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Tegeder et al.

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(54) **INFLATABLES HAVING FLAT SEGMENTS WITH BENDS**

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A45F 3/22 (2006.01)

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CPC . ***B63B 7/08*** (2013.01); ***A45F 3/22*** (2013.01)

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USPC 114/345
See application file for complete search history.

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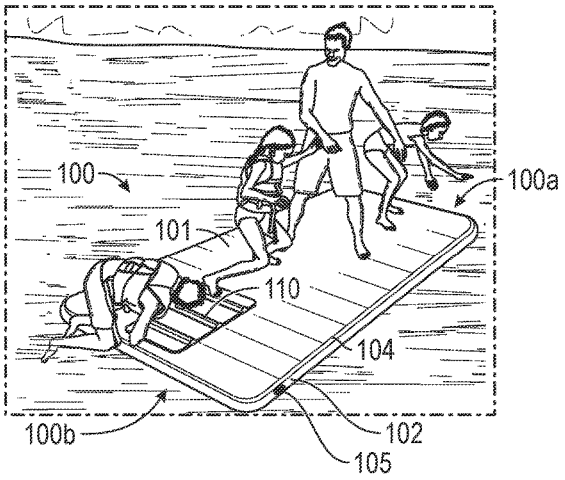
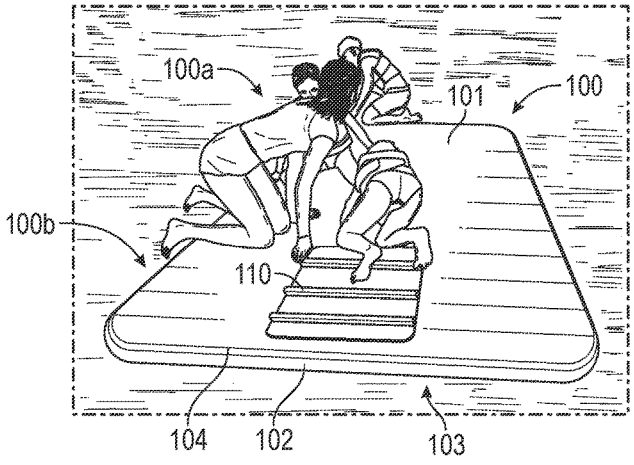
(57) **ABSTRACT**

Inflatables can have one or more flat segments that are configured to form one or more bends. The flat segments of the inflatables could be formed using any technique such as drop stitch. One or more bends may be maintained in one or more flat segments of an inflatable such as to create a ladder and a slide. A variety of bend maintaining components can be used to maintain the one or more bends.

20 Claims, 14 Drawing Sheets





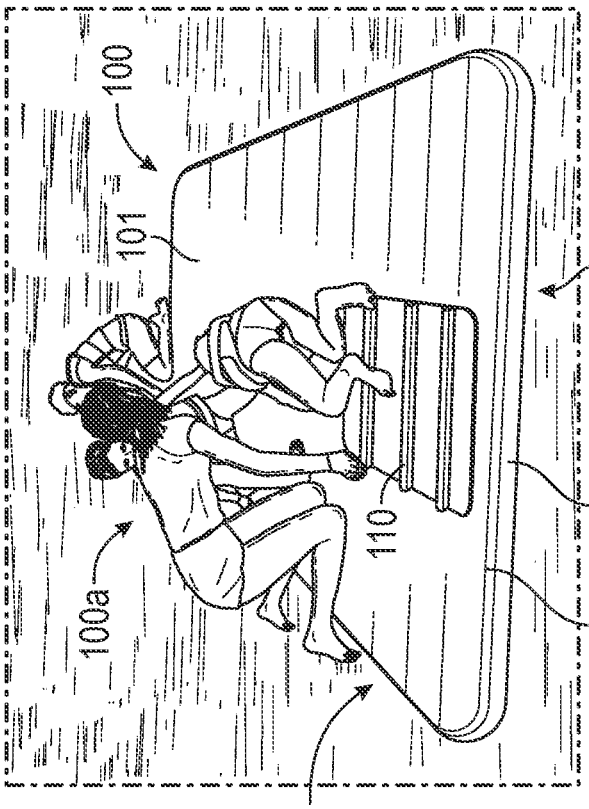

100
101
103
102
110
104
100a
100b

FIG. 1B

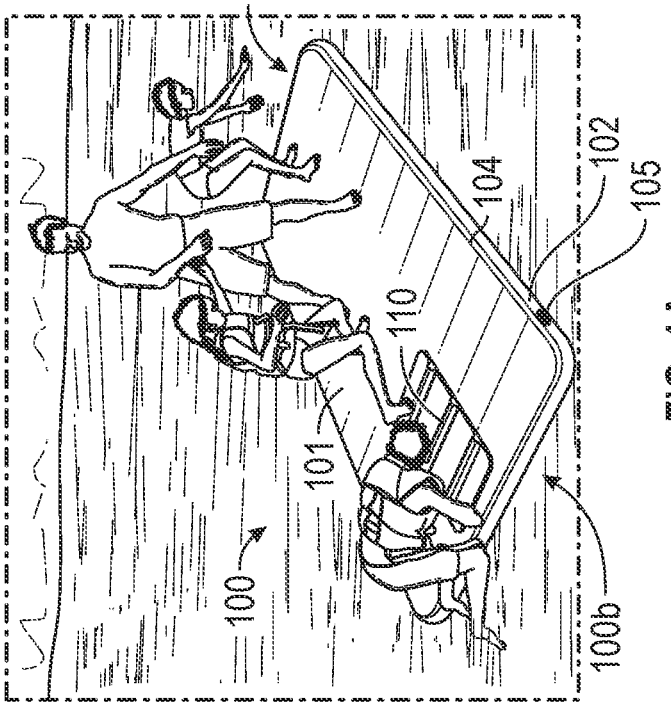
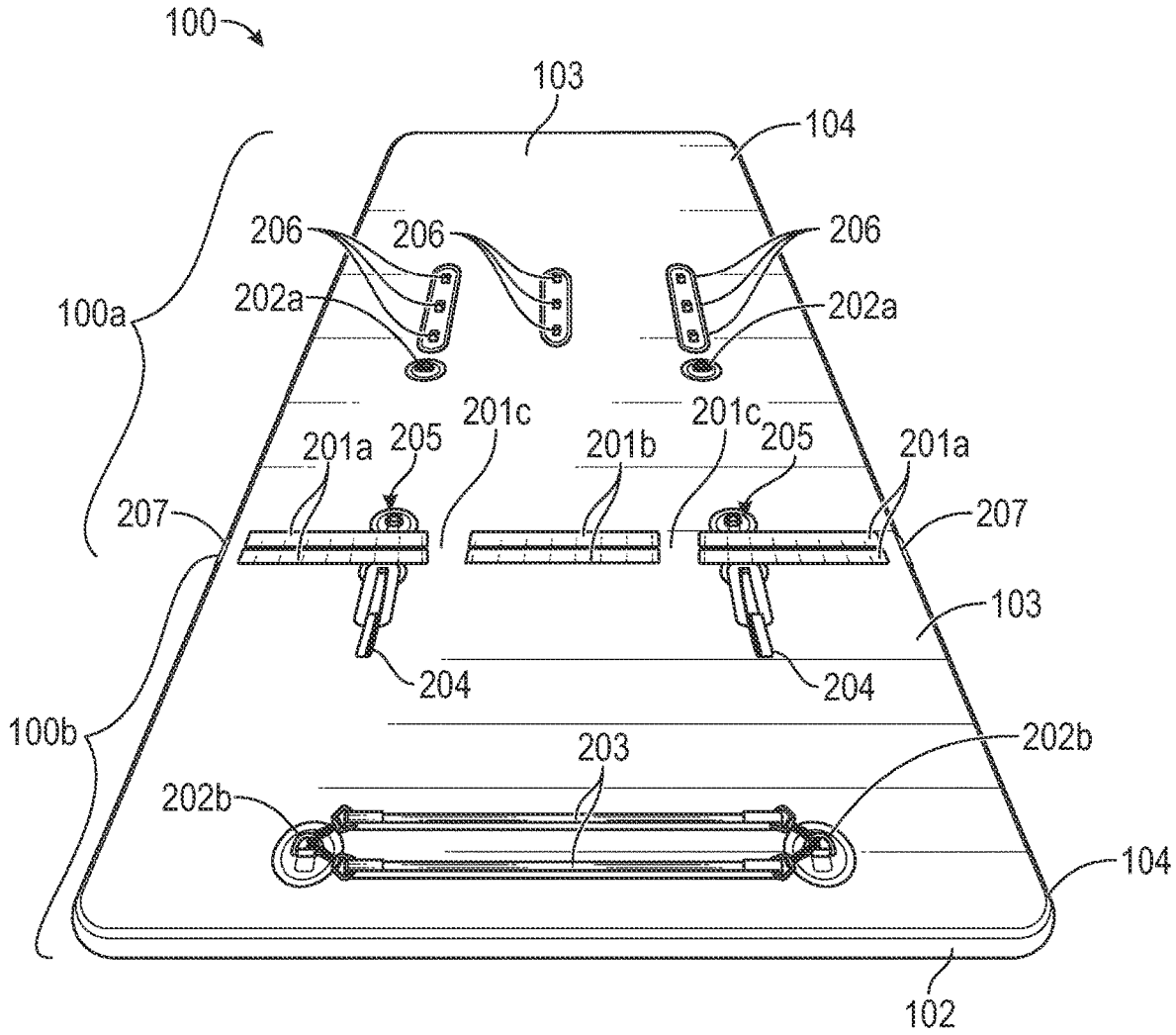

