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(54) **FOLDABLE JOGGING MACHINE**

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(57) **ABSTRACT**

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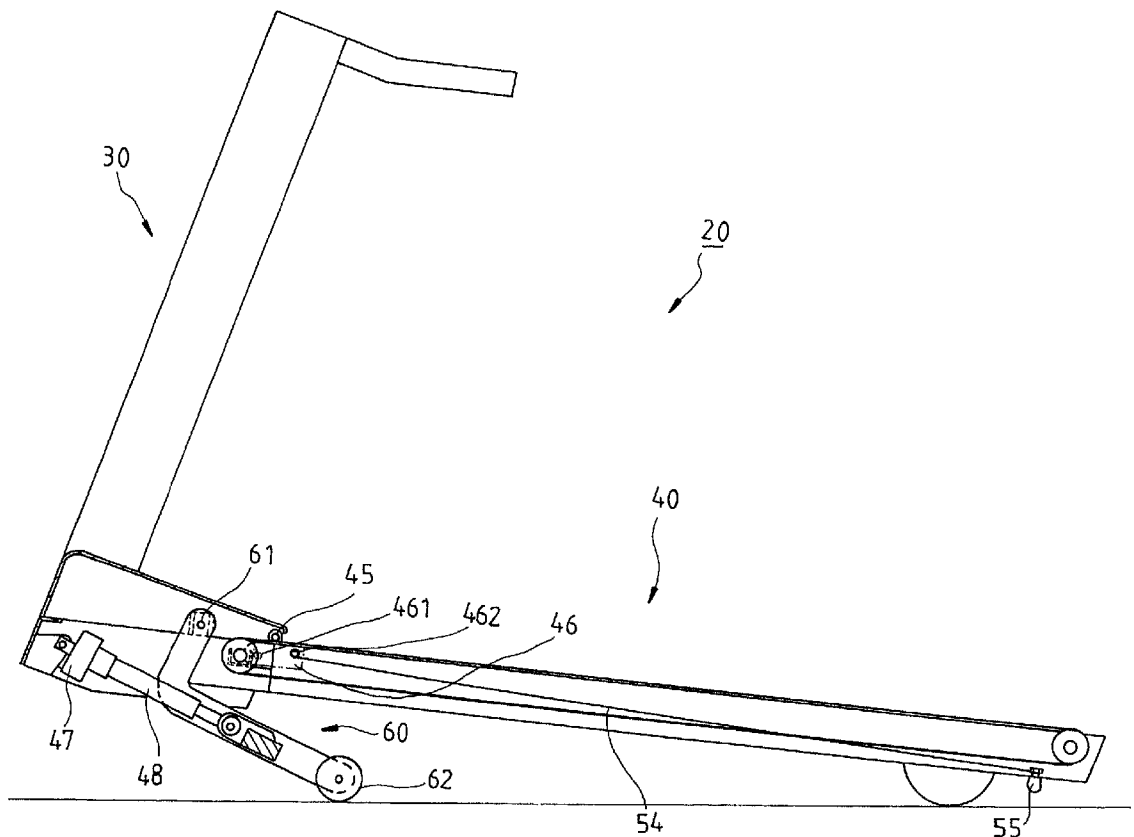
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A foldable jogging machine comprises a handrail frame, and a machine stand which is formed of a front machine stand and a rear machine stand. The front and the rear machine stands are provided with a spindle. The spindles are driven by a motor via a track. The front and the rear machine stands are mounted pivotally on a swiveling shaft such that they can be folded. The front machine stand is connected with an elevating leg frame for bringing about a reverse moment of force relative to the swiveling shaft, so as to cancel out a forward moment of force which is brought about in relation to the swiveling shaft by the jogging machine and the weight of a user of the jogging machine.



