, as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A, may insert the plug **107** into the access port **105** to seal the access port **105**.

FIGS. **3**A-**3**B exemplarily illustrate isometric views of the amphibious protection apparatus **100** after inflation. Each of the detachably connected wall members **101**, **102**, **103**, and **104** exemplarily illustrated in FIGS. **1**A-**1**C, is inflated to form a buoyant enclosure **114** exemplarily illustrated in FIGS. **3**A-**3**B and FIG. **4**B, of a predefined configuration configured to bounce on land and float on water. The predefined configuration of the buoyant enclosure **114** formed by inflation of each of the detachably connected wall members **101**, **102**, **103**, and **104** is a polyhedral configuration, for example, a tetrahedron as exemplarily illustrated in FIGS. **3**A-**3**B, FIG. **4**B, FIGS. **7**-**9**, FIGS. **11**-**12**, and FIG. **17**. The scope of the amphibious protection apparatus **100** disclosed herein is not limited to the buoyant enclosure **114** being defined in a polyhedral configuration but may be extended to include a buoyant enclosure **114** defined in a spherical configuration as exemplarily illustrated in FIGS. **15**A-**15**D, a cubic configuration, a cuboidal configuration, and other functionally equivalent configurations.

FIG. **4**A and FIG. **4**B exemplarily illustrate a front elevation view and an isometric view of the amphibious protection apparatus **100** prior to and after inflation respectively, showing ring members **116**. In an embodiment, the amphibious protection apparatus **100** disclosed herein further comprises ring members **116** rigidly attached to and extending outwardly from the wall members **101**, **102**, **103**, and **104**. The ring members **116** are configured to anchor the amphibious protection apparatus **100** to a stabilizing object (not shown), for example, through a hook and cable arrangement to preclude or limit the movement of the amphibious protection

apparatus **100** and to prevent the amphibious protection apparatus **100** from drifting away on water.

FIG. **5** exemplarily illustrates an exploded view of the amphibious protection apparatus **100** after inflation. As exemplarily illustrated in FIG. **5**, each of the wall members **101**, **102**, **103**, and **104** of the tetrahedral amphibious protection apparatus **100** is configured in the shape of, for example, an equilateral triangle that can be inflated into a partial sphere. The length of a side of each of the wall members **101**, **102**, **103**, and **104** is, for example, from about one meter for a small sized amphibious protection apparatus **100** to about two meters for a large sized amphibious protection apparatus **100**. As exemplarily illustrated in FIG. **5**, each of the wall members **101**, **102**, **103**, and **104** inflates to form partial spheres. The thickness of each partial sphere is, for example, from about 0.5 meters to about 1 meter to provide a sufficient buffer for strong impacts. In an embodiment, the amphibious protection apparatus **100** disclosed herein further comprises a valve **117** operably positioned on each of the wall members **101**, **102**, **103**, and **104**. The valve **117** is configured to inject a fluid, for example, air into the enclosed space **118** of each of the wall members **101**, **102**, **103**, and **104** for inflating each of the wall members **101**, **102**, **103**, and **104**. The valve **117** is also configured to eject a fluid, for example, air out of the enclosed space **118** of each of the wall members **101**, **102**, **103**, and **104** for deflating each of the wall members **101**, **102**, **103**, and **104**. The inflation of the wall members **101**, **102**, **103**, and **104** is disclosed in the detailed description of FIG. **6**.

FIG. **6** exemplarily illustrates a perspective view of one of the inflated wall members, for example, the front wall member **103** of the amphibious protection apparatus **100**, showing an inflation unit **120** and viewing members **119***a* and **119***b*. In an embodiment, the amphibious protection apparatus **100** disclosed herein further comprises an inflation unit **120** operably connected to each of the wall members **101**, **102**, **103**, and **104** exemplarily illustrated in FIG. **5**, at a location a safe distance away from the user **701** accommodated within the occupancy space **110** exemplarily illustrated in FIGS. **7-8** and FIG. **15**A. For example, the inflation unit **120** is positioned within the enclosed space **118** of the front wall member **103** at an apex **103***a* of the wall member **103** as exemplarily illustrated in FIG. **6**. Similarly, the inflation unit **120** is positioned within the enclosed space **118** at the apex of each of the other wall members **101**, **102**, and **104**. In an embodiment, the inflation unit **120** is, for example, a generally cylindrical canister operably connected to the valve **117** positioned on an inner surface **103***b* of the wall member **103**, which is opposite to the apex **103***a* of the wall member **103** as exemplarily illustrated in FIG. **6**. The valve **117** on each of the wall members **101**, **102**, **103**, and **104** exemplarily illustrated in FIG. **5**, activates the corresponding inflation units **120**, for example, by triggering an electric pulse.

