INTEGRATED PORTABLE EXERCISE DEVICE

Inventors: Robert Peritz, San Diego, CA (US); Yuval Shenkal, San Diego, CA (US); John Grimm, Santee, CA (US)

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ABSTRACT

The present invention provides an exercise device configured to engage multiple accessory attachments, the device comprising: a top plate; a bottom plate underneath and complementary to the top plate; and a first accessory disk releasably attached to the top plate, the first accessory disk having a member engaging a user for performing exercises, the accessory attachments capable of being configured in various combinations for allowing the user to perform different exercises targeting different muscle groups of the body, thereby to achieve a full body exercise.
INTEGRATED PORTABLE EXERCISE DEVICE

PRIORITY INFORMATION

This application claims priority from U.S. Prov. Pat. App. Ser. No. 61/486,013, filed May 13, 2011, the contents of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention pertains generally to a device for physical exercise, athletic training and conditioning, and rehabilitation therapy. More specifically, the present invention pertains to a portable exercise device having a top plate, a bottom plate underneath and complementary to the top plate, and a first accessory disk releasably attached to the top plate, the first accessory disk having a member engaging a user for performing exercises, the top plate further configured to engage multiple accessory attachments, for example, a push-up bar.

BACKGROUND OF THE INVENTION

The present invention relates to portable exercise devices, and more particularly to an exercise device comprising accessory plates that can be configured in various combinations for allowing the user to perform different exercises targeting different muscle groups of the body, thereby achieving a full body exercise. A somewhat related example was proposed by Aquino, entitled “Portable Multiple Exercise Apparatus,” U.S. Pub. Pat. App. No. 2012/0083396. This patent application basically discloses incorporating disk-type devices having push-up bars or roller wheels for placement of hands, feet or knees in performing various exercises.

Further as told by Aquino, current exercise apparatus that permits a user to exercise a wide variety of muscle groups is generally massive, heavy and is intended for use in a fixed location. Various types of portable exercise apparatus are known that permit a user to perform a limited range of exercises, such as push-ups or abdominal muscle crunches, which exercise only one or a few portions of body. In order for a user to achieve a full body workout using available portable exercise apparatus, a variety of different independent types of apparatus would be required that, in total, would be bulky, heavy and not practical as being portable.

In particular, the exercise known as the push-up is a relatively easy exercise to perform in order to increase physical fitness, especially upper body strength. As a result, push-up aids, such as push-up bars, are well known in the art. However, push-up bars are often bulky and restrict the type of exercises that can be performed using solely the push-up bar. In addition, for the physically fit, conventional push-ups, even when performed using a push-up bar, can be boring to perform and require a significantly large number of repetitions before the upper body experiences exertion.

The Aquino disclosure specifically describes a portable set of exercise equipment that includes a pair of push-up units each having a base and a handle mounted to the base, a pair of kneepad units, and a pair of roller wheel units having a set of ball bearings around the periphery of the bottom surface thereof for allowing said roller wheel units to move in any direction on a floor, and on upwardly extending shafts for meeting with corresponding apertures in the face of said push-up units and said kneepad units for mounting either of such units on the roller wheel units for movement in any direction on the floor.

In another example, U.S. Pub. Pat. App. No. 2011/0166006, entitled “Core Strengthening Device and Method for Strengthening Using Same,” by Howard describes a core strengthening device that generally describes a device that can move around on the floor for various types of exercises targeting a user’s core muscle groups. An exemplary device more specifically includes a base having a first section and a second section, each section having a connection mechanism with which to connect together to form a unitary device. The device further includes a handle connected to the top surface of each of the first and second base sections, and further includes two or more load-bearing rolling devices such as ball transfers or casters connected to a bottom surface of each of the first and second base sections to enable smooth movement over a surface by a user.

Also known in the realm of core strengthening exercise is the use of an inflatable hemispherical ball; and either pushing, standing, sitting, or kneeling on same as desired by a user. U.S. Pat. No. 6,422,983, entitled “Inflatable Device and Method for Using the Device,” to Weck is one such example. Therein, Weck describes a device comprising a support platform having a first side and a second side, the second side structured for stable resting on the ground, and inflatable member affixed to and extending upwards over the first side of the platform being substantially hemispherical when inflated, and a clamp clamping the flexible member in between the clamp and support platform to affix the flexible member to the platform such that the flexible member extends upwards over the first side.

It is with these prior innovations in mind that the present invention was conceived. Generally, the present invention seeks to improve upon prior designs while additionally including a unique device providing interchangeable and modularity of multiple exercise types.

In light of the above, it is an object of the present invention to provide the desired features described herein as well as additional advantages such as providing a user with a portable exercise device configured to engage multiple accessory attachments in various combinations for allowing the user to perform different exercises targeting different muscle groups of the body, all compiled in a single, versatile and compact exercise device. Further, the exercise device is capable of providing a user with a push-up aid and a core stability unit simultaneously.