100a
100b
102
104
105
110
101
100

FIG. 1A


100
103
104
206
206
206
202a
202a
100a
201c
201c
201a
205
201b
205
201a
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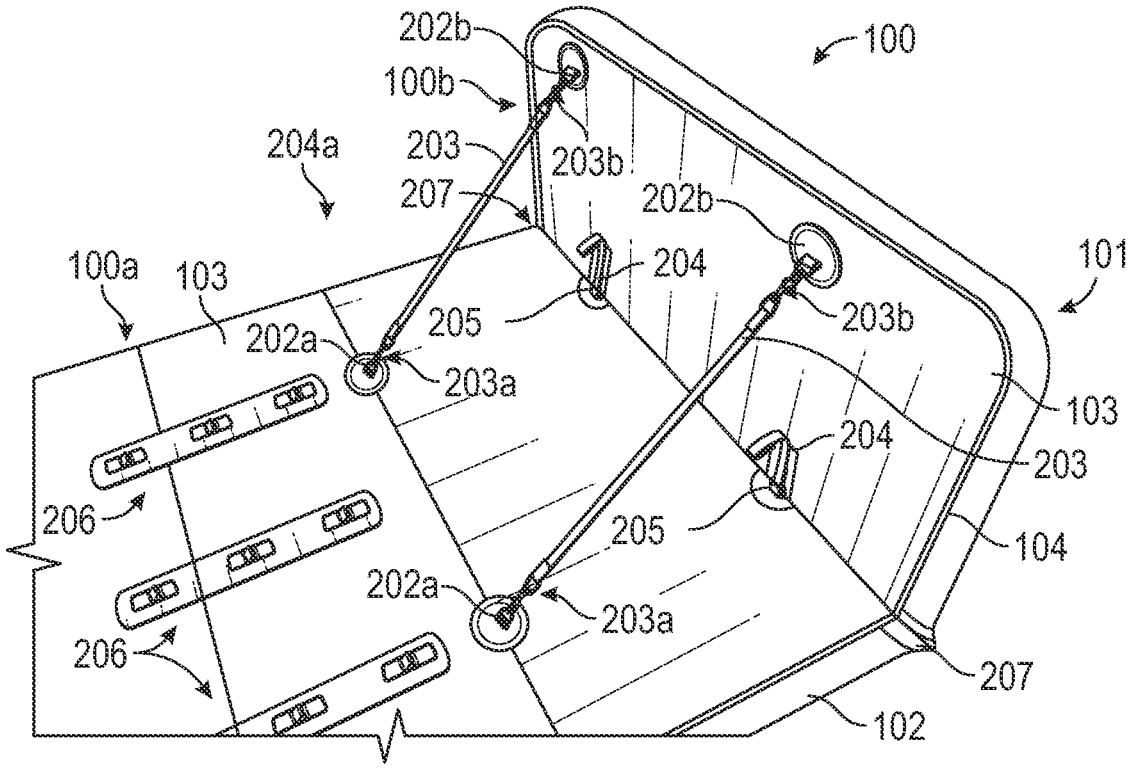
207
103
204
204
100b
203
202b
202b
104
102

FIG. 2A


202b
100
100b
204a
203
203b
207
202b
101
100a
103
204
205
203b
202a
203a
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204
203
206
205
104
202a
203a
206
207
102

