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(54) **SELF-SUPPORTING HAMMOCK SYSTEM**

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(57) **ABSTRACT**

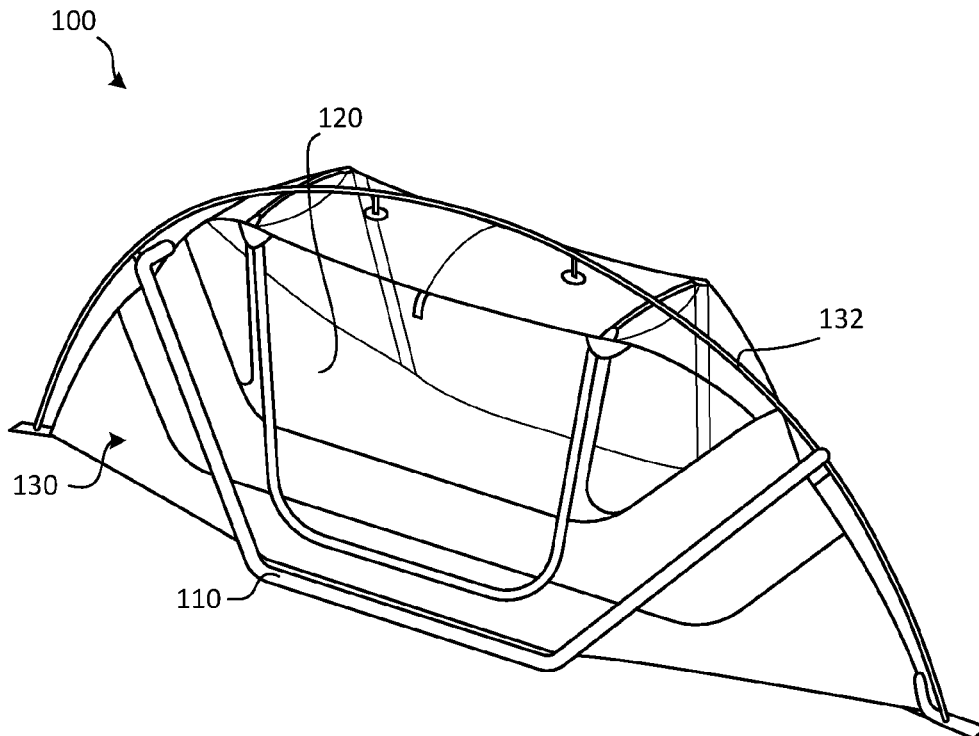
(21) Appl. No.: **16/057,637**

A hammock-tent apparatus includes a frame that is self-supporting, with a hammock being configured to be coupled to the frame and configured to be suspended and supported by the frame. The hammock-tent apparatus also includes a tent configured to be coupled to the frame, wherein the tent is configured to be disposed around the hammock, according to various embodiments. The tent may include one or more tent poles, and the one or more tent poles may be configured to be coupled to the frame. For example, the frame may include two end brackets that each comprises an interface for receiving the one or more tent poles.

(22) Filed: **Aug. 7, 2018**

Related U.S. Application Data

(60) Provisional application No. 62/542,620, filed on Aug. 8, 2017.