On activation by the valve **117**, the inflation unit **120** injects a fluid, for example, air into the enclosed space **118** in each of the wall members **101**, **102**, **103**, and **104** to instantly inflate each of the wall members **101**, **102**, **103**, and **104**. In an embodiment, the user **701** exemplarily illustrated in FIGS. **7-8** and FIG. **15**A, may manually pump a fluid, for example, air into the enclosed space **118** of each of the wall members **101**, **102**, **103**, and **104** through the valve **117** using an air pump (not shown). The air pump is, for example, a mechanical pump or an electrical pump that injects a small amount of air into the enclosed space **118** in each of the wall members **101**, **102**, **103**, and **104** via the valve **117**. In an embodiment, compressed gas expands or inflates the left wall member **101**, the right wall member **102**, the front wall member **103**, and the bottom wall member **103**. The air may be pumped into the enclosed space **118** within each of the wall members **101**, **102**, **103**, and **104**, for example, using an internal air inflation system similar to a system that inflates an automobile airbag, and an external air pump. The internal air inflation system uses a mixture of air generating compounds, for example, sodium azide, potassium nitrate, and silicon oxide, and an electric impulse that generates a temperature of about 300° C.

In an embodiment where instantaneous inflation is not required, air can be pumped electrically from tubes (not shown) positioned inside the occupancy space **110** proximal to the seating member **111** exemplarily illustrated in FIG. **1**C, FIGS. **7-8**, FIGS. **14**A-**14**B, and FIG. **15**A. The tubes are connected to each of the wall members **101**, **102**, **103**, and **104** via the valve **117**.

In another embodiment, the amphibious protection apparatus **100** disclosed herein further comprises one or more viewing members **119***a* and **119***b* disposed on each of the wall members **101**, **102**, **103**, and **104**. As exemplarily illustrated in FIG. **6**, an inner viewing member **119***a* on the inner surface **103***b* of the wall member **103** corresponds to an outer viewing member **119***b* on the outer surface **103***c* of the wall member **103**. The viewing members **119***a* and **119***b* allow a user **701** accommodated within the occupancy space **110** to view from inside the occupancy space **110** to the outside of the amphibious protection apparatus **100**. The line of vision that allows the user **701** to view outside of the amphibious protection apparatus **100** is represented by an arrow **601** in FIG. **6**. The viewing members **119***a* and **119***b* are configured to aid the accommodated user **701** to view outside the amphibious protection apparatus **100** from within the occupancy space **110**. The viewing members **119***a* and **119***b* are, for example, oval shaped and made from a clear resilient plastic material for visualization during navigation.

FIG. **7** exemplarily illustrates a front elevation view of the amphibious protection apparatus **100**, showing an open access region **109**. A user **701** may enter the occupancy space **110** defined by the detachably connected wall members **101**, **102**, **103**, and **104** through the access region **109**. The user **701** unfastens the fastener **108** that connects the front wall member **103** to the left wall member **101** and the right wall member **102** to open the access region **109** and enter into the occupancy space **110** or exit out of the occupancy space **110**. Although FIGS. **7-8** and FIG. **15**A exemplarily illustrate accommodation of a single user **701** within the occupancy space **110**, the amphibious protection apparatus **100** can be constructed in multiple different sizes to accommodate more than one user **701**. The buoyant enclosure **114** formed by inflation of the detachably connected wall members **101**, **102**, **103**, and **104** encloses the accommodated user **701** on all sides within the occupancy space **110**. The user **701** accommodated within the occupancy space **110** can enclose himself/herself within the occupancy space **110** by fastening or closing the fastener **108** that connects the front wall member **103** to the left wall member **101** and the right wall member **102**.

The buoyant enclosure **114** of the predefined configuration formed by the inflation of each of the detachably connected wall members **101**, **102**, **103**, and **104** allows the amphibious protection apparatus **100** to bounce on land and float on water, thereby protecting the user **701** accommodated within the occupancy space **110** accessed through the access region **109**, from impacts from different directions on land and water, and providing safety to the accommodated user **701** on land and water. The amphibious protection apparatus **100** therefore cushions the user **701** from impact in multiple directions, provides a floating support to float on water, and acts a buffer against sudden and hard impact.

