Exerciser having adjustable seat

An exerciser includes a base, a parallelogrammic supporting device rotatably supported on the base, to allow the supporting device to be rotated and adjusted relative to the base to selected angular position, a seat device is disposed on the supporting device and adjustable relative to the base to selected position. The seat device includes a handle, an actuator coupled between the supporting device and the base, to adjustably support the supporting device and the seat device to the base. A hand grip is pivotally attached to the handle, and coupled to the actuator, to control the actuator, and to allow the users to operate the actuator without departing the seat device.
1. Field of the Invention

BACKGROUND OF THE INVENTION

Description

conventional cycle exercisers.

bases to any required or selected heights or positions. The parallelogrammic structure relative to the supporting device for allowing the users to easily and readily adjust or selected heights or positions, and have no adjusting structure relative to the supporting bases at the required or selected heights or positions.

The cited typical cycle exercisers have no sup-

porte relative to the supporting bases at any required or selected heights or positions, and then to release the lock rod, to allow the lock rod to lock the parallelogrammic structure to the supporting bases at the required or selected heights or positions.

The seat device includes a sleeve slidably and

The primary objective of the present invention

is to provide an exerciser including an adjustable seat for being easily adjusted by users.

The other objective of the present invention is
to provide an exerciser including an adjustable seat having a parallelogrammic structure that may be solidly supported relative to the supporting bases at any required or selected heights or positions.

In accordance with one aspect of the invention, there is provided an exerciser comprising a base, a parallelogrammic supporting device rotatably supported on the base, to allow the parallelogrammic supporting device to be rotated and adjusted relative to the base to selected angular position, a seat device disposed on the parallelogrammic supporting device, to allow the seat device to be adjusted relative to the base to selected position with the parallelogrammic supporting device, the seat device including a first handle disposed thereon, a first actuator coupled between the parallelogrammic supporting device and the base, to adjustably support the parallelogrammic supporting device and thus the seat device to the base at selected position, and a first hand grip pivotally attached to the first handle, and coupled to the first actuator, to control the first actuator to adjust the parallelogrammic supporting device and the seat device relative to the base, and for allowing users to operate the first actuator without departing the seat device.

The parallelogrammic supporting device includes two bars rotatably attached on the base with pivot axles, and a rod pivotally secured to upper portions of the bars with pivot pins, to form a parallelogrammic structure.

The seat device includes a sleeve slidably and

adjustably disposed on the rod, to adjustably secure the seat device to the rod of the parallelogrammic supporting device. The seat device includes a seat member rotatably attached onto the sleeve with a pivot shaft, to allow the seat member to be rotated and adjusted relative to the sleeve to selected angular position.

The seat member includes an extension having a slot formed therein, to slidably receive a fastener which is extended from the sleeve, to limit a rotational movement of the seat member relative to the sleeve.

The seat device includes a pivotal seat back disposed thereon, and a second actuator coupled to the seat back, to adjust and to support the seat back relative to the seat device at selected angular positions. The seat back includes a plurality of orifices formed therein for air circulation purposes.

The seat device includes a second handle disposed thereon, a second hand grip pivotally attached to the second handle, and coupled to the second actuator, to control the second actuator to adjust the seat back relative to the seat device, and for allowing users to operate the second actuator without departing the seat device.

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BRIEF DESCRIPTION OF THE DRAWINGS

The drawings will be referred to throughout this description to facilitate an understanding of the preferred embodiment of the present invention. FIGS. 1-3 illustrate the preferred embodiment of the present invention as shown in perspective views, and FIGS. 4, 5, 6 are side schematic views of the exerciser to illustrate the operation of the exerciser. The detailed description of the preferred embodiment, which is illustrated in the drawings, will now be provided.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, and initially to FIGS. 1-3, an exerciser in accordance with the present invention comprises a base 10 including a longitudinal beam 11 having one or more lateral beams 12, 13 laterally attached to the front portion 14 and/or the rear portion 15 thereof, for increasing an area or a stability of the base 10, and for allowing the base 10 to be stably supported on ground or various supporting surfaces. A post 20 is disposed on or extended upwardly from the front portion 14 of the base 10, and includes a display 21 or the like disposed thereon for showing various information of the exerciser, and includes a pair of foot pedals 22 coupled thereto with cranks 23, for allowing users to conduct cycle exercises. The cycling mechanism of the exerciser is typical and shielded within a housing 24, and will not be described in further detail.

A parallellogrammic supporting device 30 includes one or more front bars 31 and one or more rear bars 32 each having a lower portion rotatably or pivotally secured to the rear portion 15 of the base 10 with a pivot axle 17, 18, and includes a rod 33 rotatably or pivotally secured to the upper portions of the bars 31, 32 with pivot pins 34, in order to form a parallellogrammic structure, and for allowing the parallellogrammic supporting device 30 to be rotated relative to the base 10, and to be adjusted forwardly and downwardly, or rearwardly and upwardly relative to the base 10.

An extendible or adjustable actuator 35, such as a bolt-and-tube adjusting device, a hydraulic or pneumatic cylinder, or the like, may further be provided and coupled between the base 10 and the parallellogrammic supporting device 30, in order to adjust and to support the rod 33 of the supporting device 30 relative to the base 10 at any selected angular positions or heights. For example, the bolt-and-tube adjusting device may include a bolt and a tube threaded together and coupled between the base 10 and the supporting device 30, to adjust and to support the supporting device 30 relative to the base 10.