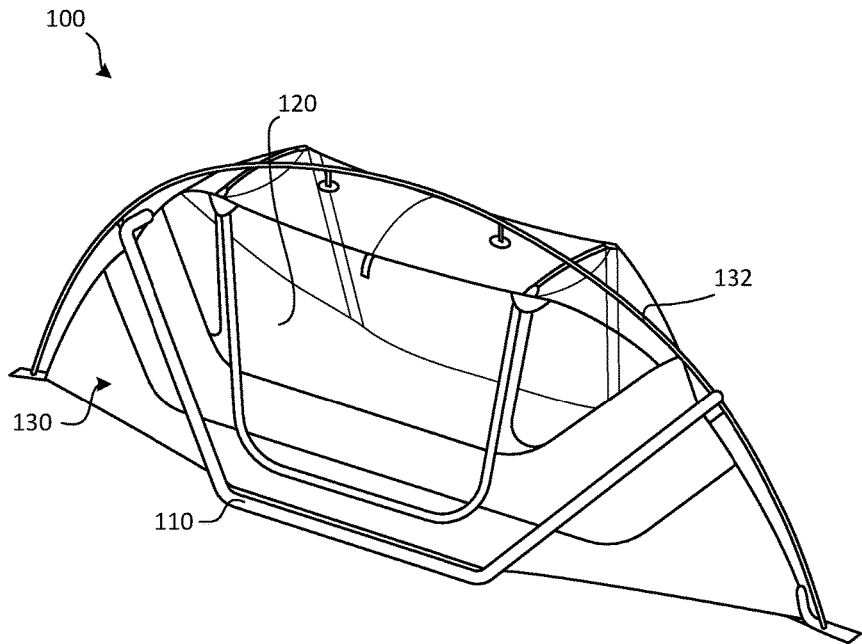


FIG. 1A

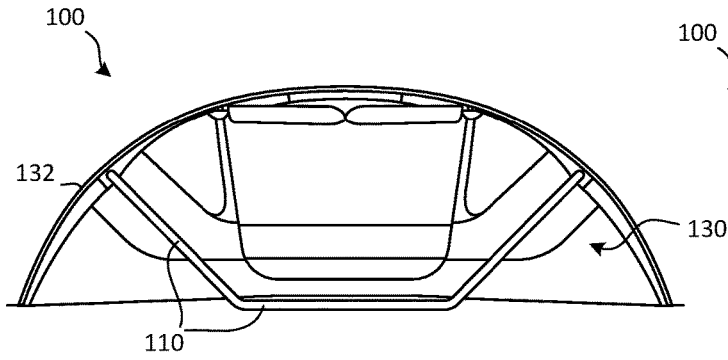


FIG. 1B

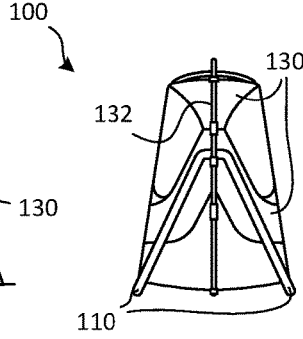


FIG. 1C

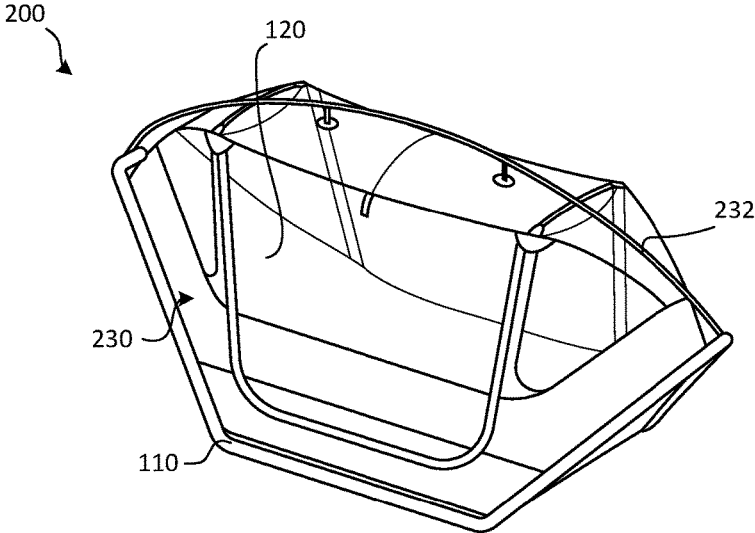


FIG. 2A

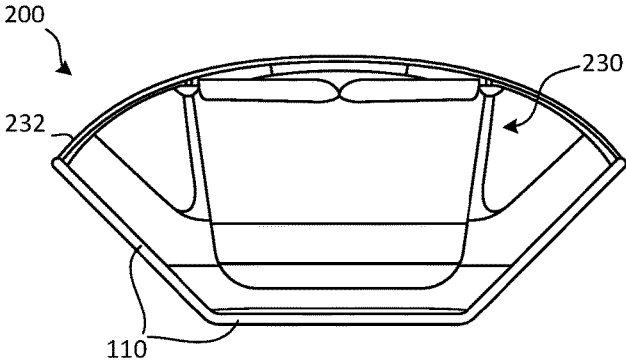


FIG. 2B

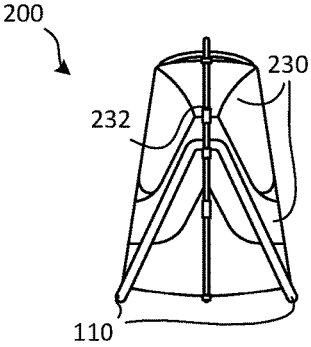


FIG. 2C

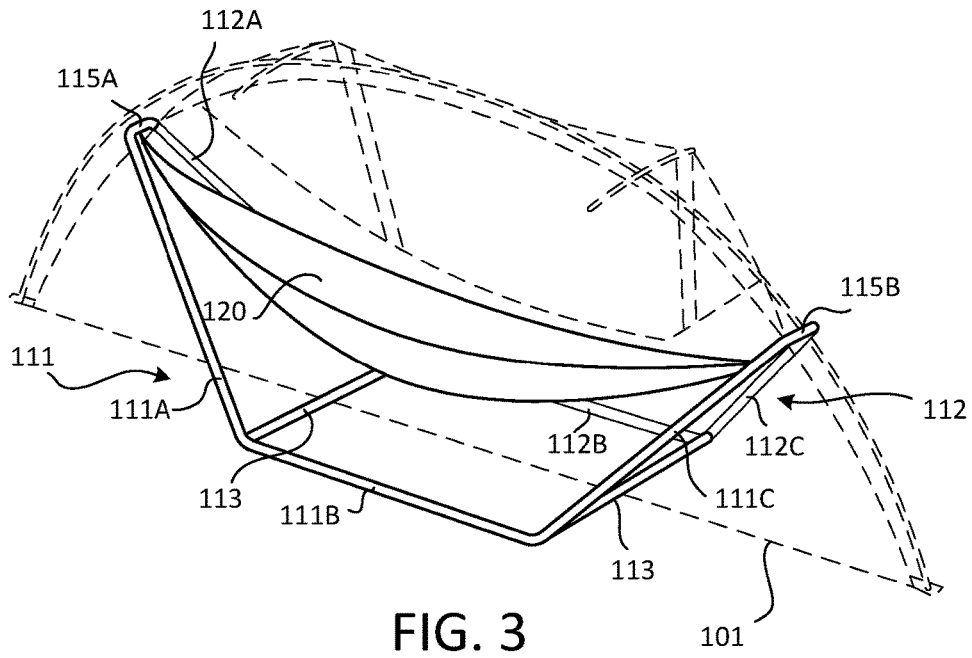


FIG. 3

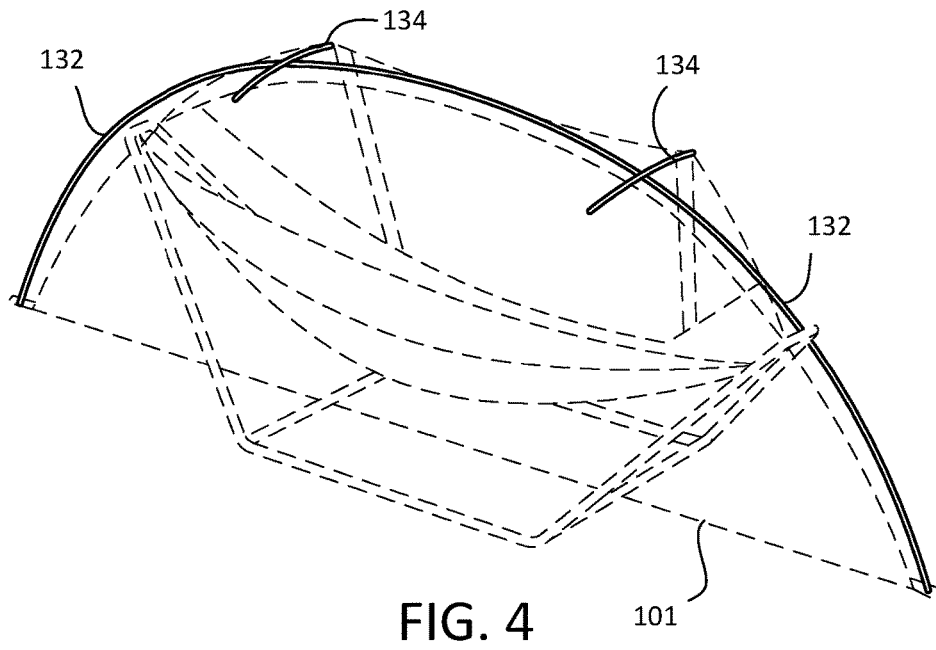


FIG. 4

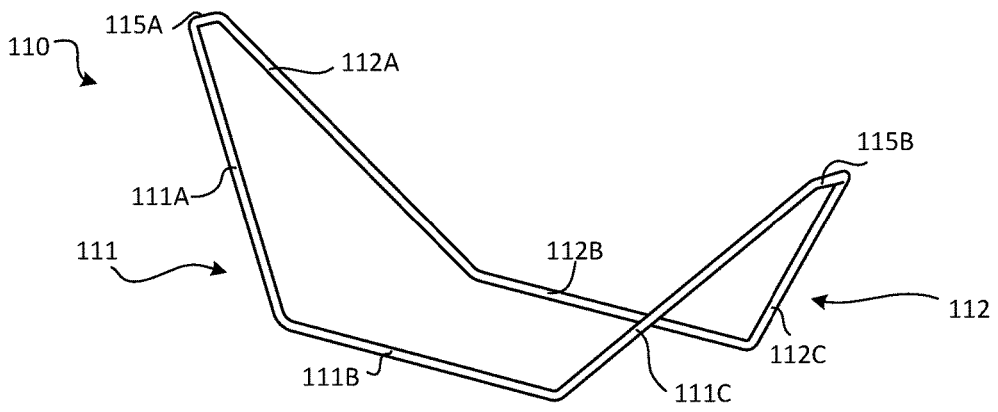


FIG. 5A

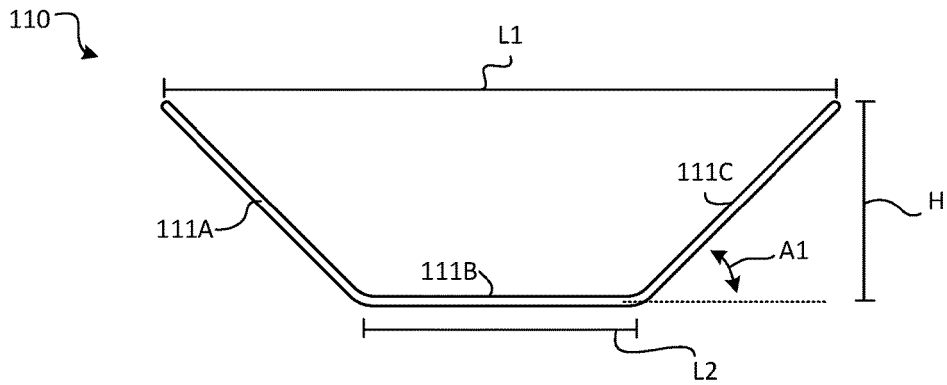


FIG. 5B

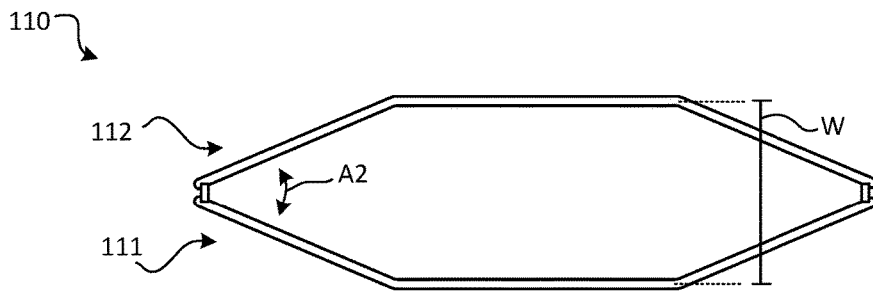


FIG. 5C

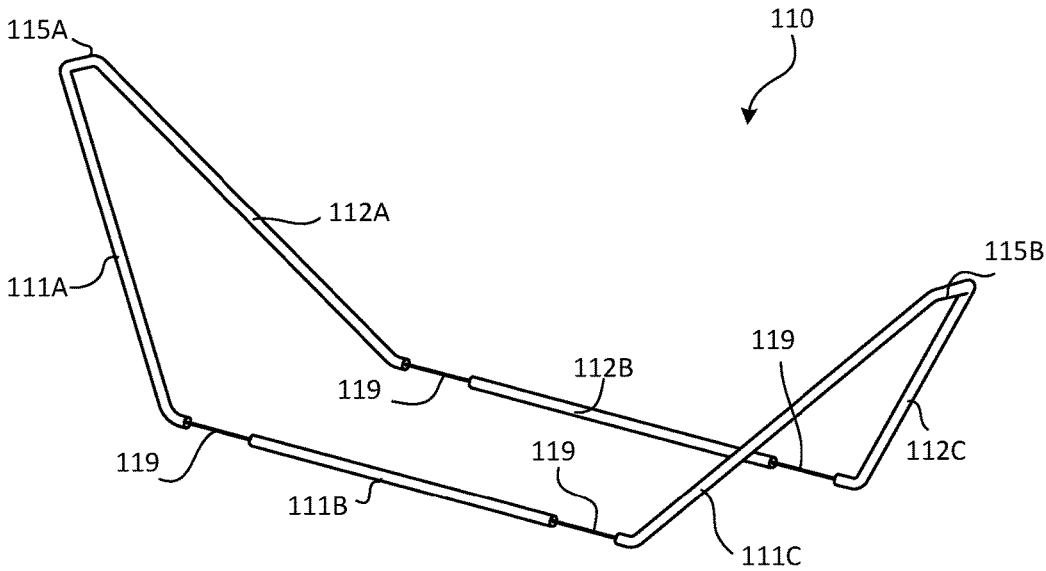


FIG. 5D

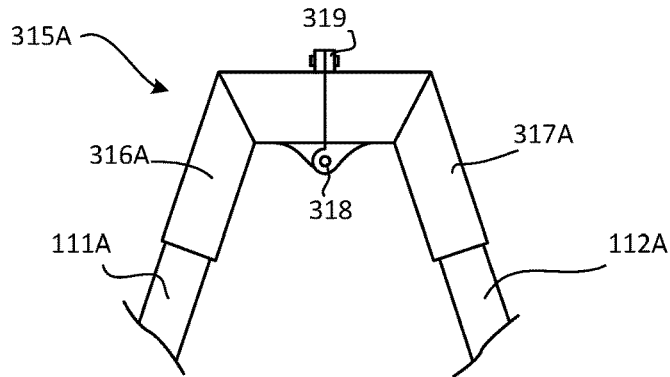


FIG. 6A

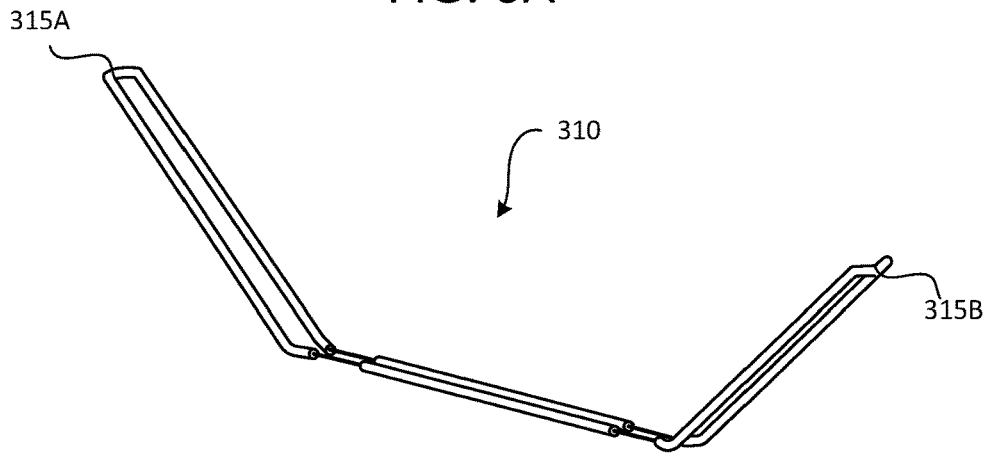


FIG. 6B

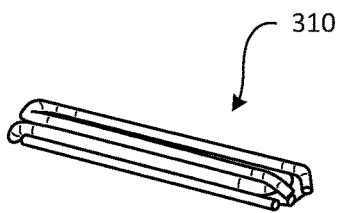


FIG. 6C

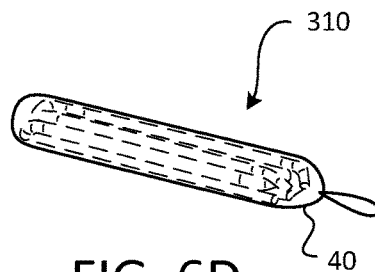


FIG. 6D

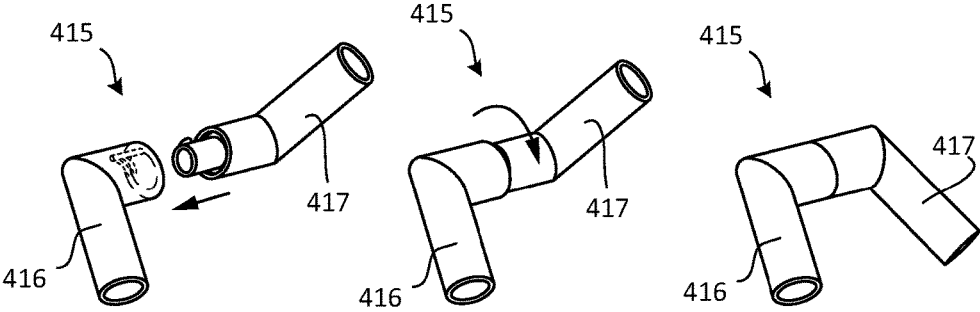


FIG. 7A

FIG. 7B

FIG. 7C

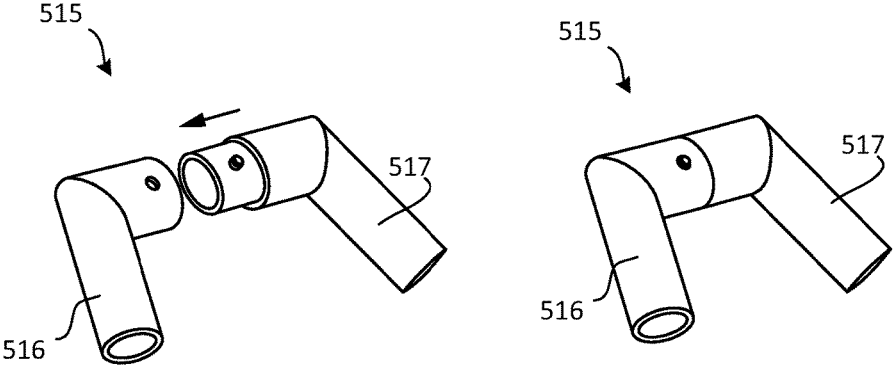


FIG. 8A

FIG. 8B

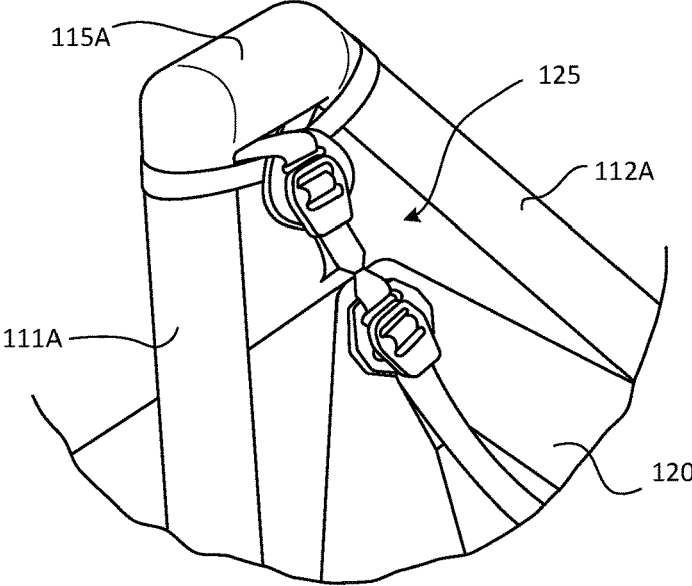


FIG. 9

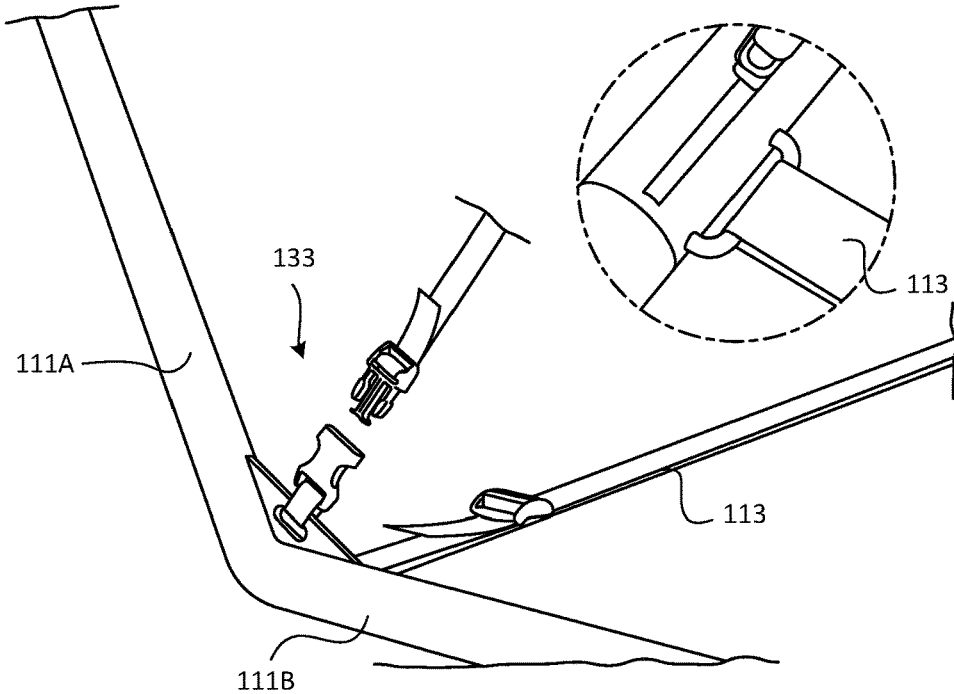


FIG. 10

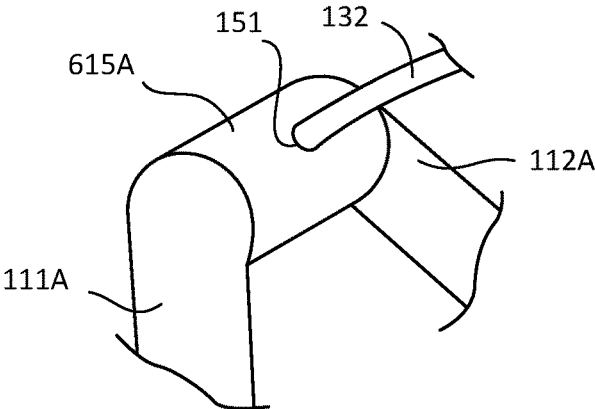


FIG. 11

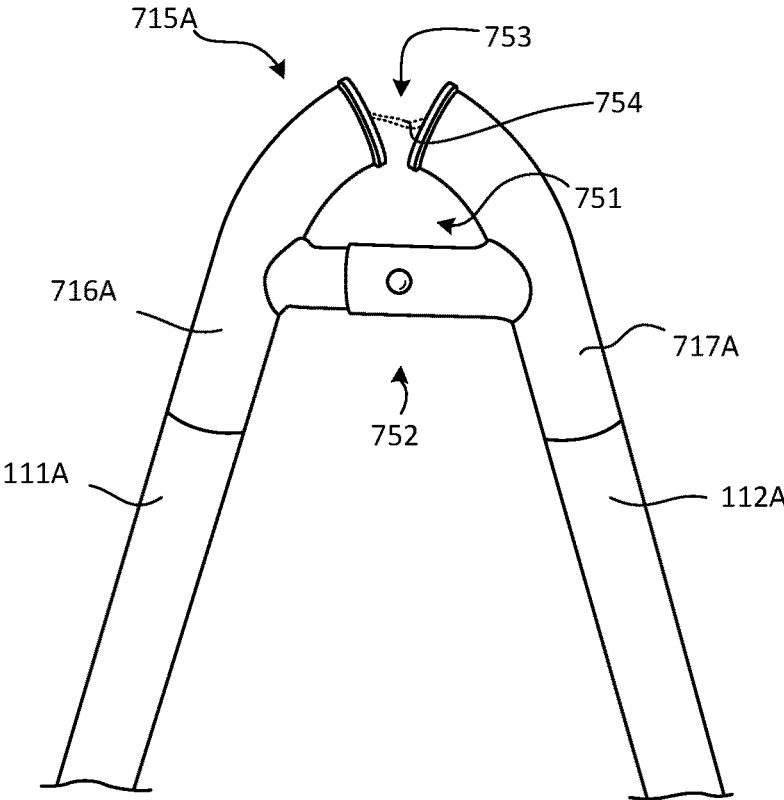


FIG. 12

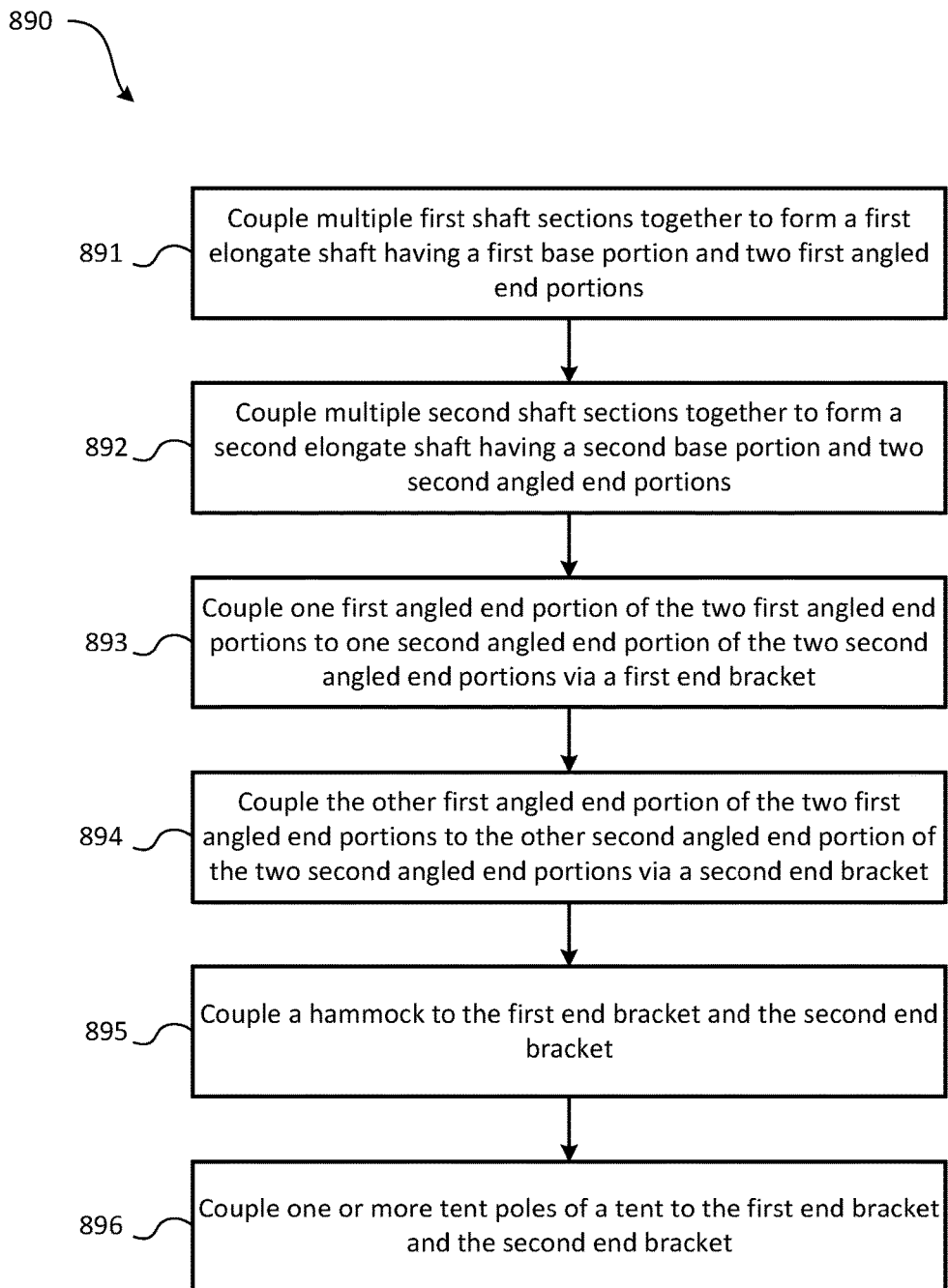


FIG. 13

SELF-SUPPORTING HAMMOCK SYSTEM

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of and priority to U.S. Provisional Application No. 62/542,620, filed Aug. 8, 2017 entitled “SELF-SUPPORTING HAMMOCK SYSTEM,” which is incorporated herein by reference in its entirety.

FIELD

[0002] The present disclosure relates to hammocks and tents, and more specifically to a self-supporting frame for supporting a hammock and a tent.

BACKGROUND

[0003] Hammocks are popular around the world for relaxation and sleeping. They can be used for leisure or as a lightweight bed on camping trips. Hammocks offer the advantage of not sleeping on the ground, and because the ground can be hard, bumpy, wet, cold, and dirty, hammocks provide a potentially more comfortable sleeping situation. Hammocks also generally allow users to access areas that would be difficult or inconvenient to access using a tent (e.g., because of rough, hilly, or wet terrain).

