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(54) **HAND HELD EXERCISING DEVICE**

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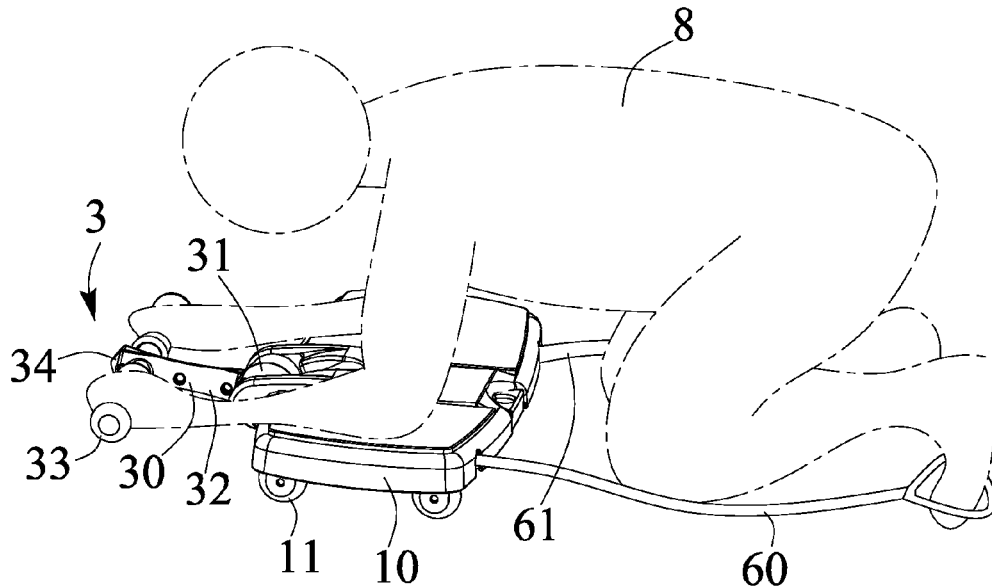
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(57)

ABSTRACT

An exercising device includes a housing member having one or more rollers, and having a spindle, a handle device includes a shank having a head attached to the spindle for allowing the shank of the handle device to be pivoted relative to the housing member, and a latch device slidably attached to the housing member and engageable with the handle device for positioning the shank of the handle device to the housing member at a selected angular position. The head of the shank of the handle device includes one or more notches, and the latch device includes a latch member slidably attached to the housing member and having one or more pawls for engaging with the notches of the head and for positioning the shank of the handle device to the housing member at the selected angular position.



