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(54) **EXERCISING DEVICE**

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(57) **ABSTRACT**

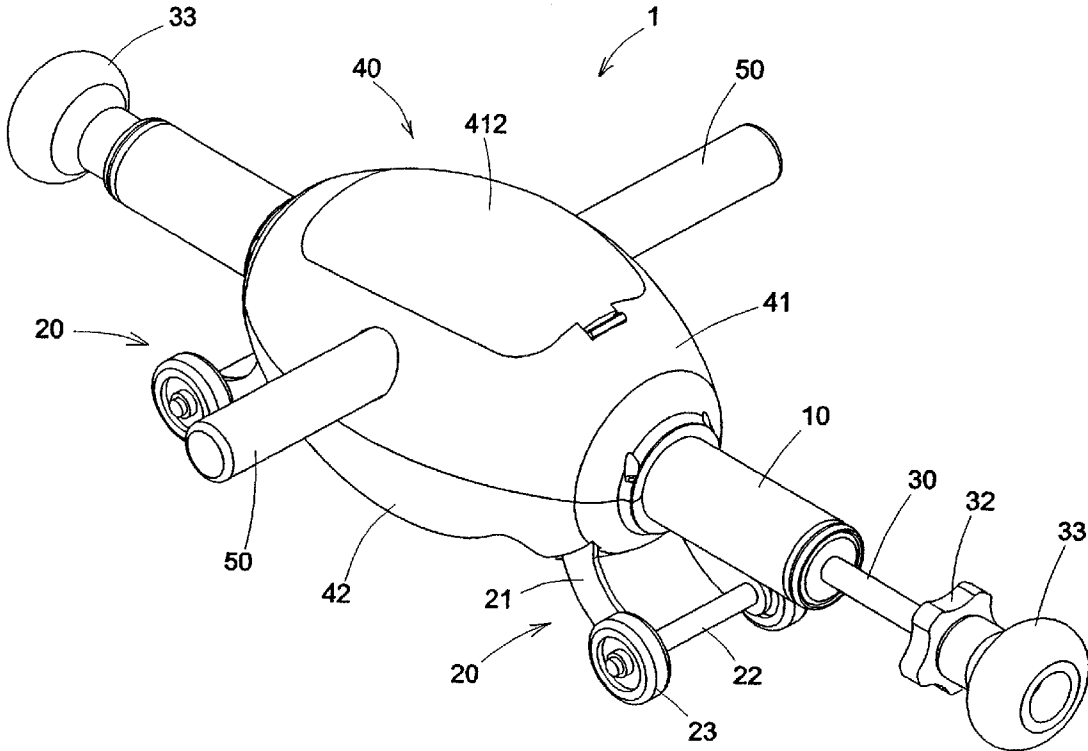
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An exercising device includes a tube, two wheel frames, a rod, and a housing. The tube has an inner wall provided with an elastic member, and the rod is extended into the tube to compress the elastic member. Thus, the exercising device may be used to exercise the muscles of the user's arms, chest and abdomen, thereby providing multiple exercising functions.

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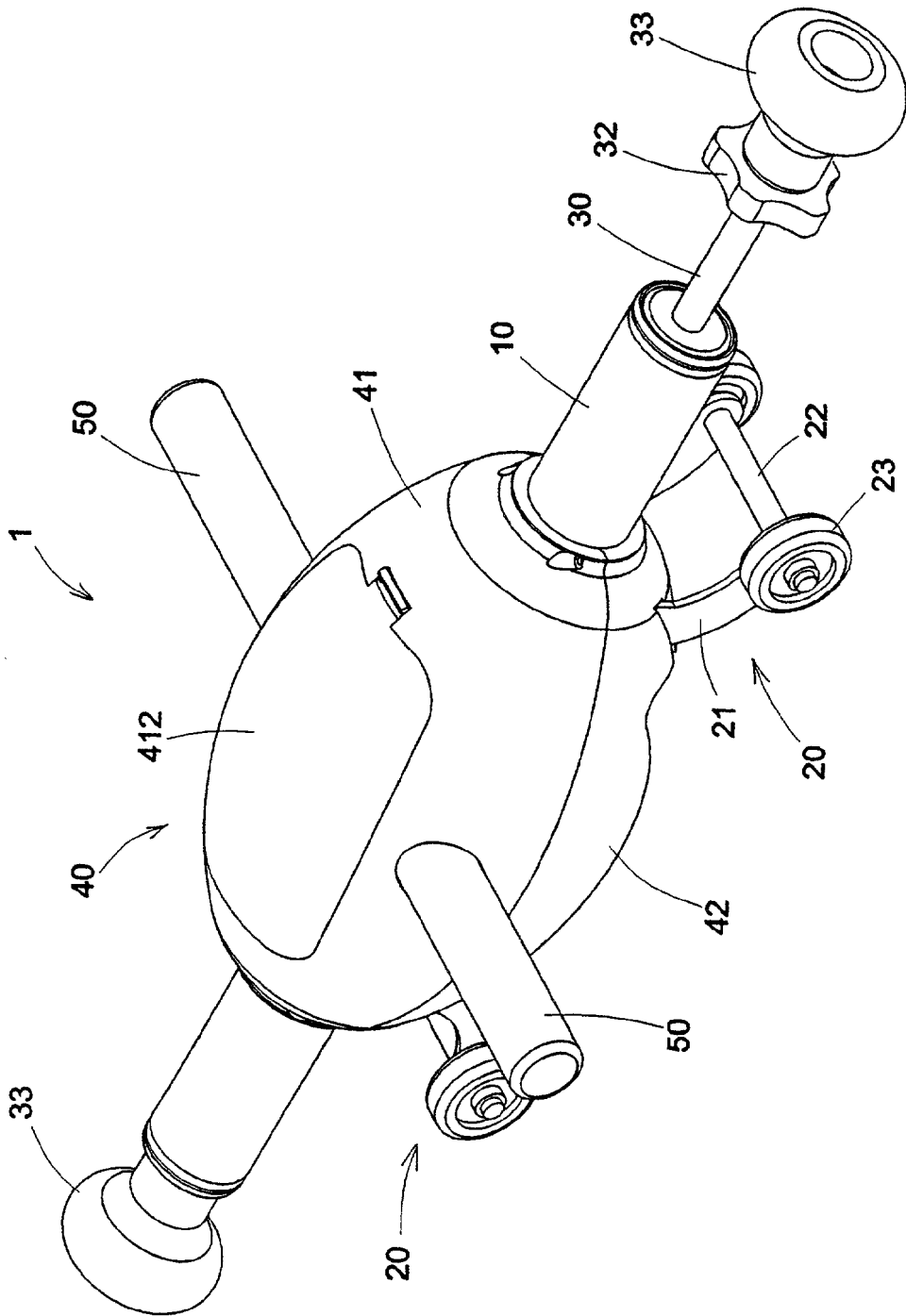