[0004] Conventional hammocks are traditionally deployed by suspending the hammock material between two fixed anchor points, such as trees, thereby allowing a user to lie, sit, or otherwise recline in. The sling portion of the hammock is generally made from a fabric sheet, such as nylon or cotton. The hammock may be used for swinging, sleeping, or resting. Anchor points are generally either existing structures or natural structures that are strong enough to support the weight of the user and that are an appropriate distance apart. While certain conventional hammock systems have man-made support frames, these conventional support frames are rather large, heavy and can be difficult to transport. Additionally, conventional hammocks do not offer any protection from nature (e.g., do not provide shelter from the elements, such as wind, insects, sun, or rain).

SUMMARY

[0005] In various embodiments, the present disclosure provides a hammock-tent apparatus. The hammock-tent apparatus includes a frame that is self-supporting, wherein a hammock is configured to be coupled to the frame, wherein the hammock is configured to be suspended and supported by the frame, according to various embodiments. The hammock-tent apparatus also includes a tent configured to be coupled to the frame, wherein the tent is configured to be disposed around the hammock, according to various embodiments.

[0006] The tent may include one or more tent poles, and the one or more tent poles may be configured to be coupled to the frame. For example, the frame may include two end brackets that each comprises an interface for receiving the one or more tent poles. The interface may be an opening defined by and extending through each end bracket. In various embodiments, each of the two end brackets has an A-shaped structure, wherein the opening is a window defined by a top portion of the A-shaped structure, wherein the one or more tent poles are configured to extend through the window. In various embodiments, the top portion of the

A-shaped structure has a gap through which the one or more tent poles are configured to be bent so as to be retained within the window. In various embodiments, each of the two end brackets comprises a retention feature configured to facilitate retention of the one or more tent poles within the window and thus prevent the one or more tent poles from springing outwards through the gap.