FIG. 2B

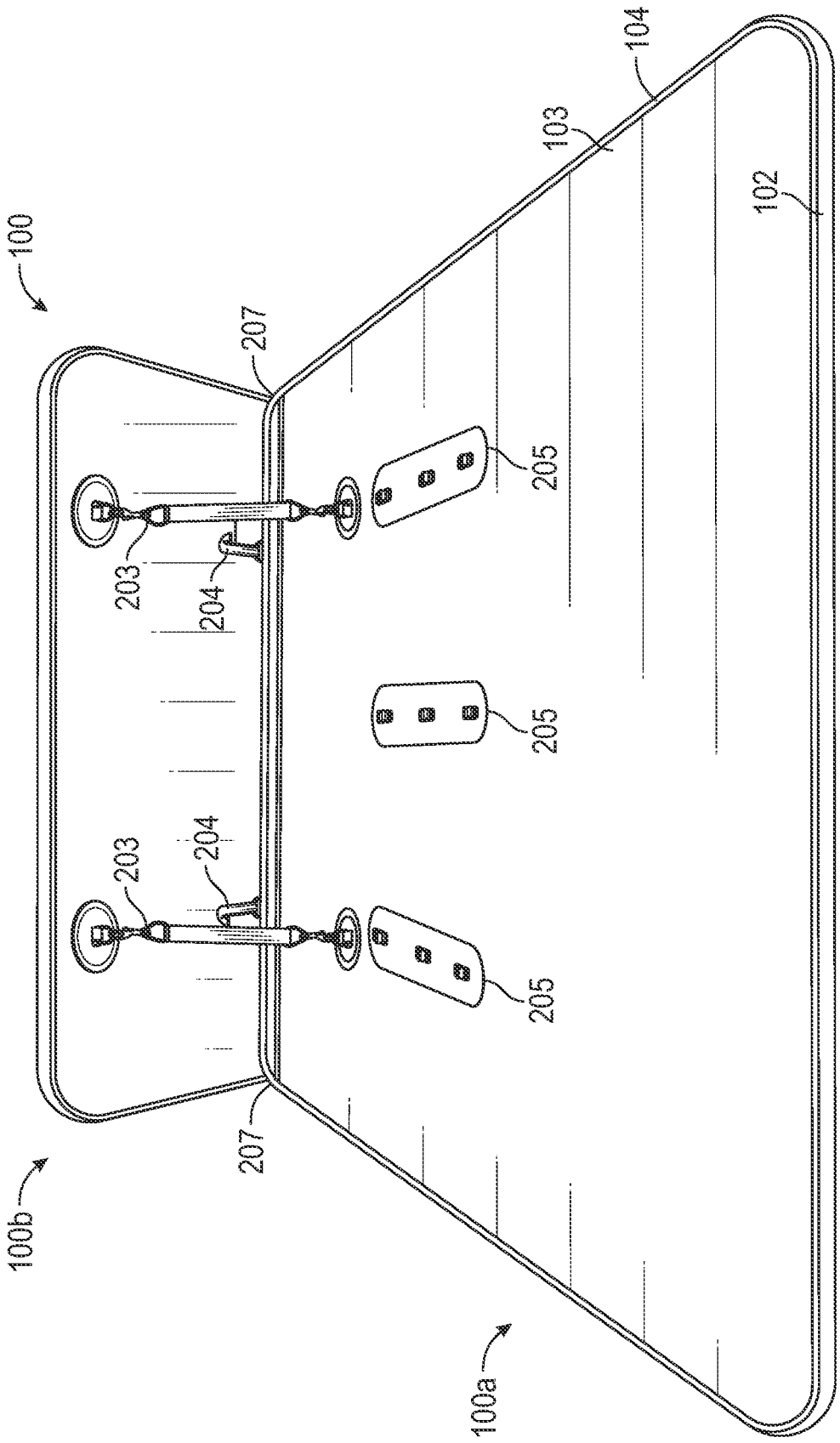


FIG. 2C

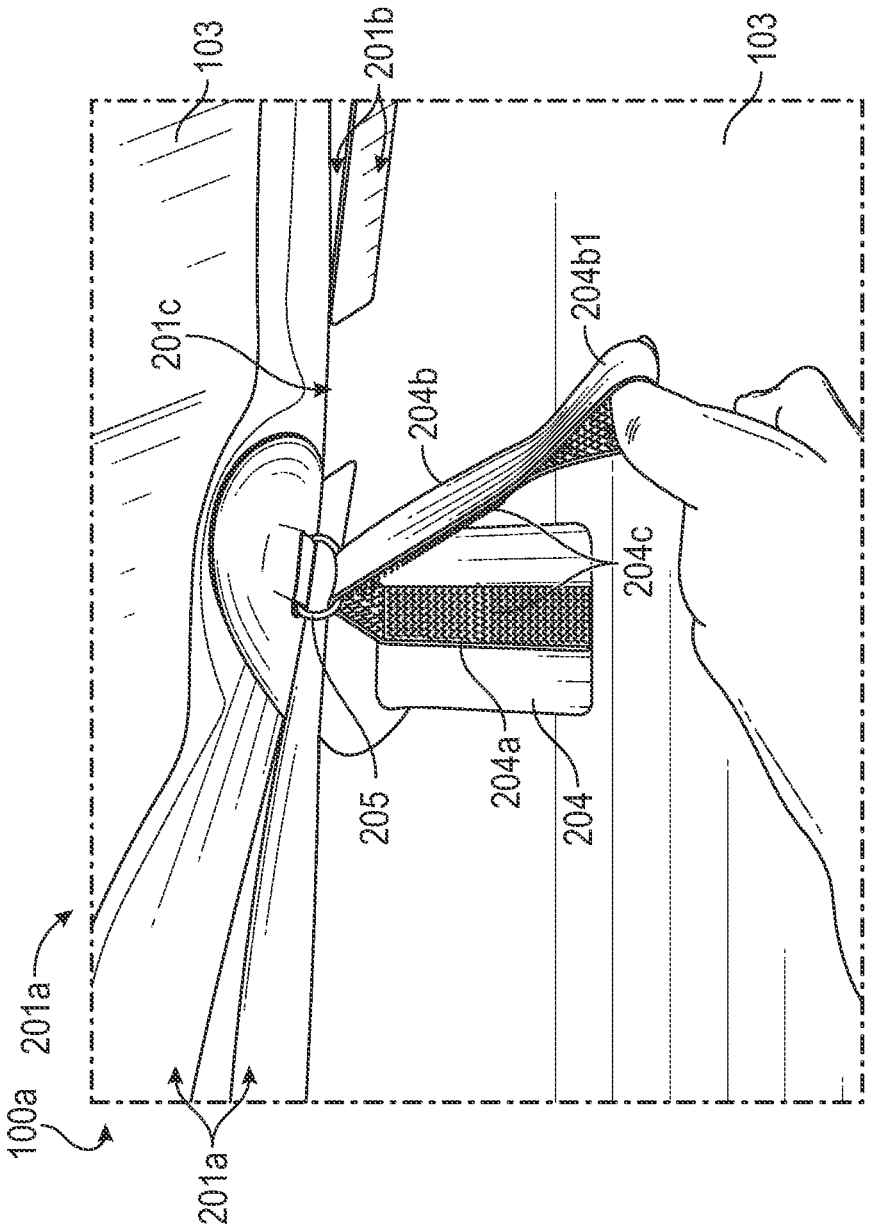


FIG. 3A