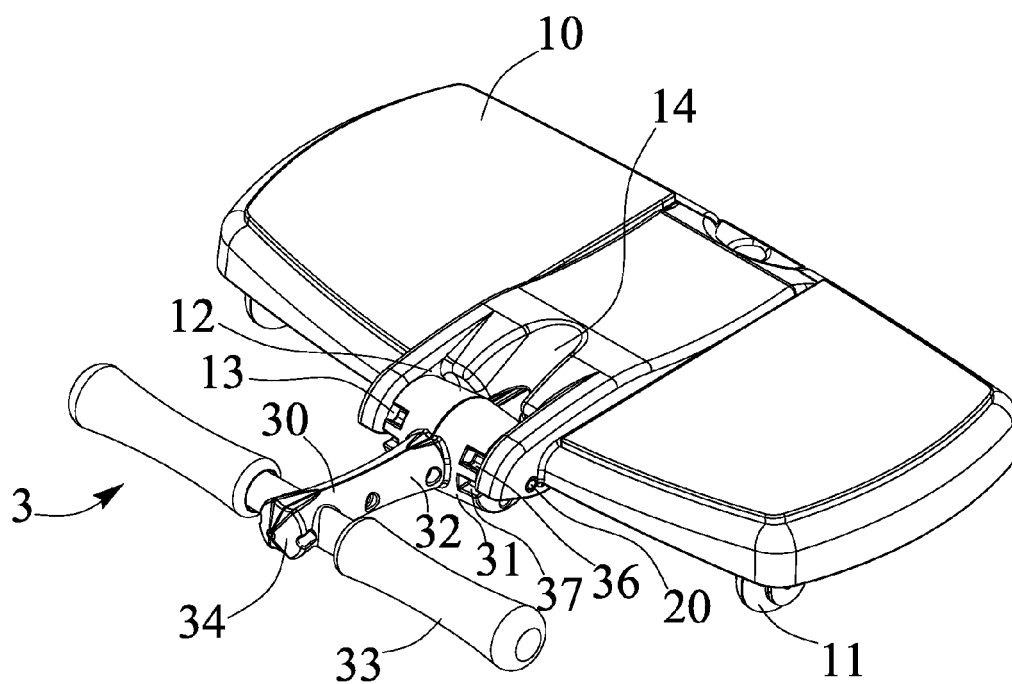


FIG. 1

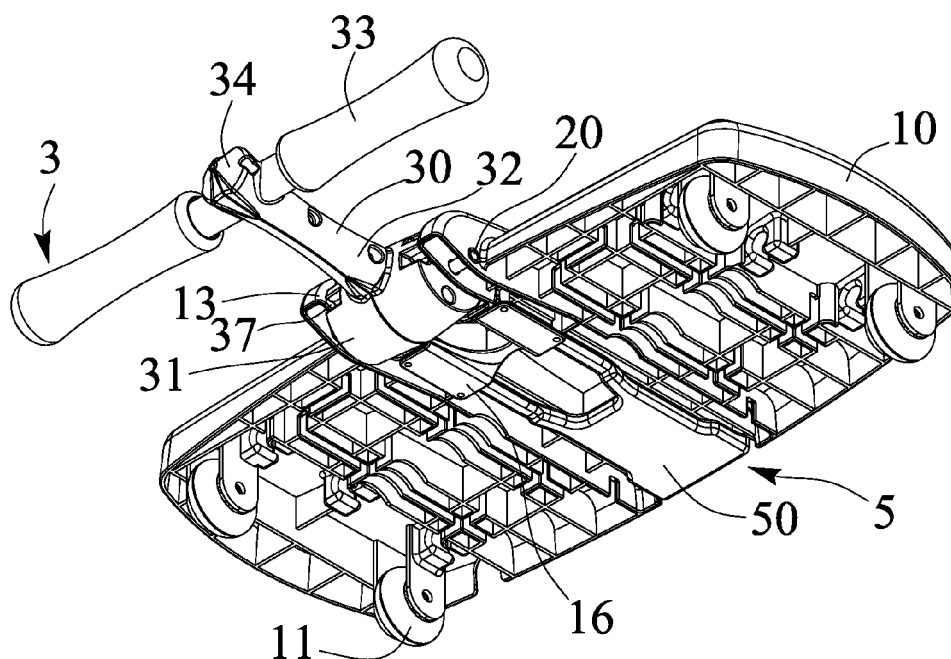


FIG. 2

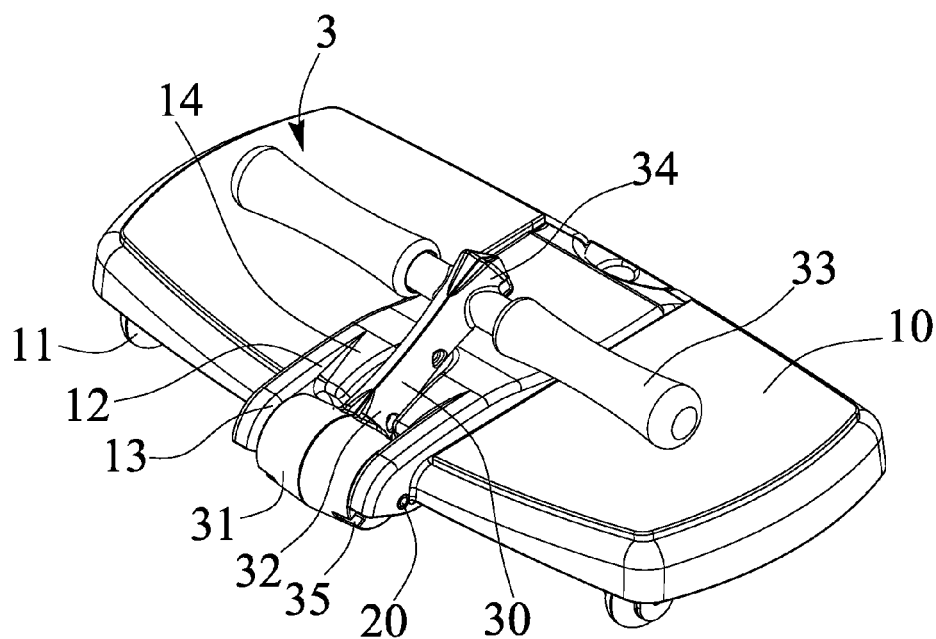


FIG. 3

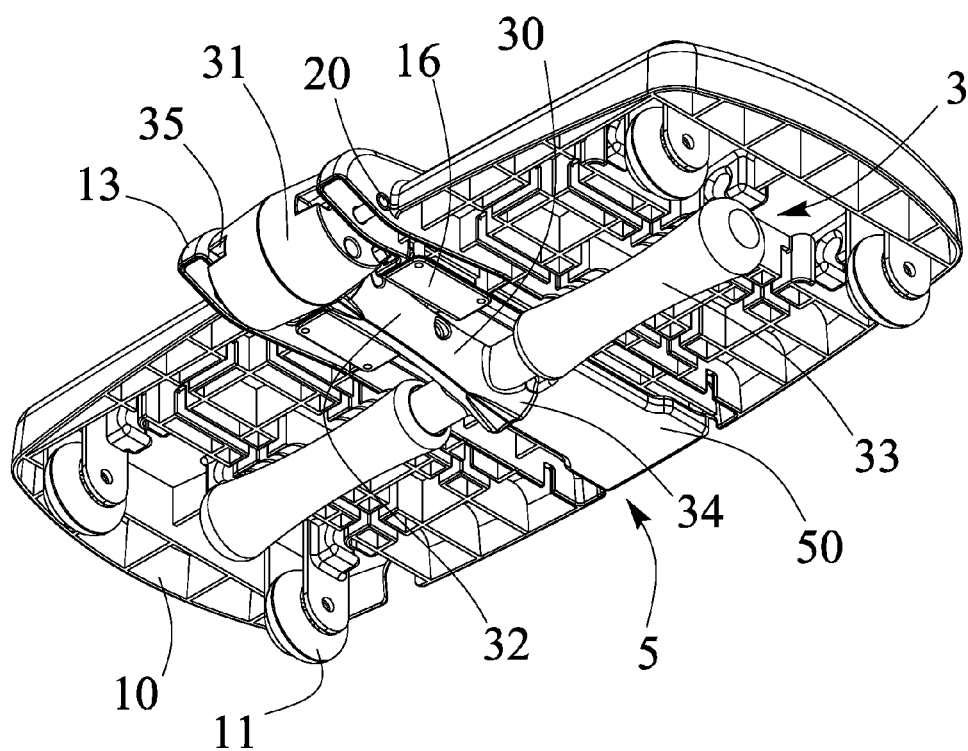


FIG. 4

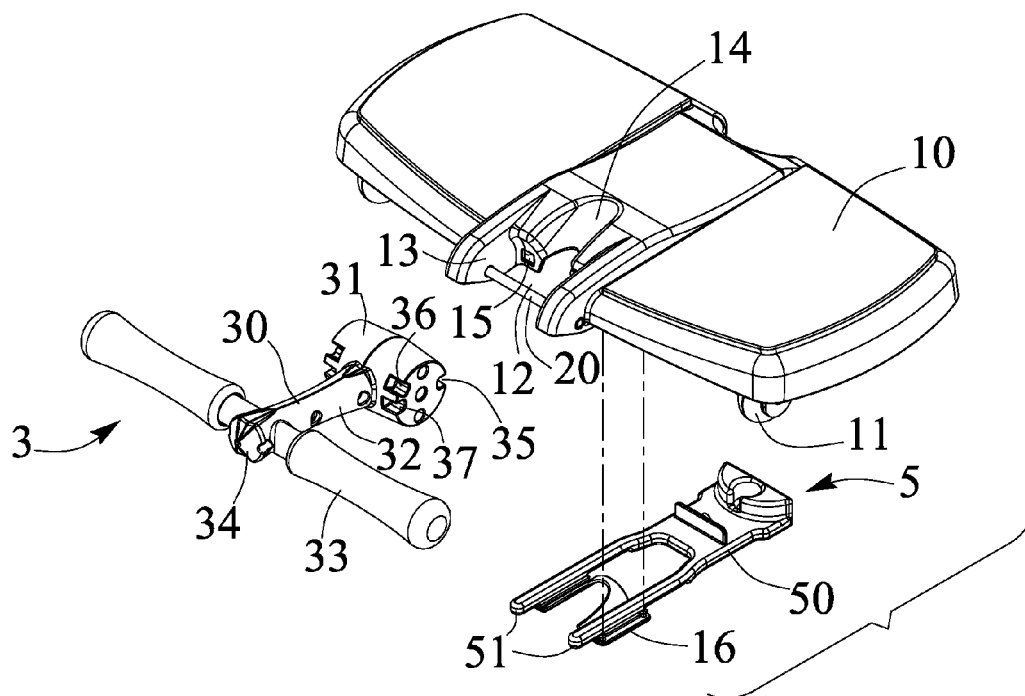


FIG. 5

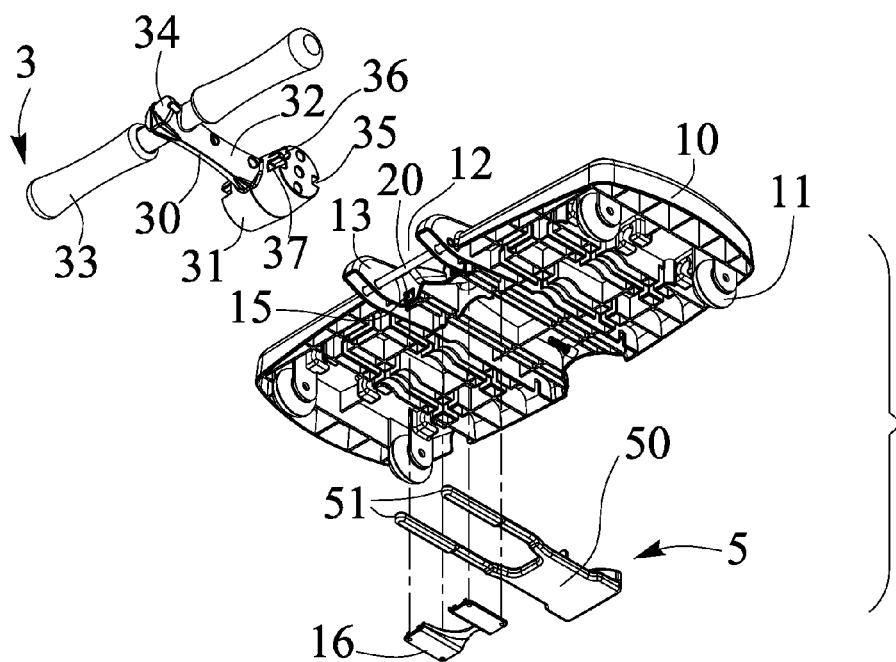


FIG. 6

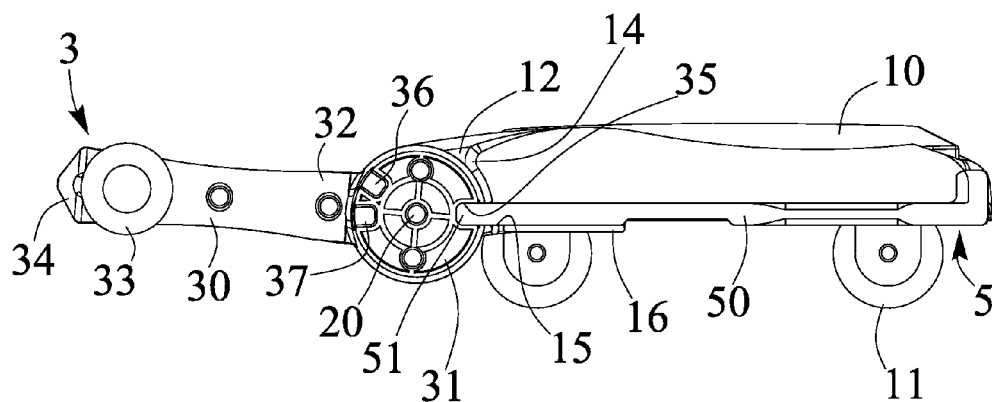


FIG. 7

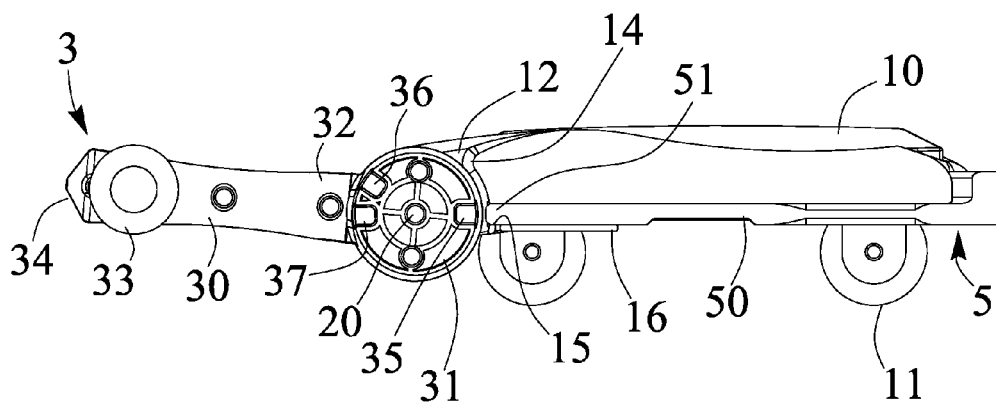


FIG. 8

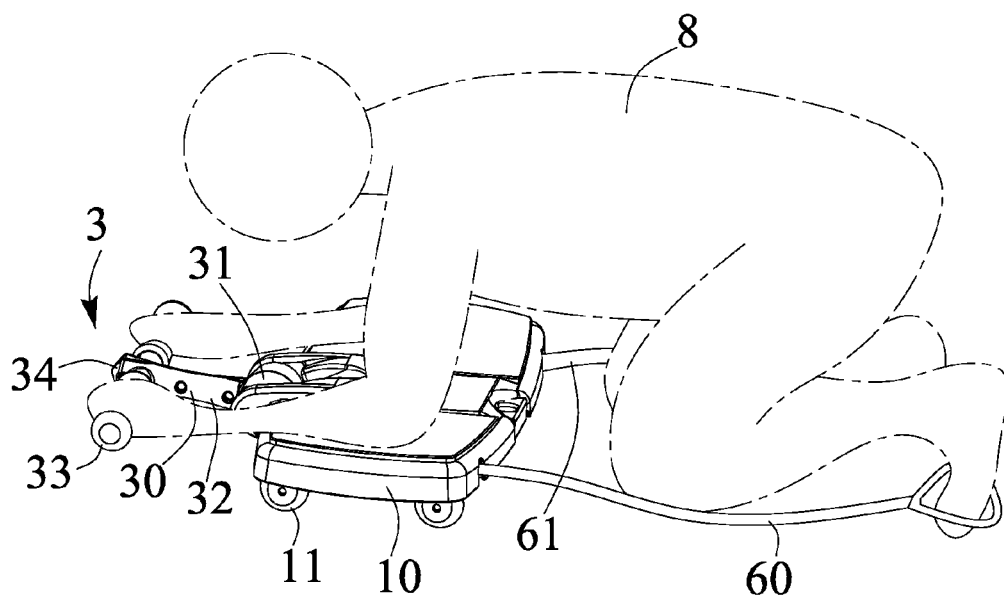


FIG. 9

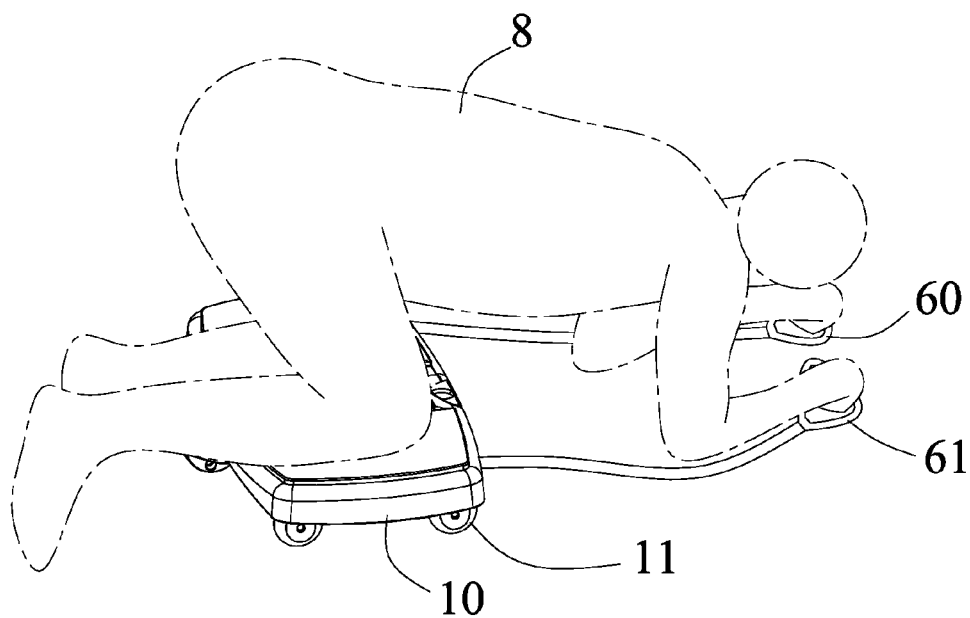


FIG. 10

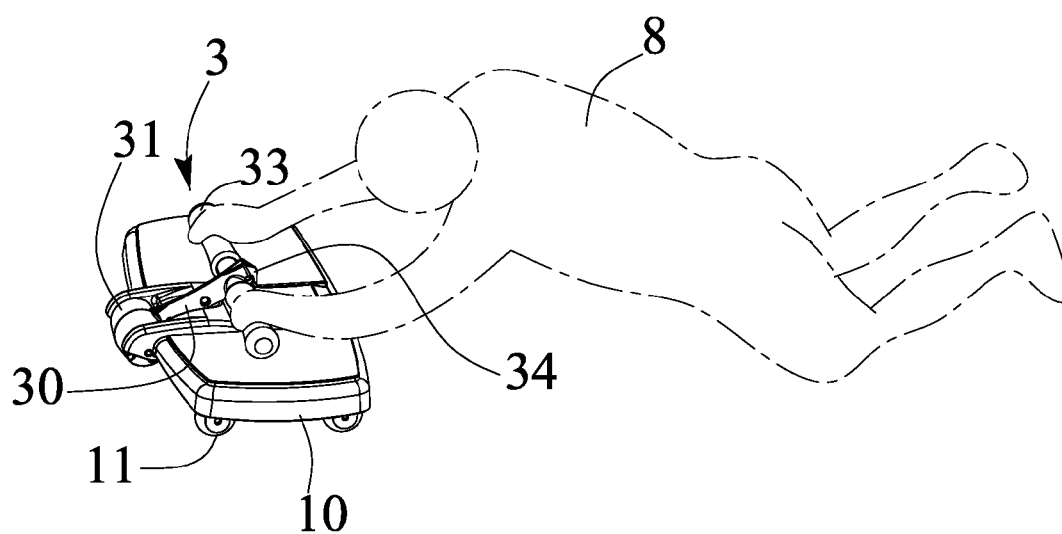


FIG. 11

HAND HELD EXERCISING DEVICE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a wheeled and hand-held exercising device, and more particularly to a hand held exercising device including a handle adjustably or pivotally or rotatably or foldably attached or mounted or secured to a wheeled housing