A method and apparatus for an exercise device comprised of two poles affixed to a base, the poles can move omnidirectionally in the base. A user grasps and leans on them for support, while letting his body fall between the poles. The user then pulls the poles together while pulling himself up. In this manner the muscles of the spine, back, abdominals, obliques, upper arms, chest and forearms are stretched and stressed for exercise.
EXERCISE DEVICE AND METHOD OF USE

[0001] This application is based on and hereby cites and applicant hereby claims the priority of the filing date of U.S. provisional patent application serial No. 60/290,553, filed May 10, 2001.

FIELD OF THE INVENTION

[0002] This invention relates to exercise apparatus and more particularly to a method and apparatus for exercising the human body.

BACKGROUND OF THE INVENTION

[0003] A regular regimen of exercise requires time, discipline and storage space for the equipment used to conduct the exercise. There are a number of devices and apparatus for use in the home that are currently available, such as treadmills, weight training machines, stationary bicycles and the like. These devices typically are expensive and take considerable space dedicated to storing and using them. Smaller handheld exercise devices are available as well, such as spring-tensioned devices, band-tensioned devices and the ordinary pull-up bar. These devices, however, are limited in their functions of optimally exercising a wide number of muscle groups.

[0004] Most of these alternatives are not amenable to being easily transported so a user will have a difficult time using them when traveling.

[0005] Alternatively, a user may join a fitness center, but this entails traveling to and from the fitness center to use their equipment and without the privacy of exercising at home.

[0006] What is needed then is an apparatus that is easily stored and transported but can be used to exercise a number of different muscle groups.

SUMMARY OF THE INVENTION

[0007] A solution to the above has been devised. An exercise device having a base portion with a front side formed to rest against a vertical surface, a bottom side formed to rest upon a surface and an angled side adjoining the front and bottom sides is provided. The base portion has two hemispherical sockets in the angled side to retain poles akin to ski poles. Each of the poles, has a ball on one end and a handle on the other end. The ball portion of each is sized to fit snugly within one of the hemispherical sockets. To retain the balls within the sockets a face plate that has two openings, a first opening and a second opening, is slipped over the poles and affixed to the base. The openings of the face plate are formed to be centered over the hemispherical sockets. The diameter of the first opening is smaller than that of the ball of the first pole, and the diameter of the ball of the second opening is smaller than that of the ball of the second pole, so that when the balls are placed in the sockets and the face plate is affixed to the base, then the balls are retained within the hemispherical sockets. Optimally the fit of the engagement between the face plate and the ball portion allow each pole to move within with relatively free omni-directional movement. The ball portion may be a ball formed with a ball stud portion and the ball is affixed to a pole by the stud portion of the ball.

[0008] The bottom side of the base portion or the front side of the base portion may be covered with a material such a vinyl or rubber to enhance the friction between that side and a wall or floor, to thereby secure the base portion from slipping from that surface. In the preferred embodiment the bottom side of the base portion is affixed to a surface or the front side of the base portion is affixed to a vertical surface to secure the base portion from slipping from a surface.

[0009] Each pole is may be one unit or may be comprised of two or more concentric telescoped tubular sections. The concentric telescoped tubular sections may further be made adjustable by providing adjusting holes affixed to a concentric telescoped tubular section to functionally work with a snap button fastener complementary to the adjusting holes in another concentric telescoped tubular section.

[0010] The method of use of the exercise device is straightforward. The user achieves a first position by grasping each handle and leaning on the poles to support the user’s weight. The user then moves the poles laterally outwardly from the body while allowing the body to fall forward and between the poles, reaching a second position. Finally, the user returns to the first position by forcing the poles toward each other while pushing the body upwards to bring the body back to the first position. This regimen is repeated until the user has achieved sufficient exercise.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 is a sectional elevation view of the apparatus of the present invention, FIGS. 1a and 1b are detailed views of aspects of FIG. 1.

[0012] FIG. 2 is a front view of the base of the apparatus of the present invention.

[0013] FIGS. 3a and 2b are corresponding back elevation and side views of the same view of a user implementing the method of the present invention, showing the user in a first position.

[0014] FIGS. 4a and 4b are corresponding back elevation and side views of the same view of a user implementing the method of the present invention, showing the user in a second position.