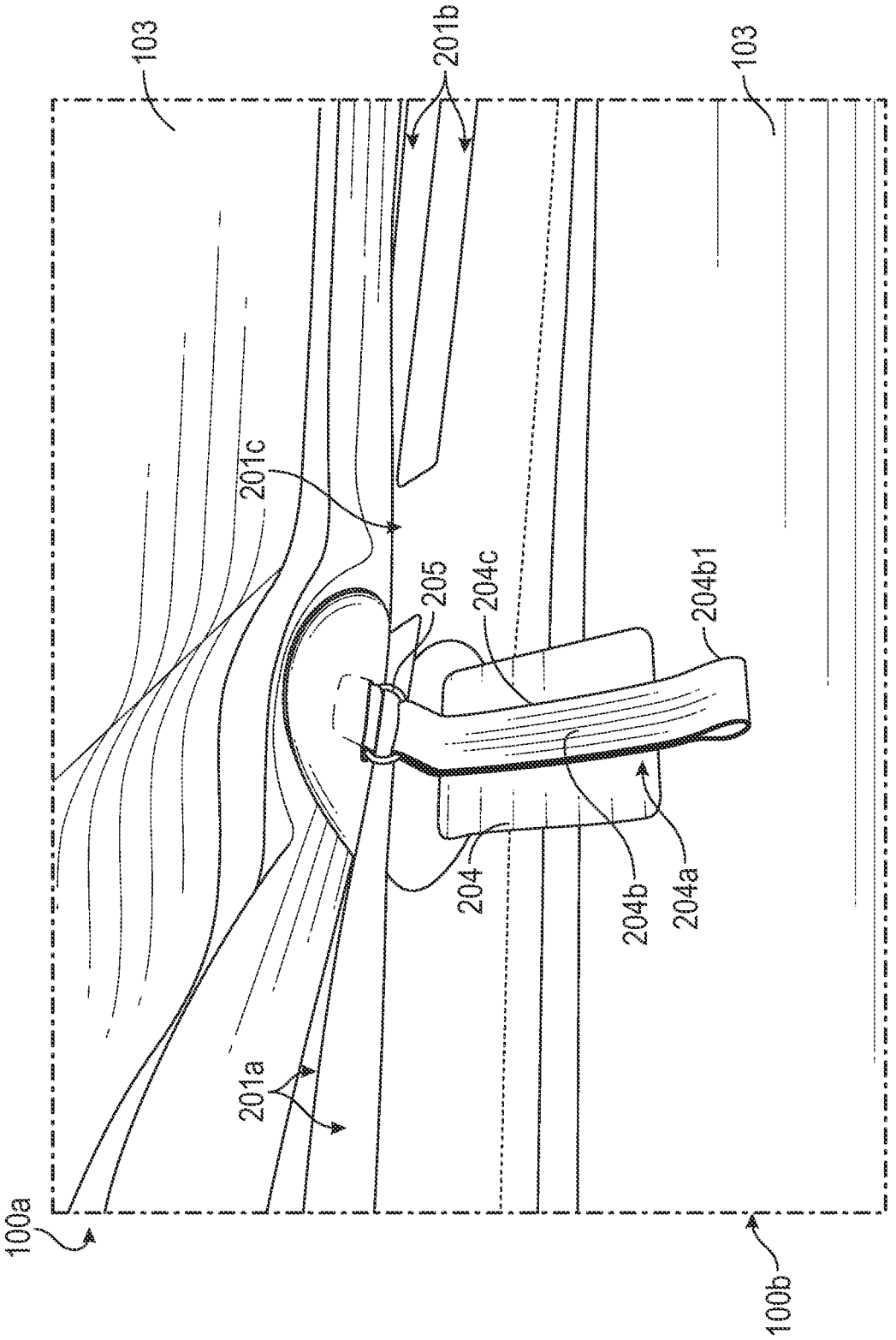


FIG. 3B

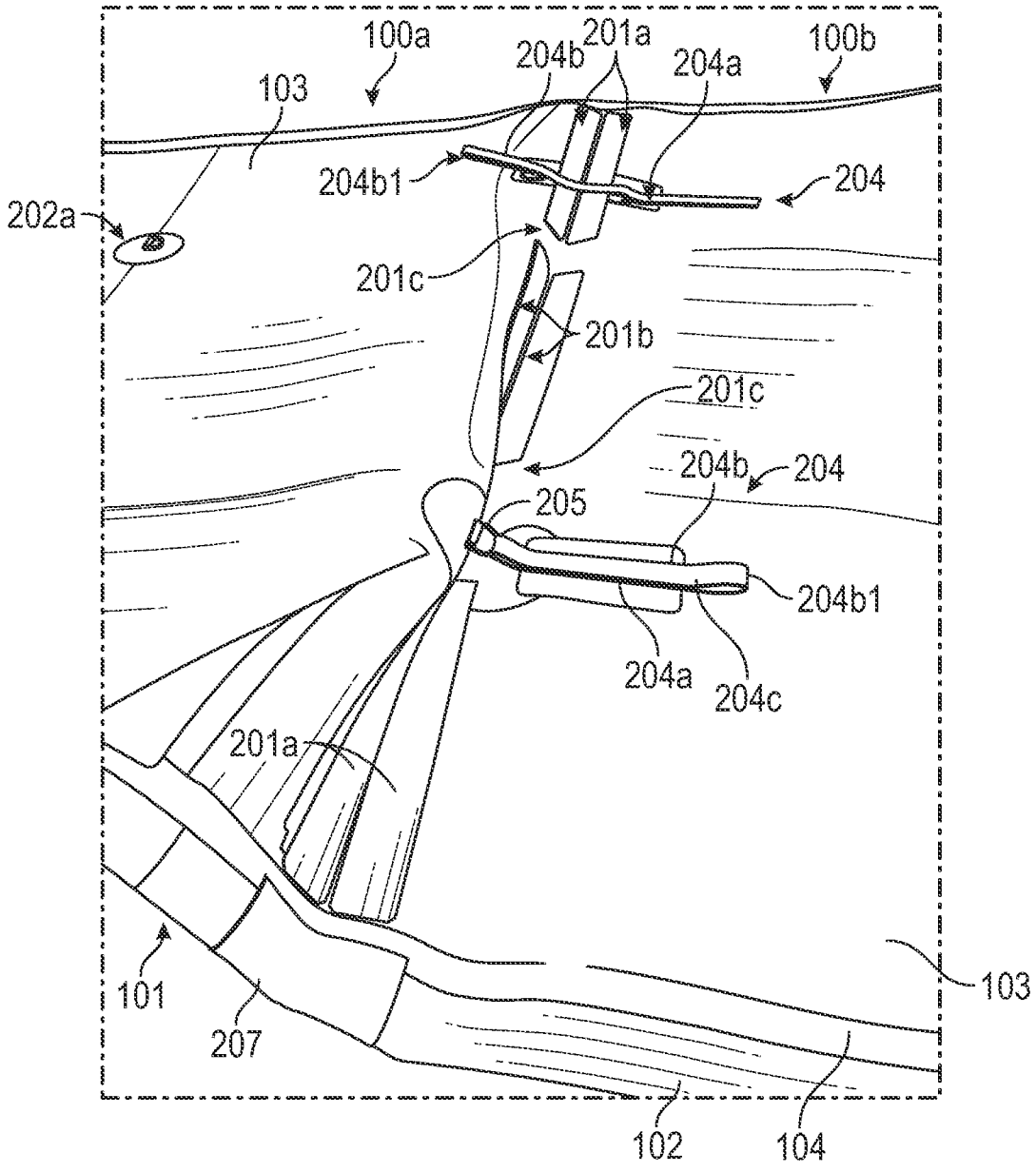
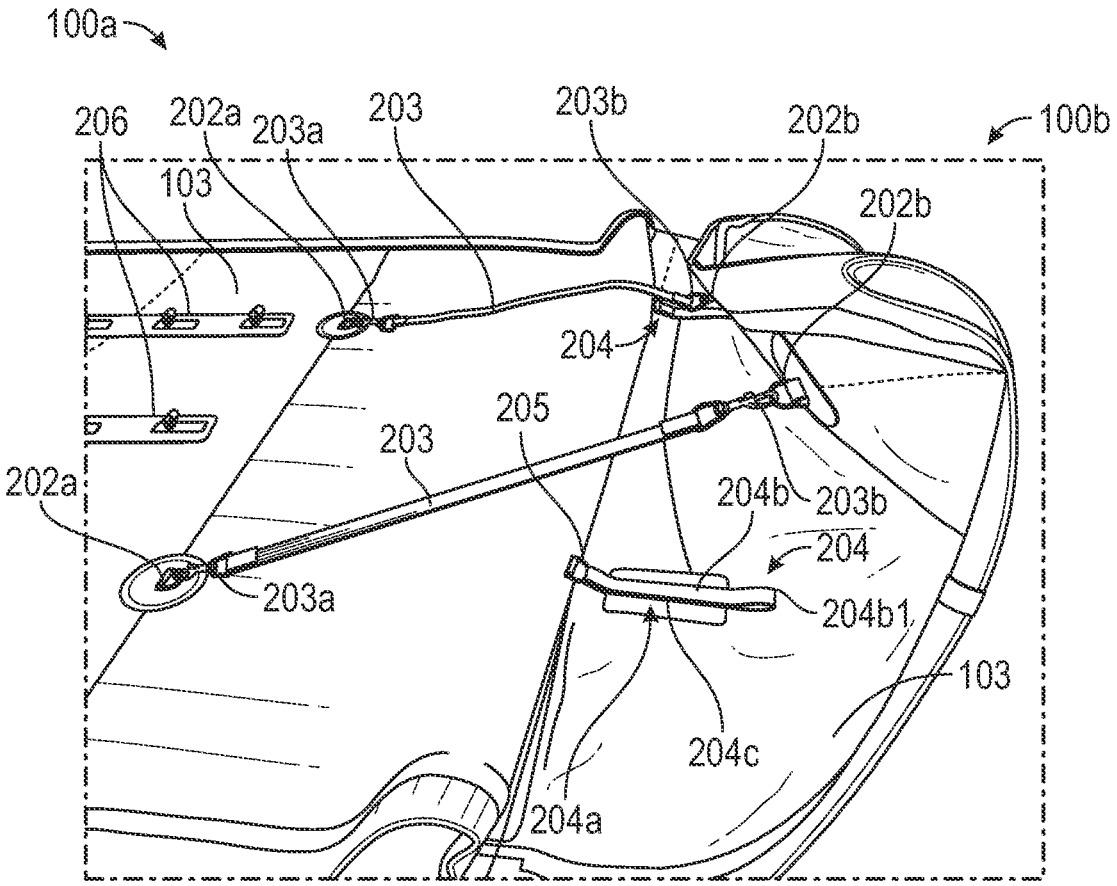

