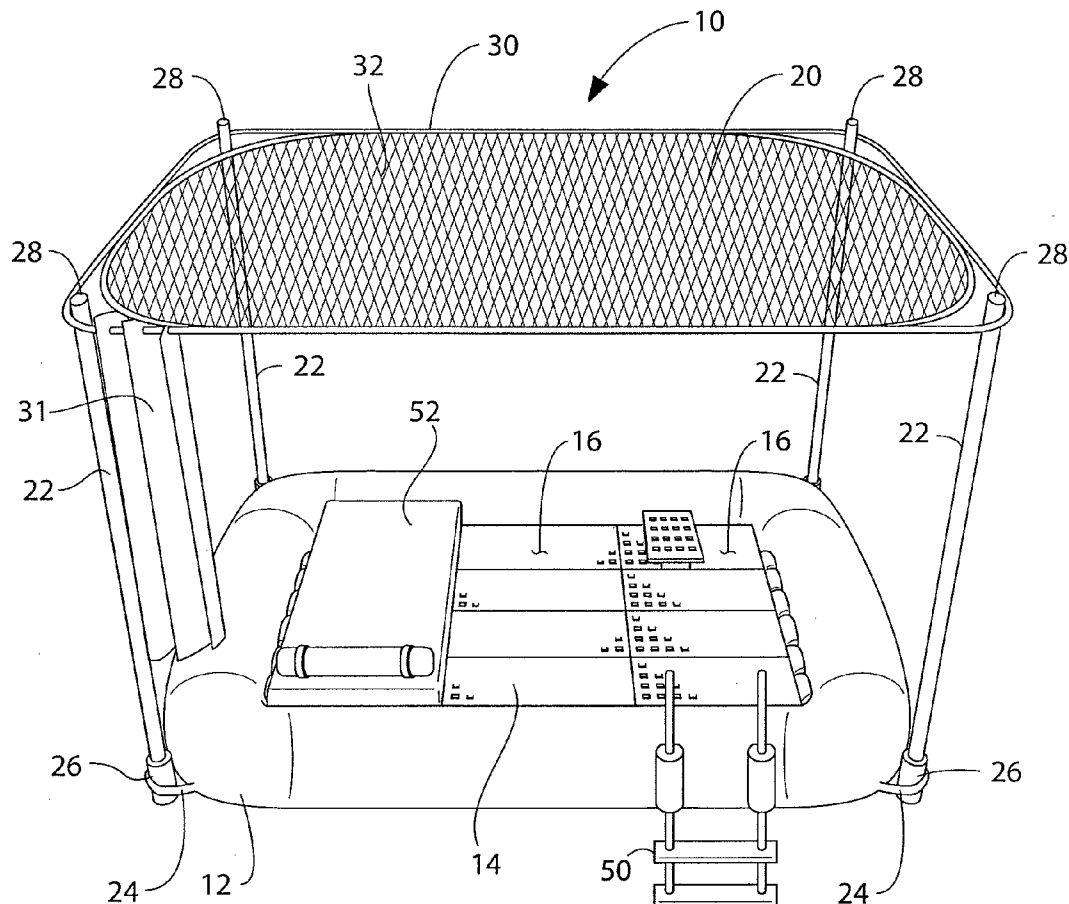




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(19) **United States**(12) **Patent Application Publication**  
**Parr**(10) **Pub. No.: US 2012/0231686 A1**(43) **Pub. Date: Sep. 13, 2012**(54) **PLATFORM RAFT**(52) **U.S. Cl. .... 441/38; 441/35**(76) **Inventor: Stuart Parr, New York, NY (US)**(57) **ABSTRACT**(21) **Appl. No.: 13/117,493**(22) **Filed: May 27, 2011****Related U.S. Application Data**(60) **Provisional application No. 61/450,727, filed on Mar. 9, 2011.****Publication Classification**(51) **Int. Cl.**  
**B63B 35/613 (2006.01)**

A platform raft is provided which includes a flotation tubing frame having an open central portion, a substantially rigid platform supported in the open central portion of the frame, and a roof disposed on at least one support, said roof having fabric suspended from the roof down to the flotation tubing frame. A second embodiment of a platform raft is provided including a flotation tubing frame having an open central portion, and a substantially rigid platform supported in the open central portion of the frame, the platform covering less than the entire open central portion of thereby forming an access area within the open central portion adapted for use as a swimming area.



