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(54) **FLOATING BUG, SUN AND PRIVACY DOME**

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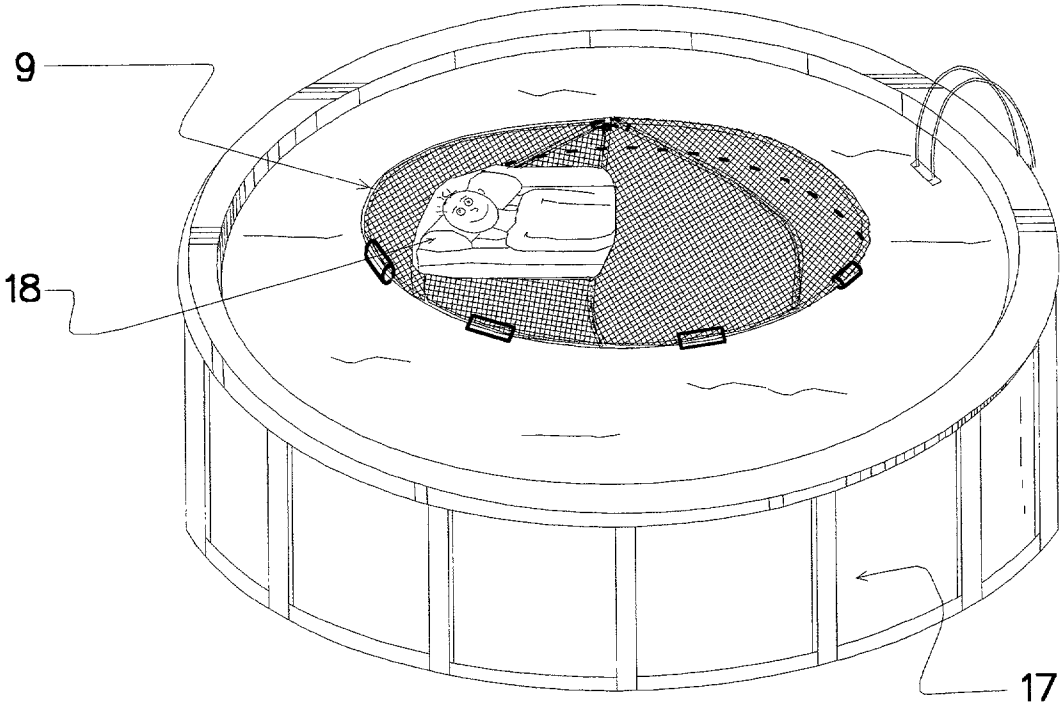
(57) **ABSTRACT**

A dome of convex shape, constructed of a plurality of tubular bent members connected at a common point at the top and to a tension ring at the base forming an interior cavity of adequate size to cover an adult floating on a raft or standing in a pool. The exterior is covered in a fabric or mesh weave of sufficiently small opening to prevent the entry of mosquitoes and insects, also providing shade from the sun. This exterior covering also offers privacy from observers located at distance. The fabric is held taut by Velcro, zippers or snaps for easy assembly and disassembly. Floats consisting of cylindrical lightweight rigid foam or inflatable PVC material are installed to support the structure in water. The floats can be removed if benefits from the floating dome are desired on areas other than water.