100a
204b
201a
204a
100b
103
204b1
204
202a
201c
201b
201c
204b
204
205
204b1
204a
204c
201a
101
207
103
102
104

FIG. 3C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206
202a
203a
203
203b
202b
100b
103
202b
204
205
203
202a
204b
203b
204
203a
204b1
103
204c
204a

FIG. 3D

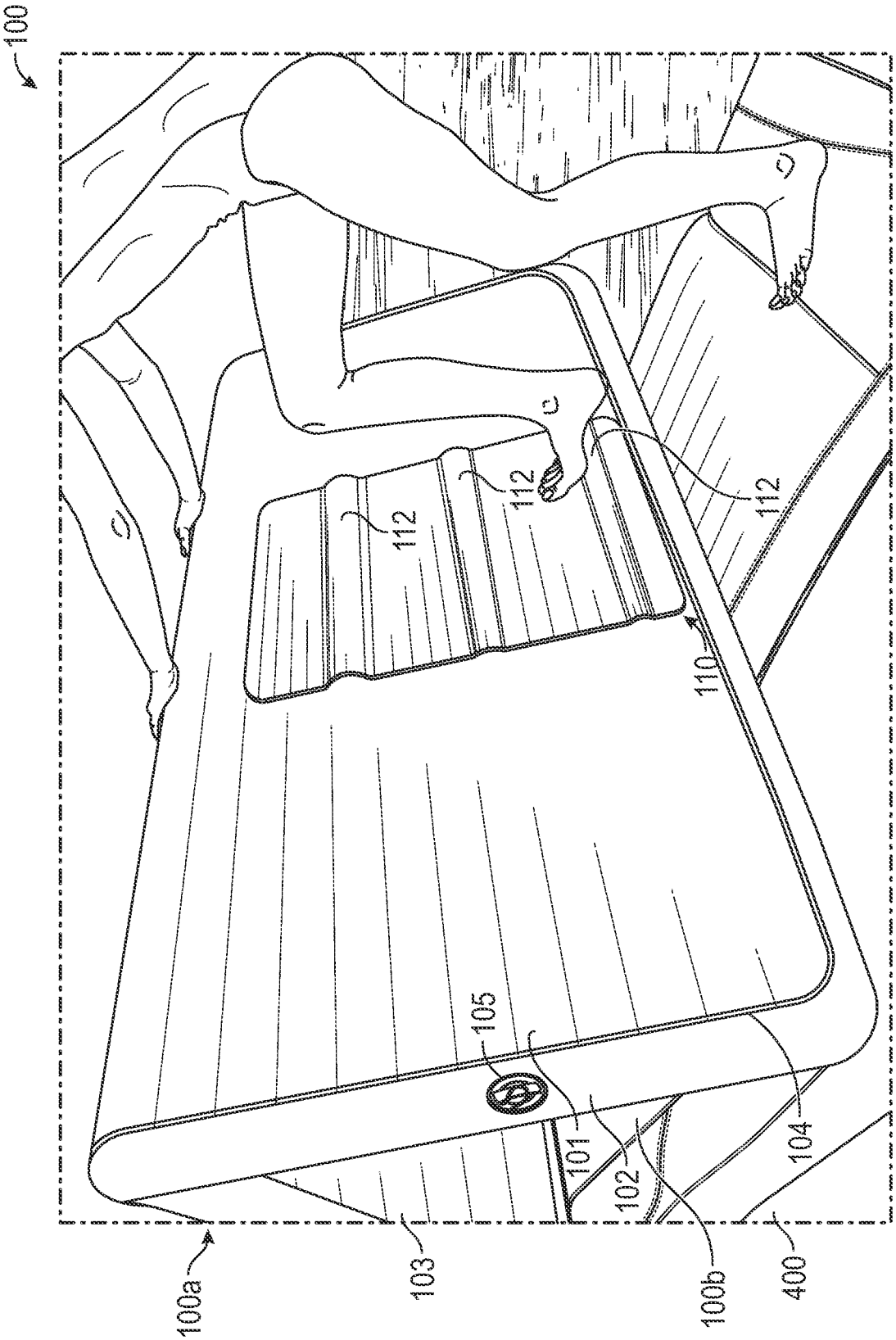

FIG. 4A

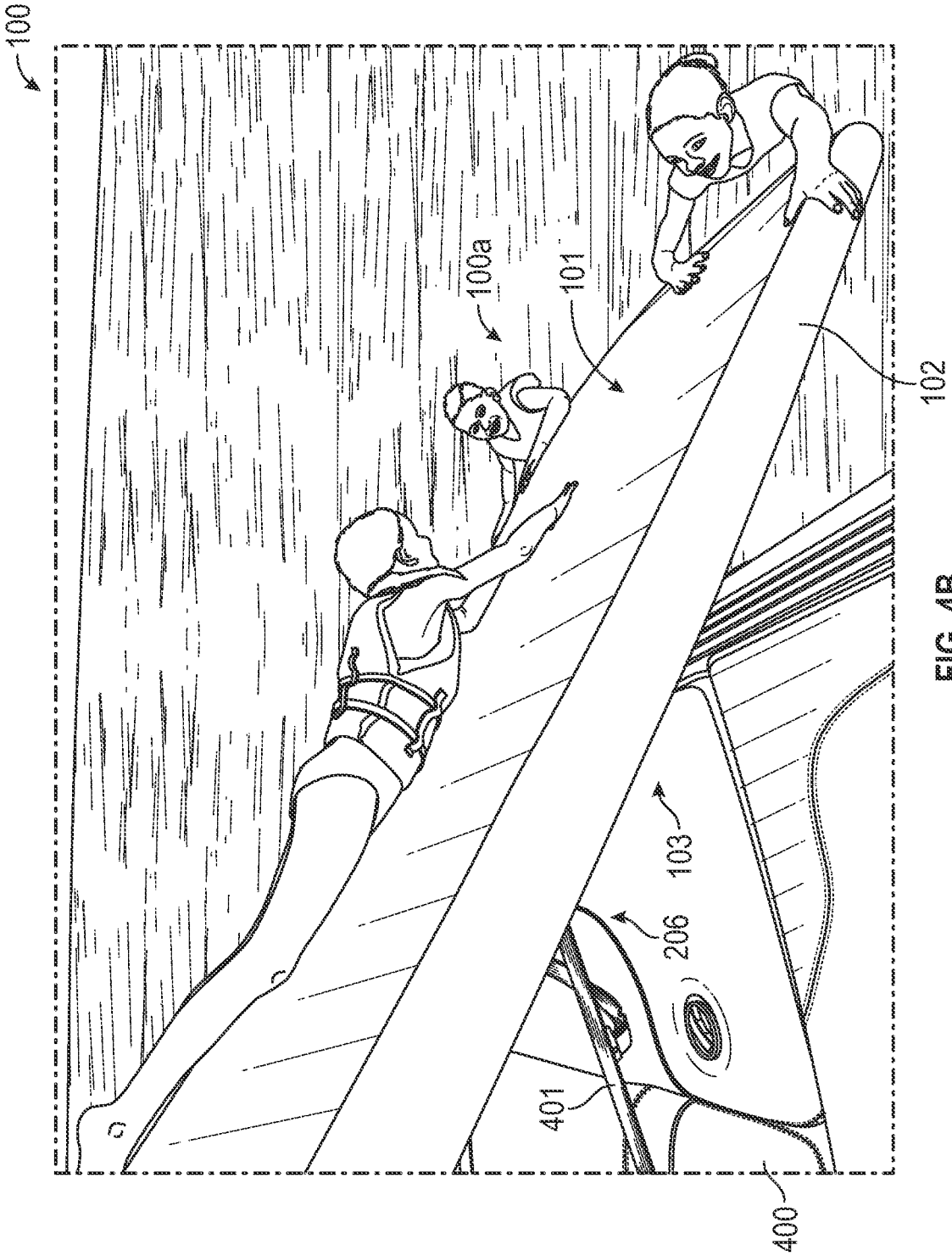

FIG. 4B

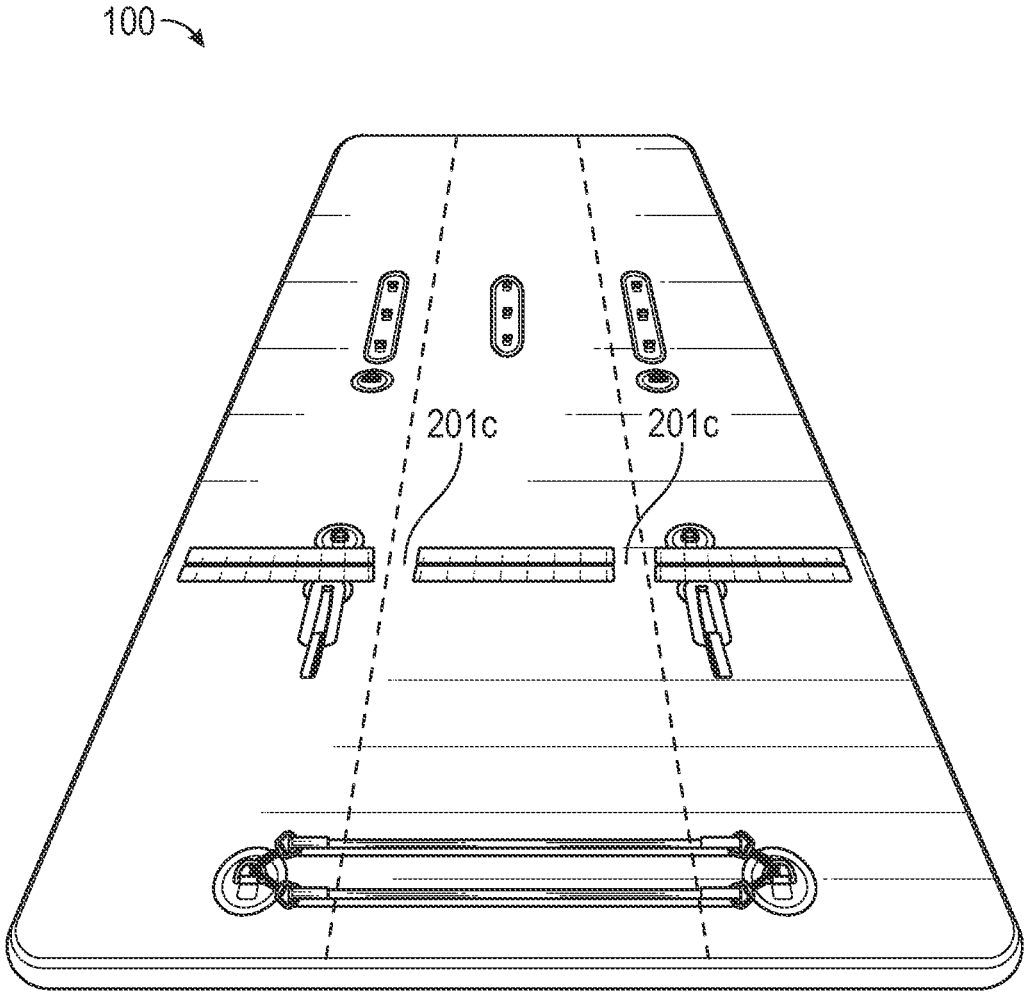

FIG. 5A

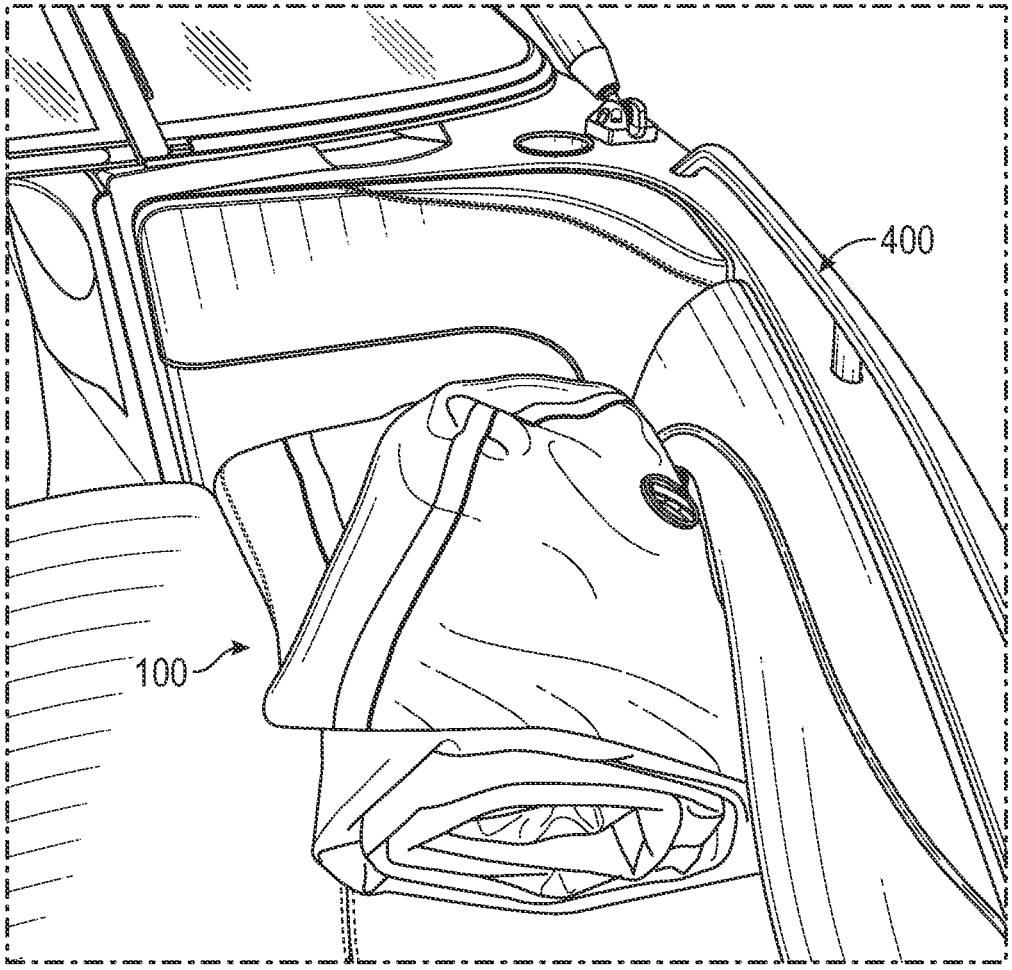

FIG. 5B

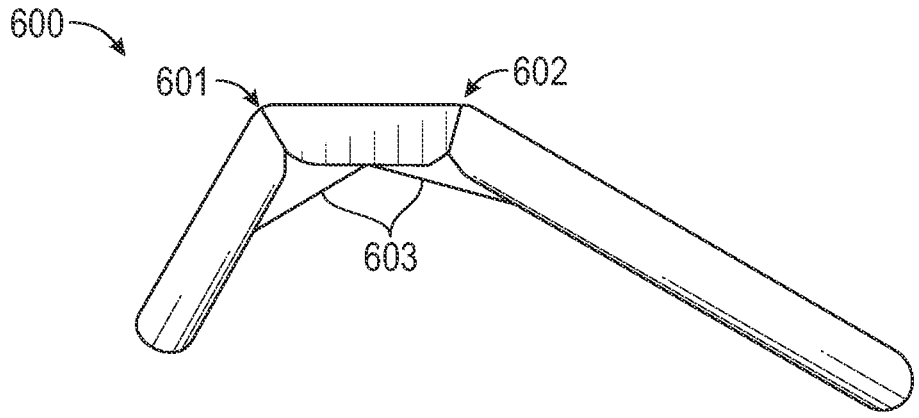

FIG. 6

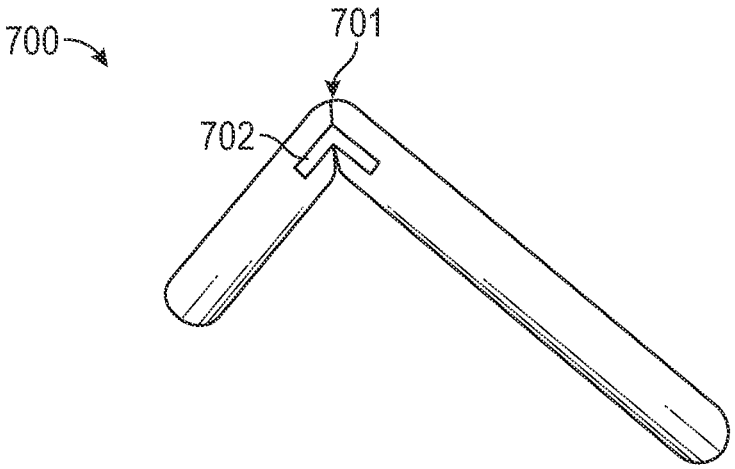

FIG. 7

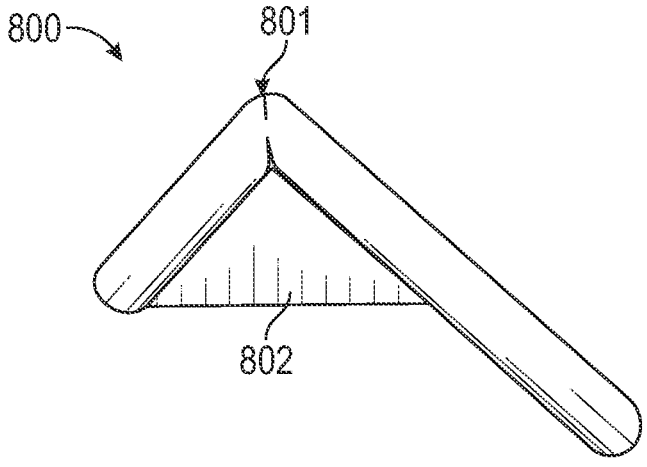

FIG. 8

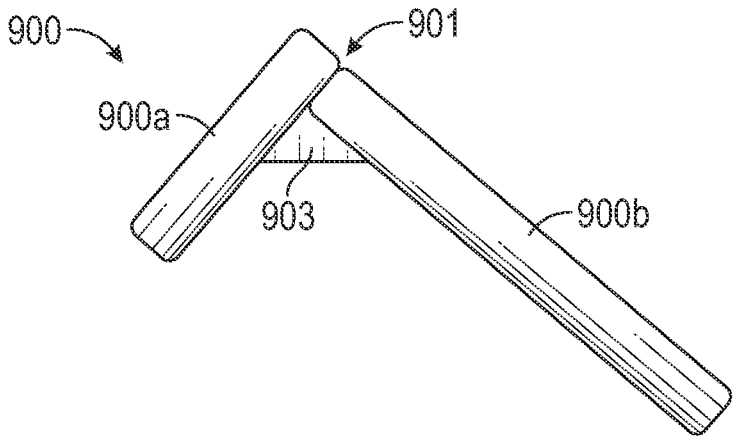
900
901
900a
903
900b

FIG. 9

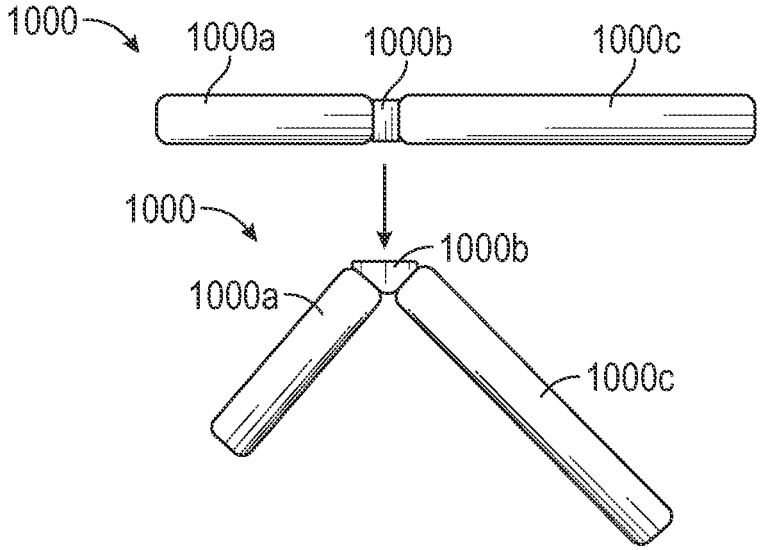
1000
1000a
1000b
1000c
1000
1000b
1000a
1000c

FIG. 10

INFLATABLES HAVING FLAT SEGMENTS WITH BENDS

CROSS-REFERENCE TO RELATED APPLICATIONS

N/A

BACKGROUND

Drop stitch construction is commonly used for inflatables, such as paddle boards, to form flat surfaces. With drop stitch construction, top and bottom sheets of fabric are joined together along parallel planes using many equal length stitches to thereby form a core. This core can be coated in one or more thin layers of PVC to make it air and water impermeable while retaining its flexibility. A sidewall can also be connected between the top and bottom sheets of fabric to form an enclosed, inflatable article. Because the two sheets of fabric are joined together by equal length stiches, the top and bottom sheets will remain flat even when the core is inflated to high pressures. Other techniques also exist for creating inflatables with flat surfaces such as internal baffles spanning from the top sheet to the bottom sheet. These methods of construction typically limit the inflatable to a single flat configuration when inflated.

BRIEF SUMMARY

The present invention is generally directed to inflatables having one or more flat segments that are configured to form one or more bends and to techniques for forming and maintaining such bends. The flat segments of the inflatables could be formed using any technique such as drop stitch. One or more bends may be maintained in one or more flat segments of an inflatable such as to create a ladder and a slide. A variety of bend maintaining components can be used to maintain the one or more bends.

An inflatable configured in accordance with one or more embodiments of the present invention can be selectively converted between a mat configuration and a slide configuration. When in the mat configuration, the inflatable can be placed on water to allow individuals to stand and play on the inflatable. When in the slide configuration, the inflatable can be secured to a boat or other structure overtop the water to allow individuals to slide into the water. The inflatable can be configured to enable a bend to be maintained between a slide end and a ladder end to thereby transition the inflatable from the mat configuration to the slide configuration.

In some embodiments, multiple bends could be maintained in one or more flat segments of an inflatable. For example, two bends could be maintained in a flat segment of an inflatable to create a ladder end, a horizontal portion and a slide end.

In some embodiments, the present invention may be implemented as an inflatable that includes a flat segment having a top, a bottom and a sidewall that extends between the top and the bottom, and one or more bend maintaining components for maintaining one or more bends.

In some embodiments, the inflatable may include one or more additional flat segments each having a top, a bottom and a sidewall that extends between the top and the bottom.

