



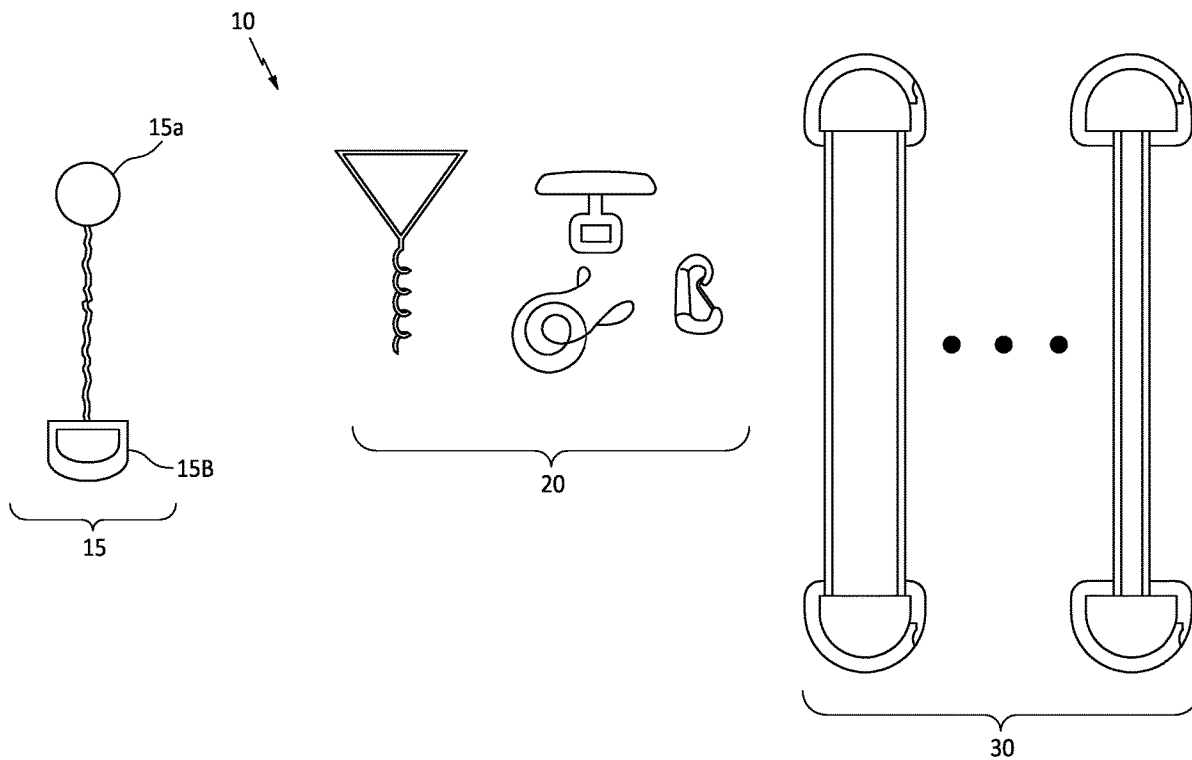
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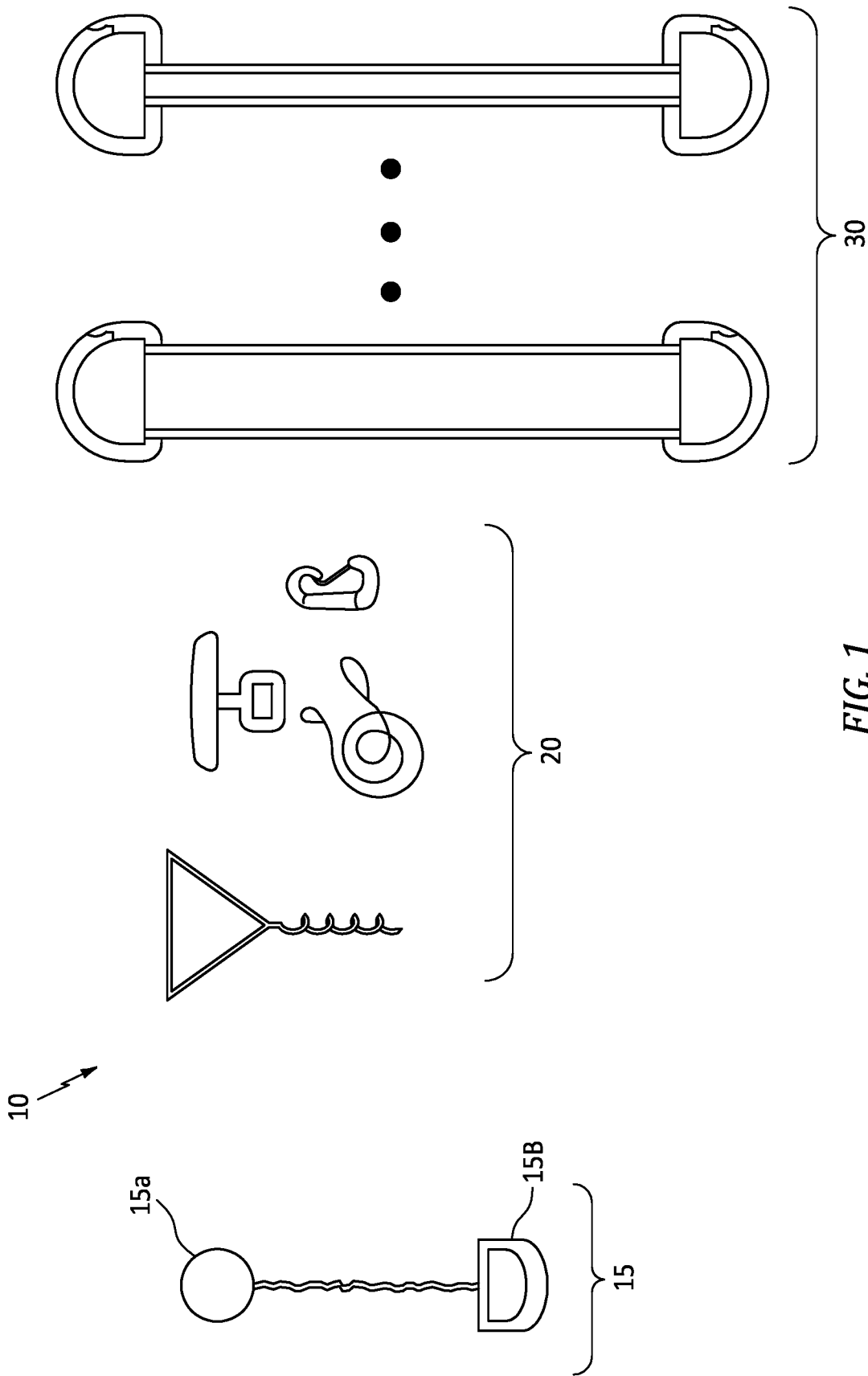
(19) **United States**(12) **Patent Application Publication**
Alves(10) **Pub. No.: US 2023/0052918 A1**(43) **Pub. Date: Feb. 16, 2023**(54) **RESISTANCE WATER BOARD PADDLING
SYSTEM**(71) Applicant: **Jason Alves**, Longwood, FL (US)(72) Inventor: **Jason Alves**, Longwood, FL (US)(21) Appl. No.: **17/398,910**(22) Filed: **Aug. 10, 2021****Publication Classification**(51) **Int. Cl.****A63B 21/055** (2006.01)**A63B 21/04** (2006.01)**B63B 34/20** (2006.01)(52) **U.S. Cl.**CPC **A63B 21/0552** (2013.01); **A63B 21/0442**
(2013.01); **B63B 34/20** (2020.02)

