A floating mat is presented. The floating mat includes a core having a top, a bottom and a plurality of sides. The core is buoyant and non-inflatable. The core includes at least one aperture, wherein the aperture accommodates removably connecting and disconnecting the core to at least one additional floating mat.
FLOATING WATER MAT

BACKGROUND

[0001] It is known to use rafts on water. Some rafts are used for recreational purposes, such as with a pool, on ponds, on lakes and on oceans. Rafts have also been known to be used as swim platforms or as floating devices to escape the crowds. Many such rafts used for recreational purposes require inflation or have sharp edges or hard surfaces.

[0002] Known inflatable and hard edged rafts may require quite a bit of maintenance to set them up and take them down. The inflatable rafts require maintenance to fill the raft with air and to maintain the air pressure in the raft. Such inflatable rafts lose buoyancy when punctured. The air pressure may lessen with use and over time and thus require periodic re-inflation. Inflatable rafts also typically require to be deflated before being taken out to the water and stored.

[0003] Rafts manufactured from wood or metal may also be difficult to assemble and the size and weight of such rafts may make them difficult to position in the water. While rafts that are constructed out of wood or metal may be more durable than inflatable rafts, the hard surfaces and edges of such rafts can cause severe injury to people who fall while playing on them. Typical wood or metal rafts may also require people to be somewhat agile to play on them. Since wood or metal rafts are often raised out of the water, they often include ladders to climb to reach a platform and it may be difficult or impossible for obese or handicapped individuals to enjoy such rafts. Some manufacturers have tried to soften the traditional wood and metal rafts by placing padding on the corners or rounding the sharp corners of the raft. This still leaves much of the wood and metal exposed on the other parts of the raft. Other rafts offer a lower profile which requires less of a ladder. But such rafts still require a ladder and may be difficult to maintain as described above.

BRIEF SUMMARY

[0004] A floating mat includes a core having a top, a bottom and a plurality of sides. The core is buoyant and non-inflatable. The core includes at least one aperture, wherein the aperture accommodates removably connecting and disconnecting the core to at least one additional floating mat.

[0005] Other systems, methods, features and advantages of the invention will be, or will become, apparent to one with skill in the art upon examination of the following figures and detailed description. It is intended that all such additional systems, methods, features and advantages be included within this description, be within the scope of the invention, and be protected by the following claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The invention can be better understood with reference to the following drawings and description. The components in the figures are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the invention. Moreover, in the figures, like referenced numerals designate corresponding parts throughout the different views.

[0007] FIG. 1 is a diagram of a water mat in a playing environment.

[0008] FIG. 2 is a top view of two mats connected side by side.

[0009] FIG. 3 is partial diagram of the mat including an exemplary attaching mechanism.

[0010] FIG. 4 is a diagram illustrating two mats connected end to end.

[0011] FIG. 5 is a diagram of the mat including one or more dive holes.

[0012] FIG. 6 is a diagram of the mat including game indicia or markings.

[0013] FIG. 7 is a diagram illustrating objects held to the mat.

DETAILED DESCRIPTION

[0014] FIG. 1 is a diagram of a mat 100 in a playing environment 110. The playing environment 110 may include a body of water 120 such as a lake. The mat 100 may also be used on land 130, for example, as a water slide or gymnastic mat. The mat 100 includes a buoyant core 140. The buoyant core 140 may include a floatable foam, such as a polyurethane foam. The buoyant core 140 may include other materials such as polyethylene. The buoyant core 140 is non-inflatable. A thickness of the buoyant core 140 includes about a ½ to about 2 inches. A gymnastics or cheerleading mat may be suitable for the buoyant core 140.

[0015] The mat 100 may be constructed of one layer or multiple layers. A top 150 of the mat 100 may be manufactured of the same material as the buoyant core 140 or other materials such as a polyurethane, to give a soft feel to a user 160. A bottom 170 and the sides 180 of the mat 100 may be constructed of the same material as the buoyant core 140. The bottom 170, bottom 180 and/or sides 180 may also be constructed of other material such as vinyl and/or a combination of heavy vinyl and high weave count polyester to provide for puncture and tear resistance. At least an outer layer of the mat 100 may be weather proof, to withstand heat, cold, wind, rain and snow.