FIG. **8** exemplarily illustrates a front elevation view of an embodiment of the amphibious protection apparatus **100**, showing buoyancy members **121***a*, **121***b*, and **121***c*. The amphibious protection apparatus **100** disclosed herein comprises the wall members **101**, **102**, **103**, and **104**, the occupancy space **110**, and the access region **109** as disclosed in the detailed description of FIGS. **1**A-**1**C. In an embodiment, the amphibious protection apparatus **100** disclosed herein further comprises one or more buoyancy members **121***a*, **121***b*, and **121***c*, for example, a right side buoyancy member **121***a*, a left side buoyancy member **121***b*, and a bottom buoyancy member **121***c* attached, for example, to the external surfaces **101***a*, **102***a*, and **104***a* of the wall members **101**, **102**, and **104** respectively. The buoyancy members **121***a*, **121***b*, and **121***c* are configured to provide buoyancy to bounce and float the amphibious protection apparatus **100** on land and water respectively, and to provide and facilitate shock absorbing characteristics to the amphibious protection apparatus **100** on land and in water. Each of the buoyancy members **121***a*, **121***b*, and **121***c* are configured as pockets that contain an article or a material, for example, a foam based air seal cushion that provides sufficient buoyancy and a cushioning effect for the amphibious protection apparatus **100**, when the amphibious protection apparatus **100** comes in contact with external objects. The buoyancy members **121***a*, **121***b*, and **121***c* are glued and adhere, for example, to the external surfaces **101***a*, **102***a*, and **104***a* of the wall members **101**, **102**, and **104** respectively, for providing additional protection against impact.

The amphibious protection apparatus **100** disclosed herein is configured to protect the user **701** accommodated within the occupancy space **110** when the amphibious protection apparatus **100** is dropped from an altitude, for example, an elevated location such as a cliff, elevated floors of a building, a mountain, etc., to a surface below, for example, the ground surface. The amphibious protection apparatus **100** protects and cushions the user **701** in all 360° angles from a sudden impact. The amphibious protection apparatus **100** also provides protection during a sports activity, for example, rolling down a high mountain during mountain climbing, white water rafting, etc. The amphibious protection apparatus **100** also provides a cushioning effect to escape from a disaster, for example, during a fall from an altitude from a vertical height such as a high rise building, while jumping out of an aircraft, etc.

FIG. **9** exemplarily illustrates a front elevation view of the embodiment of the amphibious protection apparatus **100**, showing a closed access region **109**. The access region **109** exemplarily illustrated in FIG. **8**, is defined by opening, for example, the front wall member **103**. The front wall member **103** is constructed and arranged to be a door like structure, whereby the front wall member **103** opens and closes to permit a user **701** access to the occupancy space **110** of the amphibious protection apparatus **100**. After entering into the occupancy space **110** defined by the detachably connected wall members **101**, **102**, **103**, and **104**, the user **701** may close the access region **109** created by the front wall member **103** using the fasteners **108** that connect the front wall member **103** to the left wall member **101** and the right wall member **102**.

FIG. **10** exemplarily illustrates an enlarged view of an access port **105** of the amphibious protection apparatus **100** after inflation of the wall members **101**, **102**, **103**, and **104**. An access port **105** is positioned at a vertex **106** where at least three of the wall members **101**, **102**, **103**, and **104** meet. The access port **105** is configured, for example, to introduce a navigation member **1401** such as a rudder into the occupancy space **110**, as exemplarily illustrated in FIG. **14**B, for navigating the amphibious protection apparatus **100**, to allow entry of air into the occupancy space **110**, to dispose waste matter from the occupancy space **110**, etc. The fasteners **108** are connected at the peripheries of the wall members **101**, **102**, **103**, and **104**. The fastener **108** is configured to attach and detach each of the wall members **101**, **102**, **103**, and **104**. The fastener **108** is, for example, a water proof zipper or a hook and loop fastener such as Velcro® of Velcro Industries.

As exemplarily illustrated in FIG. **10**, the left wall member **101** is partially and rigidly connected to the right wall member **102** using a permanent seal **115**. The remaining portion of the left wall member **101** is detachably connected to the right wall member **102** using the fasteners **108**. The fasteners **108** are stitched to the edges of the wall members **101**, **102**, **103**, and **104** and coated, for example, with rubber or silicone for creating an airtight or a water tight seal. The fasteners **108** similarly fasten the front wall member **103** to the left wall member **101** and the right wall member **102**. Each access port **105** further incorporates a plug **107** exemplarily illustrated in FIG. **2**A, configured to internally seal the access port **105** for preventing a fluid external to the occupancy space **110**, for example, water from entering the occupancy space **110** of the amphibious protection apparatus **100**.