member for allowing the handle to be pivoted or rotated or folded relative to the wheeled housing member between working position and/or compact folding or receiving positions.

[0003] 2. Description of the Prior Art

[0004] Various kinds of typical wheeled and hand-held exercising devices have been developed and provided for conducting or operating various push and pull exercises and for exercising or training the upper muscle groups and the abdominal portion of the user, and normally comprise a handle pivotally or rotatably attached or mounted or secured to a wheeled housing member for allowing the wheeled housing member to be moved or maneuvered forwardly and rearwardly on a supporting surface or ground with the handle by the user.

[0005] For example, U.S. Pat. No. 4,136,867 to Wilkin, U.S. Pat. No. 4,339,127 to Mitchell, U.S. Pat. No. 5,707,325 to Chiou, U.S. Pat. No. 6,146,318 to Kuo, and U.S. Pat. No. 6,196,955 to Chuang disclose several of the typical wheeled and hand-held exercising devices each also comprising a handle pivotally or rotatably attached or mounted or secured to a wheel or a wheeled housing member for allowing the wheeled housing member to be moved forwardly and rearwardly on a supporting surface or ground with the handle.

[0006] However, the handle is normally solidly and stably attached or mounted or secured to the wheel or the wheeled housing member and may not be rotated or folded relative to the wheel or the wheeled housing member such that the typical wheeled and hand-held exercising devices may include a large volume that is adverse for storing and transportation purposes and that may not be easily carried with the user.

[0007] The present invention has arisen to mitigate and/or obviate the afore-described disadvantages of the conventional exercising devices.

SUMMARY OF THE INVENTION

[0008] The primary objective of the present invention is to provide an exercising device including a handle adjustably or pivotally or rotatably or foldably attached or mounted or secured to a wheeled housing member for allowing the handle to be pivoted or rotated or folded relative to the wheeled housing member between working position and/or compact folding or receiving positions.

[0009] The other objective of the present invention is to provide an exercising device including an improved and simplified structure or configuration that may be easily and quickly made or manufactured with a simplified making or manufacturing procedure and that may include a greatly reduced manufacturing cost.

[0010] In accordance with one aspect of the invention, there is provided an exercising device comprising a housing member including one or more wheels or rollers attached to the bottom portion of the housing member for allowing the housing member to be moved elsewhere, the housing mem-

ber including a spindle provided therein, a handle device including a shank having a first end portion, a head attached to the first end portion of the shank and engageable onto the spindle of the housing member, for allowing the shank of the handle device to be pivoted relative to the housing member, and a latch device slidably attached to the housing member and engageable with the handle device for positioning the shank of the handle device to the housing member at a selected angular position and for allowing the exercising device to be easily moved or maneuvered by the user.