FIG. 1

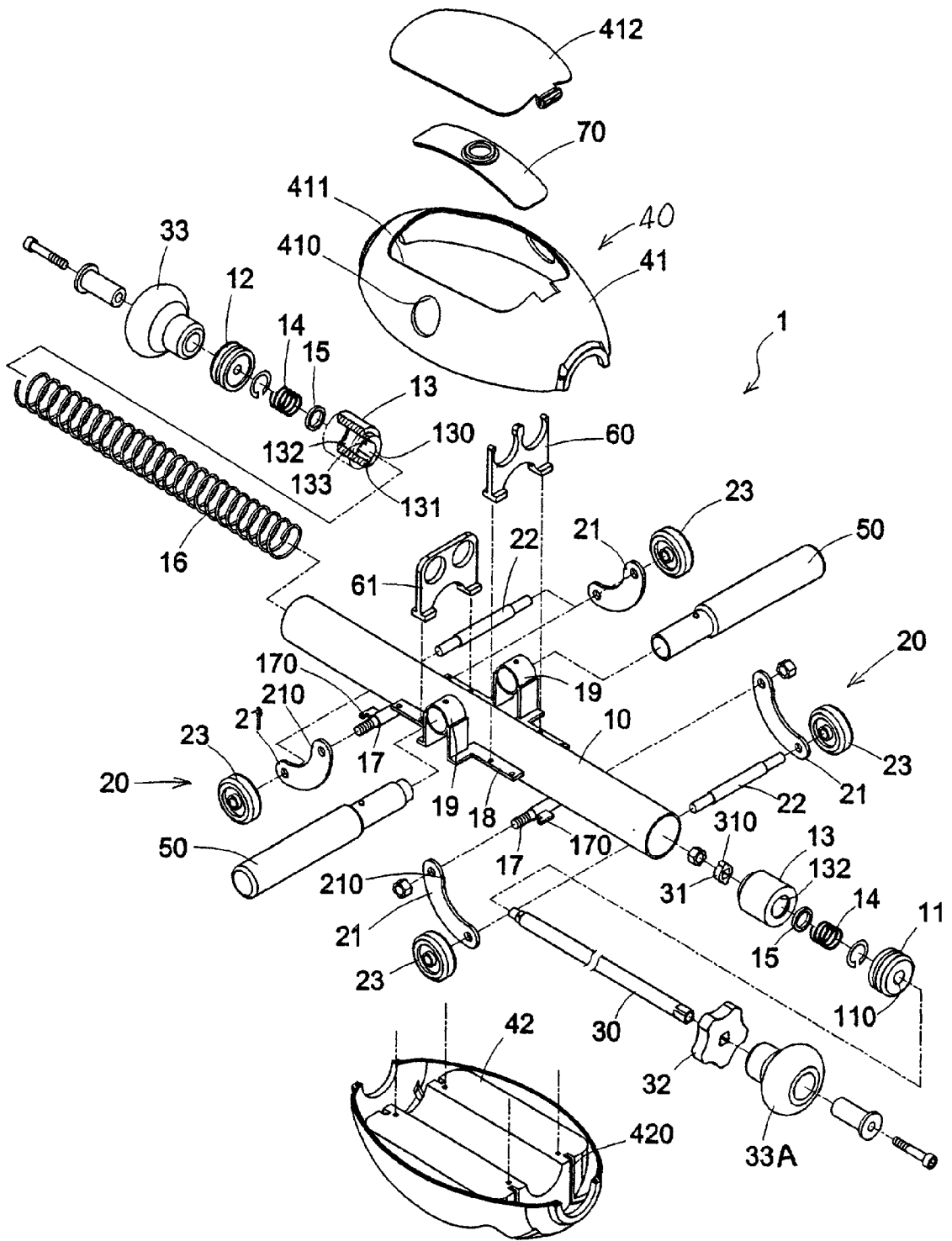


FIG. 2

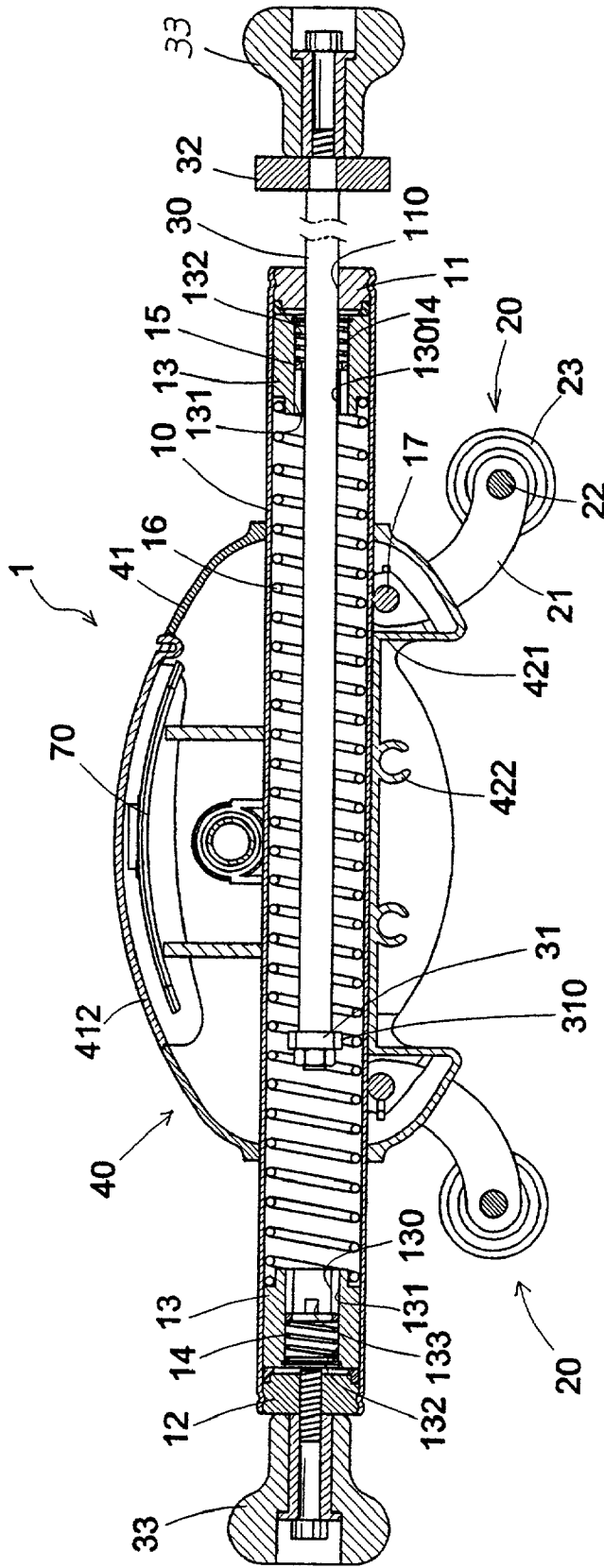


FIG. 3

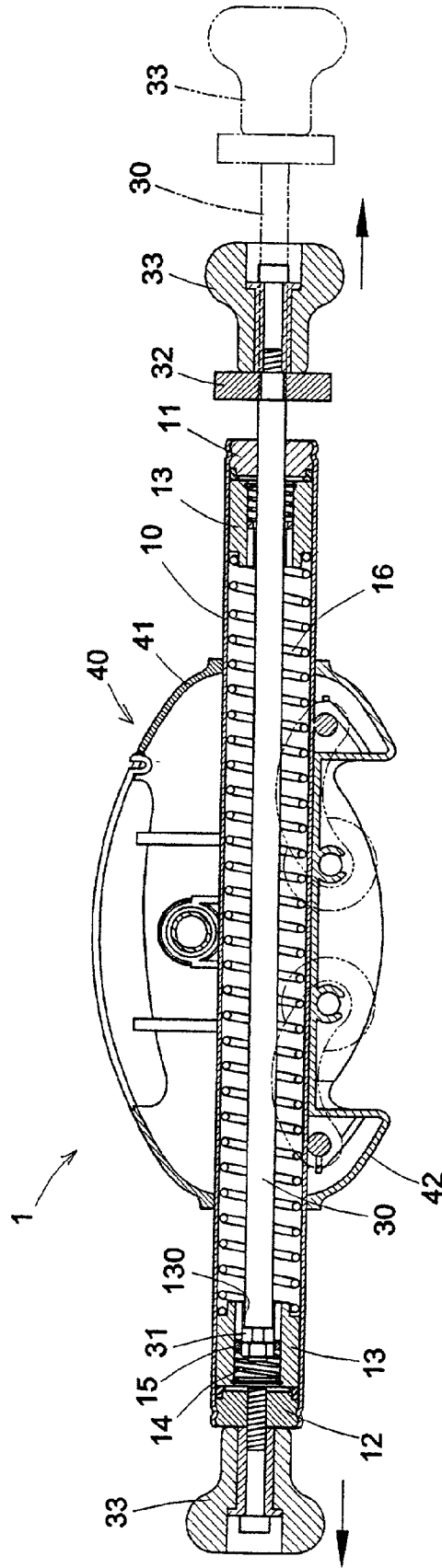


FIG. 4

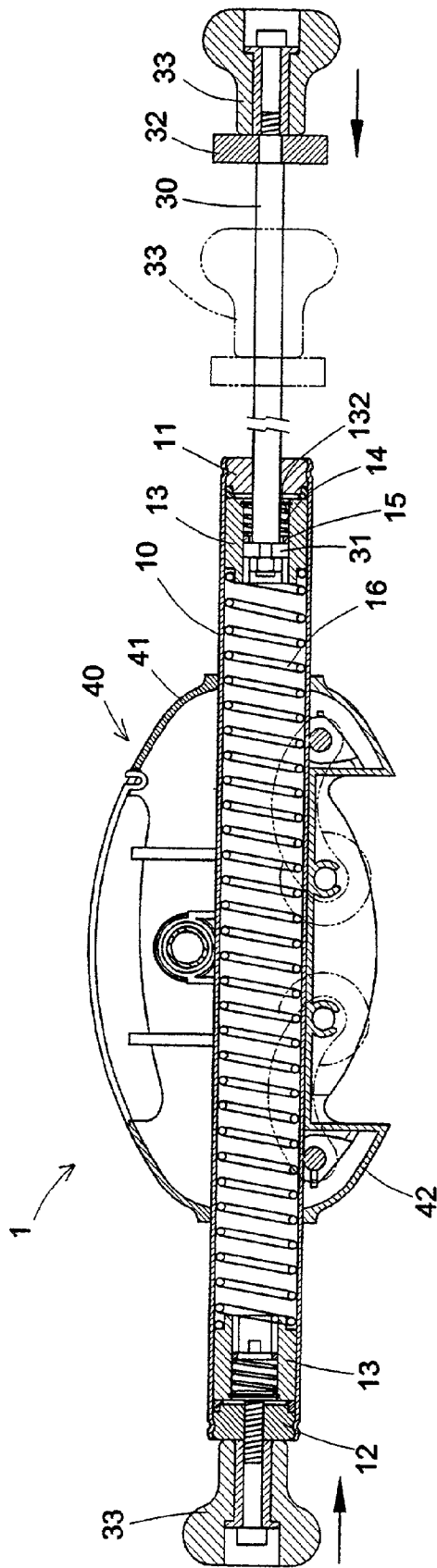


FIG. 5

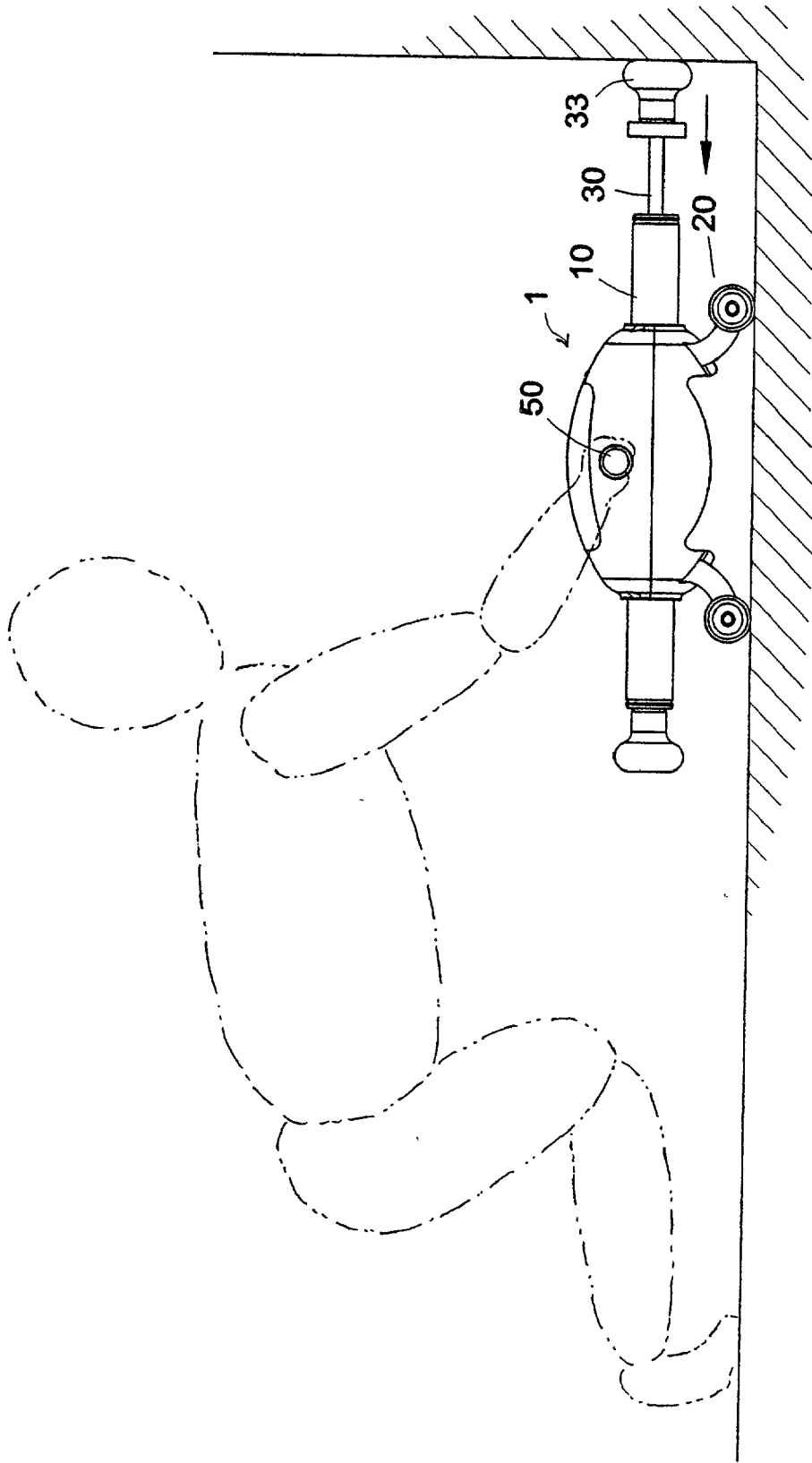


FIG. 6

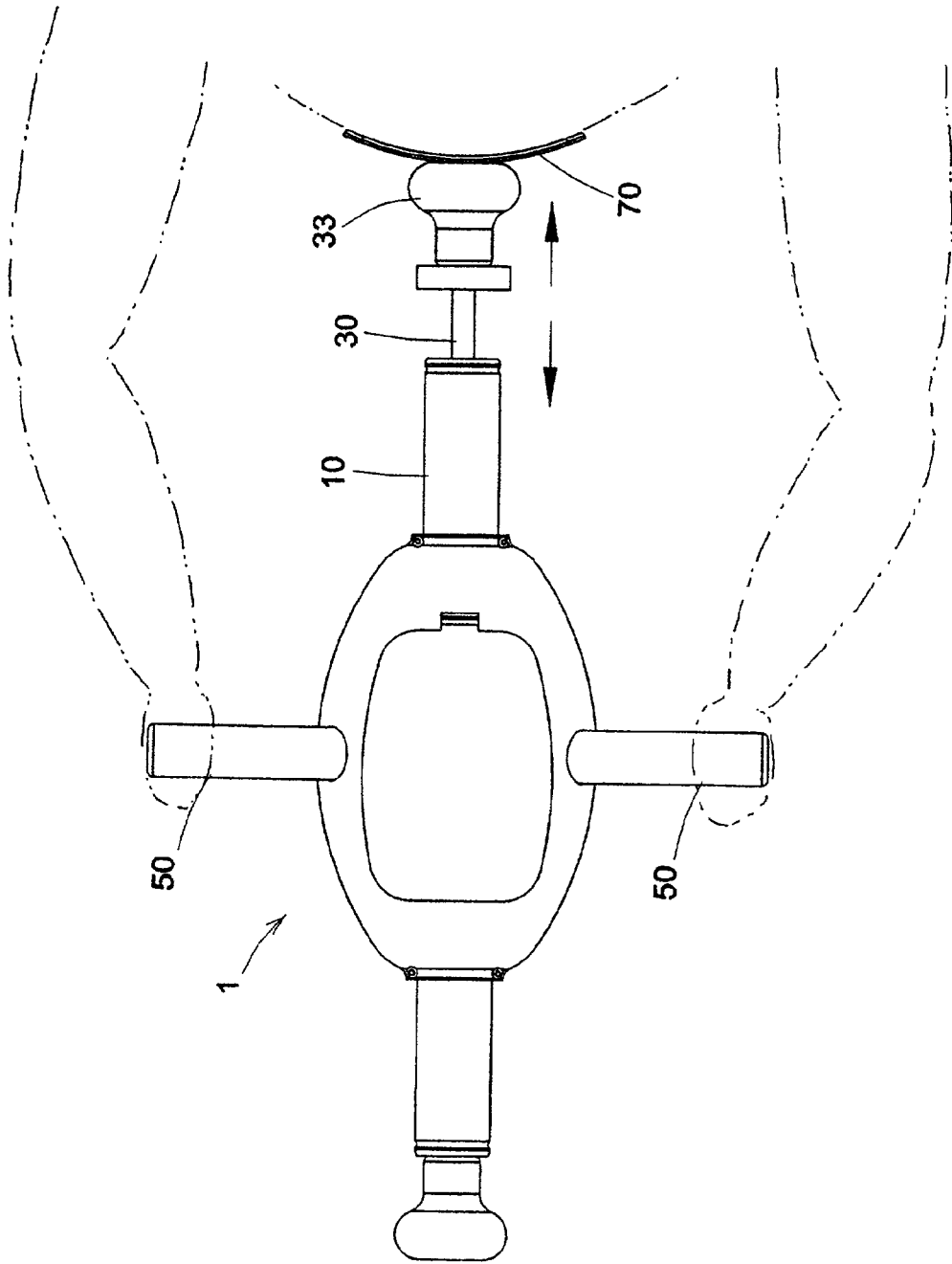


FIG. 7

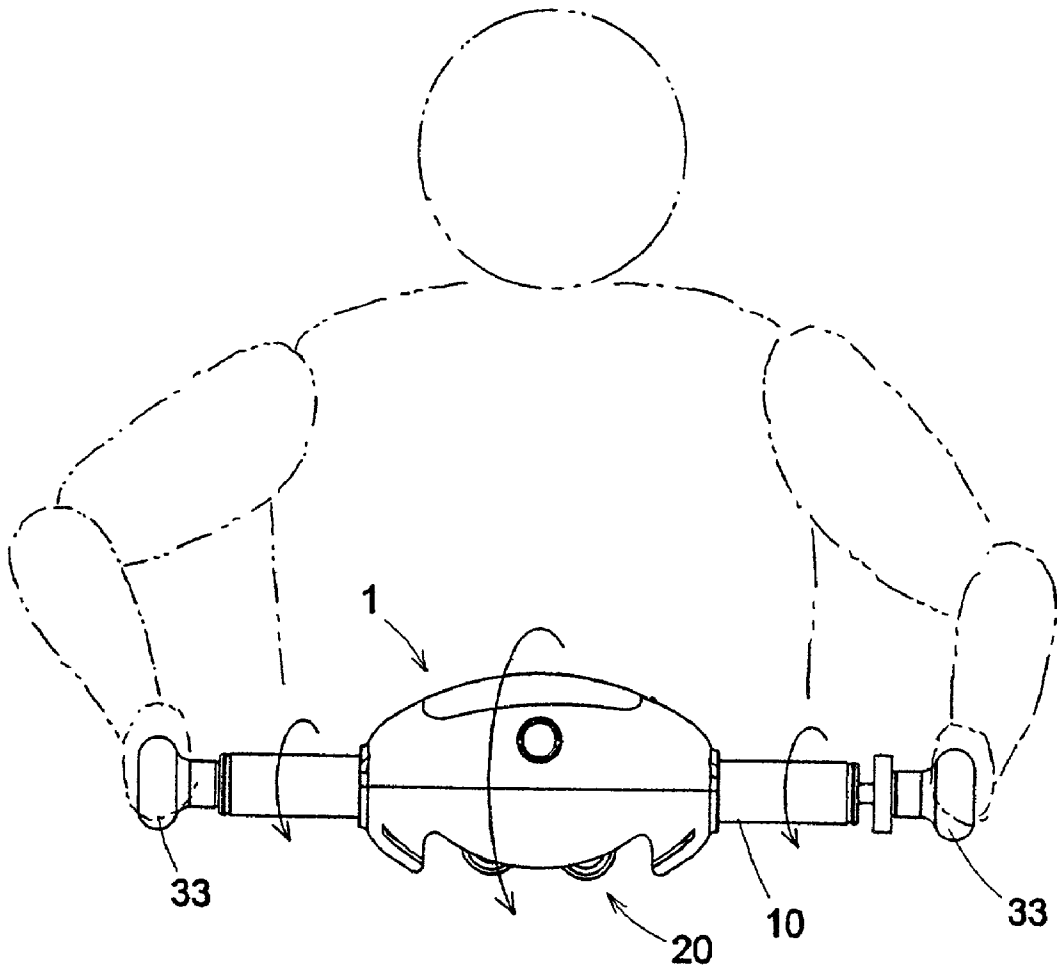


FIG. 8

EXERCISING DEVICE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to an exercising device, and more particularly to an exercising device that may be used to exercise the muscles of the user's arms, chest and abdomen, thereby providing multiple exercising functions.

[0003] 2. Description of the Related Art