In some embodiments, the one or more bend maintaining components are removable to cause the flat segment to remain flat.

In some embodiments, the one or more bend maintaining components comprise one or more bend maintaining straps for maintaining the one or more bends in the flat segment.

In some embodiments, the one or more bend maintaining components comprise one or more angle bars in the sidewall for maintaining the one or more bends in the flat segment.

In some embodiments, the one or more bend maintaining components comprise one or more sheets of material for maintaining the one or more bends in the flat segment.

In some embodiments, the one or more sheets of material have a triangular shape.

In some embodiments, the inflatable may include two or more flat segments, and the one or more bend maintaining components may be one or more wedges that connect flat segments to each other to create and angle between the connected flat segments.

In some embodiments, the one or more bend maintaining components maintain more than one bend in the flat segment.

In some embodiments, the inflatable may include one or more bend locating components.

In some embodiments, the one or more bend locating components may include one or more bend locating straps secured to the bottom of the flat segment and positioned at an interface between a first portion of the flat segment and a second portion of the flat segment, and one or more bend locating rings secured to the bottom of the flat segment and positioned at the interface opposite the one or more bend locating straps. The one or more bend locating straps and the one or more bend locating rings may be configured to locate a bend in the flat segment of the inflatable along the interface.

In some embodiments, the inflatable may include stiffeners that are secured to the bottom of the flat segment and positioned on opposite sides of at least one of the one or more bends.

In some embodiments, the stiffeners may include multiple pairs of stiffeners that are spaced apart to create at least one gap for accommodating a fold line.

In some embodiments, the inflatable may include one or more tie off points secured to the bottom of the flat segment.

In some embodiments, the inflatable may include one or more sidewall protectors positioned on or in the sidewall of the flat segment at a location of at least one of the one or more bends.

In some embodiments, the one or more bends convert the flat segment of the inflatable into a slide.

In some embodiments, the inflatable may include a pad secured to the top, the pad including one or more ridges to enable the pad to function as a ladder.

In some embodiments, the present invention may be implemented as an inflatable that includes a top, a bottom, a sidewall that extends between the top and the bottom and at least one bend maintaining component that maintains a first bend. The first bend creates a slide portion on one side of the bend. In some embodiments, the first bend also creates a ladder portion on the opposite side of the bend from the slide portion.

In some embodiments, the present invention may be implemented as an inflatable that includes a top, a bottom, a sidewall that extends between the top and the bottom, one or more bend locating components for locating one or more bends, and one or more bend maintaining components for maintaining the one or more bends.

This summary is provided to introduce a selection of concepts in a simplified form that are further described

below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter.