[0011] The housing member includes a compartment formed therein and defined by two side walls and an end wall, the spindle of the housing member is attached between the side walls of the housing member. The housing member includes at least one wire coupled to the housing member for applying a spring biasing force to the housing member.

[0012] The head of the shank of the handle device includes at least one notch formed therein, and the latch device includes a latch member slidably attached to the housing member and having at least one pawl extended therefrom for engaging with the first notch of the head of the handle device and for positioning the shank of the handle device to the housing member at the selected angular position.

[0013] The housing member includes at least one orifice formed therein for slidably engaging with the pawl of the latch member. The housing member includes a carrier attached to the housing member and engaged with the latch member for supporting the latch member to the housing member.

[0014] The head of the shank of the handle device includes at least one second notch formed therein for selectively engaging with the pawl of the latch member. The head of the shank of the handle device includes at least one third notch formed therein for selectively engaging with the pawl of the latch member.

[0015] Further objectives and advantages of the present invention will become apparent from a careful reading of the detailed description provided hereinbelow, with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] FIG. 1 is an upper perspective view of a wheeled and hand-held exercising device in accordance with the present invention;

[0017] FIG. 2 is a bottom perspective view of the exercising device;

[0018] FIG. 3 is another upper perspective view similar to FIG. 1, illustrating the operation of the exercising device;

[0019] FIG. 4 is another bottom perspective view similar to FIG. 2, illustrating the operation of the exercising device;

[0020] FIG. 5 is a partial exploded view as seen from the upper portion of the exercising device;

[0021] FIG. 6 is another partial exploded view as seen from the bottom portion of the exercising device;

[0022] FIGS. 7, 8 are partial cross sectional views illustrating the operation of the exercising device; and

[0023] FIGS. 9, 10, 11 are upper perspective views illustrating the operation of the exercising device.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0024] Referring to the drawings, and initially to FIGS. 1-5, a wheeled and hand-held exercising device in accor-

dance with the present invention comprises a housing member 10 including one or more (such as four) wheels or rollers 11 attached to the lower or bottom portion of the housing member 10 for engaging with the supporting surface or ground and for allowing the housing member 10 to be moved forwardly and rearwardly or sidewise on the supporting surface or ground. The housing member 10 includes a notch or recess or compartment 12 formed therein and formed or defined by two opposite side walls 13 and a rear or end wall 14, best shown in FIG. 5, and the housing member 10 includes one or more (such as two) orifices 15 formed therein, such as formed in the end wall 14 (FIGS. 5, 6) and communicating with the compartment 12 of the housing member 10.

[0025] The housing member 10 further includes a spindle 20 straddled or attached or mounted or secured between the side walls 13, best shown in FIGS. 5-6, for adjustably or foldably or pivotally or rotatably engaging with a handle device 3, and for allowing the handle device 3 to be selectively pivoted or rotated or folded relative to the wheeled housing member 10 between the working positions (FIGS. 1-2, 7, 9 and 3, 10) and the compact folding or receiving positions (FIG. 4). The handle device 3 includes a shank 30 having a shaft or enlarged head 31 attached or mounted or secured to one or first end portion 32 thereof, and engageable onto or with the spindle 20 of the housing member 10 (FIGS. 1-4), and arranged for allowing the shank 30 of the handle device 3 to be pivoted or rotated relative to the housing member 10 around or with the spindle 20.

[0026] The handle device 3 includes a hand grip 33 laterally formed or provided or extended on the other or second end portion 34 of the shank 30 for being gripped or grasped or held by the user 8 (FIGS. 9-10). The head 31 of the handle device 3 includes one or more (such as three) pairs of notches 35, 36, 37 formed therein, for example, the first pair of notches 35 are located farther away from the shank 30, and the other pairs of notches 36, 37 are located close to the shank 30, for selectively engaging with a latch device 5 which may latch or lock or anchor or position the shank 30 of the handle device 3 to the wheeled housing member 10 at selected angular positions, and the latch device 5 will be described in further details hereinbelow.

[0027] For example, the latch device 5 includes a latch member 50 slidably attached or mounted or secured to the wheeled housing member 10, such as slidably attached to the lower or bottom portion of the wheeled housing member 10 with a bracket or carrier 16 which is attached or mounted or secured to the lower or bottom portion of the wheeled housing member 10, the latch member 50 includes one or more (such as two) fingers or pawls 51 extended forwardly and slidably engaged with the orifices 15 of the rear wall 14 of the wheeled housing member 10 and extendible out of the rear wall 14 for selectively engaging with either pair of notches 35, 36, 37 of the head 31 of the handle device 3 (FIGS. 7, 8) and thus for selectively anchoring or retaining or positioning the shank 30 of the handle device 3 to the wheeled housing member 10 at selected angular positions.