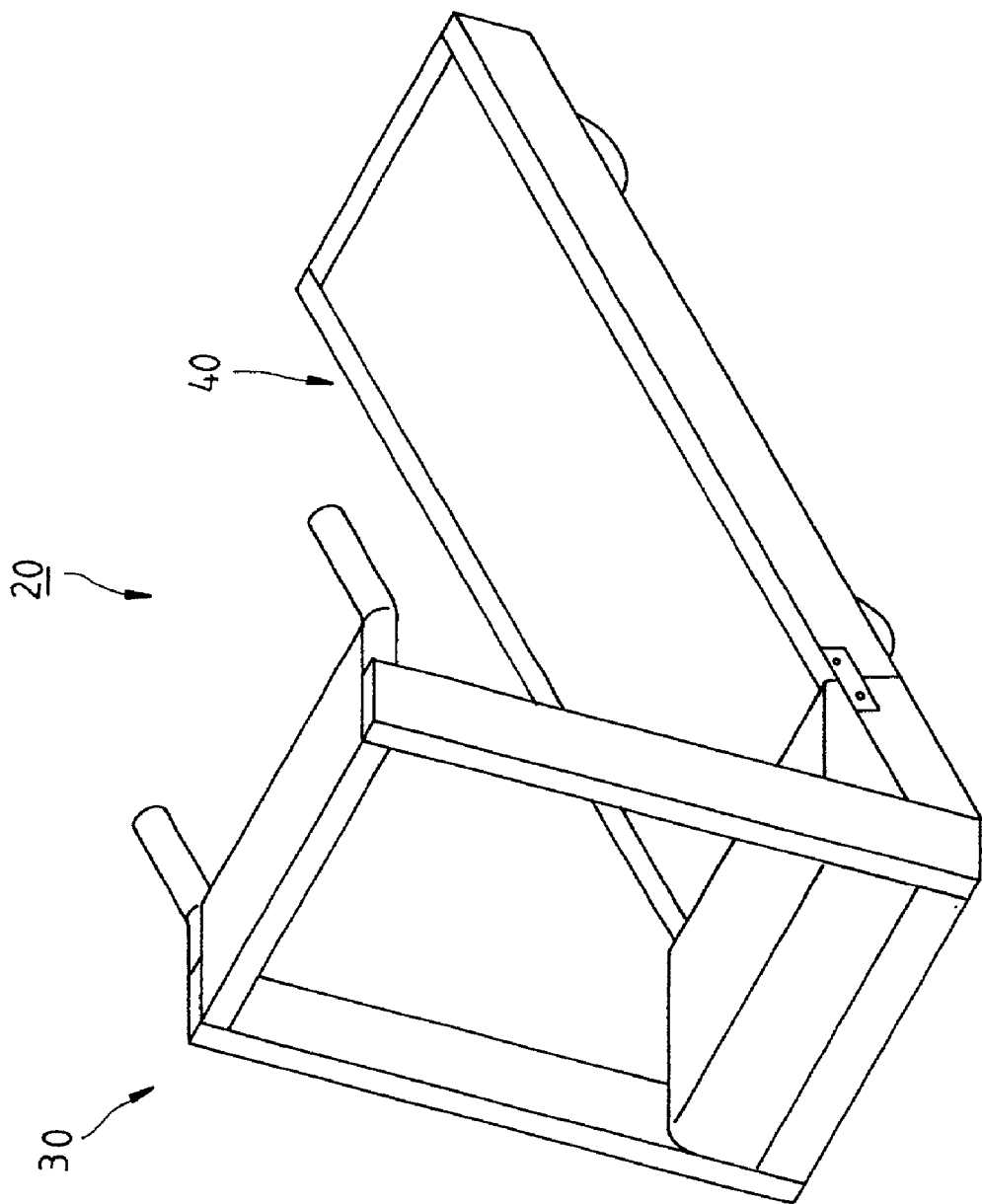