(57)

ABSTRACT

A resistance water board paddling system includes a board attachment unit having functionality for engaging a water board such as a surfboard, a paddleboard or a kayak. At least one elongated resistance band is removably connected to the board attachment unit, and includes a predetermined resistance level for simulating the resistance encountered by a user paddling a board along a water surface. An anchor assembly having an inelastic tether is coupled to the other end of the at least one resistance band. A ground anchor is selectively and removably attached to the other end of the inelastic tether or a skimmer attachment device is selectively and removably attached to the other end of the inelastic tether. The anchor assembly functioning to immobilize the system during user operation.





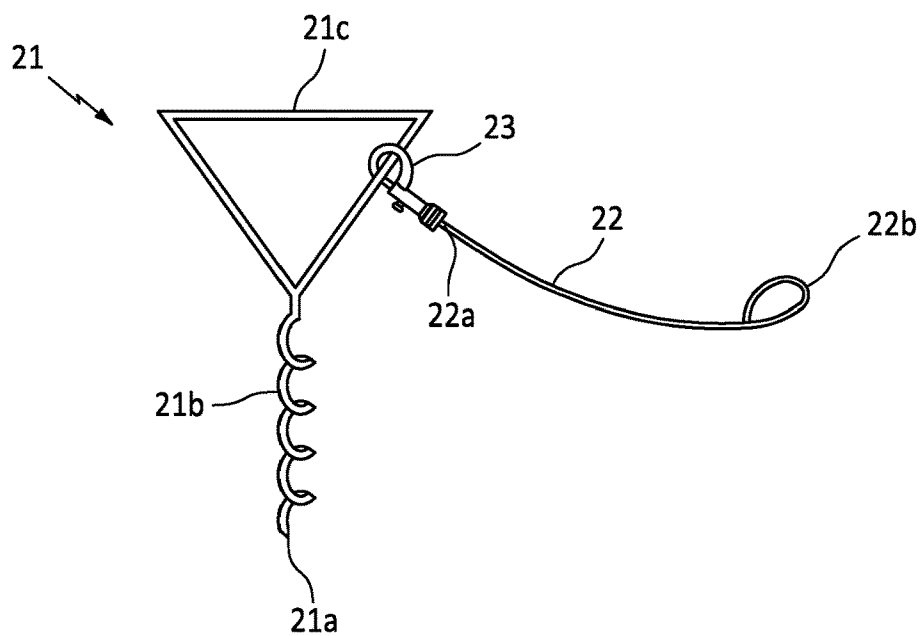