[0004] A conventional exercising device has a complicated construction, and has a large volume, so that it occupies a large space, and cannot be stored and transported easily. In addition, the conventional exercising device only has a single function to exercise the muscles of the user's arms, chest or abdomen, thereby decreasing the versatility of the conventional exercising device.

SUMMARY OF THE INVENTION

[0005] The present invention has arisen to mitigate and/or obviate the disadvantage of the conventional exercising device.

[0006] The primary objective of the present invention is to provide an exercising device that has a small volume, so that it can be stored and transported easily.

[0007] Another objective of the present invention is to provide an exercising device that may be used to exercise the muscles of the user's arms, chest and abdomen, thereby providing multiple exercising functions.

[0008] In accordance with the present invention, there is provided an exercising device comprising a tube, two wheel frames, and a rod, wherein:

[0009] the tube has a bottom face secured with two parallel shafts, the tube has an outer wall provided with two opposite handle fixing seats for insertion of one of two handles, a first plug and a second plug are respectively inserted into the two ends of the tube, a first handgrip is pivotally mounted on an outer side of the first plug, the second plug has a center for passage of a rod, the rod has a first end extended through the second plug and secured with a locking member, the rod has a second end provided with a second handgrip, two opposite movable blocks are respectively mounted in the two ends of the tube, and are respectively rested on the first plug and the second plug, an elastic member is mounted in the tube, and is urged between the two opposite movable blocks, each of the two opposite movable blocks is provided with locking grooves for locking the locking member secured on the rod;

[0010] each of the two wheel frames is provided with two opposite foldable support legs each having a first end pivotally mounted on the shafts of the tube and a second end pivotally provided with a roller.

[0011] The exercising device further comprises two spaced handle support racks secured on the tube for insertion of the two handles after the two handles are detached.

[0012] Preferably, each of the two opposite movable blocks has a first side formed with a receiving chamber directed toward the plug, and has a second side formed with

a through hole for passage of the locking member secured on the rod, the through hole is formed with two radially opposite grooves for locking the locking member secured on the rod.