[0016] The mat 100, whether constructed of one or multiple layers, may include a total thickness of about ½ of an inch to 2 inches, and more particularly about 1¼ inches thick. The mat 100 may include various shapes such as a generally rectangular shape. The mat 100 may also include other shapes such as generally circular, generally triangular, and generally elliptical, or other shapes such as a trapezoid. The mat 100 may also include an abstract shape that is not generally defined. A rectangular shaped mat 100 may be about six feet wide by eighteen feet long. Other sizes may also be used. Even though the mat 100 may include multiple layers, the finished product may include a substantially uniform structure such that there are no bend or gaps in the mat 100.

[0017] The playing environment 110 may also include other users 190 that can interact with and/or observe the users 160 of the mat 110. The other users 190 may be located near the mat 100 such as on a dock 192, inflatable water raft 194 or another mat 110. The users 160 and 190 may include users of all ages and sizes.
FIG. 2 is a top view of two mats 100 and 100' connected side by side. To accommodate the easy connection and separation of mats, the mats 100 and 100' include a plurality of attaching mechanisms 200. The attaching mechanisms 200 may also be used to connect the mats 100 and 100' to other objects, such as the dock 192 (FIG. 1). The attaching mechanism 200 may also be used to secure other objects, such as by fixing one end of a rope to the attaching mechanism 200 and the other end to an anchor.

FIG. 3 is a partial diagram of the mat including one of the attaching mechanisms 200. The attaching mechanisms 200 may include a grommet hole 300 or other type of aperture positioned through the mats 100 and 100', such as from the top 150 to the bottom 170 of the mats 100 and 100', and through the buoyant core 140. The grommet hole 300 is positioned generally perpendicular to the water 120 when the mat 100 is laying on the water 120. Multiple grommet holes 300 may be positioned around the periphery of the mat 100. The grommet hole 300 may include an insert, such as a plastic insert, positioned to provide mechanical strength to help reduce wear and tear to the hole. A binding 310, such as a rope, twine, lock-tie, or other binding, can be fed through the apertures and fastened to secure the mats 100 and 100' to each other and/or another object. The attaching mechanism 200 may also include other fasteners, such as a male portion of a snap and a corresponding female portion of a snap. The snap may be integral to the mat 100 and/or attached by a tab thereto. Other attaching mechanisms 200 may also be used, such as a button and a corresponding loop hole. The attaching mechanisms 200 may also be used during storage of the mat 100, such as to maintain the mat 100 in a rolled up position, or in other ways, such as to suspend the mat 100 off the ground in a boat house or garage to dry the mat 100. VELCRO or other fasteners may be used in conjunction with the attaching mechanism 200 to secure the mat 100. The attaching mechanisms 200 may also be used with stakes to anchor the mat 100 to the ground.

When unrolled, the mats 100 and 100' may be used as a floating platform on which to run, jump, climb, sit, lie down and swim under. Since the mats 100 and 100' may be less than about 2 inches thick, the tops 150 of the mats 100 and 100' are located near the surface of the body of water 120 and does not require a ladder or agility to mount. The mats 100 and 100' may be easily accessed by anyone, such as users 160 and 190. The mat 100 may be rolled up or folded for convenient moving and storage and may be easily placed in and taken out of the water such as by one user 160, 190. The mats 100 and 100' may also be used on the water 120 in a rolled up or folded position, and multiple mats 100 and 100' may be stacked one on top of another.

Referring to FIG. 4, it is noted that the mats 100 and 100' may also be connected end to end. The top 150 and/or bottom 170 of the mats 100 and 100' may be connected with a friction or frictionless surface. The friction surface may include a carpet 400 fastened to the mat 100, such as to provide a slip resistant running surface for the user 160, 190. The carpet 400 can include an outdoor rated carpet that resists damage from the sun and water. The frictionless surface may include a plastic coating 410, such as to provide a slippery surface for the user 160, 190 to slide on. Other surfaces may be used such as by adding a laminated film any non-carpeted portions of the mat 100 to increase durability in the water. Using such carpet 400 and coating may eliminate the need to maintain the condition of the mat 100.