FIG. 2A

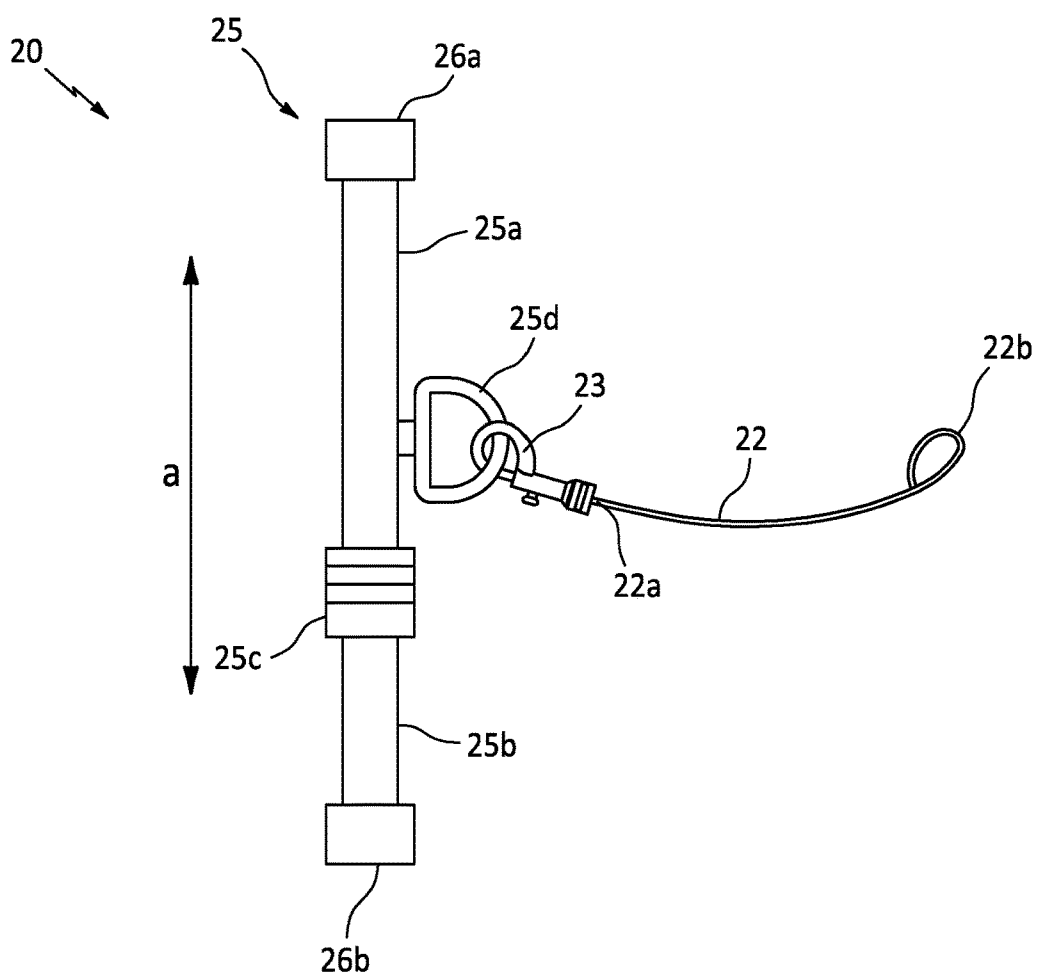


FIG. 2B

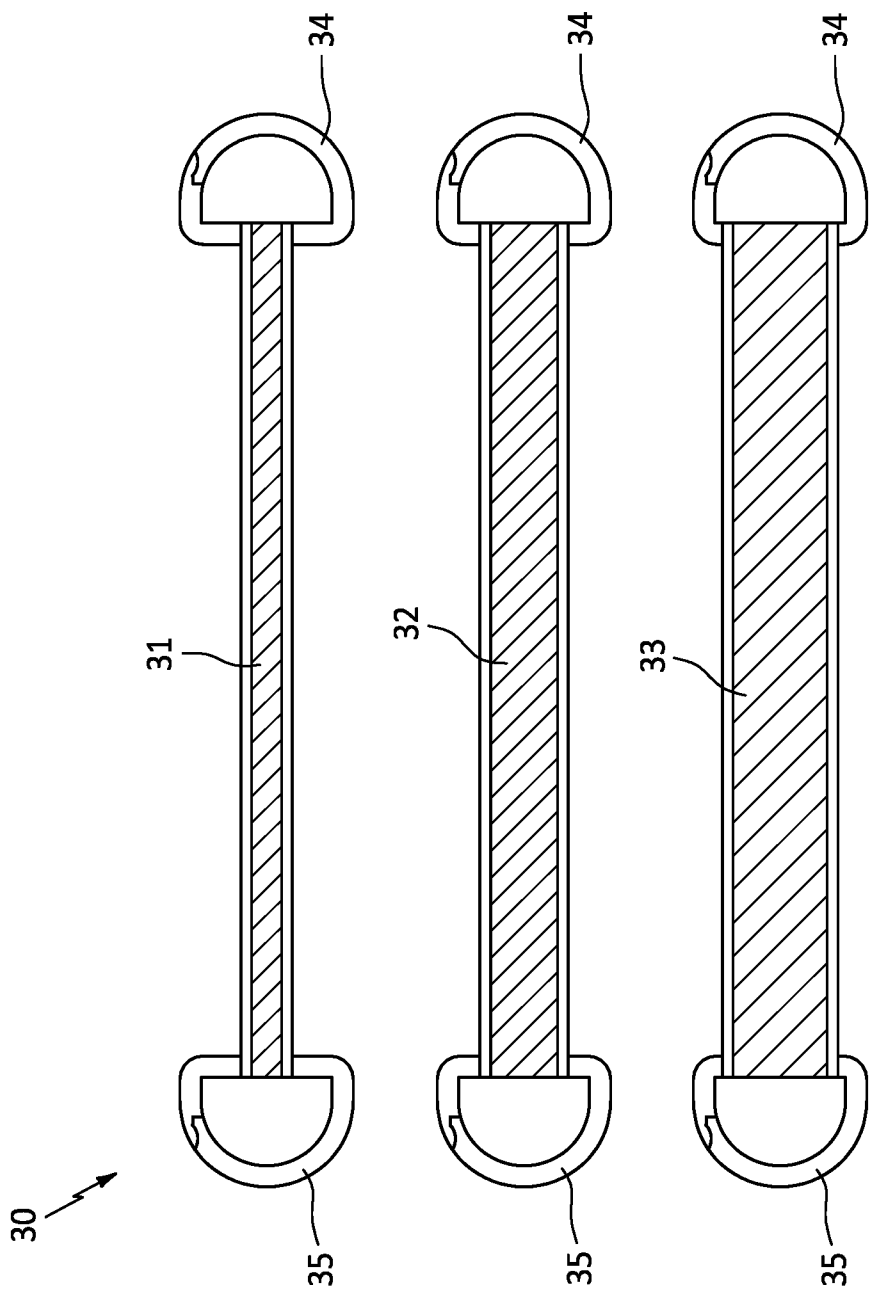


FIG. 3

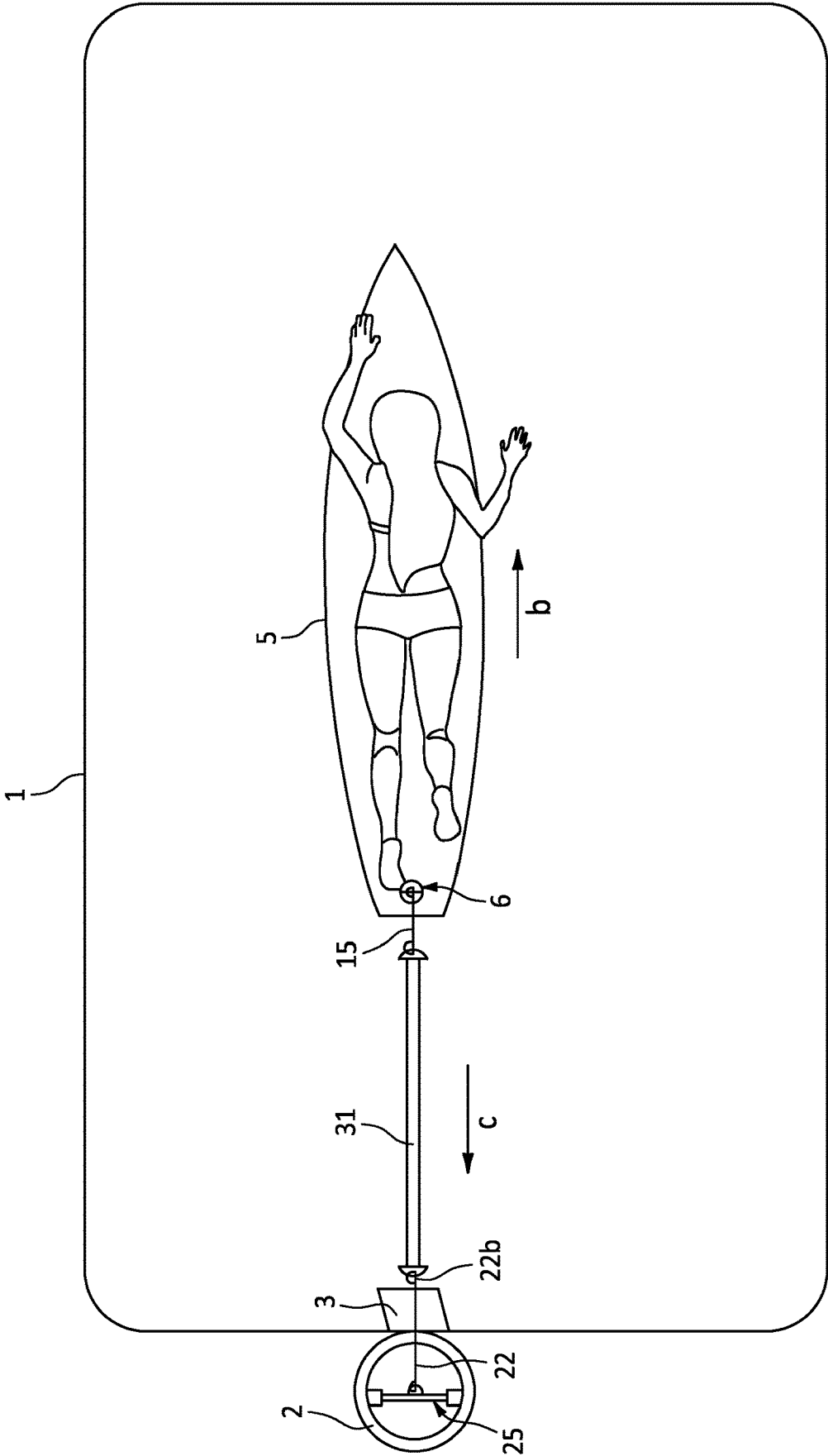


FIG. 4

RESISTANCE WATER BOARD PADDLING SYSTEM

TECHNICAL FIELD

[0001] The present invention relates generally to resistance training devices, and more particularly to a resistance water board paddling system.

BACKGROUND

[0002] The statements in this section merely provide background information related to the present disclosure and may not constitute prior art.

[0003] Waterborne activities such as surfing, paddleboarding, kayaking and the like are dependent on the ability of a user to paddle their board through the water for prolonged periods of time. To this end, improved performance and increased stamina is directly related to the amount of time and the number of occurrences the user is able to spend performing the paddling operation.

[0004] Unfortunately, due to the time requirements involved in traveling many miles to reach a large body of water such as a lake or ocean, for example, many users are not able to regularly use their water board, and therefore are not able to increase their performance and stamina. Although there are known rowing exercise machines that can help to strengthen a user's arms and legs, the actual movements do not mimic what the user experiences when they are actually paddling a water board.

[0005] Accordingly, it would be beneficial to provide a resistance water board paddling system that can allow a user to paddle their own floating board in a small body of water such as a backyard pool, for example, so as to overcome the drawbacks described above.