SUMMARY OF THE INVENTION

The present invention provides an exercise device configured to engage multiple accessory attachments, the device comprising: a top plate; a bottom plate underneath and complementary to the top plate; and a first accessory disk releasably attached to the top plate, the first accessory disk having a member engaging a user for performing exercises.

In a first aspect, the present invention provides an exercise device configured to engage multiple accessory attachments wherein a second accessory disk is releasably coupled to the bottom plate, the second accessory disk having at least a first curved surface for providing a stability and core training exercise.

In a second aspect, the present invention provides an exercise device configured to engage multiple accessory attachments wherein the member engaging the user com-
prises a push-up bar, and further wherein the top plate is configured to rotate with respect to the bottom plate thereby allowing the user to rotate the device during an exercise via the push-up bar.

[0014] In a third aspect, the present invention provides an exercise device configured to engage multiple accessory attachments, the device comprising: a circular base plate having a raised border around a circumference thereof; and a first accessory disk configured to an interior of the circular base plate, the first accessory disk having a member engaging a user for performing exercises, wherein further the first accessory disk and the circular base plate are concentric with respect to one another.

[0015] In a fourth aspect, the present invention provides an exercise device configured to engage multiple accessory attachments, the circular base plate further comprising: a top plate including: a spring biased pin for releasably engaging and locking the first accessory disk; an aperture on an opposite side of the top plate with respect to the pin for receiving a male connector configured to the first accessory disk, the aperture and male connector engaging the engaging and locking; and a first rounded circular groove; a bottom plate including a second rounded circular groove, the first rounded circular groove inverted with respect to the second, thereby forming a rounded circular channel; and a plurality of ball bearings configured to the rounded circular channel providing rotatability between the top base plate and the bottom base plate via the member engaging a user.

[0016] The invention can be better visualized by turning now to the following drawings wherein like elements are referenced by like numerals.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The novel features of this invention, as well as the invention itself, both as to its structure and its operation, will be best understood from the accompanying drawings, taken in conjunction with the accompanying description, in which similar reference characters refer to similar parts, and in which:

[0018] FIG. 1 is an exploded view of a first preferred exercise device and system to include accessory parts;
[0019] FIG. 2A is a perspective illustration of a first accessory disk with push-up bar of the present invention;
[0020] FIG. 2B is an additional perspective view thereof;
[0021] FIG. 3 is a perspective view of an additional accessory disk according to the invention exercise device system;
[0022] FIG. 4A is a perspective view of a circular base plate of the present invention;
[0023] FIG. 4B is another perspective view thereof;
[0024] FIG. 4C is a cross-sectional view of the base plate taken along line 4C-4C of FIG. 4B; and
[0025] FIG. 4D is an exploded view of the base plate.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0026] With regard to FIG. 1, an overview of a first preferred exercise device 20, 30a, 30b and accessory system 10 is illustrated. More specifically, the preferred device comprises a base plate 20 coupled to a first accessory disk 30a and further coupled to a second accessory disk 30b at an undesirable thereof.

[0027] The second accessory disk 30b has an inflatable hemispherical member 39 similar to a smaller sized bosu ball for providing stability type core training during a push-up. Also referring to FIG. 1, an additional (third) accessory disk 30c provides a flat surface to engage either a hand or a foot of a user. Yet further, an additional (fourth) accessory disk 30d provides a raised flat surface to engage either a hand or a foot of a user. Still further, an additional (fifth) accessory disk 30e provides a ball handle 33 to engage a hand of a user. Lastly further, an additional (sixth) accessory disk 30f provides a plurality of wheels 38 to configure to an underside of the base plate 20 for stability-type core training.

[0028] With reference to FIG. 2A, a relief 31 is provided to assist a user in attaching accessory disks 30a, 30b, 30c, 30d, 30e, 30f. As best seen in conjunction with FIG. 4A, a finger of a user is inserted to relief 31 wherein a latch 23 is pulled against spring bias 23a for pins 24 to engage holes 32. With regard to FIG. 2B, male connectors 36 are provided on an opposite side of the disk 30a with respect holes 32 and relief 31. Male connectors 36 in turn engage apertures 26 (FIG. 4B, FIG. 4C) on the top base portion 21. Similarly, as in the case of flat disk 30c (FIG. 3), the apertures 26 could be on the bottom base portion 22 with essentially identical structure and could be engaged by male connectors 36 on the flat disk 30c.

[0029] Still referring to FIG. 3, an additional relief 35 is provided with extra material forming a hole 34. The hole 34 is provided for attaching resistance type cords to the exercise device and thereby adding yet more versatility to the present invention.