[0013] Preferably, the receiving chamber of each of the two opposite movable blocks is provided with a spring that may be urged on the locking member secured on the rod.

[0014] Preferably, the tube has an outer wall provided with a housing which includes an upper cover and a lower cover combined with each other.

[0015] Preferably, the lower cover of the housing has a bottom face formed with a receiving recess for receiving the two wheel frames, and the receiving recess is formed with multiple insertion seats for snapping and positioning the two wheel frames.

[0016] 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 DRAWINGS

[0017] FIG. 1 is a perspective view of an exercising device in accordance with a preferred embodiment of the present invention;

[0018] FIG. 2 is an exploded perspective view of the exercising device as shown in FIG. 1;

[0019] FIG. 3 is a front plan cross-sectional view of the exercising device as shown in FIG. 1;

[0020] FIG. 4 is a schematic operational view of the exercising device as shown in FIG. 3 in use;

[0021] FIG. 5 is a schematic operational view of the exercising device as shown in FIG. 3 in use;

[0022] FIG. 6 is a schematic operational plan view of the exercising device as shown in FIG. 1 in use;

[0023] FIG. 7 is a schematic operational plan view of the exercising device as shown in FIG. 1 in use; and

[0024] FIG. 8 is a schematic operational plan view of the exercising device as shown in FIG. 1 in use.

DETAILED DESCRIPTION OF THE INVENTION

[0025] Referring to the drawings and initially to FIGS. 1-3, an exercising device 1 in accordance with a preferred embodiment of the present invention comprises a tube 10, two wheel frames 20, a rod 30, and a housing 40.

[0026] The tube 10 has an outer wall provided with two opposite extension plates 18. Each of the two opposite extension plates 18 has a top face provided with a handle fixing seat 19 for insertion of one of two handles 50. Two spaced handle support racks 60 and 61 are secured on the two opposite extension plates 18 and are located beside the two handle fixing seats 19 for insertion of the two handles 50 after the two handles 50 are detached.

[0027] The tube 10 has a bottom face secured with two parallel shafts 17 which are vertical to the tube 10. Each of the two parallel shafts 17 has two ends each having an outer periphery provided with a catch plate 170. A first plug 12 and

a second plug 11 are respectively inserted into the two ends of the tube 10 as shown in FIG. 3. A first handgrip 33 that may be rotated freely is pivotally mounted on an outer side of the first plug 12. The second plug 11 has a center formed with a shaft hole 110.

[0028] Two opposite movable blocks 13 are respectively mounted in the two ends of the tube 10, and are respectively rested on the first plug 12 and the second plug 11. An elastic member 16 is mounted in the tube 10, and is urged between the two opposite movable blocks 13, so that the two opposite movable blocks 13 may be respectively urged on the first plug 12 and the second plug 11. Each of the two opposite movable blocks 13 has a first side formed with a receiving chamber 132 directed toward the first plug 12 and the second plug 11, and has a second side formed with a through hole 130 which is formed with two radially opposite grooves 131. The receiving chamber 132 of the first side of each of the two opposite movable blocks 13 is formed with two radially opposite locking grooves 133 each having a cross-section the same as that of the groove 131 of the through hole 130. The receiving chamber 132 of the first side of each of the two opposite movable blocks 13 is fitted with a spring 14 and a mounting ring 15.

[0029] As shown in FIGS. 2 and 3, each of the two wheel frames 20 is provided with two arcuate support legs 21 each having a first end pivotally mounted on one of the two ends of each of the two shafts 17, and a second end mounted on a wheel axle 22 which has two ends each provided with a roller 23. The first end of each of the two arcuate support legs 21 of each of the two wheel frames 20 is protruded with a stop flange 210 that may be rested on the catch plate 170 of each of the two ends of each of the two shafts 17, thereby providing a supporting and positioning effect.

[0030] The rod 30 has a first end extended through the shaft hole 110 of the second plug 11 and the through hole 130 of a first one of the two movable blocks 13, and integrally combined with a locking member 31. The locking member 31 has an outer periphery provided with two radially opposite lugs 310, so that the locking member 31 has a cross-section the same as that of the through hole 130 of the movable block 13. The rod 30 has a second end provided with a rotation wheel 32 that may drive the rod 30 to rotate. A second handgrip 33A that may be rotated freely is secured on the second end of the rod 30.

[0031] The housing 40 includes an upper cover 41 and a lower cover 42 combined with each other, so that the tube 10 is enclosed between the upper cover 41 and the lower cover 42 of the housing 40. The lower cover 42 of the housing 40 is formed with multiple slits 420 for passage of the arcuate support legs 21 of each of the two wheel frames 20. The lower cover 42 of the housing 40 has a bottom face formed with a receiving recess 421 (see FIG. 3) for receiving and folding the arcuate support legs 21 of each of the two wheel frames 20. The bottom face of the lower cover 42 of the housing 40 is formed with multiple insertion seats 422 (see FIG. 3) for snapping and positioning the wheel axles 22 of each of the two wheel frames 20. The upper cover 41 of the housing 40 is formed with two opposite through holes 410 for passage of the two handles 50. The upper cover 41 of the housing 40 is formed with an opening 411 for placing the handles 50 that are detached and placing an arcuate support plate 70 that may be used to abut a user's abdomen. A

removable cover 412 is mounted on the upper cover 41 of the housing 40 to enclose the opening 411.