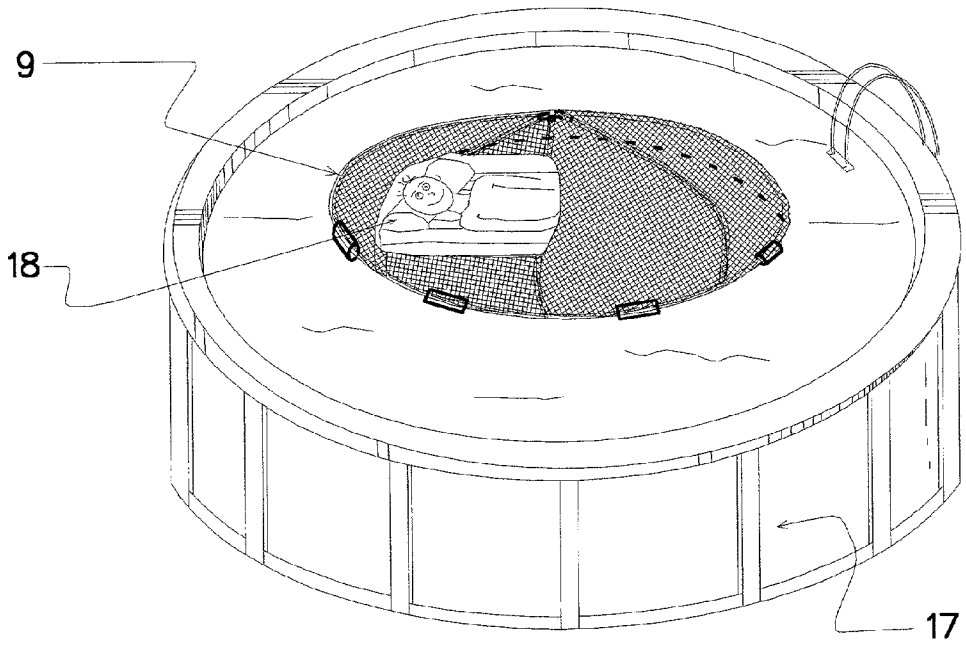


FIG. 1

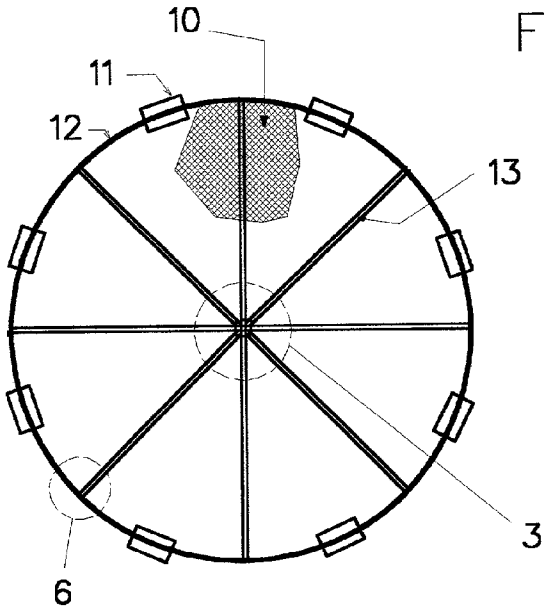


FIG. 2

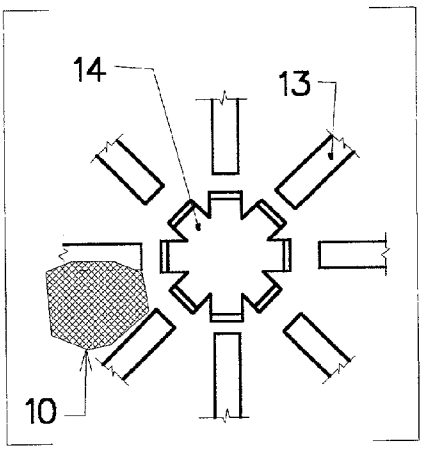


FIG.3

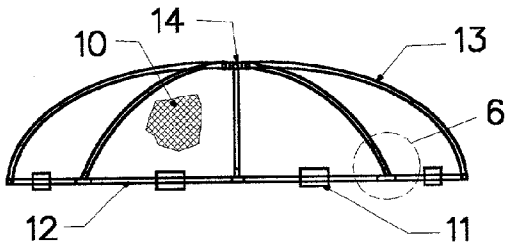
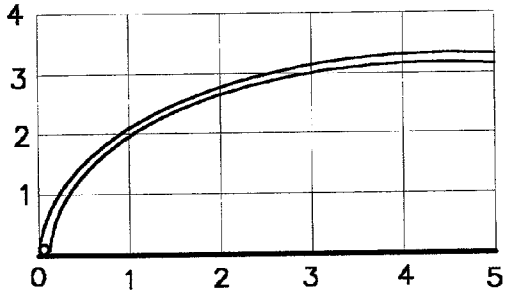