SUMMARY OF THE INVENTION

[0006] The present invention is directed to a resistance water board paddling system. One embodiment of the present invention can include a board attachment unit having functionality for engaging a water board such as a surfboard, a paddleboard or a kayak, and an anchor assembly. The system can also include at least one elongated resistance band that can be removably connected to the board attachment unit. The resistance band can include a predetermined resistance level which functions to simulate the resistance encountered by a user paddling a board along a water surface.

[0007] In one embodiment, the anchor assembly can include an inelastic tether having a first end that is connected to the resistance band, and a second end that is connected to a ground stake. The ground stake can include a pointed tip and a spiraled middle section for impaling the ground via a twisting motion.

[0008] In one embodiment, the anchor assembly can include the inelastic tether having a first end that is connected to the resistance band, and a second end that is connected to a skimmer attachment device. The skimmer attachment device can include a telescoping rod that can be mounted within the walls of a pool skimmer with the middle portion of the inelastic tether extending through the skimmer door opening.

[0009] This summary is provided merely to introduce certain concepts and not to identify key or essential features of the claimed subject matter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] Presently preferred embodiments are shown in the drawings. It should be appreciated, however, that the invention is not limited to the precise arrangements and instrumentalities shown.

[0011] FIG. 1 is an exploded parts view of one embodiment of a resistance water board paddling system that is useful for understanding the inventive concepts disclosed herein.

[0012] FIG. 2A is a perspective view of the anchor assembly of the resistance water board paddling system in accordance with one embodiment of the invention.

[0013] FIG. 2B is another perspective view of the anchor assembly of the resistance water board paddling system in accordance with one embodiment of the invention.

[0014] FIG. 3 is a perspective view of a plurality of resistance bands of the resistance water board paddling system in accordance with one embodiment of the invention.

[0015] FIG. 4 is a top view of the resistance water board paddling system in operation, in accordance with one embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0016] While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the description in conjunction with the drawings. As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the inventive arrangements in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting but rather to provide an understandable description of the invention.

Definitions

[0017] As described herein, a "unit" means a series of identified physical components which are linked together and/or function together to perform a specified function.

[0018] As described throughout this document, the term "about" "approximately" "substantially" and "generally" shall be used interchangeably to describe a feature, shape or measurement of a component within a tolerance such as, for example, manufacturing tolerances, measurement tolerances or the like.

[0019] As described herein, the term "removably secured," and derivatives thereof shall be used to describe a situation wherein two or more objects are joined together in a non-permanent manner so as to allow the same objects to be repeatedly joined and separated.

[0020] As described throughout this document, the term "complementary shape," and "complementary dimension," shall be used to describe a shape and size of a component that is identical to, or substantially identical to the shape and size of another identified component within a tolerance such as, for example, manufacturing tolerances, measurement tolerances or the like.

[0021] As described herein, the term “connector” includes any number of different elements that work alone or together to repeatedly join two items together in a nonpermanent manner. Several nonlimiting examples include opposing strips of hook and loop material (i.e. Velcro®), attractively-oriented magnetic elements, flexible strips of interlocking projections with a slider (i.e., zipper), a thin, flexible strap with a notched surface and one end threaded through a locking mechanism (i.e., zip tie) at the other, tethers, buckles such as side release buckles, and compression fittings such as T-handle rubber draw latches, hooks, snaps and buttons, for example. Each illustrated connector and complementary connector can be permanently secured to the illustrated portion of the device via a permanent sealer such as glue, adhesive tape, or stitching, for example.

[0022] FIGS. 1-4 illustrate one embodiment of a resistance board paddling device 10 that are useful for understanding the inventive concepts disclosed herein. In each of the drawings, identical reference numerals are used for like elements of the invention or elements of like function. For the sake of clarity, only those reference numerals are shown in the individual figures which are necessary for the description of the respective figure. For purposes of this description, the terms “upper,” “bottom,” “right,” “left,” “front,” “vertical,” “horizontal,” and derivatives thereof shall relate to the invention as oriented in FIG. 1.

[0023] As shown in FIG. 1, the system 10 can include, essentially, a board attachment device 15, an anchor assembly 20, and a plurality of waterproof resistance bands 30.

[0024] As described herein, the board attachment device 15 can function to removably connect a water board such as a surfboard, paddleboard, kayak, or other type of floating structure that is typically paddled by a user to one end of the below described resistance band(s).

[0025] In the illustrated embodiment, the attachment device can include, comprise, or consist of an inelastic strap having a loop 15a along one end, and a connector 15b such as the illustrated carabiner, for example, along the other end. The strap 15 can preferably be constructed from one or more strips of flexible inelastic material, such as nylon webbing, or rope, for example, that is suitable for prolonged use in water and having a high tensile strength. Of course, any number of other materials are also contemplated for use.