[0032] As shown in FIG. 4, when the exercising device 1 in accordance with a preferred embodiment of the present invention is used, the first end of the rod 30 may be moved toward the first handgrip 33, so that the locking member 31 secured on the first end of the rod 30 may pass through the two grooves 131 of the through hole 130 of a second (left) movable block 13. Then, the rod 30 may be rotated by the rotation wheel 32, so that the lugs 310 of the locking member 31 may be inserted into and locked in the two radially opposite locking grooves 133 of the receiving chamber 132 of the second movable block 13, so that the locking member 31 may be urged by the spring 14 in the receiving chamber 132 of the second movable block 13. Thus, when the first handgrip 33 and the second handgrip 33A are pulled outward relative to each other, the second (left) movable block 13 may be pulled by the rod 30 to move toward the first (right) movable block 13, thereby compressing the elastic member 16 in the tube 10, so as to provide a proper elastic resistance, thereby capable of exercising the muscles of the arms and the chest of the user.

[0033] As shown in FIG. 5, the rod 30 may be pulled by the second handgrip 33A to move outward, so that the locking member 31 secured on the first end of the rod 30 may pass through the two grooves 131 of the through hole 130 of the first (right) movable block 13. Then, the rod 30 may be rotated by the rotation wheel 32, so that the lugs 310 of the locking member 31 may be inserted into and locked in the two radially opposite locking grooves 133 of the receiving chamber 132 of the first (right) movable block 13, so that the locking member 31 may be urged by the spring 14 in the receiving chamber 132 of the first (right) movable block 13. Thus, when the first handgrip 33 and the second handgrip 33A are pushed inward relative to each other, the second (left) movable block 13 and the first (right) movable block 13 may be pushed to move toward each other, thereby compressing the elastic member 16 in the tube 10, so as to provide a proper elastic resistance, thereby capable of exercising the muscles of the arms and the chest of the user.

[0034] As shown in FIG. 6, the two wheel frames 20 may be expanded, so that the exercising device 1 may be supported by the rollers 23 stably. The user's two hands may hold the two handles 50 to move the exercising device 1 reciprocally so as to bend and stretch the user's body reciprocally, thereby exercising the user's body. The handgrip 33A may be rested on the wall, whereby the elastic member 16 in the tube 10 may be compressed to produce a restoring force, so as to assist the user to pull the exercising device 1 backward, thereby preventing the user's waist from being injured.

[0035] As shown in FIG. 7, the arcuate support plate 70 may be combined with the second handgrip 33A, and may be rested on the user's abdomen. Thus, the user's two hands may hold the two handles 50 to move the tube 10 toward the user's abdomen whereby the arcuate support plate 70 may be pushed by the second handgrip 33A to urge the user's abdomen, so that the elastic member 16 in the tube 10 may be compressed to produce a restoring force, thereby exercising the muscles of the user's abdomen.

[0036] As shown in FIG. 8, the bottom of the exercising device 1 is provided with wheel frames 20, so that one side

of the exercising device **1** is heavier. Thus, the user's two hands may hold the two handles **50** to turn the exercising device **1**, whereby the heavier side of the exercising device **1** may produce a centrifugal force, so that the exercising device **1** may be rotated continuously, thereby capable of exercising the muscles of the user's arms.

[0037] Although the invention has been explained in relation to its preferred embodiment 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.

What is claimed is:

1. An exercising device, comprising a tube, two wheel frames, and a rod, wherein:

the tube has a bottom face secured with two parallel shafts, the tube has an outer wall provided with two opposite handle fixing seats for insertion of one of two handles, a first plug and a second plug are respectively inserted into the two ends of the tube, a first handgrip is pivotally mounted on an outer side of the first plug, the second plug has a center for passage of a rod, the rod has a first end extended through the second plug and secured with a locking member, the rod has a second end provided with a second handgrip, two opposite movable blocks are respectively mounted in the two ends of the tube, and are respectively rested on the first plug and the second plug, an elastic member is mounted in the tube, and is urged between the two opposite movable blocks, each of the two opposite movable blocks is provided with locking grooves for locking the locking member secured on the rod;

each of the two wheel frames is provided with two opposite foldable support legs each having a first end pivotally mounted on the shafts of the tube and a second end pivotally provided with a roller.

2. The exercising device in accordance with claim 1, further comprising two spaced handle support racks secured on the tube for insertion of the two handles after the two handles are detached.

3. The exercising device in accordance with claim 1, wherein each of the two opposite movable blocks has a first side formed with a receiving chamber directed toward the plug, and has a second side formed with a through hole for passage of the locking member secured on the rod, the through hole is formed with two radially opposite grooves for locking the locking member secured on the rod.

4. The exercising device in accordance with claim 3, wherein the receiving chamber of each of the two opposite movable blocks is provided with a spring that may be urged on the locking member secured on the rod.

5. The exercising device in accordance with claim 1, wherein the tube has an outer wall provided with a housing which includes an upper cover and a lower cover combined with each other.

6. The exercising device in accordance with claim 5, wherein the lower cover of the housing has a bottom face formed with a receiving recess for receiving the two wheel frames, and the receiving recess is formed with multiple insertion seats for snapping and positioning the two wheel frames.

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