DESCRIPTION OF THE INVENTION

[0015] The following description, and the figures to which it refers, are provided for the purpose of describing examples and specific embodiments of the invention only and are not intended to exhaustively describe all possible examples and embodiments of the invention.

[0016] A solution to the above problem has been devised. Referring now to FIGS. 1-2 the apparatus of the present invention is shown. An exercise device 19 comprises a base portion 21 having a face plate 23 affixed to it, for example affixed by screws. The base 21 may be a crosscut hollow rectangular box but in the preferred embodiment the base is a solid block, perhaps of plastic or wood. It is preferred that the profile of the front side 26a and bottom side 26b of the base be formed at a ninety-degree angle to allow it to be placed at the juncture of a floor and a wall. For most uses the front side 26a of the base portion is formed to rest against a vertical surface such as a wall and bottom side 26b is
formed to rest upon a surface such as a floor. Front side 26a and bottom side 26b of the base 21 are joined by angled side 26c. In this embodiment it is further envisioned that front side 26a will abut a wall and be covered with vinyl, rubber or other material, shown at 21', to enhance the friction between the wall and the base to thereby secure the base from slipping. The bottom side 26b may also be covered in these materials to enhance the friction between the floor and the base to thereby secure the base from slipping. The base may, however, instead be secured in place to a floor by other methods, such as screwing or bolting the front of the base 21 to a vertical wall or the bottom of the box 26b to a floor.

[0017] Hemispherical sockets are formed in the angled side 26c to be substantially the same distance from the surface or floor that bottom side 26b rests on. The face plate 23 of the base further has two openings, first opening 24a and second opening 24b. First opening 24a and second opening 26b are formed such that, when assembled, each hemispherical socket 25 is aligned with an opening. Each hemispherical socket is adapted to receive a ball 27 that is affixed to the end of a pole on a stud portion 27 of the ball; first pole 29 and second pole 31 each have a ball affixed to their ends. The ball of each pole moves within its socket to allow the user relatively free omni-directional movement of the poles. The diameter of each opening 24a and 24b formed in the face plate 23 is just smaller than the circumference of the ball situated within the respective socket, so that the ball will be retained within the hemispherical socket by the face plate, as detailed in FIGS. 1a and 2.

[0018] Each pole 29 and 31 is preferably made of metal such as steel or aluminum and is comprised of a plurality of sections to allow it to telescope. The ball 27 is securely fixed to the end of the pole, to be retained by the face plate. In the preferred embodiment there are three concentric telescoped tubular sections 41', 41" and 41', each of about twenty-four inches in length. In one section adjusting holes 33 for snap button 39 fasteners, known in the art, are provided to allow the user to adjust the length of each pole, as detailed in FIG. 10. In this manner the poles may be adjusted to the preferred length by the user. The poles may also be collapsed altogether for easier storage or transportation. The handle 35 end of the pole located distal the ball is preferably covered with vinyl or rubber to allow a secure grip by the user and may be further equipped with loops 37 to catch the arm of the user if his grip should fail.

[0019] Referring now to FIGS. 3-4, the preferred use of the present invention is shown. These figures each show a user from the side and a corresponding view from the front while using the present invention.

[0020] FIGS. 3a and 3b show corresponding views of a user in a first position. The user grasps the handles and supports himself by leaning on the poles. The user’s head is about three to three and a half feet from a wall (not shown) abutting from side 26a in this position. From the first position the user moves the poles laterally outwardly from the body, allowing the body to fall forward to between the poles to a second position, shown in corresponding FIGS. 4a and 4b.

[0021] From the second position the user forces the poles toward each other while pushing the body upwards to bring the body back to the first position, as indicated by arrows. While in the second position the back is flexed in a concave position between the users shoulders and hips. The shoulders are also stretched while in the second position.

[0022] The user repeats this motion from the first position to the second position for a desired amount of time. Adjusting the poles 29 and 31 to use a shorter pole length results in an increase of this flexing and stretching. The concentric telescoped tubular sections are adjusted by depressing the adjusting snap button fasteners into their holes and then moving the pole tube telescopically to achieve the desired length. Shorter pole lengths make the exercise progressively more rigorous and thereby promotes greater strength and flexibility.