FIG. **11** exemplarily illustrates a right side elevation view of the amphibious protection apparatus **100** with inflated wall members **101**, **102**, **103**, and **104**. The wall members **102**, **103**, and **104**, the fasteners **108**, the access port **105**, the plug **107**, and the permanent seal **115** between the wall members **102**, **103**, and **104** exemplarily illustrated in FIG. **11**, are disclosed in the detailed descriptions of FIGS. **1**A-**10**.

FIG. **12** exemplarily illustrates a plan view of the amphibious protection apparatus **100** with inflated wall members **101**, **102**, and **103**. The wall members **101**, **102**, and **103**, the fasteners **108**, the access port **105**, and the plug **107** exemplarily illustrated in FIG. **12**, are disclosed in the detailed descriptions of FIGS. **1**A-**10**.

FIGS. **13**A-**13**C exemplarily illustrate a plan view, a right side elevation view, and a front elevation view respectively, of the amphibious protection apparatus **100**, prior to inflation of the wall members **101**, **102**, **103**, and **104**. The amphibious protection apparatus **100** disclosed herein is stored for handling and transporting in a deflated and folded configuration as exemplarily illustrated in FIGS. **13**A-**13**C. The amphibious protection apparatus **100** disclosed herein is collapsed into a compact unit for handling and transporting. For usage in a dangerous situation, a user **701** expands or inflates the wall members **101**, **102**, **103**, and **104** of the amphibious protection apparatus **100** from their collapsed or deflated state at the time of use.

The user **701** inflates the wall members **101**, **102**, **103**, and **104** sequentially. Before usage, the wall members **101**, **102**, **103**, and **104** are folded in their collapsed or deflated state. In an example, during operation, the user **701** first inflates the left wall member **101**, the right wall member **102**, and the bottom wall member **104**, which allows the user **701** to enter the occupancy space **110** and to be seated on the seating member **111** as exemplarily illustrated in FIGS. **7**-**8** and FIG. **15**A. The user **701** may then close the front wall member **103** and fasten the front wall member **103** in its collapsed or deflated state using the fasteners **108**. Without the tension from inflation, the user **701** can easily fasten the front wall member **103**. The user **701** then inflates the front wall member **103** and secures himself/herself within the occupancy space **110** defined by the connected and inflated wall members **101**, **102**, **103**, and **104**. After usage, the user **701** deflates the front wall member **103**, unfastens the front wall member **103** in its

deflated state, exits the amphibious protection apparatus **100**, and then deflates the rest of the wall members **101**, **102**, and **104** and folds them back to their original collapsed or deflated states. The deflation process can be performed, for example, by opening a valve **117** positioned in each of the inflated wall members **101**, **102**, **103**, and **104** as exemplarily illustrated in FIGS. **5-6**, from inside the occupancy space **110** to eject the fluid, for example, air out of the enclosed space **118** of each of the wall members **101**, **102**, **103**, and **104**.

FIG. **13**D exemplarily illustrates an enlarged view of an access port **105** of the amphibious protection apparatus **100**, prior to inflation of the wall members **101**, **102**, **103**, and **104**. The access port **105** positioned at the vertex **106** where at least three of the wall members **101**, **102**, **103**, and **104** meet is disclosed in the detailed description of FIG. **10**.

FIGS. **14**A-**14**B exemplarily illustrate cutaway views of the amphibious protection apparatus **100**, showing the occupancy space **110** defined by the detachably connected wall members **101**, **102**, **103**, and **104**. In addition to the access ports **105**, the cutaway views of the amphibious protection apparatus **100** disclosed herein show a storage compartment **112**, a seating member **111**, and a restraining system **122**. The storage compartment **112** may be provided with storage tie down straps **113** as exemplarily illustrated in FIG. **1**C and FIGS. **7-8**. As exemplarily illustrated in FIGS. **14**A-**14**B, the storage compartment **112** is connected to the bottom wall member **104** within the occupancy space **110**. The storage compartment **112** is configured to store multiple supplies, for example, food supplies, oxygen tanks, a first aid kit, safety equipment, head helmets, etc., that may be utilized during a dangerous situation for providing safety and sustenance to the user **701** accommodated within the occupancy space **110**. The seating member **111** rigidly positioned on the bottom wall member **104** within the occupancy space **110** is configured to seat one or more users **701**. In another embodiment, the amphibious protection apparatus **100** disclosed herein further comprises a restraining system **122** comprising, for example, seat belts operably connected to the seating member **111**. The restraining system **122** is configured to be fastened on a user's **701** body part to secure the user **701** against contact with the wall members **101**, **102**, **103**, and **104**. The restraining system **122** secures the user **701** accommodated within the occupancy space **110** and protects the user **701** from contacting the wall members **101**, **102**, **103**, and **104**. The restraining system **122** retrains the user **701** on the seating member **111**.