FIG. 4



CURVE PROFILE

FIG. 5

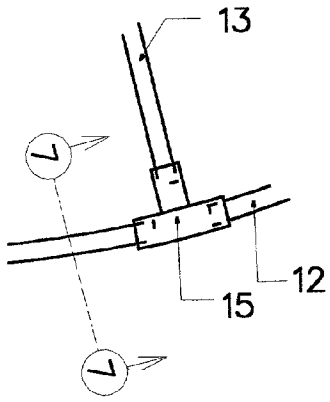


FIG. 6

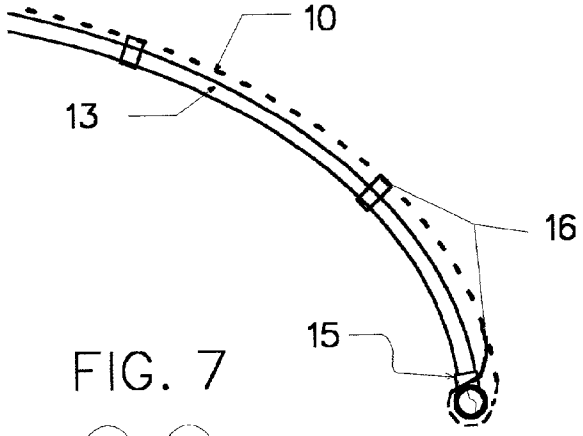


FIG. 7

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FLOATING BUG, SUN AND PRIVACY DOME

CROSS-REFFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

REFERENCE TO A MICROFICHE APPENDIX

[0003] Not Applicable

BACKGROUND OF THE INVENTION

[0004] The present invention introduces a floating dome with an interior void serving as protection from insects, a sunscreen and privacy shade, and pool toy.

[0005] The use of pool covers is well established and a several patents have been issued for this purpose. U.S. Pat. Nos. 4,709,688, 5,511,536, 5,546,615 and 5,860,413 cover insulating type covers, and U.S. Pat. Nos. 3,872,522, 5,067,182, and 5,860,413 address floating covers; however, all are designed to improve the quality or increase the temperature of the water. These covers are intended to be removed for use of the pool, and fail to protect the user from insects, provide privacy, or protect the user from the damaging rays of the sun.

[0006] Mosquito netting per se is quite common and U.S. Pat. Nos. 5,788,317, 5,927,793, 6,145,141, and 6,224,073 have been issued for covering golf carts, vehicles, beds and baby strollers respectively. Mosquito tents such as the one disclosed in U.S. Pat. No. 6,216,716 offers protection from insects, but it is not designed for use in water and would pose a potential drowning hazard if used in that environment.

[0007] Sunscreens and shades are very effective on reducing the effects of the sun, can offer privacy, and are common on vehicles. U.S. Patent D No. 375,069 discloses a flexible sunscreen for windows, but lacks the frame, rigidity and stability to function effectively and safely in a water setting. Fixed enclosures over pools offer protection, but cover the entire pool and do not offer flexibility in easily removing the covering or isolating a portion of the pool. Fixed enclosures cannot be transported to the beach, lake or ocean like a portable cover could.

[0008] U.S. Pat. No. 5,299,588 to MacLeod discloses a floating umbrella with a refreshment table and optional seats, and U.S. Pat. No. 5,458,517 to Ellis discloses a float with a sunscreen. Both offer partial protection from the sun; the degree of shade provided is dependent upon the orientation of the sun and the location of the user.

[0009] Hence, the floating dome described hereinafter offers significant improvements over prior art in order to overcome the inadequacies and hazards of using the existing objects described above, in order to serve as a new and innovative object.

