An exercising device includes a main bar, a plurality of mounting tubes mounted on the main bar, a mounting pipe mounted on the main bar, a plurality of back cushions mounted on the mounting tubes and the mounting pipe, two rocker bars each connected with the mounting pipe and one of the mounting tubes, two handles connected with the two rocker bars respectively, an extension bar connected with the main bar, an adjusting pipe connected with the extension bar, and a head support bracket connected with the adjusting pipe. Thus, the exercising device is detached when not in use to reduce the whole volume of the exercising device, thereby facilitating the user storing and receiving the exercising device.
DETACHABLE WAIST AND ABDOMEN EXERCISING DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention
2. Description of the Related Art

A conventional waist and abdomen exercising device comprises a seat, a foot support located at a front portion of the seat, a back support frame pivotally connected with a rear portion of the seat, and two handles connected with the back support frame. In operation, when a user lies on the seat of the exercising device, his two hands hold the two handles, his back rests on the back support frame and his two feet head rest on the foot support. In such a manner, the user’s body applies a force on the exercising device to pivot the back support frame relative to the seat so that the user’s waist and abdomen have to apply a force on the exercising device to pivot the back support frame relative to the seat forward and backward in a reciprocal manner so as to exercise the user’s waist and abdomen. However, the conventional exercising device has a fixed structure and cannot be detached so that the conventional exercising device occupies a larger space when not in use, thereby greatly causing inconvenience to the user in storage, transportation and packaging of the conventional exercising device.

BRIEF SUMMARY OF THE INVENTION

In accordance with the present invention, there is provided an exercising device, comprising a main bar, a plurality of mounting tubes mounted on the main bar, a mounting pipe mounted on the main bar, a plurality of back cushions mounted on the mounting tubes and the mounting pipe, two rocker bars each connected with the mounting pipe and one of the mounting tubes, two handles connected with the two rocker bars respectively, an extension bar connected with the main bar, an adjusting pipe connected with the extension bar, and a head support bracket connected with the adjusting pipe.

The main bar has an upper end provided with at least one locking hole. The mounting pipe has two opposite ends each provided with at least one locking bore. Each of the two rocker bars has a middle portion provided with a curved rocking arm. Each of the two rocker bars has a first end provided with a bent connecting rod connected with one of the mounting tubes and a second end provided with a connecting pipe connected with the mounting pipe and a respective one of the two handles. The connecting pipe of each of the two rocker bars has two opposite ends each provided with at least one fixing hole. Each of the two handles has a first end provided with at least one locking aperture. The extension bar has two opposite ends each provided with at least one fixing bore. The adjusting pipe has a side provided with a plurality of adjusting holes. The head support bracket is provided with a plurality of head cushions. The exercising device further comprises a plurality of elastic locking plates mounted in the connecting pipe of each of the two rocker bars and the extension bar. Each of the locking plates is provided with at least one locking boss that is extended through the fixing hole of the connecting pipe of each of the two rocker bars and the fixing bore of the extension bar and is detachably locked in the locking hole of the main bar, the locking bore of the mounting pipe, the locking aperture of each of the two handles and one of the adjusting holes of the adjusting pipe so that the connecting pipe of each of the two rocker bars is locked onto the mounting pipe, each of the two handles is locked onto the connecting pipe of the respective rocker bar, the extension bar is locked onto the main bar, and the adjusting pipe is locked onto the extension bar.

The primary objective of the present invention is to provide a detachable waist and abdomen exercising device that can be detached when not in use.

According to the primary advantage of the present invention, the exercising device is detached when not in use to reduce the whole volume of the exercising device, thereby facilitating the user storing and receiving the exercising device.

According to another advantage of the present invention, the exercising device can support the user’s body to prevent the user’s back from directly contacting with the ground so that the user can operate the exercising device comfortably.

According to a further advantage of the present invention, the exercising device is moved in a curved manner so that the user can operate the exercising device steadily and stably, thereby enhancing the exercising effect of the exercising device.

According to a further advantage of the present invention, the exercising device is detached before assembly to reduce the costs of packaging, transportation and storage of the exercising device.

Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

FIG. 1 is a perspective view of an exercising device in accordance with the preferred embodiment of the present invention.
FIG. 2 is an exploded perspective view of the exercising device as shown in FIG. 1.
FIG. 3 is a partially top cross-sectional view of the exercising device as shown in FIG. 1.
FIG. 4 is a schematic side operational view of the exercising device as shown in FIG. 1 in use.
FIG. 5 is a schematic side operational view of the exercising device as shown in FIG. 1 in use.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawings and initially to FIGS. 1-3, an exercising device 1 in accordance with the preferred embodiment of the present invention comprises a main bar 10, a plurality of mounting tubes 11 mounted on the main bar 10, a mounting pipe 12 mounted on the main bar 10, a plurality of back cushions 13 mounted on the mounting tubes 11 and the mounting pipe 12, two rocker bars 20 each connected with the mounting pipe 12 and one of the mounting tubes 11, two handles 30 connected with the two rocker bars 20 respectively, an extension bar 40 connected with the main bar 10, an adjusting pipe 50 connected with the extension bar 40, and a head support bracket 52 connected with the adjusting pipe 50.