[0007] In various embodiments, the tent is exclusively coupled to the frame via the one or more tent poles being received within the interface of each of the end brackets of the frame. In various embodiments, the frame has two elongate shafts that are configured to extend between the two end brackets. Each of the two elongate shafts may include multiple sections that are configured to be detachably coupled together. The multiple sections may include a base portion and angled end portions. The hammock-tent apparatus may further include one or more tension straps configured to extend between respective base portions of the two elongate shafts. In various embodiments, multiple sections comprise an interconnecting tether system that allows the multiple sections to be collapsed while remaining interconnected. In various embodiments, each end bracket of the two end brackets has a first arm configured to be coupled to a first elongate shaft of the two elongate shafts and a second arm configured to be coupled to a second elongate shaft of the two elongate shafts. The first arm and the second arm may be configured to be detachably coupled together. For example, relative rotation between the first arm and the second arm may enable attachment and detachment of the first arm and the second arm. In various embodiments, the first arm of each of the two end brackets remains interconnected, via the interconnecting tether system, with the first elongate shaft and the second arm of each of the two end brackets remains interconnected, via an interconnecting tether system, with the second elongate shaft. The hammock may be coupled to and suspended between the two end brackets.

[0008] Also disclosed herein, according to various embodiments, is a method of assembling a hammock-tent apparatus. The method may include coupling multiple first shaft sections together to form a first elongate shaft having a first base portion and two first angled end portions. The method may also include coupling multiple second shaft sections together to form a second elongate shaft having a second base portion and two second angled end portions. Still further, the method may include coupling one first angled end portion of the two first angled end portions to one second angled end portion of the two second angled end portions via a first end bracket and coupling the other first angled end portion of the two first