In an embodiment as exemplarily illustrated in FIG. **14**B, one of the access ports **105** is configured to introduce a navigation member **1401** such as a rudder into the occupancy space **110** for navigating the amphibious protection apparatus **100** on water. The navigation member **1401** is inserted into one of the access ports **105**. A rudder bearing **1402** is integrated into each of the access ports **105** for flexibly positioning the navigation member **1401** within each of the access ports **105**. The user **701** accommodated within the occupancy space **110** turns or steers the navigation member **1401** through the access port **105** to steer and propel the amphibious protection apparatus **100** in water. In an embodiment, the amphibious protection apparatus **100** contains an oxygen source (not shown), for example, an oxygen air mixture, an oxygen generated canister, or any other apparatus to supply oxygen to the user **701** seated on the seating member **111** within the occupancy space **110** of the amphibious protection apparatus **100**. The oxygen source is stored, for example, in the storage compartment **112**.

FIGS. **15**A-**15**D exemplarily illustrates different views of an embodiment of the amphibious protection apparatus **100**. In this embodiment, inflation of each of the detachably connected wall members **101**, **102**, **103**, and **104** forms a buoyant enclosure **114** of a spherical configuration configured to bounce on land and float on water as exemplarily illustrated in FIGS. **15**A-**15**D. A front elevation view of this embodiment of the amphibious protection apparatus **100**, showing an open access region **109** is exemplarily illustrated in FIG. **15**A. A front elevation view of this embodiment of the amphibious protection apparatus **100**, showing a closed access region **109** is exemplarily illustrated in FIG. **15**B. A right side elevation view of this embodiment of the amphibious protection apparatus **100** is exemplarily illustrated in FIG. **15**C. A plan view of this embodiment of the amphibious protection apparatus **100** is exemplarily illustrated in FIG. **15**D.

In an embodiment, the amphibious protection apparatus **100** exemplarily illustrated in FIGS. **3**A-**3**B, FIG. **4**B, FIGS. **7-9**, FIGS. **11-12**, FIGS. **15**A-**15**D, and FIG. **17** further comprises a rescue identifier, for example, a bright color such as orange, red, etc., an array of lights, audio indicators such as whistles, etc., provided on the external surfaces **101***a*, **102***a*, **103***c*, and **104***a* of the wall members **101**, **102**, **103**, and **104** respectively. The rescue identifier is configured for easy identification by rescuers.

FIG. **16** illustrates a method for providing safety to one or more users **701**. The method disclosed herein provides **1601** the amphibious protection apparatus **100** comprising a set of wall members **101**, **102**, **103**, and **104**, an occupancy space **110**, and an access region **109** as disclosed in the detailed description of FIGS. **1-15**D. Each of the wall members **101**, **102**, **103**, and **104** is assembled and detachably connected **1602** to the other wall members **101**, **102**, **103**, and **104**. The amphibious protection apparatus **100** provides **1603** a user **701** with access to the occupancy space **110** through the access region **109**. The amphibious protection apparatus **100** accommodates **1604** one or more users **701** within the occupancy space **110**.

The user **701** accommodated within the occupancy space **110** inflates **1605** each of the detachably connected wall members **101**, **102**, **103**, and **104**, for example, by injecting a fluid such as air into the enclosed space **118** of each of the detachably connected wall members **101**, **102**, **103**, and **104** via the valve **117** in each of the wall members **101**, **102**, **103**, and **104** using an inflation unit **120** contained within the enclosed space **118** as exemplarily illustrated in FIG. **6**, an air pump (not shown), an internal air inflation system (not shown), or tubes (not shown) as disclosed in the detailed description of FIG. **6**. Inflation of each of the detachably connected wall members **101**, **102**, **103**, and **104** forms a buoyant enclosure **114** of a predefined configuration, for example, a polyhedral configuration as exemplarily illustrated in FIGS. **3**A-**3**B, FIG. **4**B, FIGS. **7-9**, FIGS. **11-12**, and FIG. **17**, a spherical configuration as exemplarily illustrated in FIGS. **15**A-**15**D, etc., that is configured to bounce on land and float on water. The buoyant enclosure **114** encloses the accommodated users **701** within the occupancy space **110** to protect the accommodated users **701** from impacts from different directions on land and water, thereby providing safety to the accommodated users **701** on land and water. The wall members **101**, **102**, **103**, and **104** are configured to resist impact on contact of the amphibious protection apparatus **100** with external objects, for example, while the amphibious protection apparatus **100** floats on a surface of water. After usage, a user **701** can deflate the wall members **101**, **102**, **103**, and **104** and fold the wall members **101**, **102**, **103**, and **104** over each other into a compact unit for storage.