The main bar 10 has a curved profile to fit a user’s curvature. The main bar 10 has an upper end provided with at
least one locking hole 15. Each of the mounting tubes 11 traverses the main bar 10. The mounting pipe 12 traverses the main bar 10 and is located at a lower end of the main bar 10. The mounting pipe 12 has two opposite ends each provided with at least one locking bore 14.

[0020] The two rocker bars 20 are located at two opposite sides of the main bar 10 so that the main bar 10, each of the mounting tubes 11 and the mounting pipe 12 are disposed between the two rocker bars 20. Each of the two rocker bars 20 has a curved profile and has a mediate portion provided with a curved rocking arm 21 that rests on the ground, and the exercising device 1 further comprises two soft jackets 22 each mounted on the rocking arm 21 of a respective one of the two rocker bars 20 and each abutting the floor to eliminate the noise in use and to prevent the floor from being scratched. Each of the two rocker bars 20 has a first end provided with a bent connecting rod 23 connected with one of the mounting tubes 11 and a second end provided with a connecting pipe 24 connected with the mounting pipe 12 and a respective one of the two handles 30. The connecting rod 23 of each of the two rocker bars 20 is inserted into one of the mounting tubes 11. The connecting pipe 24 of each of the two rocker bars 20 traverses each of the two rocker bars 20 and is located between the mounting pipe 12 and the respective handle 30. The connecting pipe 24 of each of the two rocker bars 20 has two opposite ends each provided with at least one fixing hole 25. The connecting pipe 24 of each of the two rocker bars 20 has a first end inserted into the mounting pipe 12 and a second end inserted into the respective handle 30.

[0021] Each of the two handles 30 has a curved profile and has a first end provided with at least one locking aperture 31 and a second end provided with a grip portion 32. The first end of each of the two handles 30 is mounted on the connecting pipe 24 of a respective one of the two rocker bars 20.

[0022] The extension bar 40 has a curved profile and has two opposite ends each provided with at least one fixing bore 41. The extension bar 40 has a curved direction opposite to that of the main bar 10.

[0023] The adjusting pipe 50 has a side provided with a plurality of adjusting holes 51 that are arranged longitudinally.

[0024] The head support bracket 52 has a substantially U-shaped profile and is provided with a plurality of head cushions 53.

[0025] The exercising device 1 further comprises a plurality of elastic locking plates 60 mounted in the connecting pipe 24 of each of the two rocker bars 20 and the extension bar 40. Each of the locking plates 60 has a substantially U-shaped or V-shaped profile. Each of the locking plates 60 is provided with at least one locking boss 62 that is extended through the fixing hole 25 of the connecting pipe 24 of each of the two rocker bars 20 and the fixing bore 41 of the extension bar 40 and is detachably locked in the locking hole 15 of the main bar 10, the locking bore 14 of the mounting pipe 12, the locking aperture 31 of each of the two handles 30 and one of the adjusting holes 51 of the adjusting pipe 50 so that the connecting pipe 24 of each of the two rocker bars 20 is locked onto the mounting pipe 12, each of the two handles 30 is locked onto the connecting pipe 24 of the respective rocker bar 20, the extension bar 40 is locked onto the main bar 10, and the adjusting pipe 50 is locked onto the extension bar 40.

[0026] In the preferred embodiment of the present invention, the exercising device 1 further comprises a vibration counter 80 mounted on one of the two handles 30, and further comprises a plurality of bushings 70 mounted between the main bar 10 and the extension bar 40, between the mounting pipe 12 and the connecting pipe 24 of each of the two rocker bars 20, between the connecting pipe 24 of each of the two rocker bars 20 and the respective handle 30, and between the extension bar 40 and the adjusting pipe 50 so as to prevent from incurring a clearance and vibration.

[0027] In operation, referring to FIGS. 4 and 5 with reference to FIGS. 1-3, when a user lies on the exercising device 1, his two hands hold the two handles 30, his back rests on the back cushions 13 and his head rests on the head cushions 53. At this time, the rocking arm 21 of each of the two rocker bars 20 rests on the ground. In such a manner, the user's body applies a force on the exercising device 1 to pivot the rocking arm 21 of each of the two rocker bars 20 on the ground so that the exercising device 1 is pivoted on the ground between the position as shown in FIG. 4 and the position as shown in FIG. 5. Thus, when the user lies on the exercising device 1, the user's waist and abdomen have to apply a force on the exercising device 1 to pivot the exercising device 1 on the ground forward and backward so as to exercise the user's waist and abdomen.