angled end portions to the other second angled end portion of the two second angled end portions via a second end bracket. Also, the method may include coupling a hammock to the first end bracket and the second end bracket and coupling one or more tent poles of a tent to the first end bracket and the second end bracket. Coupling the one or more tent poles of the tent to the first end bracket and the second end bracket may comprise receiving the one or more tent poles within interfaces respectively defined within the first end bracket and the second end bracket of the frame.

[0009] The forgoing features and elements may be combined in various combinations without exclusivity, unless expressly indicated herein otherwise. These features and elements as well as the operation of the disclosed embodi-

ments will become more apparent in light of the following description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1A is a perspective view of a hammock-tent apparatus, in accordance with various embodiments;

[0011] FIG. 1B is a front view of a hammock-tent apparatus, in accordance with various embodiments;

[0012] FIG. 1C is a side view of a hammock-tent apparatus, in accordance with various embodiments;

[0013] FIG. 2A is a perspective view of a hammock-tent apparatus, in accordance with various embodiments;

[0014] FIG. 2B is a front view of a hammock-tent apparatus, in accordance with various embodiments;

[0015] FIG. 2C is a side view of a hammock-tent apparatus, in accordance with various embodiments;

[0016] FIG. 3 is a perspective view of a frame and hammock of a hammock-tent apparatus, in accordance with various embodiments;

[0017] FIG. 4 is a perspective view of a tent with one or more tent poles of a hammock-tent apparatus, in accordance with various embodiments;

[0018] FIG. 5A is a perspective view of a frame of a hammock-tent apparatus, in accordance with various embodiments;

[0019] FIG. 5B is a front view of a frame of a hammock-tent apparatus, in accordance with various embodiments;

[0020] FIG. 5C is a top view of a frame of a hammock-tent apparatus, in accordance with various embodiments;

[0021] FIG. 5D is a partially exploded perspective view of a frame of a hammock-tent apparatus showing an interconnecting tether system, in accordance with various embodiments;