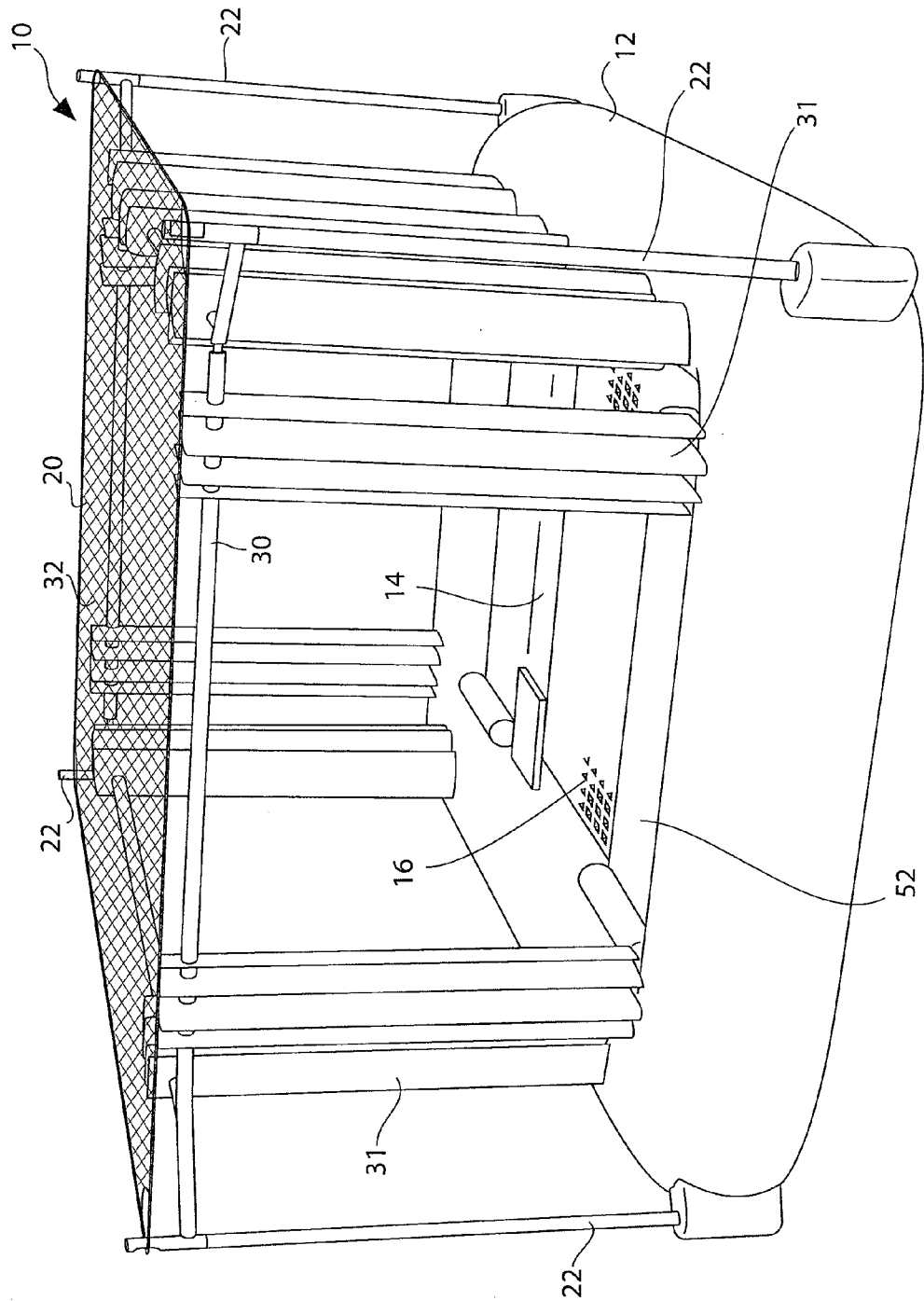


FIG. 1

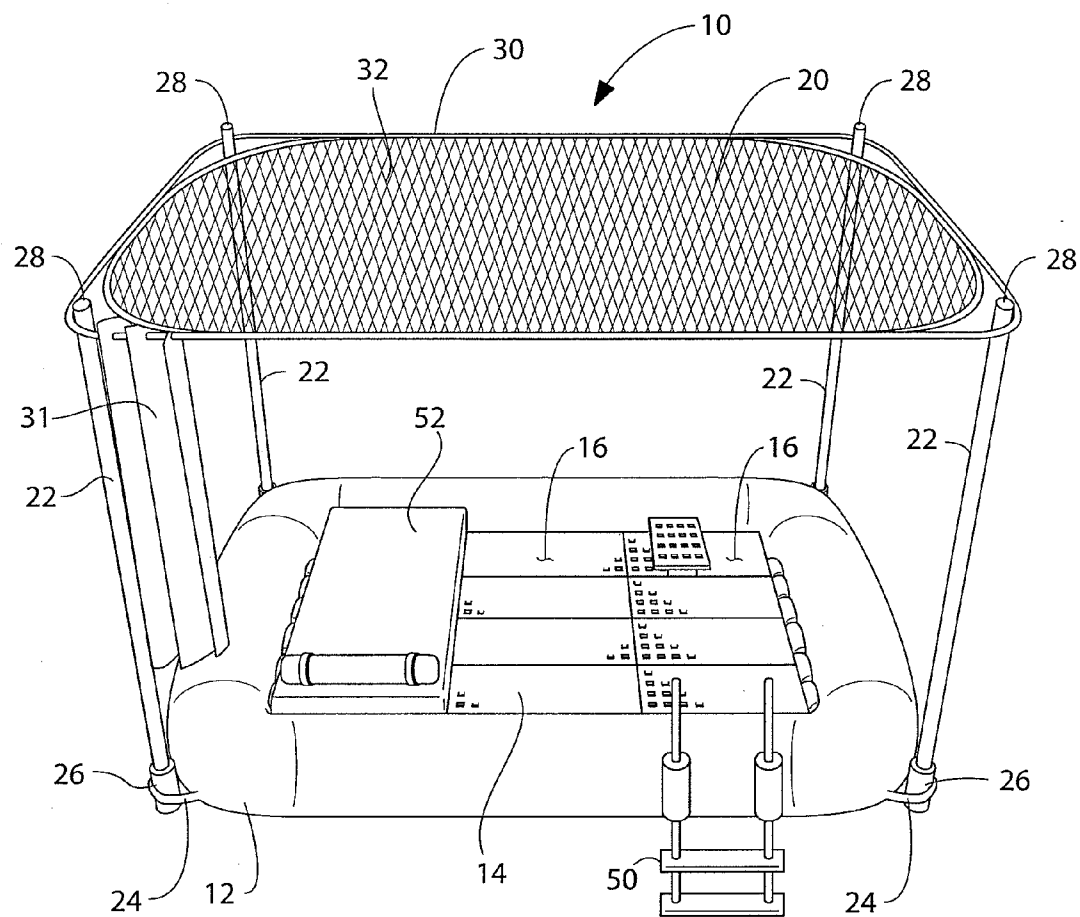


FIG. 2

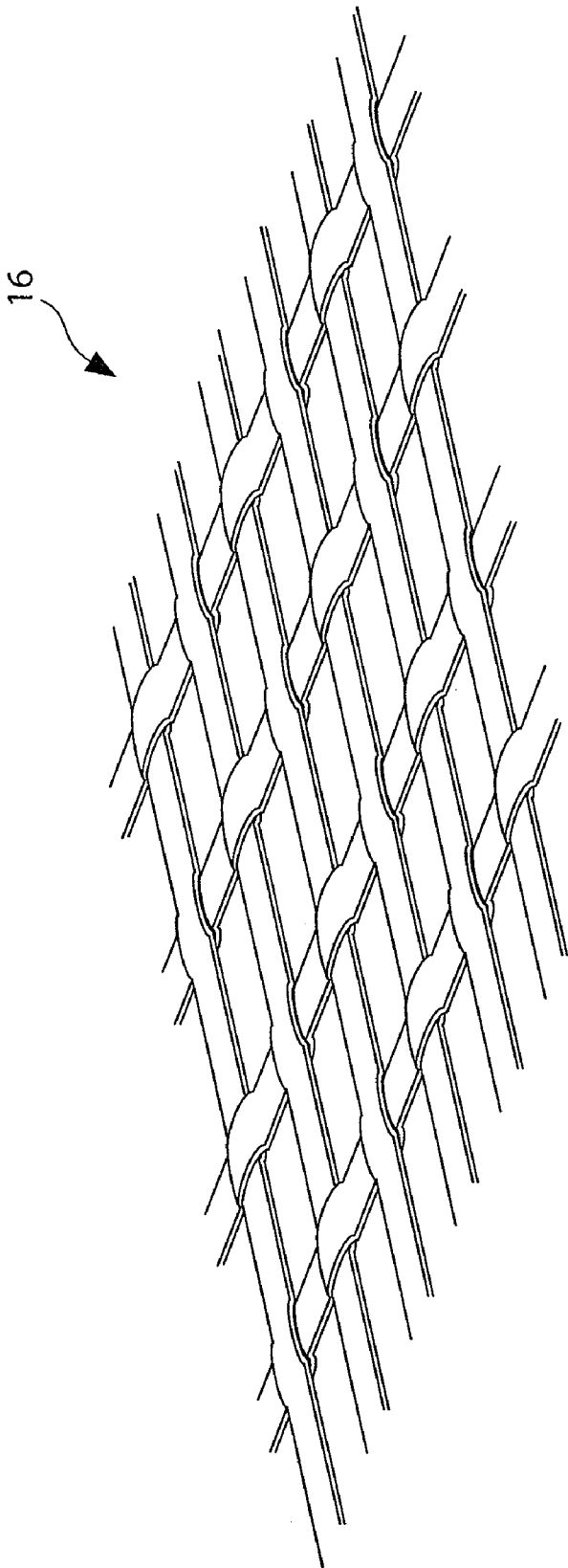


FIG. 3

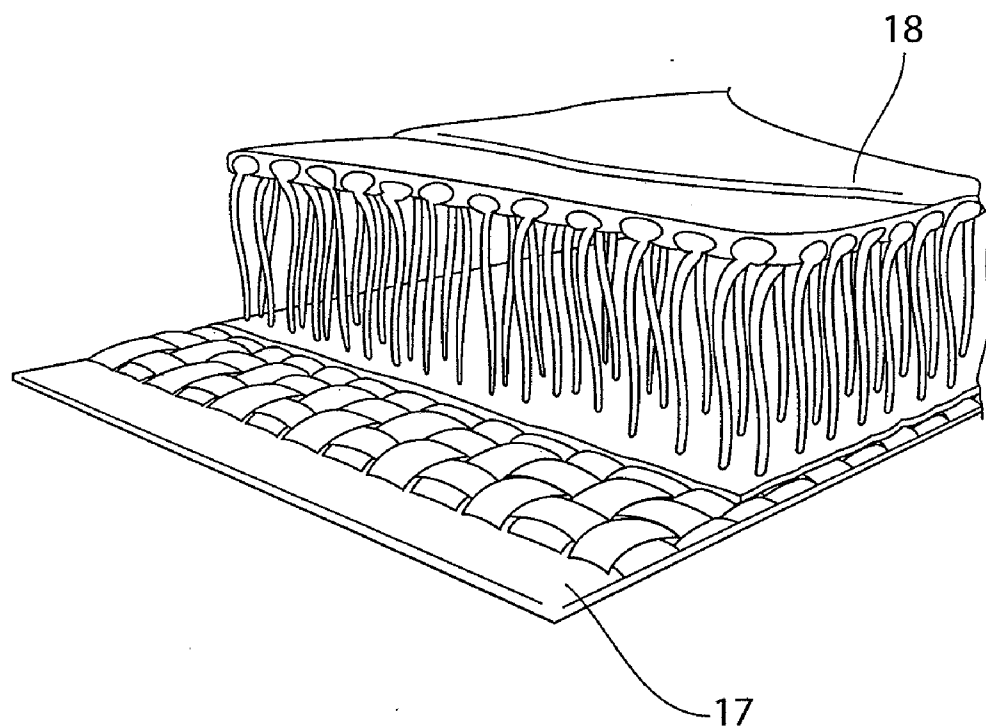


FIG. 4

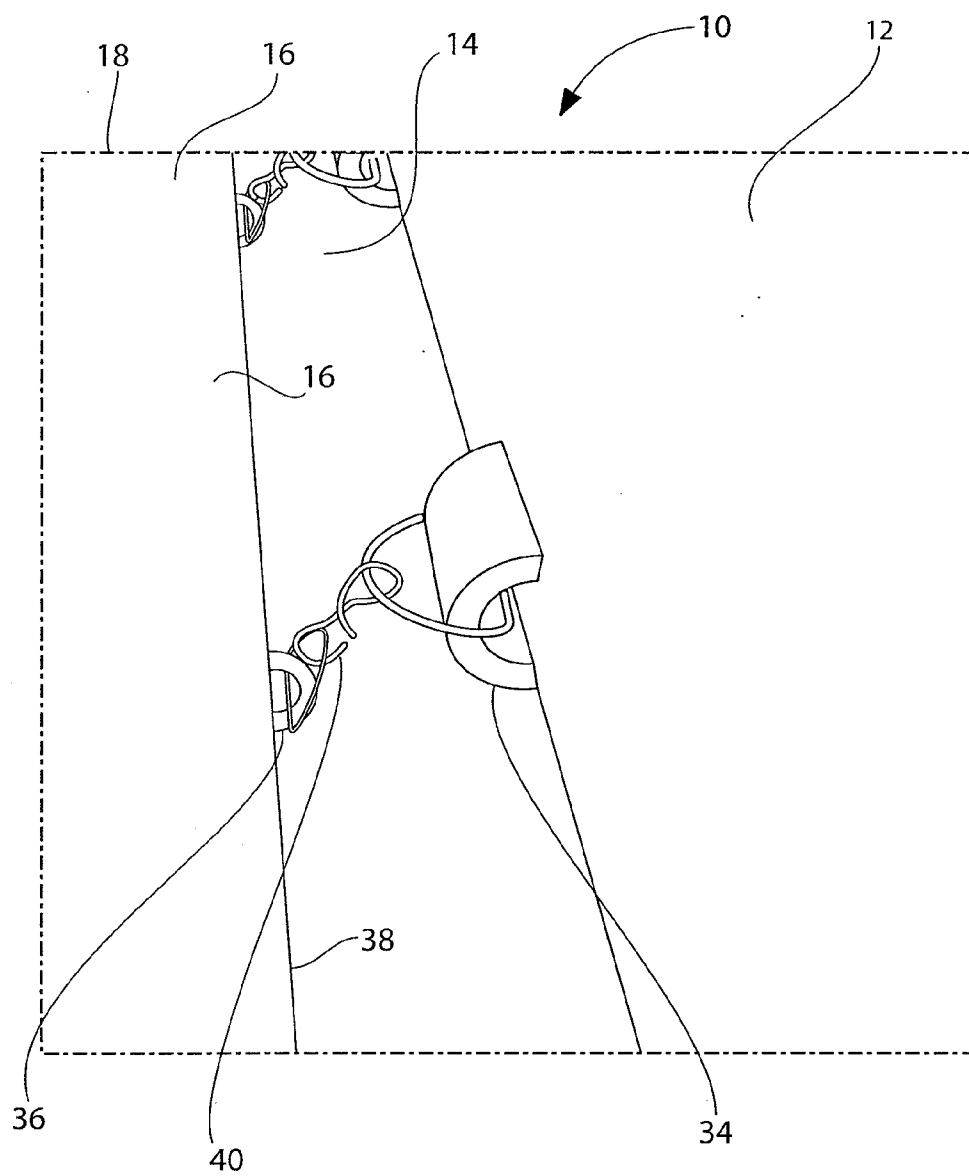


FIG. 5

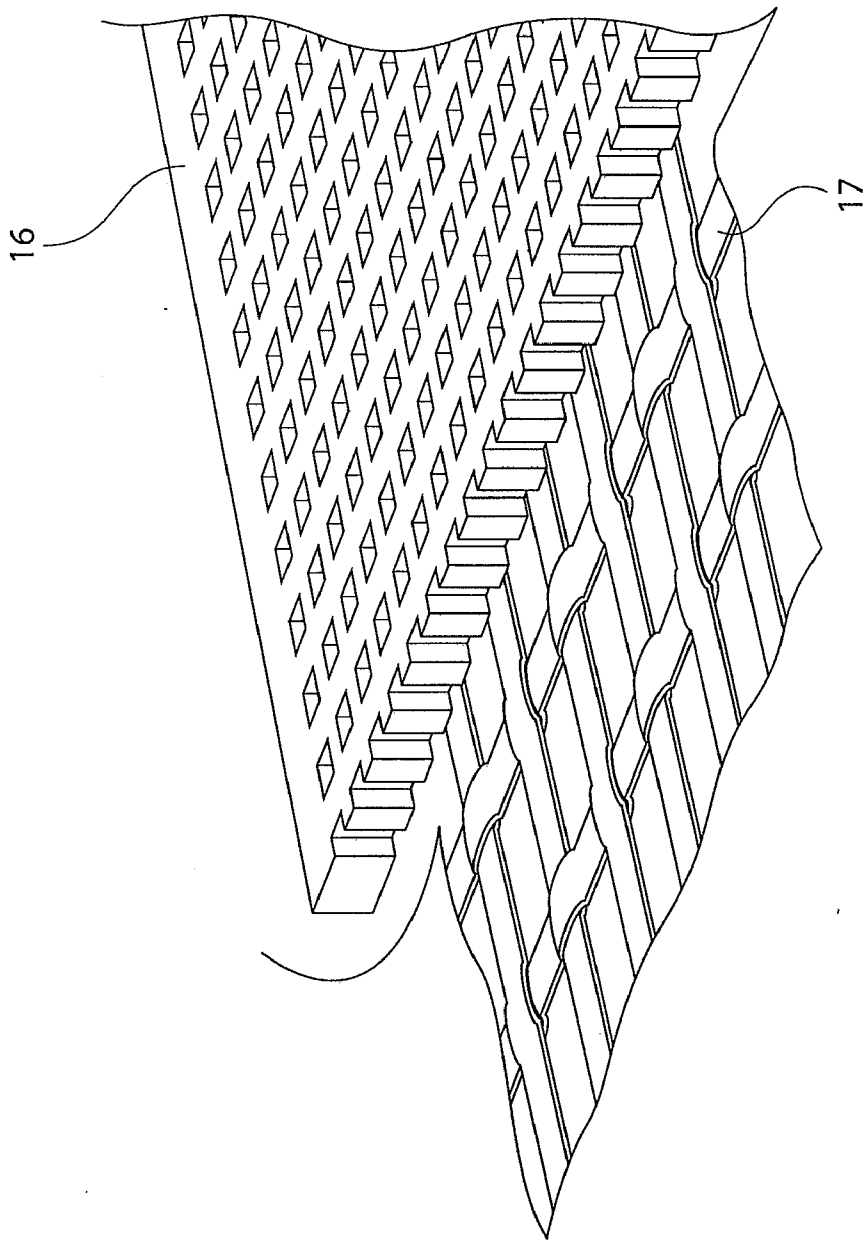


FIG. 6

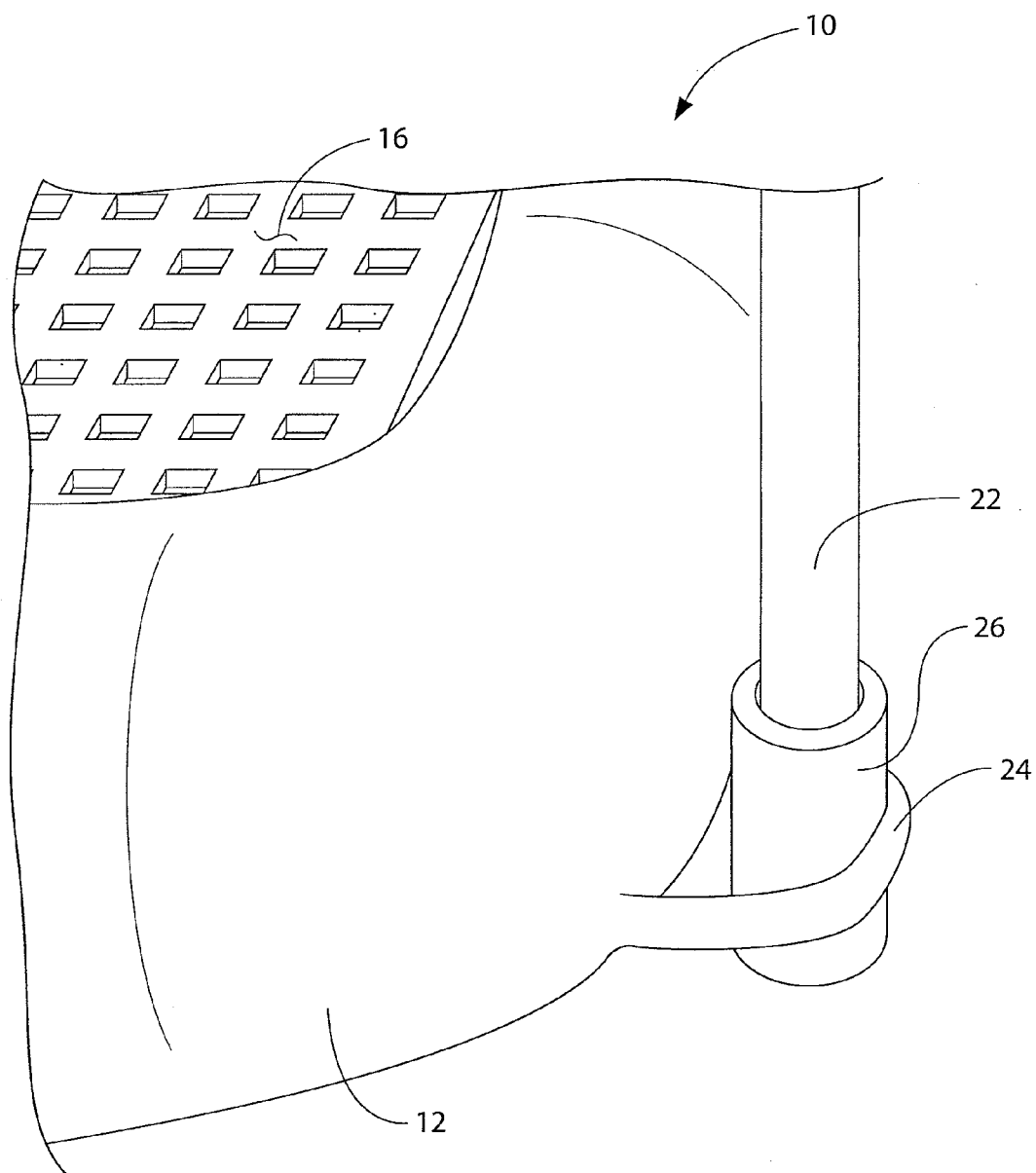


FIG. 7



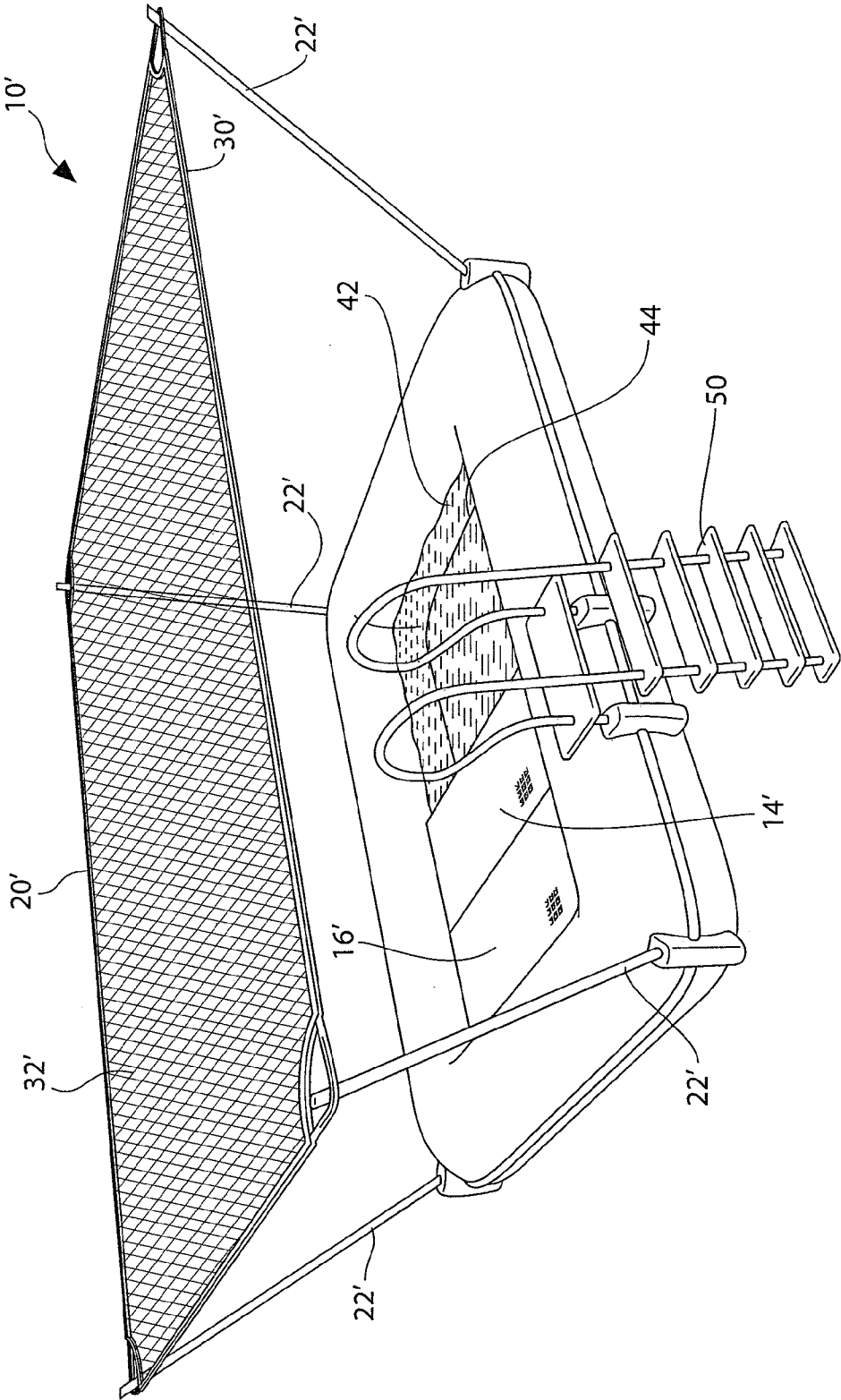


FIG. 8

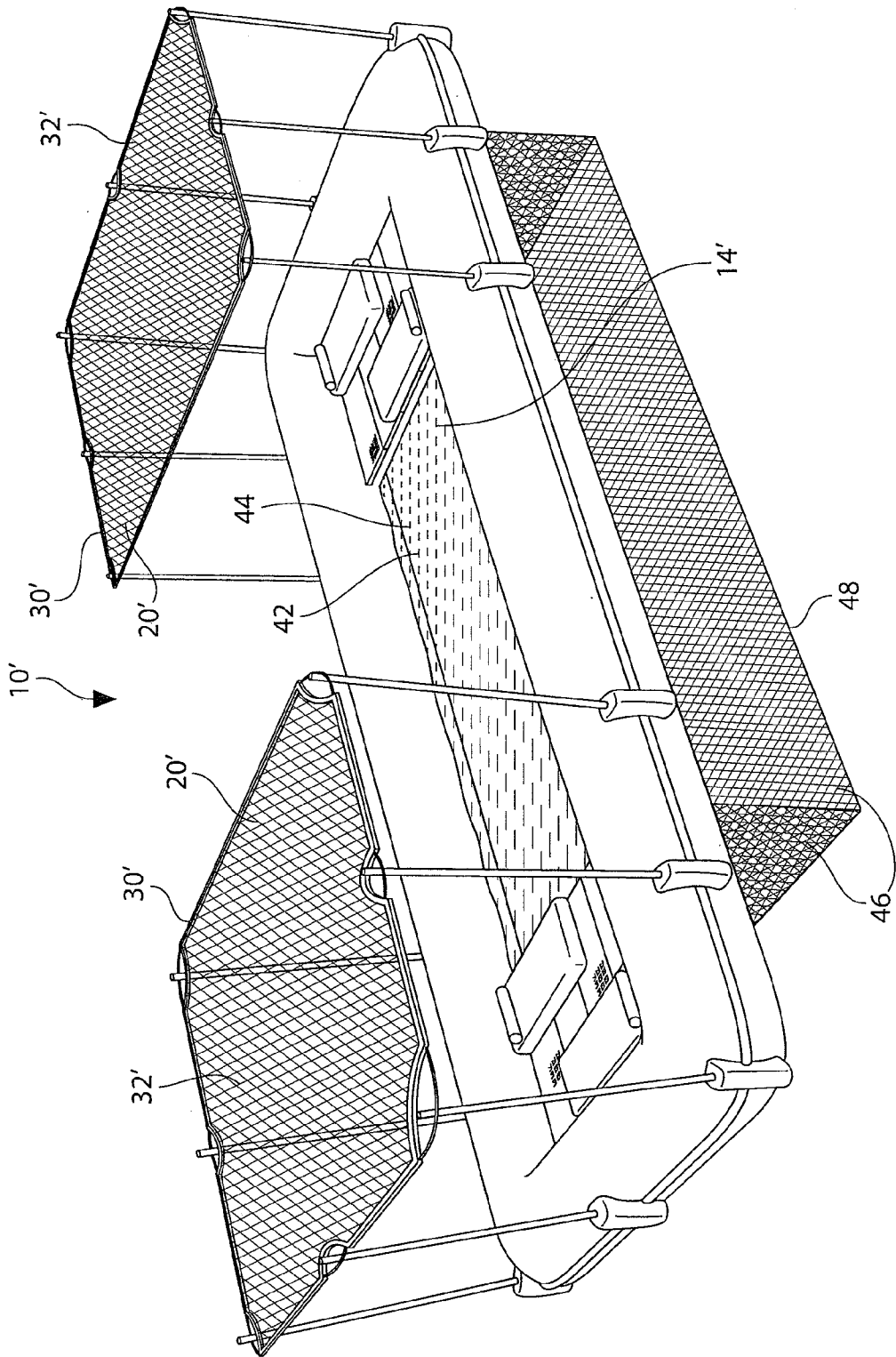


FIG. 9

## PLATFORM RAFT

### CROSS-REFERENCE TO RELATED APPLICATION

**[0001]** This application claims priority U.S. Provisional Application Ser. No. 61/450,727, entitled Platform Raft, filed Mar. 9, 2011, the complete specification of which is fully incorporated by reference.