[0026] FIGS. 2A and 2B illustrate one embodiment of the anchor assembly 20 which can function to removably secure the other end of the below described resistance band(s) to a fixed location or structure. As shown, the anchor assembly can include a ground stake device 21, an elongated strap 22, and a skimmer attachment device 25.

[0027] As shown best at FIG. 2A, the ground stake 21 can include a main body member that is configured to penetrate ground such as grass or soil, for example. In the illustrated embodiment, the stake can be constructed from metal such as steel or aluminum, and can include a corkscrew-style stake having a pointed bottom end 21a, an undulating middle section 21b and a looped top end 21c. The stake can penetrate the ground via a twisting motion to sink the bottom and middle sections beneath the ground as is known in the art. Of course, any number of other shapes, sizes and construction materials are contemplated for engaging the ground to permit the system to operate in the manner described herein.

[0028] In one embodiment, the elongated strap 22 can also include a main body member having a pair of loops 22a and

22b along both ends, and can also be constructed from one or more strips of flexible inelastic material, such as nylon webbing, or rope, for example, that is sufficient to maintain a substantially fixed length when receiving a pulling force by a user.

[0029] In one embodiment, a connector 23 is provided and can function to removably secure one end of the strap 22 to the anchor stake 21 or the below described skimmer attachment device 25. In the preferred embodiment, the connector 23 can include, comprise, or consist of a carabiner, D-ring or other such clasp that can transition between an open and closed state in order to physically secure two or more items together. Of course, other embodiments are contemplated wherein the strap is constructed from a different material and/or wherein the connector includes a different component.

[0030] The skimmer attachment device 25 can function to engage and secure the system to the skimmer of a pool in instances where use of the ground stake is impractical or undesirable. As shown best at FIG. 2B, one embodiment of the skimmer attachment unit can include a telescoping shaft having hollow outer rod 25a, and a sliding rod 25b that is configured to extend from and retract into the outer rod 25a (see arrow a). The length of the shaft can be locked by a twist-style tensioner 25c, as is known in the art, and an attachment ring 25d can be disposed along the outer rod for connecting to the strap 22.

[0031] This telescoping shaft can preferably include a circular cross section and can be constructed from a hardened, lightweight material such as metal tubing or hardened plastic, for example, that is suitable for prolonged exposure to water. Additionally, a pair of friction grips 26a and 26b can be disposed along each end of the telescoping rod. The grips can be constructed from a soft, waterproof, and high friction material such as rubber or latex, for example, and can function to prevent the ends of the shaft from slipping on the side walls of a skimmer when the device 25 is positioned therein. Of course, any number of other shapes, sizes and construction materials can also be used for the shaft and grips.

[0032] As shown at FIG. 3, the system 10 can include a plurality of waterproof resistance bands 30 that can function alone or together simulate the resistance a user encounters while paddling their board through the water. In the preferred embodiment, the system 10 can include three elastic bands 31, 32 and 33, each having a different resistance level. Additionally, each of the bands can also include connectors 34 and 35 such as the illustrated carabiners, for example, disposed on both ends to engage the board attachment device 15 and anchor assembly 20, respectively.

[0033] In the preferred embodiment, each of the bands will preferably be constructed from latex or synthetic rubber, and will be constructed to float along the water surface with the connectors attached. Additionally, it is preferred that the three resistance bands 31, 32, and 33 will include resistance levels of 5 lbs, 10 lbs, and 20 lbs, respectively. Such resistance levels being chosen specifically to match average resistance levels encountered by an adult male weighing 150 pounds when paddling a surfboard, paddleboard or kayak, respectively through calm water. Moreover, users can utilize multiple bands simultaneously to increase the resistance level during use to accommodate for differences in weight or to increase the difficulty level of the resistance paddle training. Of course, other embodiments are contemplated

wherein a different number of resistance bands are provided, along with different resistance levels.

[0034] FIG. 4 illustrates one embodiment of the system 10 in operation to simulate resistance of a user paddling a surf board 5. In the illustrated embodiment, the skimmer attachment device 25 of the anchor assembly 20 can be positioned within the skimmer 2 of a swimming pool 1 with the inelastic cord 22 extending into the pool through the skimmer door opening 3. The end of the cord 22b can be connected to one end 34 of a resistance band such as 31, for example, and one end 15a of the board attachment device 15 can be connected to the other end 35 of the band. Finally, the second end 15b of the board attachment device can be coupled onto the leash connector 6 of the user's surf board 5.