[0022] FIG. 6A is a view of an end bracket of a frame of a hammock-tent apparatus, in accordance with various embodiments;

[0023] FIG. 6B is a partially exploded perspective view of a frame of a hammock-tent apparatus in a partially collapsed state, in accordance with various embodiments;

[0024] FIG. 6C shows a frame of a hammock-tent apparatus in a collapsed state, in accordance with various embodiments;

[0025] FIG. 6D shows a frame of a hammock-tent apparatus in a collapsed state within a storage/carrying bag, in accordance with various embodiments;

[0026] FIG. 7A is a perspective view of an end bracket of a hammock-tent apparatus showing two portions disconnected from each other, in accordance with various embodiments;

[0027] FIG. 7B is a perspective view of an end bracket of a hammock-tent apparatus showing two portions being connected together by rotating one of the portions relative to the other, in accordance with various embodiments;

[0028] FIG. 7C is a perspective view of an end bracket of a hammock-tent apparatus showing two portions connected together, in accordance with various embodiments;

[0029] FIG. 8A is a perspective view of an end bracket of a hammock-tent apparatus showing two portions being connected together by inserting a section of one within a corresponding section of another, in accordance with various embodiments;

[0030] FIG. 8B is a perspective view of an end bracket of a hammock-tent apparatus showing two portions connected together, in accordance with various embodiments;

[0031] FIG. 9 is a perspective view of a hammock coupled to an end bracket of a hammock-tent apparatus, in accordance with various embodiments;

[0032] FIG. 10 is a perspective view of a portion of a frame of a hammock-tent apparatus showing auxiliary tension/retention fasteners, in accordance with various embodiments;

[0033] FIG. 11 is a perspective view of an end bracket of a hammock-tent apparatus showing an interface for receiving one or more tent poles, in accordance with various embodiments;

[0034] FIG. 12 is a top view of an end bracket of a hammock-tent apparatus showing an interface for receiving one or more tent poles, in accordance with various embodiments; and

[0035] FIG. 13 is a schematic flow chart diagram of a method for assembling a hammock-tent apparatus, in accordance with various embodiments.

[0036] The subject matter of the present disclosure is particularly pointed out and distinctly claimed in the concluding portion of the specification. A more complete understanding of the present disclosure, however, may best be obtained by referring to the detailed description and claims when considered in connection with the drawing figures.

DETAILED DESCRIPTION

[0037] The detailed description of exemplary embodiments herein makes reference to the accompanying drawings, which show exemplary embodiments by way of illustration. While these exemplary embodiments are described in sufficient detail to enable those skilled in the art to practice the disclosure, it should be understood that other embodiments may be realized and that logical changes and adaptations in design and construction may be made in accordance with this disclosure and the teachings herein without departing from the spirit and scope of the disclosure. Thus, the detailed description herein is presented for purposes of illustration only and not of limitation.

[0038] Disclosed herein, according to various embodiments, is a hammock-tent apparatus.

[0039] Generally, the hammock-tent apparatus is a self-supporting structure that supports a hammock and a surrounding tent. As described above, conventional hammocks have various shortcomings, especially pertaining to their portability, storability, adaptability, and versatility. Accordingly, the present disclosure provides a self-supporting hammock-tent apparatus that has various portability, storability, adaptability, and versatility features, among others. In various embodiments, the hammock-tent apparatus disclosed herein is self-supporting (i.e., supports a hammock without requiring trees or other anchoring pillars) and also includes a fully enclosed shelter/tent disposable around the hammock which can provide shelter for a user and/or provide storage for equipment and protection from external elements.

[0040] In various embodiments, and with reference to FIGS. 1A, 1B, and 1C, the self-supporting hammock-tent apparatus 100 includes a frame 110, a hammock 120 configured to be supported and suspended by the frame 110, and a tent 130 coupled to the frame 110 and generally disposed around the hammock 120 to provide shelter to a user. In various embodiments, the frame 110 extends below the hammock 120, with the hammock 120 being coupled to end brackets of the frame 110 (as described in greater detail below). The tent 130 is also generally configured to be

coupled to the frame **110** (also as described in greater detail below), according to various embodiments. That is, the tent **130** may include one or more tent poles **132**, and the one or more tent poles **132** may be coupled to or at least received within a corresponding interface of the frame **110** (as described in greater detail below).

[0041] While one or more stakes or other such anchors may be used to secure the tent **130** and/or the apparatus **100** to the ground, the hammock-tent apparatus **100** is self-supporting in that it does not require a tree or other such elevated anchor point. Accordingly, the hammock-tent apparatus **100** may be deployed in areas where there are few or no trees. Additionally, the hammock-tent apparatus **100** not only provides for self-supporting hammock use, the hammock-tent apparatus **100** also protects the user and/or gear of the user, as gear (such as packs, food, etc.) may be stored within the confines of the tent **130**. For example, gear may be stored beyond/below the upturned portions of the frame **110** in the corner pockets. In various embodiments, and with reference to FIGS. 2A, 2B, and 2C, the hammock-tent apparatus **200** may be implemented without the corner pockets. That is, the tent **230** and the associated tent poles **232** may only extend above the frame **110**.

[0042] In various embodiments, and with reference to FIG. 3, the frame **110** may have various portions/sections. The frame **110** may include a first elongate shaft **111** and a second elongate shaft **112**. The elongate shafts **111**, **112**, according to various embodiments, include base portions and angled end portions. That is, the first elongate shaft **111** may include a first base portion **111B** with two upturned/angled end portions **111A**, **111C** extending from opposing ends of the first base portion **111B**, and the second elongate shaft **112** may include a second base portion **112B** with two upturned/angled end portions **112A**, **112C** extending from opposing ends of the second base portion **112B**. The frame **110** may also include two end brackets **115A**, **115B**. The first and second elongate shafts **111**, **112** may be coupled together via the end brackets **115A**, **115B**. The hammock **120** may be coupled to the frame **110** at these end brackets **115A**, **115B**, as described in greater detail below with reference to FIGS. 9 and 10.

[0043] The frame **110** may be constructed from various materials which have sufficient structural properties to withstand the expected loads exerted on the hammock-tent apparatus. For example, the frame may be constructed from wood, aluminum, steel, titanium, magnesium, fiberglass, plastics, carbon fiber, composite materials, etc. In various embodiments, for example, the frame may be made from a carbon fiber material, which provides a lightweight, durable, and high strength frame. In various embodiments, as described in greater detail below, the frame may include portions that are made from aluminum (e.g., the elongate shafts) and portions that are made from steel (e.g., the end brackets that connect the elongate shafts).

[0044] In various embodiments, and with continued reference to FIG. 3, the frame **110** may be constructed from multiple, detachable sections. For example, the portions **111A**, **111B**, **111C**, **112A**, **112B**, **112C** may be detachably coupled together, thereby allowing for the frame **110** to be collapsed to have a more compact form for storing and/or transport. Additional details are included below pertaining to the collapsible configuration of the frame **110** with reference to FIGS. 5D, 6A, 6B, 6C, 6D, 7A, 7B, 7C, 8A, and 8B. In various embodiments, the sections of the elongate shafts of

the frame **110** may be directly coupled together using a tapered or narrowed male ends that are received within female ends. In various embodiments, joint brackets may be utilized to join the various sections together. The joint brackets may also include features or interfaces for securing and/or retaining the frame sections to the joint brackets. In various embodiments, the frame sections have a rectangular cross-sectional shape (or other polygonal shape), and thus the joint brackets may have a corresponding rectangular shape (see FIG. 10). In various embodiments, the sockets of the joint brackets and the corresponding frame sections are tubular/cylindrical and thus have a circular cross-sectional shape.

[0045] In various embodiments, the frame **110** may also include one or more tension fasteners or tension straps **113** that extend between the first and second elongate shafts **111**, **112**. For example, two tension straps **113** may extend between base portions **111B**, **112B** of the elongate shafts **111**, **112** to help structurally reinforce the frame **110** by preventing the elongate shafts **111**, **112** from spreading too far apart in response to a load (e.g., a user's weight) on the hammock **120** that is supported by the frame **110**. In various embodiments, base portions **111B**, **112B** of the elongate shafts **111**, **112** extend substantially parallel to the longitudinal axis **101** of the hammock-tent apparatus **100**.