[0028] Accordingly, the exercising device 1 can support the user's body to prevent the user's back from directly contacting with the ground so that the user can operate the exercising device 1 comfortably. In addition, the exercising device 1 is moved in a curved manner so that the user can operate the exercising device 1 steadily and stably, thereby enhancing the exercising effect of the exercising device 1. Further, the exercising device 1 is detached before assembly to reduce the costs of packaging, transportation and storage of the exercising device 1. Further, the exercising device 1 is detached when not in use to reduce the whole volume of the exercising device 1, thereby facilitating the user storing and receiving the exercising device 1.

[0029] Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.

1. An exercising device, comprising:
   a main bar;
   a plurality of mounting tubes mounted on the main bar;
   a mounting pipe mounted on the main bar;
   a plurality of back cushions mounted on the mounting tubes and the mounting pipe;
   two rocker bars each connected with the mounting pipe and one of the mounting tubes;
   two handles connected with the two rocker bars respectively;
   an extension bar connected with the main bar;
   an adjusting pipe connected with the extension bar; and
   a head support bracket connected with the adjusting pipe; wherein the main bar has an upper end provided with at least one locking hole;
   the mounting pipe has two opposite ends each provided with at least one locking hole;
   each of the two rocker bars has a mediate portion provided with a curved rocking arm;
   each of the two rocker bars has a first end provided with a bent connecting rod connected with one of the mounting
tubes and a second end provided with a connecting pipe connected with the mounting pipe and a respective one of the two handles;
the connecting pipe of each of the two rocker bars has two opposite ends each provided with at least one fixing hole;
each of the two handles has a first end provided with at least one locking aperture;
the extension bar has two opposite ends each provided with at least one fixing bore;
the adjusting pipe has a side provided with a plurality of adjusting holes;
the head support bracket is provided with a plurality of head cushions;
the exercising device further comprises a plurality of elastic locking plates mounted in the connecting pipe of each of the two rocker bars and the extension bar;
each of the locking plates is provided with at least one locking boss that is extended through the fixing hole of the connecting pipe of each of the two rocker bars and the fixing bore of the extension bar and is detachably locked in the locking hole of the main bar, the locking bore of the mounting pipe, the locking aperture of each of the two handles and one of the adjusting holes of the adjusting pipe so that the connecting pipe of each of the two rocker bars is locked onto the mounting pipe, each of the two handles is locked onto the connecting pipe of the respective rocker bar, the extension bar is locked onto the main bar, and the adjusting pipe is locked onto the extension bar.

2. The exercising device of claim 1, wherein the exercising device further comprises two soft jackets each mounted on the rocking arm of a respective one of the two rocker bars.

3. The exercising device of claim 1, wherein each of the two handles has a second end provided with a grip portion.

4. The exercising device of claim 1, wherein each of the locking plates has a substantially U-shaped or V-shaped profile.

5. The exercising device of claim 1, wherein the head support bracket has a substantially U-shaped profile.

6. The exercising device of claim 1, wherein the exercising device further comprises a plurality of bushings mounted between the main bar and the extension bar, between the mounting pipe and the connecting pipe of each of the two rocker bars, between the connecting pipe of each of the two rocker bars and the respective handle, and between the extension bar and the adjusting pipe.

7. The exercising device of claim 1, wherein the exercising device further comprises a vibration counter mounted on one of the two handles.

8. The exercising device of claim 1, wherein the main bar has a curved profile to fit a user's curvature; each of the mounting tubes traverses the main bar; the mounting pipe traverses the main bar; the mounting pipe is located at a lower end of the main bar.

9. The exercising device of claim 1, wherein each of the two rocker bars has a curved profile; the two rocker bars are located at two opposite sides of the main bar; the main bar, each of the mounting tubes and the mounting pipe are disposed between the two rocker bars; the connecting rod of each of the two rocker bars is inserted into one of the mounting tubes; the connecting pipe of each of the two rocker bars traverses each of the two rocker bars; the connecting pipe of each of the two rocker bars is located between the mounting pipe and the respective handle; the connecting pipe of each of the two rocker bars has a first end inserted into the mounting pipe and a second end inserted into the respective handle.

10. The exercising device of claim 1, wherein each of the two handles has a curved profile; the first end of each of the two handles is mounted on the connecting pipe of a respective one of the two rocker bars; the extension bar has a curved profile; the extension bar has a curved direction opposite to that of the main bar.

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