BRIEF SUMMARY OF THE INVENTION

[0010] In view of the foregoing disadvantages inherent in the known types of pool covers, insect covers and sunshades in prior art, the present invention provides a lightweight, portable, economical protection from insects, the sun, and further offers privacy to its users. The rigid dome frame covered in mesh of suitable weave, coupled with strategically located floats provide a stable object, suitable for use in water and on land. As such, the general purpose of the present invention, which will be described in greater detail, offers advantages over pool covers, tents, sunscreen shades and floating covers.

[0011] To attain this, the present invention is essentially comprised of a floating dome constructed of a plurality of tubular bent members connected at a common point at the top and to a tension ring at the base forming an interior cavity of adequate size for an adult person floating on a raft, and of such a height to allow headroom for an adult standing in a shallow pool. The tension ring is composed of a plurality of individual curved members connected with tee type fitting, forming a circle. All members are designed for assembly and disassembly. The exterior is covered in a fabric or mesh weave of sufficiently small opening as to prevent the entry of mosquitoes and other small insects, and provide shade from the sun. A weave of this description will also offer privacy from observers located at distance from the mesh. The fabric is held taut by Velcro or snaps connected to the tension ring and tubular members for easy assembly and disassembly. By having a tight fitting outer skin the individual segments of the tension ring will be held secure without permanent connection. Floats consisting of cylindrical lightweight rigid foam or inflatable PVC material are installed over the individual curved members of the tension ring provide adequate buoyancy to support the structure on the surface of the water. The floats are designed to be easily removed from the described dome if it is used on a hard surface such as the ground. When being used on the surface of water the user would simply lift up one side of the dome and move into or out of the dome. A swimmer could also easily swim under the tension ring.

[0012] The dome shape provides a sturdy, stable, frame for attachment of the mesh cover. The dome utilizes only a portion of the pool surface and does not have to be removed from the pool when not being used. The dome floats on the water surface and does not require a connection to the sides, bottom or ground to function effectively, unlike other covers.

[0013] It is envisioned that the dome will have sufficient novelty to serve as a pool toy in which children could use it to play games (e.g. use it as "home base" in a game of tag).

[0014] The dome is not limited to the pool, but any water surface such as on a lake, at the beach or on a pond. Further, the dome has applications on land including but not limited to serving as protection from flying insects, or the sun. The dome could be used to cover a sleeping child at a picnic by simply placing the dome over the child, without disturbing the child. In the same manner food at a picnic could be covered to protect the food from flying insects and small animals without having to pick-up the food. The size would be sufficient for two full size adults to lay side by side, offering privacy in open places.

[0015] Herein, it has thus been outlined rather broadly, the more important features of the invention so that the detailed description thereof that follows may be better understood, and to present the contributions this invention offers over current art so that is can be better appreciated. There are, of

course, additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto.

[0016] In this respect, before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and to the arrangement of the components set forth in the following description or illustrations and drawings. The invention is capable of other embodiments and of being used in other various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

[0017] As such, those skilled in the art will appreciate that the conception upon which this disclosure is based, may readily be utilized as a basis for the design of other structures, methods and systems for carrying out the several proposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

[0018] Further, the purpose of the abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientist, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application, which is measured by the claims, nor is it intended to be limiting as to the scope of the invention in any way.

[0019] It is therefore an object of the present invention to provide a new and improved portable, floating dome offering protection from flying insects and the sun and capable of providing privacy.

[0020] It is a further object of the present invention to provide a floating dome of lightweight material capable of being disassembled and transported by car or stored in a closet when not being used, which is of durable and reliable construction; which may easily and efficiently be manufactured and marketed.

[0021] An even further object of the present invention is to provide a pool toy of sufficient novelty to encourage children to utilize the invention alone or in combination with water guns or other pool toys.

[0022] These, together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with the particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there is illustrated preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

[0023] The invention will be better understood and objects described above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

[0024] **FIG. 1** is a perspective view of the Floating Bug, Sun and Privacy Dome in a pool setting.

[0025] **FIG. 2** is a plan view of the Floating Bug, Sun and Privacy Dome.

[0026] **FIG. 3** is an enlarged, exploded detail taken from **FIG. 2**, showing a plan view of the top connection.