[0046] In various embodiments, and with momentary reference to FIGS. 5A, 5B, and 5C, various dimensions and angles of the frame **110** are provided. In various embodiments, the total longitudinal length L1 of the frame **110** is between about 75 inches and about 160 inches. In various embodiments, the total longitudinal length L1 of the frame **110** is between about 90 inches and about 130 inches. In various embodiments, the total longitudinal length L1 of the frame **110** is about 110 inches. In various embodiments, the longitudinal length L2 of the base portions **111B**, **112B** of the elongate shafts **111**, **112** of the frame **110** is between about 30 inches and about 80 inches. In various embodiments, the longitudinal length L2 of the base portions **111B**, **112B** of the elongate shafts **111**, **112** of the frame **110** is between about 40 inches and about 50 inches. In various embodiments, the longitudinal length L2 of the base portions **111B**, **112B** of the elongate shafts **111**, **112** of the frame **110** is about 45 inches. In various embodiments, the height H of the frame **110** is between about 25 inches and about 50 inches. In various embodiments, the height H of the frame **110** is between about 30 inches and about 42 inches. In various embodiments, the height H of the frame **110** is about 36 inches. In various embodiments, the width W of the frame **110** is between about 20 inches and 40 inches. In various embodiments, the width W of the frame **110** is about 30 inches. As used in the context of these dimensions, the term "about" means plus or minus 5 inches.

[0047] In various embodiments, and with continued reference to FIGS. 5A, 5B, and 5C, the angle A1 between the base portions **111B**, **112B** and the end portions **111A**, **111C**, **112A**, **112C** of the elongate shafts **111**, **112** is between about 40 degrees and about 60 degrees. In various embodiments, the angle A1 between the base portions **111B**, **112B** and the end portions **111A**, **111C**, **112A**, **112C** of the elongate shafts **111**, **112** is between about 45 degrees and about 50 degrees. In various embodiments, the angle A1 between the base portions **111B**, **112B** and the end portions **111A**, **111C**, **112A**, **112C** of the elongate shafts **111**, **112** is about 48 degrees. In various embodiments, the angle A2 between corresponding

end portions 111A, 111C, 112A, 112C is between about 30 inches and about 42 inches. In various embodiments, the angle A2 between corresponding end portions 111A, 111C, 112A, 112C is about 36 inches. As used in this context of these angles, the term “about” means plus or minus 2 degrees.

[0048] In various embodiments, and with reference to FIG. 4, details of the tent 130 are provided. The tent 130 may be made of various materials, such as mesh netting, nylon, canvas, hemp, cotton, polyester, felt, polypropylene, and the like. In various embodiments, the tent 130 of the apparatus may be detachably coupled to the frame 110, as described in greater detail below with reference to FIGS. 11 and 12. In various embodiments, the one or more tent poles 132 extend substantially parallel to the longitudinal axis 101 of the hammock-tent apparatus 100. The one or more tent poles 132 may be made from a resiliently flexible material, such as fiberglass or carbon fiber. The one or more tent poles 132 may comprise multiple sections that are detachably or telescopically coupled together, thereby enabling the one or more tent poles 132 to be collapsed. In various embodiments, the tent 130 may also include one or more transverse bars 134 that extend substantially perpendicular to the longitudinal axis 101 of the hammock-tent apparatus 100. The transverse bars 134 may facilitate holding the tent 130 in an expanded configuration, thereby improving the interior tent volume.

[0049] In various embodiments, and with reference to FIGS. 5D, 6A, 6B, 6C, 6D, 7A, 7B, 7C, 8A, and 8B, details pertaining to the collapsible nature of the frame 110 are provided. In various embodiments, and with reference to FIG. 5D, the multiple sections of the frame 110 may include an interconnecting tether system 119 that allows the multiple sections to be collapsed while remaining interconnected.

[0050] In various embodiments, and with specific reference to FIGS. 6A, 6B, 6C, and 6D, the end brackets, such as end bracket 315A, may have a hinge or may be separable to facilitate collapsing the frame 110. For example, the end bracket 315A may have two arms 316A, 317A connected together at a hinge 318. The end bracket 315A may also include a fastener 319, and in response to actuating (e.g., loosening or disconnecting) the fastener 319, the end bracket 315A may be enabled to pivot about the hinge 318, thereby allowing the frame 310 to be in the partially collapsed state shown in FIG. 6B. In response to further collapsing, the frame 310 may be collapsed to its collapsed state shown in FIG. 6C, and the entire frame 310 may be placed within a bag 40 for storage and/or transportation.

[0051] In various embodiments, and with reference to FIGS. 7A, 7B, 7C, 8A, and 8B, examples of an implementation of an end bracket having two portions/arms that are completely separable are provided. In various embodiments, the end bracket 415 may have a first arm 416 and a second arm 417 that are configured to rotate relative to each other in order to attach and detach the arms 416, 417. That is, in order to attach the separable arms 416, 417 together, the arms 416, 417 may be positioned to have a desired orientation relative to each other (FIG. 7A), the arms 416, 417 may be engaged with each other (FIG. 7B), and one of the arms may be rotated relative to the other to bring the two arms 416, 417 into a locked/installed position (FIG. 7C). In various embodiments, and with specific reference to FIGS. 8A and 8B, the end bracket 515 has two separable arms 516, 517 that do not necessarily rotate relative to each other, but

instead have corresponding engagement features (e.g., a protrusion and a corresponding hole) that facilitate interlocking the two arms of the end bracket 515 together.

[0052] In various embodiments, and with reference to FIGS. 9 and 10, the hammock 120 may be coupled to the frame 110 at the end brackets 115A. The hammock 120 may include an attachment mechanism 125 that facilitates secure attachment of the hammock 120 to the end bracket 115A. The attachment mechanism 125 may include clasps, buckles, loops, straps, or other similar fastening devices and implements to achieve a secure yet detachable attachment point for the hammock 120. In various embodiments, as mentioned above, one or more tension straps 113 may extend between base portions 111B, 112B of the frame 110. In various embodiments, one or more straps 133 may also extend between the tent 130 and the frame 110 that secure the flexible material of the tent 130 to the frame 110.

[0053] In various embodiments, and with reference to FIGS. 11 and 12, structures of the end bracket for coupling the one or more tent poles 132 to the frame 110 are provided. For example, and with specific reference to FIG. 11, the end bracket 615A may define an interface 151 for receiving the one or more tent poles 132. The interface 151 may be a hole or an opening that extends through the end bracket 615 at a specific angle (e.g., perpendicular to the plane of the end portions 111A, 112A of the frame to which the end bracket 615 is connected). In various embodiments, and with specific reference to FIG. 12, each of the end brackets 715A comprises an A-shaped structure with a connected cross-member 752 and a top portion of the A-shape that defines a window 751. The one or more tent poles 132 may be received within the window 751. In various embodiments, the top portion of the A-shape may be discontinuous and thus a gap 753 may be defined in the top portion of the end bracket 715A. The one or more tent poles 132 may be bent so as to be retained within the window 751. In various embodiments, the end bracket 715A includes a retention feature 754 that is configured to facilitate retention of the one or more tent poles 132 within the confines of the window 751 and thus prevents the one or more tent poles 132 from springing outwards through the gap 753. In various embodiments, the tent is exclusively coupled to the frame via the one or more tent poles being received within the interface (e.g., an opening, a window, etc) defined by the end brackets of the frame. That is, structural connection between the tent poles and the frame may be limited to the end brackets.