FIG. 5 is a diagram of the mat 100 including one or more dive holes 500. The dive hole includes an aperture positioned through the mat 100 and sized such that a user, such as users 160 or 190, can fit through it. The dive holes 500 allow a user to dive through the mat 100 and swim up from underneath the mat 100. The dive holes 500 may also be used for other activities such as to train people or to allow a handicapped individual to snorkel while having their body supported by the mat 100.

FIG. 6 is a diagram of the mat 100 including game indicia or markings 600. The game indicia 600 may be printed on the top 150 and/or bottom 170 of the mat 100. The game indicia 600 may also be supplied to the mat 100 in other ways, such as by embossing the indicia on the mat 100. The games may include checkers, tic tac toe, hopscotch, twister and/or shuffleboard. Other games could be played such as by providing ruler markers, such as in feet, for determining a distance jumped or yardage gained, a wrestling circle and/or jumping targets. A shape, size and color of the mat 100 may be determined based on the particular game indicia 600 printed on the mat 100. The game indicia may also be included with inflatable mats.

FIG. 7 is a diagram illustrating objects 700 held to the mat 100. The objects may include varying geometric shapes such as cubes and squares. The objects may include a piece of fabric with small hooks, such as is used with VELCRO, on at least one side to hold the object to the carpet 400. The objects 700 may be used as an object to jump off or over, or objects to run around, such as with an obstacle course constructed from the objects 700. Other objects could be used such as big, waterproof checkers with VELCRO on at least one side to be used with checkerboard indicia marked on to the carpet 400.

The mat 100 may be used in other ways such as by combining the mat 100 with other foam pieces to form a climbing ramp. The mat 100 may be rolled to form a barrel. The mat 100 may include no sharp edges or hard surfaces, such as wood or metal that could injure the user 160 and 190. If no wood or metal is used, the mat 100 may require no maintenance, such as repairing rotting wood or rusted metal. Since the mat may be non-inflatable, no punctures need be repaired.

While various embodiments of the invention have been described, it will be apparent to those of ordinary skill in the art that many more embodiments and implementations are possible within the scope of the invention. Accordingly, the invention is not to be restricted except in light of the attached claims and their equivalents.

1. A floating mat for supporting a person to be able to run across the mat while the mat floats on water, comprising:

   a core for contacting the water, the core having a top, a bottom and a plurality of sides, wherein the core is buoyant and non-inflatable, and wherein the bottom includes a carpeted surface and the top includes a slippery surface for running across while the mat floats on water; and
the core including at least one aperture, wherein the aperture accommodates removably connecting and disconnecting the core to at least one additional floating mat.

2. The floating mat of claim 1 further comprising a binding positionable through the apertures.

3. The floating mat of claim 2 wherein the binding comprises a rope.

4. The floating mat of claim 1 wherein the aperture is arranged to secure an end of an anchor.

5. The floating mat of claim 1 wherein the core includes an aperture that is sized such that a user is able to fit through the aperture.

6. (canceled)

7. The floating mat of claim 1 wherein the aperture includes an insert to prevent the core from being damaged.

8. A floating mat for supporting a person to be able to run across the mat while the mat floats on water, comprising:

   a core for contacting the water, the core having a top, a bottom and a plurality of sides, wherein the core is buoyant and non-inflatable, and wherein the top includes a slippery surface and the bottom includes a carpeted surface for running across while the mat floats on water; and

   a game indicia included on the top.

9. (canceled)

10. The floating mat of claim 8 wherein the core includes attaching mechanisms.

11. The floating mat of claim 10 wherein the attaching mechanisms comprise at least two apertures positioned through the non-inflatable core and at least one binding positionable through the apertures.

12. The floating mat of claim 10 wherein the binding comprises a rope.

13. The floating mat of claim 10 wherein the attaching mechanism comprises a male portion of a snap and a corresponding female portion of a snap.

14. The floating mat of claim 10 wherein the attaching mechanism comprises a button and a corresponding loop hole.

15. The floating mat of claim 10 wherein the core includes an aperture that is sized such that a user is able to fit through the aperture.

16. (canceled)

17. The floating mat of claim 1 wherein the core comprises a width of about six feet and a length of about eighteen feet when unattached to any other cores.

18. The floating mat of claim 8 wherein the core comprises a width of about six feet and a length of about eighteen feet when unattached to any other cores.