A seat device 40 includes a seat 41 slidably and adjustably attached onto the rod 33 of the parallellogrammic supporting device 30, and fixable to the rod 33 with fasteners or latches (not shown), for allowing the seat device 40 to be adjusted along the rod 33 of the parallellogrammic supporting device 30 to any selected position. The seat device 40 includes a seat member 42 pivotally or rotatably attached onto the seat 41 with a pivot shaft 43, for allowing the seat member 42 to be rotated or adjusted relative to the seat 41 at any selected angular position (FIG. 6). The seat member 42 may further include a seat cushion 47 disposed thereon to comfortably support the users thereon.

The seat device 40 includes a seat back 48 pivotally or rotatably attached to the seat member 42, in order to pivotally or rotatably attach the seat member 42 to the sleeve 41, in order to adjustably secure the seat member 42 to the sleeve 41 at any selected angular position (FIG. 6). The seat member 42 includes a front extension 44 having an oblong and/or curved slot 45 formed therein, to slidably receive a fastener 46 which is extended from the sleeve 41, in order to limit the rotational movement of the seat member 42 relative to the sleeve 41. The fastener 46 may secure the extension 44 of the seat member 42 to the sleeve 41, in order to adjustably secure the seat member 42 to the sleeve 41 at any selected angular position (FIG. 6). The seat member 42 includes a seat cushion 47 disposed thereon to comfortably support the users thereon.

An extendible or adjustable actuator 53, such as a bolt-and-tube adjusting device, a hydraulic or pneumatic cylinder, or the like, may further be provided and coupled between the seat member 42 or the parallellogrammic supporting device 30, such as the rod 33 of the parallellogrammic supporting device 30, and the seat back 48, in order to adjust and to support the seat back 48 relative to the seat member 42 or the parallellogrammic supporting device 30 at any selected angular positions.

The seat device 40 may further include two handles 60, 61 disposed thereon, such as attached on the seat member 42, and two control hand grips 62, 63 pivotally attached to the handles 60, 61 respectively, and coupled to the actuators 35, 53 with cables 64, 65 respectively, in order to control the actuators 35, 53 respectively, and so as to adjust the seat device 40 and the parallellogrammic supporting device 30 relative to the base 10, and to adjust the seat back 48 relative to the seat member 42 or the seat device 40 respectively.
It is to be noted that the control hand grips 62, 63 are pivotally attached to the handles 60, 61 and may thus be easily and readily operated or actuated by the hands of the users that hold or grasp the handles 60, 61 respectively, such that the users may actuate the actuators 35, 53 to adjust the seat device 40 relative to the base 10, and to adjust the seat back 48 relative to the seat member 42 without departing from the seat device 40.

As shown in FIG. 2, a remote control device 66 may further be provided, or selectively attached to one of the handles 60, 61, for allowing the users to actuate the actuators 35, 53 to adjust the seat device 40 relative to the base 10, and to adjust the seat back 48 relative to the seat member 42 remotely, and without departing from the seat device 40.

Accordingly, the exerciser in accordance with the present invention includes an adjustable seat for being easily adjusted by users, and having a parallelogrammic structure that may be solidly supported relative to the supporting bases at any required or selected heights or positions.

Although this invention has been described with a certain degree of particularity, it is to be understood that the present disclosure has been made by way of example only and that numerous changes in the detailed construction and the combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as hereinafter claimed.

Claims

1. An exerciser comprising:
   a base,
   a supporting device rotatably supported on said base, to allow said supporting device to be rotated and adjusted relative to said base to selected angular position,
   a seat device disposed on said supporting device, to allow said seat device to be adjusted relative to said base to selected position with said supporting device, said seat device including a first handle disposed thereon,
   a first actuator coupled between said supporting device and said base, to adjustably support said supporting device and thus said seat device to said base at selected position, and
   a first hand grip pivotally attached to said first handle, and coupled to said first actuator, to control said first actuator to adjust said supporting device and said seat device relative to said base, and for allowing users to operate said first actuator without departing said seat device.

2. The exerciser as claimed in claim 1, wherein said supporting device includes two bars rotatably attached on said base with pivot axles, and a rod pivotally secured to upper portions of said bars with pivot pins, to form a parallelogrammic structure.

3. The exerciser as claimed in claim 2, wherein said seat device includes a sleeve slidably and adjustably disposed on said rod, to adjustably secure said seat device to said rod of said parallelogrammic supporting device.

4. The exerciser as claimed in claim 3, wherein said seat device includes a seat member rotatably attached onto said sleeve with a pivot shaft, to allow said seat member to be rotated and adjusted relative to said sleeve to selected angular position.

5. The exerciser as claimed in claim 4, wherein said seat member includes an extension having a slot formed therein, to slidably receive a fastener which is extended from said sleeve, to limit a rotational movement of said seat member relative to said sleeve.

6. The exerciser as claimed in claim 1, wherein said seat device includes a pivotal seat back disposed thereon, and a second actuator coupled to said seat back, to adjust and to support said seat back relative to said seat device at selected angular positions.

7. The exerciser as claimed in claim 6, wherein said seat back includes a plurality of orifices formed therein for air circulation purposes.

8. The exerciser as claimed in claim 6, wherein said seat device includes a second handle disposed thereon, a second hand grip pivotally attached to said second handle, and coupled to said second actuator, to control said second actuator to adjust said seat back relative to said seat device, and for allowing users to operate said second actuator without departing said seat device.

9. The exerciser as claimed in claim 1, wherein said seat device includes a remote control device attached on said first handle, for controlling said first actuator.

10. The exerciser as claimed in claim 1 further comprising a post extended from said base, and a pair of foot pedals coupled to said post with cranks, for conducting cycle exercises.
FIG. 6
The present search report has been drawn up for all claims

Place of search: The Hague
Date of completion of the search: 26 April 2005
Examiner: Knoflacher, N

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