[0030] Now turning to FIG. 4A, a perspective view of a circular base plate 20 of the present invention is shown. As stated, accessory disks 30a, 30b, 30c, 30d, 30e, 30f engage the base plate by engaging latch 23 wherein compressive spring 23a engages pin 24 to protrude in its 23a equilibrium state. When the latch 23 is engaged by using a finger and moving such outwardly, the pins 24 will no longer protrude and a disk 30a, 30b, 30c, 30d, 30e, 30f may be inserted. The top 21 and bottom 22 circular base plates will have the same feature 23a, 23b, 24. An additional latch 25 is also provided with two positions as selectively desired by a user. In the engaged position, latch 25 restricts plates 21, 22 from moving with respect to each other. In the disengaged position, latch 25 allows plates 21, 22 to move with respect to each other assisted by ball bearings 91 configured to circular channel 29.

[0031] Rounded circular channel 29 is best seen by the cross-sectional view in FIG. 4C. Exploded view FIG. 4D illustrates how rounded circular channel 29 comprises a first circular groove 27 on the top plate 21 and a second circular groove 28 on the bottom plate 23.

[0032] As stated, a preferred embodiment of the present invention provides for a portable exercise device 20 comprising accessory plates 30a, 30b, 30c, 30d, 30e, 30f that can be configured in various combinations for allowing the user to perform different exercises targeting different muscle groups of the body, thereby to achieve a full body exercise. Another preferred embodiment of the present invention provides an exercise device 20, 30a, 30b, 30c, 30d, 30e, 30f that is versatile and compact for easy transport and mobility of the device. In an additional embodiment of the present invention, the top plate 21 of the exercise device may comprise a push-up bar 30a for engaging by a user. In another embodiment of the present invention, the top plate 21 of the exercise device may rotate with respect to the bottom plate 22 via latch 25 and bearings 91, and also via the member 33, 37 engaging a user.
[0033] In still another preferred embodiment, a second accessory disk 30b of the exercise device may have an inflatable hemispherical member 39 for providing stability type core training during a push-up or other exercise. In still another embodiment of the present invention, a third accessory disk 30c may have a flat surface to engage either a hand, foot or knee of a user. Similarly a fourth accessory disk 30d may have a raised flat surface to engage either a hand, a foot or a knee of a user. Still further, a fifth accessory disk 30e may have a ball handle 33 to engage a hand of a user. And, yet still further, a sixth accessory disk 30f may have a plurality of wheels 38 configured to the underside 22 of the base plate 20 to provide a user with stability-type core training.

[0034] It will be appreciated that details of the foregoing embodiments, given for purposes of illustration, are not to be construed as limiting the scope of this invention. Although several embodiments of this invention have been described in detail above, those skilled in the art will readily appreciate that many modifications are possible in the exemplary embodiments without materially departing from the novel teachings and advantages of this invention. Accordingly, all such modifications are intended to be included within the scope of this invention, which is defined in the following claims and all equivalents thereto. Further, it is recognized that many embodiments may be conceived that do not achieve all of the advantages of some embodiments, particularly of the preferred embodiments, yet the absence of a particular advantage shall not be construed to necessarily mean that such an embodiment is outside the scope of the present invention.

What is claimed is:

1. An exercise device configured to engage multiple accessory attachments, the device comprising:
   a top plate; and
   a bottom plate underneath and complementary to the top plate; and
   a first accessory disk releasably attached to the top plate, the first accessory disk having a member engaging a user for performing exercises.

2. The exercise device configured to engage multiple accessory attachments of claim 1, further comprising a second accessory disk releasably coupled to the bottom plate, the second accessory disk having at least a first curved surface for providing a stability and core training exercise.

3. The exercise device configured to engage multiple accessory attachments of claim 1, wherein the member engaging the user comprises a push-up bar, and further wherein the top plate is configured to rotate with respect to the bottom plate thereby allowing the user to rotate the device during an exercise via the push-up bar.

4. An exercise device configured to engage multiple accessory attachments, the device comprising:
   a circular base plate having a raised border around a circumference thereof; and
   a first accessory disk configured to an interior of the circular base plate, the first accessory disk having a member engaging a user for performing exercises, wherein further the first accessory disk and the circular base plate are concentric with respect to one another.

5. The exercise device configured to engage multiple accessory attachments of claim 4, the circular base plate further comprising:
   a top plate including:
   a spring biased pin for releasably engaging and locking the first accessory disk;
   an aperture on an opposite side of the top plate with respect to the pin for receiving a male connector configured to the first accessory disk, the aperture and male connector assisting the engaging and locking; and
   a first rounded circular groove;
   a bottom plate including a second rounded circular groove, the first rounded circular groove inverted with respect to the second, thereby forming a rounded circular channel; and
   a plurality of ball bearings configured to the rounded circular channel providing rotatability between the top base plate and the bottom base plate via the member engaging a user.

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