FIG. **17** exemplarily illustrates an application of the amphibious protection apparatus **100** on water **1701**. Consider an example of a situation of a natural calamity in water

1701 such as a tsunami, a flash flood, etc, where the user 701 requires an apparatus that provides safety. The user 701 employs the amphibious protection apparatus 100 disclosed herein for personal protection. The user 701 unfolds the amphibious protection apparatus 100 from its deflated or collapsed state and assembles the amphibious protection apparatus 100. The user 701 fastens the wall members 101, 102, and 104 using the fastener 108 provided at the periphery of each of the wall members 101, 102, and 104. The user 701 then inflates the wall members 101, 102, and 104 of the amphibious protection apparatus 100 manually using a pump or using the inflation unit 120 operably connected to the valve 117 on each of the wall members 101, 102, and 104 exemplarily illustrated in FIG. 6. The user 701 enters the occupancy space 110 of the amphibious protection apparatus 100 through the access region 109 defined by opening the front wall member 103 in its collapsed state. The user 701 then inflates the front wall member 103 and fastens the front wall member 103 to the side wall members 101 and 102, thereby forming the buoyant enclosure 114 that floats on water 1701.

The user 701 then sits on the seating member 111 rigidly positioned on the bottom wall member 104 as exemplarily illustrated in FIGS. 7-8 and FIG. 15A. The user 701 then fastens the restraining system 122 having, for example, a safety belt around the user's 701 body to secure himself/herself to the seating member 111 within the occupancy space 110 and to avoid contact with the wall members 101, 102, 103, and 104, and then secures his/her head using a head gear such as a helmet stored in the storage compartment 112 rigidly positioned on the bottom wall member 104. The user 701 inserts a navigation member 1401 such as a rudder through the access port 105 positioned at the vertex 106 where at least three of the wall members 101, 102, 103, and 104 meet as exemplarily illustrated in FIG. 14B, to navigate the amphibious protection apparatus 100 in water 1701. The user 701 uses the viewing members 119*a* and 119*b* configured as sealed transparent windows provided, for example, on the front wall member 103 of the amphibious protection apparatus 100 as exemplarily illustrated in FIG. 6, for visualization during navigation on water 1701. Since the user 701 is completed enclosed within the buoyant enclosure 114 formed by the inflation of each of the detachably connected wall members 101, 102, 103, and 104, the amphibious protection apparatus 100 disclosed herein protects the user 701 accommodated within the occupancy space 110 from impacts from different directions in water 1701, thereby providing safety to the accommodated user 701 in water 1701. The amphibious protection apparatus 100 disclosed herein floats over water 1701, resists sharp and heavy impacts, and can flow smoothly over fast moving water 1701, and prevent the user 701 from drowning or from blunt trauma.

Consider another example where a user 701 is trapped at a high elevated location such as a high floor level of a high rise building engulfed by fire, where the user 701 requires an apparatus that provides safety. The user 701 employs the amphibious protection apparatus 100 disclosed herein for personal protection while escaping from the building by jumping from the high floor level to the ground. The user 701 unfolds and assembles the wall members 101, 102, 103, and 104 of the amphibious protection apparatus 100. The user 701 then inflates the wall members 101, 102, and 104 of the amphibious protection apparatus 100. The user 701 enters the occupancy space 110 of the amphibious protection apparatus 100 through the access region 109 defined by opening the front wall member 103 in its collapsed state. The user 701 then fastens the front wall member 103 to the side wall members 101 and 102, inflates the front wall member 103, sits on the seating member 111 rigidly positioned on the bottom wall member 104, fastens the restraining system 122 having, for example, a safety belt around the his/her body to secure himself/herself to the seating member 111 within the occupancy space 110 and to avoid contact with the wall members 101, 102, 103, and 104, and then secures the user's 701 head using a head gear such as a helmet stored in the storage compartment 112 rigidly positioned on the bottom wall member 104.