[0054] In various embodiments, and with reference to FIG. 13, a method 890 of assembling a hammock-tent apparatus is provided. The method 890 includes, according to various embodiments, coupling multiple first shaft sections together to form a first elongate shaft having a first base portion and two first angled end portions at step 891. The method 890 may further include coupling multiple second shaft sections together to form a second elongate shaft having a second base portion and two second angled end portions at step 892. Still further, the method 890 may include coupling one first angled end portion of the two first angled end portions to one second angled end portion of the two second angled end portions via a first end bracket at step 893 and coupling the other first angled end portion of the two first angled end portions to the other second angled end portion of the two second angled end portions via a second end bracket at step 894. Also, the method 890 may include

coupling a hammock to the first end bracket and the second end bracket at step 895 and coupling one or more tent poles of a tent to the first end bracket and the second end bracket at step 896. In various embodiments, step 896 of the method 890 may include receiving the one or more tent poles within interfaces respectively defined within the first end bracket and the second end bracket of the frame.

[0055] Benefits, other advantages, and solutions to problems have been described herein with regard to specific embodiments. Furthermore, the connecting lines shown in the various figures contained herein are intended to represent exemplary functional relationships and/or physical couplings between the various elements. It should be noted that many alternative or additional functional relationships or physical connections may be present in a practical system. However, the benefits, advantages, solutions to problems, and any elements that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as critical, required, or essential features or elements of the disclosure.

[0056] The scope of the disclosure is accordingly to be limited by nothing other than the appended claims, in which reference to an element in the singular is not intended to mean “one and only one” unless explicitly so stated, but rather “one or more.” It is to be understood that unless specifically stated otherwise, references to “a,” “an,” and/or “the” may include one or more than one and that reference to an item in the singular may also include the item in the plural. All ranges and ratio limits disclosed herein may be combined.

[0057] Moreover, where a phrase similar to “at least one of A, B, or C” is used in the claims, it is intended that the phrase be interpreted to mean that A alone may be present in an embodiment, B alone may be present in an embodiment, C alone may be present in an embodiment, or that any combination of the elements A, B and C may be present in a single embodiment; for example, A and B, A and C, B and C, or A and B and C. Different cross-hatching is used throughout the figures to denote different parts but not necessarily to denote the same or different materials.

[0058] The steps recited in any of the method or process descriptions may be executed in any order and are not necessarily limited to the order presented. Furthermore, any reference to singular includes plural embodiments, and any reference to more than one component or step may include a singular embodiment or step. Elements and steps in the figures are illustrated for simplicity and clarity and have not necessarily been rendered according to any particular sequence. For example, steps that may be performed concurrently or in different order are illustrated in the figures to help to improve understanding of embodiments of the present disclosure.

[0059] Any reference to attached, fixed, connected or the like may include permanent, removable, temporary, partial, full and/or any other possible attachment option. Additionally, any reference to without contact (or similar phrases) may also include reduced contact or minimal contact. Surface shading lines may be used throughout the figures to denote different parts or areas but not necessarily to denote the same or different materials. In some cases, reference coordinates may be specific to each figure.

[0060] Systems, methods and apparatus are provided herein. In the detailed description herein, references to “one embodiment”, “an embodiment”, “various embodiments”,

etc., indicate that the embodiment described may include a particular feature, structure, or characteristic, but every embodiment may not necessarily include the particular feature, structure, or characteristic. Moreover, such phrases are not necessarily referring to the same embodiment. Further, when a particular feature, structure, or characteristic is described in connection with an embodiment, it is submitted that it is within the knowledge of one skilled in the art to affect such feature, structure, or characteristic in connection with other embodiments whether or not explicitly described. After reading the description, it will be apparent to one skilled in the relevant art(s) how to implement the disclosure in alternative embodiments.

[0061] Furthermore, no element, component, or method step in the present disclosure is intended to be dedicated to the public regardless of whether the element, component, or method step is explicitly recited in the claims. No claim element is intended to invoke 35 U.S.C. 112(f) unless the element is expressly recited using the phrase “means for.” As used herein, the terms “comprises”, “comprising”, or any other variation thereof, are intended to cover a non-exclusive inclusion, such that a process, method, article, or apparatus that comprises a list of elements does not include only those elements but may include other elements not expressly listed or inherent to such process, method, article, or apparatus.

What is claimed is:

1. A hammock-tent apparatus comprising:
 - a frame that is self-supporting, wherein a hammock is configured to be coupled to the frame, wherein the hammock is configured to be suspended and supported by the frame; and
 - a tent configured to be coupled to the frame, wherein the tent is configured to be disposed around the hammock.
2. The hammock-tent apparatus of claim 1, wherein the tent comprises one or more tent poles, wherein the one or more tent poles are configured to be coupled to the frame.
3. The hammock-tent apparatus of claim 2, wherein the frame comprises two end brackets that each comprises an interface for receiving the one or more tent poles.
4. The hammock-tent apparatus of claim 3, wherein the interface is an opening defined by and extending through each end bracket.
5. The hammock-tent apparatus of claim 4, wherein each of the two end brackets comprises an A-shaped structure, wherein the opening is a window defined by a top portion of the A-shaped structure, wherein the one or more tent poles are configured to extend through the window.
6. The hammock-tent apparatus of claim 5, wherein the top portion of the A-shaped structure has a gap through which the one or more tent poles are configured to be bent so as to be retained within the window.
7. The hammock-tent apparatus of claim 6, wherein each of the two end brackets comprises a retention feature configured to facilitate retention of the one or more tent poles within the window and thus prevent the one or more tent poles from springing outwards through the gap.
8. The hammock-tent apparatus of claim 3, wherein the tent is exclusively coupled to the frame via the one or more tent poles being received within the interface of each of the two end brackets of the frame.
9. The hammock-tent apparatus of claim 3, wherein the frame comprises two elongate shafts that are configured to extend between the two end brackets.

10. The hammock-tent apparatus of claim **9**, wherein each of the two elongate shafts comprises multiple sections that are configured to be detachably coupled together.

11. The hammock-tent apparatus of claim **10**, wherein the multiple sections comprise a base portion and angled end portions.

12. The hammock-tent apparatus of claim **11**, further comprising one or more tension straps configured to extend between respective base portions of the two elongate shafts.

13. The hammock-tent apparatus of claim **10**, wherein the multiple sections comprise an interconnecting tether system that allows the multiple sections to be collapsed while remaining interconnected.

14. The hammock-tent apparatus of claim **13**, wherein each end bracket of the two end brackets comprises a first arm configured to be coupled to a first elongate shaft of the two elongate shafts and a second arm configured to be coupled to a second elongate shaft of the two elongate shafts, wherein the first arm and the second arm are configured to be detachably coupled together.

15. The hammock-tent apparatus of claim **14**, wherein relative rotation between the first arm and the second arm enable attachment and detachment of the first arm and the second arm.

16. The hammock-tent apparatus of claim **15**, wherein the first arm of each of the two end brackets remains interconnected, via the interconnecting tether system, with the first elongate shaft and the second arm of each of the two end brackets remains interconnected, via the interconnecting tether system, with the second elongate shaft.

17. The hammock-tent apparatus of claim **3**, wherein the hammock is configured to be coupled to and be suspended between the two end brackets.

18. A hammock-tent apparatus comprising:

a frame that is self-supporting, the frame comprising two elongate shafts and two end brackets, wherein the two elongate shafts extend between the two end brackets; a hammock coupled to the two end brackets of the frame, wherein the hammock is supported by the frame and is suspended between the two end brackets; and a tent comprising one or more tent poles that are received within interfaces of the two end brackets of the frame, wherein the tent is configured to be disposed around the hammock.

19. A method of assembling a hammock-tent apparatus, the method comprising:

coupling multiple first shaft sections together to form a first elongate shaft having a first base portion and two first angled end portions;

coupling multiple second shaft sections together to form a second elongate shaft having a second base portion and two second angled end portions;

coupling one first angled end portion of the two first angled end portions to one second angled end portion of the two second angled end portions via a first end bracket;

coupling the other first angled end portion of the two first angled end portions to the other second angled end portion of the two second angled end portions via a second end bracket;

coupling a hammock to the first end bracket and the second end bracket; and

coupling one or more tent poles of a tent to the first end bracket and the second end bracket.

20. The method of claim **19**, wherein coupling the one or more tent poles of the tent to the first end bracket and the second end bracket comprises receiving the one or more tent poles within interfaces respectively defined within the first end bracket and the second end bracket of the frame.

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