[0035] As shown, when the user paddles through the pool in a forward direction (arrow b), the resistance band imparts an opposing force (arrow c) that resists the movement. Such a force providing resistance to the user that increases stamina and helps the user to perfect their paddling technique using the actual board they would typically use in open water. Moreover, the system components prevent the user from reaching the opposite end of the pool, thus allowing continuous paddling for any desired length of time.

[0036] Although described and illustrated with regard to a surf board that is being paddled by a user with their hands, this is for illustrative purposes only. To this end, the board attachment device 15 can function to engage and connect to any number of different components, so as to allow the system to work with different types of boards such as paddle boards, kayaks, canoes, rafts, and other such items which may or may not utilize traditional paddles.

[0037] For these reasons, in the preferred embodiment each of the resistance bands 30 can include a length (e.g., measured from the tip of the first hook 34 to tip of the second hook 35) of between 36 and 48 inches. This length is specifically chosen to accommodate use of either the ground stake 21 or the skimmer attachment device 25 with a typical in-ground pool so as to ensure at least one foot of clearance between the back edge of the user's board 5 and the sidewall of the pool. Of course, other embodiments are contemplated wherein different lengths are contemplated.

[0038] As described herein, one or more elements of the resistance water board paddling system 10 can be secured together utilizing any number of known attachment means such as, for example, screws, glue, compression fittings and welds, among others. Moreover, although the above embodiments have been described as including separate individual elements, the inventive concepts disclosed herein are not so limiting. To this end, one of skill in the art will recognize that one or more individually identified elements may be formed together as one or more continuous elements, either through manufacturing processes, such as welding, casting, or molding, or through the use of a singular piece of material milled or machined with the aforementioned components forming identifiable sections thereof.

[0039] As to a further description of the manner and use of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

[0040] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. As used herein, the singular forms "a," "an," and "the" are intended to include the plural

forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprises" and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof. Likewise, the terms "consisting" shall be used to describe only those components identified. In each instance where a device comprises certain elements, it will inherently consist of each of those identified elements as well.

[0041] The corresponding structures, materials, acts, and equivalents of all means or step plus function elements in the claims below are intended to include any structure, material, or act for performing the function in combination with other claimed elements as specifically claimed. The description of the present invention has been presented for purposes of illustration and description, but is not intended to be exhaustive or limited to the invention in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art without departing from the scope and spirit of the invention. The embodiment was chosen and described in order to best explain the principles of the invention and the practical application, and to enable others of ordinary skill in the art to understand the invention for various embodiments with various modifications as are suited to the particular use contemplated.

1. A resistance water board paddling system, comprising:
 - a board attachment unit having a first end and a second end;
 - an anchor assembly that is configured to engage at least one of a ground surface or a pool component;
 - at least one elongated resistance band that is configured to removably engage each of the board attachment unit and the anchor assembly;
 - wherein the at least one elongated resistance band is configured to simulate a resistance encountered by a user paddling a board along a water surface.
2. The system of claim 1, wherein the anchor assembly includes a ground stake for penetrating the ground surface.
3. The system of claim 2, wherein the anchor assembly includes an elongated strap having a first end that is removably connected to the ground stake.
4. The system of claim 3, wherein the elongated strap includes a second end that is removably connected to a first end of the at least one elongated resistance band.
5. The system of claim 1, wherein the anchor assembly includes a skimmer attachment device for engaging a side surface of the pool skimmer.
6. The system of claim 5, wherein the anchor assembly includes an elongated strap having a first end that is removably connected to the skimmer attachment device.
7. The system of claim 6, wherein the elongated strap includes a second end that is removably connected to a first end of the at least one elongated resistance band.
8. The system of claim 1, wherein the at least one resistance band comprises a plurality of resistance bands each having a different resistance amount.
9. The system of claim 8, wherein one of the plurality of resistance bands has a resistance amount of 5 pounds.
10. The system of claim 8, wherein one of the plurality of resistance bands has a resistance amount of 10 pounds.
10. The system of claim 8, wherein one of the plurality of resistance bands has a resistance amount of 20 pounds.

11. The system of claim **1**, wherein the at least one resistance band includes a connector along each end.

12. The system of claim **11**, wherein the at least one resistance band and connectors are configured to float on a water surface.

13. The system of claim **1**, wherein the board attachment unit includes a connector that is configured to removably engage a water board.

14. The system of claim **13**, wherein the connector includes a carabiner, and the water board includes at least one surfboard, a paddleboard and a kayak.

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