### BACKGROUND OF THE INVENTION

**[0002]** The present invention is directed generally to floating rafts. More specifically the present invention is directed to recreational floating rafts for use in oceans, lakes and rivers that provide a platform for recreational use.

**[0003]** Numerous floating rafts have been provided in the past for various recreational and other uses. For example, U.S. Pat. No. 7,357,688 (Ferrara) is directed to a portable flotation apparatus that includes a PVC tubing frame having an open central portion. In the open central portion is a platform structure. The platform structure is supported by several sets of buoyancy tubes that are also located in the central open area. The platform structure may be plastic, wood, PVC, fiberglass, etc.

**[0004]** U.S. Pat. No. 7,867,049 (Doffay) is directed to a floatable work station that includes an inflatable tube having an open central portion on which deck boards are located. The inflatable tube has a "base member" that forms a floor on which the deck boards are placed.

**[0005]** U.S. Patent No. 6,805,066 (Johnson) is directed to a modular floating swim platform. Inflatable modules are used on the periphery and appear to support panels in the central portion. Beverage containers, coolers, chairs, umbrellas, retractable tops and the like are also discussed.

**[0006]** U.S. Pat. No. 7,837,526 (Doffay) is directed to a floatable workstation in which deck boards are disposed on inflatable chambers.

**[0007]** It would be beneficial to provide a floating raft for recreational use that has features provided specifically directed to comforts associated with users of the raft.