BRIEF DESCRIPTION OF THE DRAWINGS

Understanding that these drawings depict only typical embodiments of the invention and are not therefore to be considered 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:

FIGS. **1**A and **1**B provide examples of an inflatable when used as a mat in accordance with one or more embodiments of the present invention;

FIG. **2**A is a bottom view of an inflatable when in the mat configuration in accordance with one or more embodiments of the present invention;

FIG. **2**B is a bottom view of an inflatable when in the slide configuration in accordance with one or more embodiments of the present invention;

FIG. **2**C is another bottom view of an inflatable when in the slide configuration in accordance with one or more embodiments of the present invention;

FIGS. **3**A-**3**D provide an example of how an inflatable can be converted from the mat configuration to the slide configuration in accordance with one or more embodiments of the present invention;

FIGS. **4**A and **4**B provide examples of an inflatable when used as a slide in accordance with one or more embodiments of the present invention;

FIGS. **5**A and **5**B represent how an inflatable can be stored in accordance with one or more embodiments of the present invention;

FIG. **6** illustrates how multiple bends may be formed in a flat segment of an inflatable in accordance with one or more embodiments of the present invention;

FIG. **7** illustrates how one or more bends may be maintained in a flat segment of an inflatable using one or more angle bars in accordance with one or more embodiments of the present invention;

FIG. **8** illustrates how one or more bends may be maintained in a flat segment of an inflatable using one or more sheets of material in accordance with one or more embodiments of the present invention;

FIG. **9** illustrates how two or more inflatables having flat segments can be combined and oriented at an angle to form a ladder and slide in accordance with one or more embodiments of the present invention;

FIG. **10** illustrates how one or more bends may be maintained in a flat segment of an inflatable using one or more wedges in accordance with one or more embodiments of the present invention.

DETAILED DESCRIPTION

The term "segment" will be used to reference an individual walled off portion of an inflatable. A flat segment would therefore be a segment that is constructed to be flat when inflated. The term "bend" will be used to reference either an angle formed in a flat segment or a change in angle between two adjacent flat segments of an inflatable. Embodiments of the present invention will be described primarily in the context of an inflatable having a single flat segment that can be converted between a mat and a slide. However, embodiments of the present invention encompass a variety of inflatables having any reasonable number of flat segments and possibly non-flat segments that can be configured to maintain one or more bends in one or more flat segments or between adjacent flat segments to selectively form other toys or structures.

In the context of embodiments of the present invention, an inflatable may have one or more inflatable flat segments that include internal supports that constrain a top and bottom of the flat segment to be substantially flat and parallel to one another. A flat segment of an inflatable may commonly be formed using drop stitch construction, but other techniques exist and are encompassed by embodiments of the present invention. In some embodiments, in addition to one or more flat segments, an inflatable could have one or more segments that are not configured to be flat. In some embodiments, all segments of an inflatable, whether or not the segments are flat, could be inflated together, while in other embodiments, at least one of the segments of an inflatable could be separately inflated.

The term "bend locating component" should be construed as any suitable structure by which a bend is located in a flat segment of an inflatable. A bend locating component typically functions to cause a bend to be formed in a particular location of the flat segment of the inflatable while the inflatable is being inflated. One or more bend locating components may be used to locate a bend. Examples of bend locating components include rings, straps, a zipper, etc.

The term "bend maintaining component" should be construed as any suitable structure by which a bend is maintained in a flat segment of an inflatable. A bend maintaining component functions to cause a bend to be maintained after the inflatable is inflated including during use/play. One or more bend maintaining components may be used to maintain a bend. Examples of bend maintaining components include straps, angle bars, an angled sheet of material, a wedge, etc.

FIGS. **1**A and **1**B illustrate an inflatable **100** having a single flat segment that is configured in accordance with one or more embodiments of the present invention. Inflatable **100**, or its single flat segment, includes a top **101**, a bottom **103**, and a sidewall **102** that is connected between top **101** and bottom **103**. Top **101** and bottom **103** may be formed using drop stitch construction, internal baffling that connects top **101** and bottom **103** or another technique that causes top **101** and/or bottom **103** to form a flat surface. For example, top **101** and bottom **103** may be part of a 10 cm single layer drop stitch core. However, top **101** and bottom **103** could be formed using any other drop stitch construction technique, dimension and/or configuration (e.g., fusion, double layer, etc.). In some embodiments, sidewall **102** may be formed of PVC coated nylon, although any other suitable material could be used. In some embodiments, the seams between top **101** and sidewall **102** and between bottom **103** and sidewall **102** could be welded and reinforced by tape **104** that is welded over the seams.

Inflatable **100** can be viewed as having a slide end **100***a* and a ladder end **100***b*. Ladder end **100***b* can include a pad **110** that can function as a ladder when inflatable **100** is in the slide configuration. In some embodiments, the top/outer surface of top **101** can be smooth and un-textured to minimize its coefficient of friction when wet. Inflatable **100** may include a valve (e.g., a Halkey-Roberts valve) positioned anywhere in top **101**, sidewall **102** or bottom **103**.

FIGS. **2**A-**2**C each show bottom **103** of inflatable **100**. In FIG. **2**A, inflatable **100** is in the mat configuration, while in FIGS. **2**B and **2**C, inflatable is in the slide configuration. To facilitate the transition between the mat configuration and the slide configuration, bottom **103** may include a number of components and features. For example, outer stiffeners **201***a*

and inner stiffeners **201***b* (collectively stiffeners **201**) can be secured to bottom **103** (e.g., via welding or gluing) and positioned along the interface between slide end **100***a* and ladder end **100***b*. For example, a pair of outer stiffeners **201***a* can be positioned on opposing sides of this interface towards sidewall **102** and a pair of inner stiffeners **201***b* can be positioned on opposing sides of this interface between the pairs of outer stiffeners **201***a*. Thus, a gap **201***c* may be formed between the pair of inner stiffeners **201***b* and each pair of outer stiffeners **201***a* along which no inner stiffeners extend. Gaps **201***c* can facilitate folding and storage of inflatable **100** as described in greater detail below. Each pair of stiffeners **201** can be aligned along and spaced closely from the interface between slide end **100***a* and ladder end **100***b* to thereby reinforce or stiffen the sections of bottom **103** that extend along this interface. Due to this reinforcement, a straight bend in inflatable **100** can be more easily induced along the interface. In other words, the bend can be induced along the line that extends between the pairs of stiffeners **201**.

In some embodiments, bend locating components can be included on bottom **103** to cause a bend to be formed in the proper location when the flat segment of inflatable **100** is inflated. For example, one or more bend locating straps **204** and corresponding bend locating rings **205** can be secured to bottom **103** on opposing sides of the interface between slide end **100***a* and ladder end **100***b* and can function to locate a bend at the interface. For example, as is better shown in FIGS. **3**A-**3**C, bend locating strap **204** can include a first portion **204***a* that is secured to bottom **103** and a second portion **204***b* that is not secured to bottom **103**. Second portion **204***b* can be routed through the corresponding bend locating ring **205** and pulled back on top of first portion **204***a* to thereby pull bend locating ring **205**, and the portion of bottom **103** to which it is secured, towards the portion of bottom **103** on the opposite side of the interface. The presence of stiffeners **201** can ensure that the bend in bottom **103**, which this pulling of bend locating ring **205** causes, will occur along the interface. First and second portions **204***a*, **204***b* can include hook and loop or any other suitable fastener **204***c* for securing second portion **204***b* to first portion **204***a*. In some embodiments, a loop or other gripping mechanism **204***b***1** may be formed at the end of second portion **204***b*. Any other suitable bend locating components or techniques could be used to locate a bend on inflatable **100**. For example, a pair of bend locating rings could be positioned on opposing sides of the interface and held together with a clip, carabiner or other structure. As another example, opposing sides of a zipper could be positioned on opposing sides of the interface.

In some embodiments, bend maintaining components can be included on bottom **103** to maintain a bend in inflatable **100** after inflatable **100** is inflated such as during play. For example, bottom **103** may include one or more sets of bend maintaining rings **202***a* and **202***b* that are positioned on opposing sides of the interface between slide end **100***a* and ladder end **100***b* and corresponding bend maintaining straps **203**. In some embodiments, each of bend maintaining rings **202***a* and **202***b* can be spaced equal distances from the interface such that, when ladder end **100***b* is oriented substantially perpendicular to slide end **100***a*, bend maintaining straps **203** will be positioned at approximately a 45-degree angle relative to bottom **103**. However, in other embodiments, supporting rings **202***a* and **202***b* may be spaced at unequal distances from the interface. Of course, bend maintaining straps **203** or any other bend maintaining components could be used to create a bend of any angle between ladder end **100***b* and slide end **100***a*.

When in the mat configuration, bend maintaining straps **203** can be connected between bend maintaining rings **202***b* for storage. To transition to the slide configuration, bend maintaining straps **203** can be connected between pairs of bend maintaining rings **202***a* and **202***b* as shown in FIGS. **2**B, **2**C and **3**D. Accordingly bend maintaining straps **203** can maintain the position/angle of ladder end **100***b* relative to slide end **100***a* and impart the tensile force required to prevent slide end **100***a* and ladder end **100***b* from springing open into a flat configuration. Each end of bend maintaining strap **203** can include a connector **203***a*, **203***b*. In some embodiments, connectors **203***a*, **203***b* can be rotatable to enable bend maintaining strap **203** to untwist if necessary. In some embodiments, the distance between bend maintaining rings **202***b* may substantially match the distance between the pairs of bend maintaining rings **202***a* and **202***b* when ladder end **100***b* is oriented substantially perpendicular to slide end **100***a*. In such embodiments, the length of bend maintaining straps **203** may match the distance between bend maintaining rings **202***b* as shown in FIG. **2**A.

Forming the bend in the flat segment of inflatable **100** can cause added stress on sidewall **102**. Accordingly, in some embodiments, a sidewall protector **207** may be secured (e.g., glued or welded) to sidewall **102** overtop the portions of sidewall **102** where the bend is formed. In some embodiments, sidewall protectors **207** may be secured to sidewall **102** prior to securing tape **104** overtop the seams. In such embodiments, tape **104** may be secured overtop sidewall protectors **207**.