[0023] In this manner muscles of the spine, back, abdominals, obliques, upper arms, chest and forearms are stretched and stressed for exercise. This cycle is repeated until the user has achieved sufficient exercise.

[0024] It will be appreciated that the invention has been described hereabove with reference to certain examples or preferred embodiments as shown in the drawings. Various additions, deletions, changes and alterations may be made to the above-described embodiments and examples without departing from the intended spirit and scope of this invention.

[0025] Accordingly, it is intended that all such additions, deletions, changes and alterations be included within the scope of the following claims.

What is claimed is:

1) An exercise device, comprising:
   a base portion having a front side formed to rest against a vertical surface, a bottom side formed to rest upon a surface and an angled side adjoining the front and bottom sides, wherein the base portion has two hemispherical sockets in the angled side; first and second poles, each having a ball on one end and a handle on the other end, wherein each ball portion is sized to fit snugly within a different one of the hemispherical sockets;
   a face plate formed to be affixed to the angled side, having a first opening and a second openings formed to be centered over the hemispherical sockets, the diameter of the first opening being smaller than that of the ball of the first pole and the diameter of the ball of the second opening is smaller than that of the ball of the second pole, and,

   the ball portions of the first and second poles are placed within the hemispherical sockets and the face plate is affixed to the base portion to retain the poles within the hemispherical sockets, allowing each pole to move within relatively free omni-directional movement.

2. The exercise device of claim 1, wherein each ball further comprises a ball stud portion and the ball is affixed to a pole by the stud portion of the ball.

3. The exercise device of claim 1, wherein either the bottom side of the base portion or the front side of the base portion is covered with a material to enhance the friction between a that side and a wall or floor to thereby secure the base portion from slipping from a surface.

4. The exercise device of claim 1, wherein either the bottom side of the base portion is affixed to a surface or the
front side of the base portion is affixed to a vertical surface to thereby secure the base portion from slipping from a surface.

5. The exercise device of claim 1, wherein each pole is further comprised of two or more concentric telescoped tubular sections.

6. The exercise device of claim 5, wherein at least one of the concentric telescoped tubular sections forms adjusting holes and is affixed to a second concentric telescoped tubular section having a snap button fastener complementary to the adjusting holes.

7. A method for a user to use an exercise device, comprising the steps of:

   a) providing an exercise device that includes a base portion having a front side formed to rest against a vertical surface, a bottom side formed to rest upon a surface and an angled side adjoining the front and bottom sides, wherein the base portion has two hemispherical sockets in the angled side; the exercise device further including first and second poles, each having a ball on one end and a handle on the other end, wherein each ball portion is sized to fit snugly within a different one of the hemispherical sockets; the exercise device further including a face plate formed to be affixed to the angled side, having a first opening and a second opening formed to be centered over the hemispherical sockets, the diameter of the first opening being smaller than that of the ball of the first pole and the diameter of the ball of the second opening is smaller than that of the ball of the second pole, and, the ball portions of the first and second poles are placed within the hemispherical sockets and the face plate is affixed to the base portion to retain the poles within the hemispherical sockets, allowing each pole to move within with relatively free omni-directional movement.

   b) achieving a first position by grasping each handle to and leaning on the poles to support the user,

   c) achieving a second position by moving the poles laterally outwardly from the body and further allowing the body to fall forward and between the poles, and,

   d) achieving the first position by forcing the poles toward each other while pushing the body upwards to bring the body back to the first position.

8. The method of claim 7, further including the step of repeatedly moving from the first position to the second position and back to the first position until the user has achieved sufficient exercise.

9. The method of claim 7, wherein either the bottom side of the base portion or the front side of the base portion is covered with a material to enhance the friction between a that side and a wall or floor to thereby secure the base portion from slipping from a surface.

10. The method of claim 7, wherein either the bottom side of the base portion is affixed to a surface or the front side of the base portion is affixed to a vertical surface to thereby secure the base portion from slipping from the surface.

11. The method of claim 7, wherein each pole is further comprised of two or more concentric telescoped tubular sections and further includes the step of adjusting the telescoped tubular portions.

12. The method of claim 7, wherein at least one of the concentric telescoped tubular sections forms adjusting holes and is affixed to a second concentric telescoped tubular section having a snap button fastener complementary to the adjusting holes, further including the step of adjusting the telescoped tubular portions with the snap button fastener.