### BRIEF SUMMARY OF THE INVENTION

**[0008]** A platform raft is provided which includes a flotation tubing frame having an open central portion, a substantially rigid platform supported in the open central portion of the frame, and a roof disposed on at least one support, the roof having fabric suspended from the roof down to the flotation tubing frame. The fabric may be for example, bug netting, curtains, or drapes. The substantially rigid platform may be constructed in various ways, including, for example, a tightly stretched woven trampoline-type fabric (with or without a frame separate from the flotation tubing frame), wood, such as teak in a cross-hatched pattern, or a drop stitch fabric. The platform also may be constructed from other woods, fiberglass, metal, plastic, cork, or nearly any other relatively rigid material.

**[0009]** The substantially rigid platform may supported by a mesh surface, from for example woven cloth strips, molded plastic or fiberglass, or similar materials. The platform may be constructed from drop stitch fabric.

**[0010]** The flotation tubing frame may be made from, for example, polyvinyl chloride (PVC) or Hypalon® brand chlorosulfonated polyethylene (CSPE) synthetic rubber in a manner commonly used for whitewater rafts, other inflatable

watercraft, and related articles. Other materials commonly used for rafts may also be used.

**[0011]** The roof may allow for transmission of light there-through, for example, between 0% and 100% of light transmission. The roof may also be waterproof. Each of the supports may be mounted on the flotation tubing frame by, for example, one of a plurality of stretchable bands mounted integral to the flotation tubing frame.