The user 701 is now enclosed inside the occupancy space 110 surrounded by the inflated wall members 101, 102, 103, and 104. Since the user 701 is completely enclosed within the buoyant enclosure 114 formed by each of the detachably connected and inflated wall members 101, 102, 103, and 104, the amphibious protection apparatus 100 protects the user 701 accommodated within the occupancy space 110 from impacts from all directions during a free fall from the high floor level to the ground below, thereby providing safety to the accommodated user 701 during the fall to the ground. The amphibious protection apparatus 100 disclosed herein can also be used to protect the user 701 from falling from an airplane, a mountain, and other high elevated locations. The structure, volume, and weight of the amphibious protection apparatus 100 relative to its size are configured to lower the speed with which the amphibious protection apparatus 100 falls from an elevated location.

In an embodiment, the amphibious protection apparatus 100 also provides protection during extreme sporting activities, for example, white water rafting which encounter rapid speed and fluid or solid impacts. The amphibious protection apparatus 100 can be used in situations such as unexpected flash urban flooding. The user 701 expands the left wall member 101, the right wall member 102, the bottom wall member 104, and the open front wall member 103. The expansion is accomplished in any manner effective to expand the amphibious protection apparatus 100. The amphibious protection apparatus 100 provides a multipurpose function whereby it is contemplated that a life is saved because the amphibious protection apparatus 100 is not only buoyant, but while on the water 1701 would bounce off any articles encountered, for example, during a flood situation.

For purposes of illustration, the detailed description refers to accommodation of a seating member 111, a restraining system 122, storage compartments 112, oxygen sources, supplies, etc., within the occupancy space 110 of the amphibious protection apparatus 100; however the scope of the amphibious protection apparatus 100 disclosed herein may be extended to accommodate any other equipment and supplies required for safety.

The foregoing examples have been provided merely for the purpose of explanation and are in no way to be construed as limiting of the present invention disclosed herein. While the invention has been described with reference to various embodiments, it is understood that the words, which have been used herein, are words of description and illustration, rather than words of limitation. Further, although the invention has been described herein with reference to particular means, materials, and embodiments, the invention is not intended to be limited to the particulars disclosed herein; rather, the invention extends to all functionally equivalent structures, methods and uses, such as are within the scope of the appended claims. Those skilled in the art, having the benefit of the teachings of this specification, may affect numerous modifications thereto and changes may be made without departing from the scope and spirit of the invention in its aspects.

We claim:

1. An amphibious protection apparatus for providing safety to one or more users, comprising:

a set of wall members, each of said wall members defining a periphery, said periphery of each of said wall members connected to a periphery of another of said wall member, each of said wall members being foldably and detachably connected to another of said wall members, said each of said wall members comprising an enclosed space, said enclosed space configured to be inflated by a fluid injected into said enclosed space, wherein said inflation of said each of said detachably connected wall members forms a buoyant enclosure of a predefined configuration configured to bounce on land and float on water;

said detachably connected wall members defining an occupancy space, wherein said occupancy space is configured to accommodate said one or more users; and

an access region defined by opening one of said detachably connected wall members, said access region configured to provide access to said occupancy space;

whereby said buoyant enclosure of said predefined configuration formed by said inflation of said each of said detachably connected wall members allows said amphibious protection apparatus to bounce on said land and float on said water, thereby protecting said accommodated one or more users within said occupancy space accessed through said access region, from impacts from different directions on said land and said water, and providing said safety to said accommodated one or more users on said land and said water.

2. The amphibious protection apparatus of claim 1, further comprising a fastener connected at said periphery of said each of said wall members, wherein said fastener is configured to attach and detach said each of said wall members.

3. The amphibious protection apparatus of claim 2, wherein said fastener is one of a zipper, and a hook and loop fastener.

4. The amphibious protection apparatus of claim 1, further comprising one or more buoyancy members attached to an external surface of said each of said wall members, wherein said one or more buoyancy members are configured to provide buoyancy to bounce and float said amphibious protection apparatus on said land and said water respectively, and to provide shock absorbing characteristics to said amphibious protection apparatus.

5. The amphibious protection apparatus of claim 1, wherein said each of said wall members is made of a flexible and impact resistant material to absorb shock and cushion said accommodated one or more users from said impact of external objects.

6. The amphibious protection apparatus of claim 1, wherein said predefined configuration of said buoyant enclosure formed by said inflation of said each of said detachably connected wall members is one of a polyhedral configuration, a cubic configuration, a cuboidal configuration, and a spherical configuration.