[0028] For example, as shown in FIGS. 7 and 8, when the pawls 51 of the latch member 50 are engaged with the first pair of notches 35 of the head 31, the shank 30 and the hand grip 33 of the handle device 3 may be retained or positioned at the forwardly or outwardly extended working position (FIGS. 1, 2). When the pawls 51 of the latch member 50 are engaged with the second pair of notches 36 of the head 31,

the shank 30 and the hand grip 33 of the handle device 3 may be retained or positioned at the rearwardly extended and tilted or inclined working position as shown in FIG. 3. When the pawls 51 of the latch member 50 are engaged with the third pair of notches 37 of the head 31, the shank 30 and the hand grip 33 of the handle device 3 may be retained or positioned at the folded storing position as shown in FIG. 4.

[0029] In operation, as shown in FIGS. 9 and 11, the shank 30 and the hand grip 33 of the handle device 3 may be pivoted or rotated relative to the housing member 10 either forwardly (FIGS. 1, 2, 9) or rearwardly (FIGS. 3, 10) at the different working positions, and the hand grip 33 may be gripped or grasped or held by the user 8 for conducting or operating the push and pull exercises or the like. The hand grip 33 and the shank 30 of the handle device 3 may be pivoted or rotated or folded relative to the wheeled housing member 10 and may be selectively engaged within the housing member 10 or with the bottom portion of the housing member 10 at a compact folding or receiving position (FIG. 4) for allowing the exercising device to be folded in a compact folding or receiving position which is excellent for storing and transportation purposes and that may be easily carried with the user 8.

[0030] As shown in FIGS. 9-10, one or more (such as two) spring biasing members or elastic cables or wires 60, 61 may further be provided and attached or mounted or secured or coupled to the housing member 10 for selectively applying a spring biasing force or elasticity to the housing member 10 and for selectively biasing or forcing the housing member 10 to move relative to the user 8, for example, when the housing member 10 is moved here and there, the spring biasing wires 60, 61 may apply a spring biasing force or elasticity to the housing member 10 for recovering the housing member 10, and the user 8 have to spend a force or energy to overcome the spring biasing force or elasticity of the spring biasing wires 60, 61.

[0031] Accordingly, the wheeled and hand-held exercising device in accordance with the present invention includes a handle adjustably or pivotally or rotatably or foldably attached or mounted or secured to a wheeled housing member for allowing the handle to be pivoted or rotated or folded relative to the wheeled housing member between working position and/or compact folding or receiving positions.

[0032] 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.

I claim:

1. An exercising device comprising:

- a housing member including at least one roller attached to said housing member, said housing member including a spindle provided therein,
- a handle device including a shank having a first end portion, a head attached to said first end portion of said shank and engageable onto said spindle of said housing member, for allowing said shank of said handle device to be pivoted relative to said housing member, and
- a latch device slidably attached to said housing member and engageable with said handle device for positioning

said shank of said handle device to said housing member at a selected angular position.

2. The exercising device as claimed in claim 1, wherein said housing member includes a compartment formed therein and defined by two side walls and an end wall, said spindle of said housing member is attached between said side walls of said housing member.

3. The exercising device as claimed in claim 1, wherein said head of said shank of said handle device includes at least one notch formed therein, and said latch device includes a latch member slidably attached to said housing member and having at least one pawl extended therefrom for engaging with said at least one first notch of said head of said handle device and for positioning said shank of said handle device to said housing member at said selected angular position.

4. The exercising device as claimed in claim 3, wherein said housing member includes at least one orifice formed

therein for slidably engaging with said at least one pawl of said latch member.

5. The exercising device as claimed in claim 3, wherein said housing member includes a carrier attached to said housing member and engaged with said latch member for supporting said latch member to said housing member.

6. The exercising device as claimed in claim 3, wherein said head of said shank of said handle device includes at least one second notch formed therein for selectively engaging with said at least one pawl of said latch member.

7. The exercising device as claimed in claim 6, wherein said head of said shank of said handle device includes at least one third notch formed therein for selectively engaging with said at least one pawl of said latch member.

8. The exercising device as claimed in claim 1, wherein said housing member includes at least one wire coupled to said housing member for applying a spring biasing force to said housing member.

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