**[0012]** The outer perimeter of the flotation tubing frame may be any number of conceivable shapes including rectangular, round, triangular, square or any other curved or polygonal shape that is manufacturable.

**[0013]** The platform may be mounted to the flotation tubing frame in numerous ways, for example, by a plurality of D-rings mounted integral to the flotation tubing frame in combination with a like plurality of D-rings mounted integral to the platform. A frame edge going around a perimeter of the platform may be provided where the flotation tubing frame has a plurality of rings mounted integral thereto. Here, the frame edge may be mounted to the flotation tubing frame using hook and loop fasteners. The flotation tubing frame may have a plurality of rings mounted integral thereto and the platform is mounted to the flotation tubing frame using rope attached to rings mounted to the flotation tubing frame.

**[0014]** In another embodiment of the present invention, a platform raft is provided which includes a flotation tubing frame having an open central portion and a substantially rigid platform supported in the open central portion of the frame. The platform covers less than the entire open central portion of thereby forming an access area within the open central portion adapted for use as a swimming area. Walls may be provided that are suspended downward from the platform or flotation tubing frame, adjacent to the access area. The walls may further include a floor. The walls may be a netting fabric to allow water to pass through. The walls and floor are waterproof to provide a vessel to hold fresh water.

**[0015]** A roof may be disposed on at least one support, where the roof has fabric suspended from the roof down to the flotation tubing frame. The platform may be a tightly stretched woven trampoline-type fabric. The platform may be constructed from a material such as wood, fiberglass, metal, plastic, and cork. The platform may be constructed from drop stitch fabric, as is well known. The roof may allow for transmission of light therethrough. Finally, the platform raft may have a long, but narrow outer perimeter configuration adapted for a swimmer to swim adjacent to the length of the raft wherein the raft provides a place for the swimmer to rest.

### BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

**[0016]** The invention will be described in conjunction with the following drawings in which like reference numerals designate like elements and wherein:

**[0017]** FIG. 1 is an isometric view of a platform raft in accordance with a first preferred embodiment of the present invention;

**[0018]** FIG. 2 is another isometric view of the platform raft of FIG. 1 (shown with partial curtains);

**[0019]** FIG. 3 is a partial isometric view of a platform of the platform raft of FIG. 1;

**[0020]** FIG. 4 is a partial cross-sectional, isometric view of drop stitch fabric supported by a woven fabric support layer in an alternate embodiment of a platform of the platform raft of FIG. 1;

[0021] FIG. 5 is an example of a connection system for connecting a platform to a flotation tubing frame of the platform raft of FIG. 1;

[0022] FIG. 6 is a partial isometric view of a support surface supporting a cross-hatched wood platform for use as an alternate platform of the platform raft of FIG. 1;

[0023] FIG. 7 is an example of a connection system for connecting roof supports to a flotation tubing frame of the platform raft of FIG. 1;

[0024] FIG. 8 is an alternate embodiment of a platform raft in accordance with another preferred embodiment of the present invention, where the platform raft includes a swimming area; and

[0025] FIG. 9 is another alternate embodiment of a platform raft in accordance with another preferred embodiment of the present invention, where the platform raft includes a swimming area.

#### DETAILED DESCRIPTION OF THE INVENTION

[0026] The invention will be illustrated in more detail with reference to the following embodiments, but it should be understood that the present invention is not deemed to be limited thereto.

[0027] Referring now to the drawings, wherein like part numbers refer to like elements throughout the several views, there is shown in FIGS. 1 and 2 a platform raft 10 in accordance with a preferred embodiment of the present invention. Generally, the platform raft 10 includes a flotation tubing frame 12 having an open central portion 14. Mounted with the open central portion 14 of the flotation tubing frame 12 is a substantially rigid platform 16.

[0028] The term “substantially rigid” as it applies to this platform is intended to include a tightly stretched, generally nonstretchable fabric, for example, a woven fabric typically used on trampoline surfaces. See, for example, FIG. 3. The platform 16 may be constructed from wood, for example teak wood in a cross-hatched pattern. See FIG. 6. The platform 16 may also be constructed from nearly any relatively rigid material such as fiberglass, other woods (e.g., mahogany), cork, various metals, such as aluminum, plastics, etc. Rope, wire, hook and loop fasteners, a zipper, or nearly any other conceivable device may be used to attach the platform 16 to the flotation tubing frame 12 around its edge (see, for example, FIG. 5), as will be described in more detail below. Alternatively, the platform 16 may sit on a support surface 17 such as a grid of cloth, wire. See FIGS. 4 and 6.

[0029] The platform 16 may be constructed from a drop stitch fabric 18. See FIG. 4. A drop stitch fabric 18 is produced as a double cloth, with an extra interlocking warp. Once coated, it allows the fabrication of inflatable walls. See, for example, www.dropstitch.com. The drop stitch fabric 18 may be supported in the open central portion 14 at its edges, or, alternatively, may be supported, as described above, by a support surface 17 (such as the woven fabric strips of FIG. 6), mesh (see FIG. 4), a web of thin wire or cable (not shown), etc.

[0030] As can be seen in FIGS. 1 and 8-9, one or more roofs 20 (or 20') may be disposed on the platform raft 10, mounted, for example, using a plurality of roof supports 22 (or 22'). A detail of an example of the supports 22 as mounted to the flotation tubing frame 12 is shown in FIG. 7. Here, a plurality of somewhat stretchable bands 24, mounted on the flotation tubing frame 12 engage a lower end 26 of each of the supports 22. The upper end 28 of each of the supports 22 is attached to

a frame 30 of the roof 20. The roof 20 may be opaque and let no light through or it may be, for example, a fabric 32 that allows for a desired amount of light transmission, for example, between 0% and 100% of light transmission. The roof 20 is draped with fabric or solid drapes 31, for example, mosquito netting, down to the flotation tubing frame 12 to allow for the platform raft 10 to be used for sleeping or otherwise longer term use in a bug-free environment. The fabric can also be curtains, drapes or the like (and may also be rigid materials).

[0031] The flotation tubing frame 12 is preferably made from polyvinyl chloride (PVC) or chlorosulfonated polyethylene (CSPE) synthetic rubber (also known as Hypalon®) and may be constructed using well known construction techniques for, for example, whitewater rafts, other inflatable watercraft, and the like.