7. The amphibious protection apparatus of claim 1, further comprising an inflation unit operably connected to said each of said wall members, wherein said inflation unit is configured to inject said fluid into said enclosed space in said each of said wall members to instantly inflate said each of said wall members.

8. The amphibious protection apparatus of claim 1, further comprising a valve operably positioned on said each of said wall members, wherein said valve is configured to one of inject said fluid into and eject said fluid out of said enclosed space of said each of said wall members for said inflation and deflation of said each of said wall members.

9. The amphibious protection apparatus of claim 1, further comprising a rescue identifier provided on an external surface of each of one or more of said wall members, wherein said rescue identifier is configured for identification by rescuers.

10. The amphibious protection apparatus of claim 1, further comprising an access port positioned at a vertex where at least three of said wall members meet, wherein said access port is configured to perform one or more of: introducing a navigation member into said occupancy space for navigating said amphibious protection apparatus; allowing entry of air into said occupancy space; and disposing waste matter from said occupancy space.

11. The amphibious protection apparatus of claim 10, further comprising a plug operably connected to said access port, wherein said plug is configured to internally seal said access port for preventing a fluid external to said occupancy space from entering said occupancy space.

12. The amphibious protection apparatus of claim 1, further comprising one or more storage compartments connected to one or more of said wall members within said occupancy space, wherein said one or more storage compartments are configured to store a plurality of supplies.

13. The amphibious protection apparatus of claim 1, further comprising a seating member rigidly positioned on a bottom one of said wall members within said occupancy space, wherein said seating member is configured to seat each of said one or more users.

14. The amphibious protection apparatus of claim 13, further comprising a restraining system operably connected to said seating member, wherein said restraining system is configured to be fastened on a body part of said each of said one or more users to secure said each of said one or more users accommodated within said occupancy space and to protect said each of said accommodated one or more users from contacting said wall members.

15. The amphibious protection apparatus of claim 1, further comprising one or more viewing members disposed on one or more of said wall members, wherein said one or more viewing members are configured to aid said accommodated one or more users to view outside said amphibious protection apparatus from within said occupancy space.

16. A method for providing safety to one or more users, comprising:

providing an amphibious protection apparatus comprising:

a set of wall members, each of said wall members defining a periphery, said periphery of each of said wall members connected to a periphery of another of said wall member, each of said wall members being foldably and detachably connected to another of said wall members, said each of said wall members comprising an enclosed space, said enclosed space configured to be inflated by a fluid injected into said enclosed space;

said detachably connected wall members defining an occupancy space; and

an access region defined by opening one of said detachably connected wall members;

assembling and detachably connecting said periphery of each of said wall members of said amphibious protection apparatus to said periphery of another of said wall members;

providing access to said occupancy space through said access region of said amphibious protection apparatus;

accommodating said one or more users within said occupancy space of said amphibious protection apparatus; and

inflating said each of said detachably connected wall members by injecting said fluid into said enclosed space of said each of said detachably connected wall members to form a buoyant enclosure of a predefined configuration configured to bounce on land and float on water, wherein said buoyant enclosure encloses said accommodated one or more users within said occupancy space to protect said accommodated one or more users from impacts from different directions on said land and said water, thereby providing said safety to said accommodated one or more users on said land and said water.

17. The method of claim **16**, wherein said each of said detachably connected wall members are inflated by an inflation unit operably connected to said each of said wall members, wherein said inflation unit is configured to inject said fluid into said enclosed space in said each of said wall members via a valve operably positioned on said each of said wall members to instantly inflate said each of said wall members.

18. The method of claim **16**, wherein said amphibious protection apparatus further comprises one or more buoyancy members attached to an external surface of said each of said wall members, wherein said one or more buoyancy members are configured to provide buoyancy to bounce and float said amphibious protection apparatus on said land and said water respectively, and to provide shock absorbing characteristics to said amphibious protection apparatus.

19. The method of claim **16**, wherein said amphibious protection apparatus further comprises an access port positioned at a vertex where at least three of said wall members meet, wherein said access port is configured to perform one or more of: introducing a navigation member into said occupancy space for navigating said amphibious protection apparatus;

allowing entry of air into said occupancy space; and

disposing waste matter from said occupancy space.

20. The method claim of **16**, wherein said each of said wall members is made of a flexible and impact resistant material to absorb shock and cushion said accommodated one or more users from said impact of external objects.

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