Bottom **103** may also include one or more tie off points **206** which can be used to secure slide end **100***a* to a boat or other structure. In the depicted example, three sets of three tie off points **206** are positioned across the width of bottom **103**. Each tie off point **206** may accommodate a rope or other mechanism. Spacing tie off points **206** across slide end **100***a* facilitates securing inflatable **100** to a variety of boat configurations including a variety of cleat locations.

FIGS. **4**A and **4**B illustrate inflatable **100** when used in the slide configuration. As shown, inflatable **100** can be positioned with ladder end **100***b* on top of a boat **400** and slide end **100***a* extending towards the water. To facilitate climbing up ladder end **100***b*, pad **110** can include ridges **112**. In some embodiments, pad **110** may be formed of foam (e.g., EVA foam), and ridges **112** can be thickened sections of the form that extend across the width of pad **110**. As is visible in FIG. **4**B, a rope **401** can be connected between boat **400** and one of tie off points **206** to secure slide end **100***a* to boat **400**. Also, due to supporting straps **203**, the angle between ladder end **100***b* and slide end **100***a* will not increase when individuals climb and slide down inflatable **100**.

FIGS. **5**A and **5**B illustrate how inflatable **100** may be stored in one or more embodiments. As represented by the dashed lines, gaps **201***c* create fold lines along which inflatable **100** can be folded into thirds. Accordingly, when not inflated, inflatable **100** may be folded lengthwise along the fold lines and then rolled or folded widthwise. As shown in FIG. **4**B, the folded and rolled inflatable **100** can then be stored on boat **400** without occupying excessive space. The figures represent embodiments where stiffeners **201** form two gaps **201***c*. In other embodiments, however, stiffeners **201** may form a single gap **201***c* (e.g., using only two sets of outer stiffeners **201***a*) or more than two gaps **201***c*. In some embodiments, the number of gaps **201***c* may be configured based on the width of inflatable **100**.

Although the above description relates to a mat slide, embodiments of the present invention extend to other types of inflatables. For example, a bottom of any inflatable having one or more flat segments could include any or all of stiffeners **201**, bend inducing strap(s) **204**, bend inducing ring(s) **205**, supporting strap(s) **203** and supporting ring(s) **202***a*, **202***b* for inducing and maintaining a straight bend at a desired location of the inflatable.

Embodiments of the present invention also encompass methods for locating and/or maintaining a bend in a flat segment of an inflatable. For example, to locate a bend in a flat segment of an inflatable, such as but not limited to a mat slide, an individual could insert a bend inducing strap through a bend inducing ring that is positioned on an opposite side of an interface between two portions of the flat segment of the inflatable. The individual could then pull the bend inducing strap back on top of itself to thereby cause a bend to be located at the interface when the flat segment of the inflatable is inflated. In some embodiments, regardless of whether a bend locating component is used, the individual may connect a bend maintaining strap between a pair of bend maintaining rings that are positioned on opposite sides of the interface to thereby maintain the bend while the inflatable is in use.

FIGS. **6-10** provide additional examples of how one or more bends may be maintained in one or more flat segments of an inflatable. FIG. **6** provides an example where an inflatable **600** with a single flat segment includes a first bend **601** and a second bend **602**. One or more bend maintaining components **603** may be used to maintain first bend **601** and second bend **602**. For example, bend maintaining components **603** could be one or more straps that are connected to the bottom surface of inflatable **600** on opposing sides of the corresponding bend.

FIG. **7** provides an example where an inflatable **700** with a single flat segment includes a bend **701** and bend maintaining components **702** in the form of angle bars. In particular, each side of inflatable **700** spanning the location where bend **701** is to be formed can be configured to receive an angle bar (e.g., by including a sleeve that is shaped to match the shape of the angle bar). With the angle bar in place, the opposing sides of inflatable **700** will be held at an angle matching the angle of the angle bar thereby maintaining the bend.

FIG. **8** provides an example where an inflatable **800** with a single flat segment includes a bend **801** and bend maintaining components **802** in the form of triangular sheets of material. In particular, the bottom surface of inflatable **800** can be configured to enable one or more triangular sheets of material to be secured on opposing sides of bend **801**. The triangular shape of the sheet material can retain the opposing sides of inflatable **700** at an angle thereby maintaining the bend. Any other shape of sheet material could also be used.

FIG. **9** provides an example where an inflatable assembly **900** is formed of two separate inflatables **900***a* and **900***b* that can be oriented at an angle **901**. One or more bend maintaining components **903**, which may be in any suitable form, can be used to maintain angle **901**.

FIG. **10** provides an example where an inflatable **1000** includes a first flat segment **1000***a* that is connected to a second flat segment **1000***c* by a wedge **1000***b*. Wedge **1000***b* can be inflated separately from first flat segment **1000***a* and second flat segment **1000***b*. When wedge **1000***b* is uninflated (or at least not fully inflated), wedge **1000***b* will not force first flat segment **1000***a* and second flat segment **1000***b* to be angled. In other words, with wedge **1000***b* uninflated, first flat segment **1000***a* and second flat segment **1000***b* can lay flat. In contrast, when wedge **1000***b* is inflated, its shape will force first flat segment **1000***a* and second flat segment **1000***b* to be angled thereby replicating a bend. Therefore, wedge **1000***b* can function as a bend maintaining component when inflated.

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.

What is claimed:

1. An inflatable comprising:

a flat segment having:

a top;

a bottom; and

a sidewall that extends between the top and the bottom; and

bend maintaining components for maintaining one or more bends including a first bend, the bend maintaining components including at least one pair of bend maintaining coupling points, each pair of bend maintaining coupling points being formed on the bottom on opposing sides of an interface between a first portion of the inflatable and a second portion of the inflatable, the bend maintaining components further including a bend maintaining coupling mechanism for each pair of bend maintaining coupling points, each bend maintaining coupling mechanism being configured to be selectively coupled between the respective pair of bend maintaining coupling points to maintain the first bend at the interface.

2. The inflatable of claim **1**, further comprising:

one or more additional flat segments each having:

a top;

a bottom; and

a sidewall that extends between the top and the bottom.

3. The inflatable of claim **1**, wherein each bend maintaining coupling mechanism is removable to cause the flat segment to remain flat.

4. The inflatable of claim **1**, wherein each bend maintaining coupling mechanism is a bend maintaining strap.

5. The inflatable of claim **1**, further comprising:

one or more tie off points secured to the bottom of the flat segment.

6. The inflatable of claim **1**, further comprising:

one or more sidewall protectors positioned on or in the sidewall of the flat segment at a location of the first bend.

7. An inflatable comprising:

a top;

a bottom;

a sidewall that extends between the top and the bottom; and

at least one bend maintaining component that maintains a first bend, the first bend creating a slide portion and a ladder portion.

8. The inflatable of claim **7**, further comprising:

a pad secured to the top on the ladder portion, the pad forming a ladder on the ladder portion.

9. The inflatable of claim **7**, wherein each bend maintaining component is removable to cause the inflatable to remain flat.

10. The inflatable of claim **7**, wherein each bend maintaining component is a bend maintaining strap.

11. An inflatable comprising:

a top;

a bottom;

a sidewall that extends between the top and the bottom;

one or more bend maintaining components for maintaining one or more bends including a first bend; and

one or more pairs of bend locating components positioned on the bottom at an interface between a first portion of the inflatable and a second portion of the inflatable, each pair of bend locating components including a first bend locating component positioned on a first side of the interface and a second bend locating component positioned on a second side of the interface opposite the first side, the first and second bend locating components being configured to selectively couple together to induce the first bend at the interface.

12. The inflatable of claim 11, wherein the one or more bend maintaining components comprise one or more angle bars in the sidewall for maintaining the one or more bends in the flat segment.

13. The inflatable of claim 11, wherein the one or more bend maintaining components comprise one or more sheets of material for maintaining the one or more bends in the flat segment.

14. The inflatable of claim 13, wherein the one or more sheets of material have a triangular shape.

15. The inflatable of claim 11, further comprising:

an additional flat segment;

wherein the one or more bend maintaining components comprise one or more wedges that connect the flat segment to the additional flat segment.

16. The inflatable of claim 11, wherein the one or more bend maintaining components maintain more than one bend in the flat segment.

17. The inflatable of claim 11, wherein the first and second bend locating components of at least one of the one or more pairs of bend locating components comprise one of:

a bend locating strap and corresponding bend locating ring;

a pair of bend locating rings; or

opposing sides of a zipper.

18. An inflatable comprising:

a flat segment having:

a top;

a bottom; and

a sidewall that extends between the top and the bottom;

one or more bend maintaining components for maintaining one or more bends; and

one or more bend locating components comprising:

one or more bend locating straps secured to the bottom of the flat segment and positioned at an interface between a first portion of the flat segment and a second portion of the flat segment; and

one or more bend locating rings secured to the bottom of the flat segment and positioned at the interface opposite the one or more bend locating straps, wherein the one or more bend locating straps and the one or more bend locating rings are configured to locate a bend in the flat segment of the inflatable along the interface.

19. The inflatable of claim 18, wherein the one or more bend maintaining components for maintaining the one or more bends comprise one or more bend maintaining straps that are positioned on the bottom of the flat segment.

20. An inflatable comprising:

a flat segment having:

a top;

a bottom; and

a sidewall that extends between the top and the bottom;

one or more bend maintaining components for maintaining one or more bends;

pairs of stiffeners that are secured to the bottom of the flat segment and positioned on opposite sides of at least one of the one or more bends, the pairs of stiffeners being spaced apart to create at least one gap for accommodating a fold line.

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