[0032] The platform raft 10 may be very large, for example, sixty feet by sixty feet or larger, or can be very small, for example, five feet by five feet or less. Additionally, the platform raft can be very long and narrow, for example, eighty feet by eight feet. In this case, it can be used in a lake or ocean and swimmers could swim in the water adjacent to the platform raft 10 and come up on it as a resting point. Substantially any size that can be manufactured is considered to be within the scope of the present invention.

[0033] The flotation tubing frame 12 may have nearly any conceivable outer perimeter shape, such as the rectangular shape shown in FIGS. 1 and 1A, generally round, triangular, polygon, square, oval, etc. shape.

[0034] The platform 16 may be mounted to the open central portion 14 of the flotation tubing frame 12 by any of numerous attachment assemblies, new, or known. In the attachment assembly of FIG. 5, a plurality of rings, such as D-rings 34, are attached (as are well known) to the flotation tubing frame 12. A like plurality of rings 36 are attached to the edge 38 of the platform 16. A small piece of connecting hardware 40 may be used to join the D-rings 34 and adjacent rings 36. Alternatively, rings or U-brackets or other similar devices mounted on flotation tubing frame 12 may be used in conjunction with a like plurality of rings or grommets, etc. on the edge of the platform 16. Hook and loop fasteners can replace the rings. Suffice it to say that there are many known ways that may be used to attach the platform 16 to the flotation tubing frame 12.

[0035] In a second preferred embodiment of the present invention, as can be seen in FIGS. 8 and 9, a platform raft 10' may be provided having a swimming area 42 located on or adjacent to the platform 16'. In the embodiment of FIGS. 8 and 9, similar elements to those described above with respect to the first embodiment have a “prime” designation after their reference number. For example, the platform 16 of the first embodiment is designated platform 16' of this embodiment. Similar features will not be described here again. Here, the platform 16' (or optionally, a plurality of platforms) covers less than the entire open central portion 14' thereby forming an access area 44 within the open central portion 14' adapted for use as the swimming area 42.

[0036] Optionally, as shown in FIG. 9, below the access area 44, either waterproof or netting walls 46 and (optionally) floor 48 may be suspended from the platform or flotation tubing frame. If the walls 46 and floor are waterproof, a generally waterproof vessel is formed for filling with fresh water (when, for example, the platform raft 10' is used in the

ocean). Alternatively, if the walls are made from netting or mesh material, fish and/or jellyfish and/or other aquatic life intrusion is prevented.

[0037] Optional features may include a ladder 50, padded seats or cushions 52, and an anchor or mooring attachment (not shown). A battery or other electric power for heat, cooling, ice chest, fans, refrigerator, and the like may be provided (not shown).

[0038] Finally, as shown specifically in FIG. 9, the platform raft 10' (or 10) may have a long, but narrow outer perimeter configuration adapted for a swimmer to swim adjacent to the length of the raft wherein the raft provides a place for the swimmer to rest.

[0039] The platform raft has many advantages. It is relatively light weight and can be stored very compactly, but deployed quickly and easily from, for example, a yacht, or seaside, lakeside or riverside house or hotel, etc.

[0040] While the invention has been described in detail and with reference to specific examples thereof, it will be apparent to one skilled in the art that various changes and modifications can be made therein without departing from the spirit and scope thereof.

What is claimed is:

1. A platform raft, comprising:
  - (a) a flotation tubing frame having an open central portion;
  - (b) a substantially rigid platform supported in the open central portion of the frame; and
  - (c) a roof disposed on at least one support, said roof having fabric suspended from the roof down to a point adjacent to the flotation tubing frame.
2. The platform raft of claim 1, wherein the fabric is a fabric selected from the group consisting of bug netting, curtains, and drapes.
3. The platform raft of claim 1, wherein the platform is a tightly stretched woven trampoline-type fabric.
4. The platform raft of claim 1, wherein the platform is constructed from a material selected from the group of wood, fiberglass, metal, plastic, and cork.
5. The platform raft of claim 1, wherein the platform is generally rigid, and supported by a mesh surface.
6. The platform raft of claim 1, wherein the platform is constructed from drop stitch fabric.
7. The platform raft of claim 1, wherein the flotation tubing frame is made from polyvinyl chloride (PVC) fabric.
8. The platform raft of claim 1, wherein the flotation tubing frame is made from chlorosulfonated polyethylene (CSPE) synthetic rubber (CSM) fabric.
9. The platform raft of claim 1, wherein the roof allows for transmission of light therethrough.

10. The platform raft of claim 1, wherein the roof allows for between 0% and 100% of light transmission therethrough.

11. The platform raft of claim 1, wherein each of the supports are mounted on the flotation tubing frame by one of a plurality of stretchable bands mounted integral to the flotation tubing frame.

12. The platform raft of claim 1, wherein an outer perimeter of the flotation tubing frame is a shape selected from the group consisting of generally rectangular, round, triangular, polygonal, square and oval.

13. The platform raft of claim 1, wherein the platform is mounted to the flotation tubing frame by a plurality of D-rings mounted integral to the flotation tubing frame in combination with a like plurality of D-rings mounted integral to the platform.

14. A platform raft, comprising:

- (a) a flotation tubing frame having an open central portion; and
- (b) at least one substantially rigid platform supported in the open central portion of the frame, the at least one platform covering less than the entire open central portion of thereby forming an access area within the open central portion adapted for use as a swimming area.

15. The platform raft of claim 14, having walls suspended downward from the platform or flotation tubing frame, adjacent to the access area, to prevent sea creatures from entering.

16. The platform raft of claim 15, wherein the walls include a floor

17. The platform raft of claim 15, wherein the walls are a netting fabric to allow water to pass therethrough.

18. The platform raft of claim 16, wherein the walls and floor are waterproof to provide a vessel to hold fresh water.

19. The platform raft of claim 14, including a roof disposed on at least one support, said roof having fabric suspended from the roof down to the flotation tubing frame.

20. The platform raft of claim 14, wherein the platform is a tightly stretched woven trampoline-type fabric.

21. The platform raft of claim 14, wherein the platform is constructed from a material selected from the group of wood, fiberglass, metal, plastic, and cork.

22. The platform raft of claim 14, wherein the platform is constructed from drop stitch fabric.

23. The platform raft of claim 14, wherein the roof allows for transmission of light therethrough.

24. The platform raft of claim 14, wherein the platform raft has a long, but narrow outer perimeter configuration adapted for a swimmer to swim adjacent to the length of the raft wherein the raft provides a place for the swimmer to rest.

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