[0027] **FIG. 4** is an elevation view of the Floating Bug, Sun and Privacy Dome.

[0028] **FIG. 5** is a grid showing the profile of the Floating Bug, Sun and Privacy Dome along its axis of symmetry.

[0029] **FIG. 6** is an enlarged detail taken from **FIG. 2** and **FIG. 4** showing the connection between the curved support and tension ring.

[0030] **FIG. 7** is a cross section taken from **FIG. 6** showing the connection of the mesh to the frame.

DETAILED DESCRIPTION OF THE INVENTION

[0031] With reference now to the drawings, and in particular to **FIG. 1** thereof, a new floating dome embodying the principles and concepts of the present invention and generally designated by the referenced number **9** will be described.

[0032] More specifically, note that apparatus **9** essentially is comprised of tubular support pipes **13**, preferably formed from lightweight plastic or metal tubing, bent in the convex profile, as shown in **FIG. 3** or similar shape to form a dome. The topmost end of the tubular pipes **13** are radially connected at a common fitting or junction **14** as shown in **FIG. 4**. The lowermost portion of tubular pipes **13** are connected to a tee type fitting **15**, which is shown in **FIG. 6**. The tee fittings components **15** are connected together by arc segments of tubular pipe **12** forming a circular tension ring. Screen mesh or netting **10**, consisting of a sufficiently tight weave as to prevent the entry of flying insects and mosquitoes is placed over the dome as shown in **FIG. 7**. Netting **10**, is fabricated to fit tightly and completely over the dome and wrap around the bottom of the tension ring, shown in **FIG. 7**. The netting **10** is connected to the tubular pipes **13** and **12** by the use of Velcro or snaps **16**. To support the dome in water, rigid or inflatable floats **11** are installed over the individual tubular arc segments **12** comprising the tension ring.

[0033] In operation, apparatus **9** as shown in a pool setting **17**, in **FIG. 1**, or on any other water surface) can be simply lifted and tilted by a user of the dome up and over the person and/or a raft. Another method of entering the dome is to swim under the edge of the tension ring that floats near the water surface. The user can stand upright or rest under the dome on a raft **18** while enjoying the protection from insects, direct sunlight and unwelcome stares.

[0034] In operation on land, the floats **11** are removed and the dome is simply placed over the person or object requiring protection. All of the individual tubular members **12** and

13 are designed to be disassembled for transporting and storage and the mesh **10** can be efficiently and compactly stored.

[**0035**] With respect to the above described therein, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specifications are intended to be encompassed by the present invention.

[**0036**] Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What I claim as my invention is as follows:

1. A floating dome of convex shape constructed of a plurality of tubular bent members connected at a common point at the top and to a tension ring at the base forming an interior cavity of adequate size for an adult person floating on a raft, and of such a height to allow headroom for an adult standing in a shallow pool; said tension ring is composed of a plurality of individual curved members connected with tee type fitting, forming a circle; said members are designed for assembly, and transportable and lightweight as to fit more than one standing adult in a pool or an adult resting on a raft.

2. A floating dome described in claim 1 having a mesh covering offering protection from mosquitoes and other flying insects.

3. A floating dome as described in claim 2, with a mesh of sufficiently tight weave, offering privacy and protection from the sun in the form of a sunscreen.

4. A floating dome as described in claim 3, with a open cavity of adequate size and durability as to fit a several children inside, having sufficient novelty as to serve as a pool toy for children to play games.

5. A dome of convex shape constructed of a plurality of tubular bent members connected at a common point at the top and to a tension ring at the base forming an interior cavity of adequate size so that it can be placed over a person or food resting on the ground, without the need to move or disturb the person or object; serving as protection from mosquitoes, flying insects and small animals; said tension ring is composed of a plurality of individual curved members connected with tee type fitting, forming a circle; said members are designed for assembly, and transportable and lightweight.

6. A dome as described in claim 5 serving as a shelter or privacy screen from prying eyes in a park, backyard or other open setting.

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