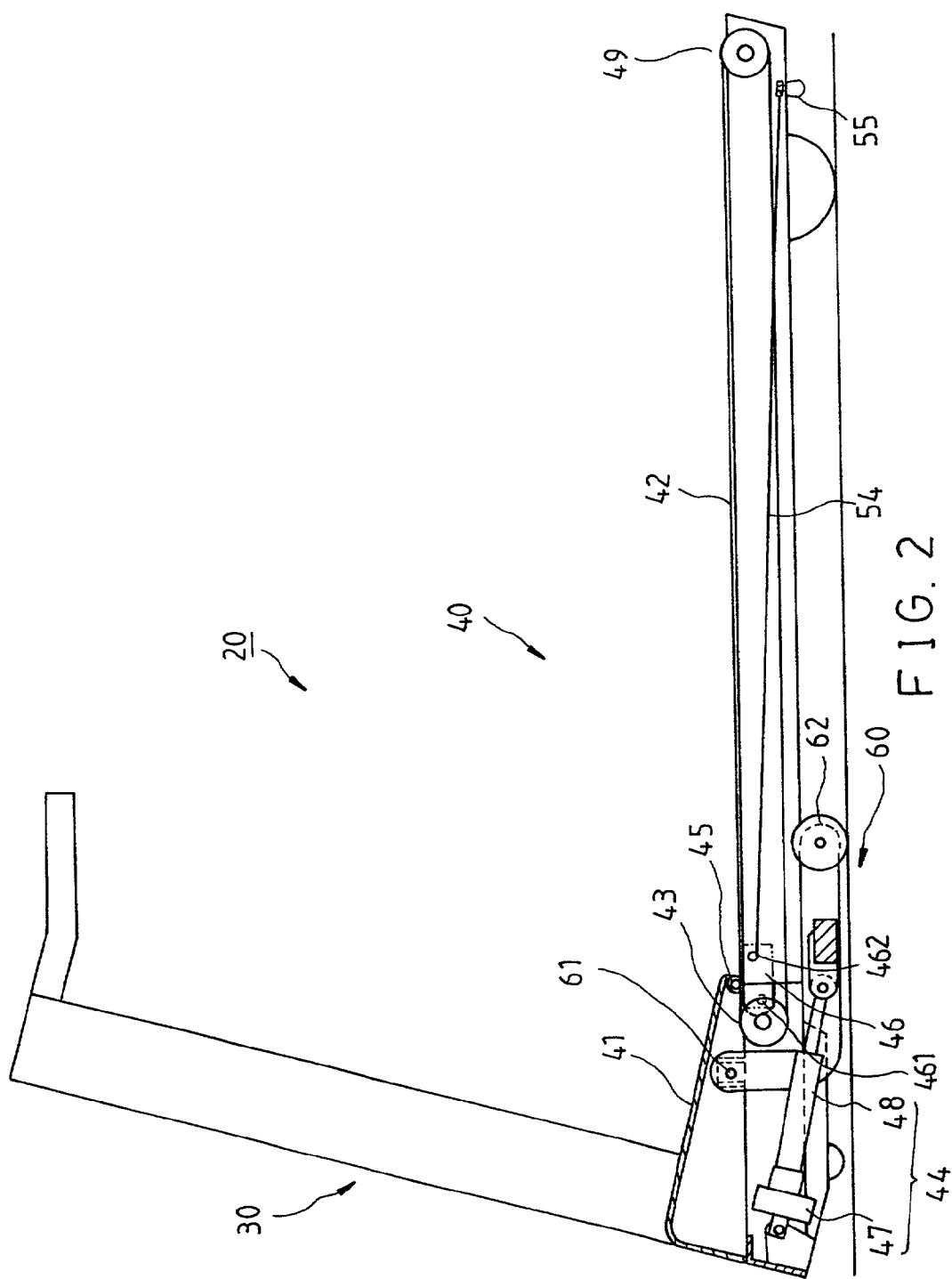


FIG. 1



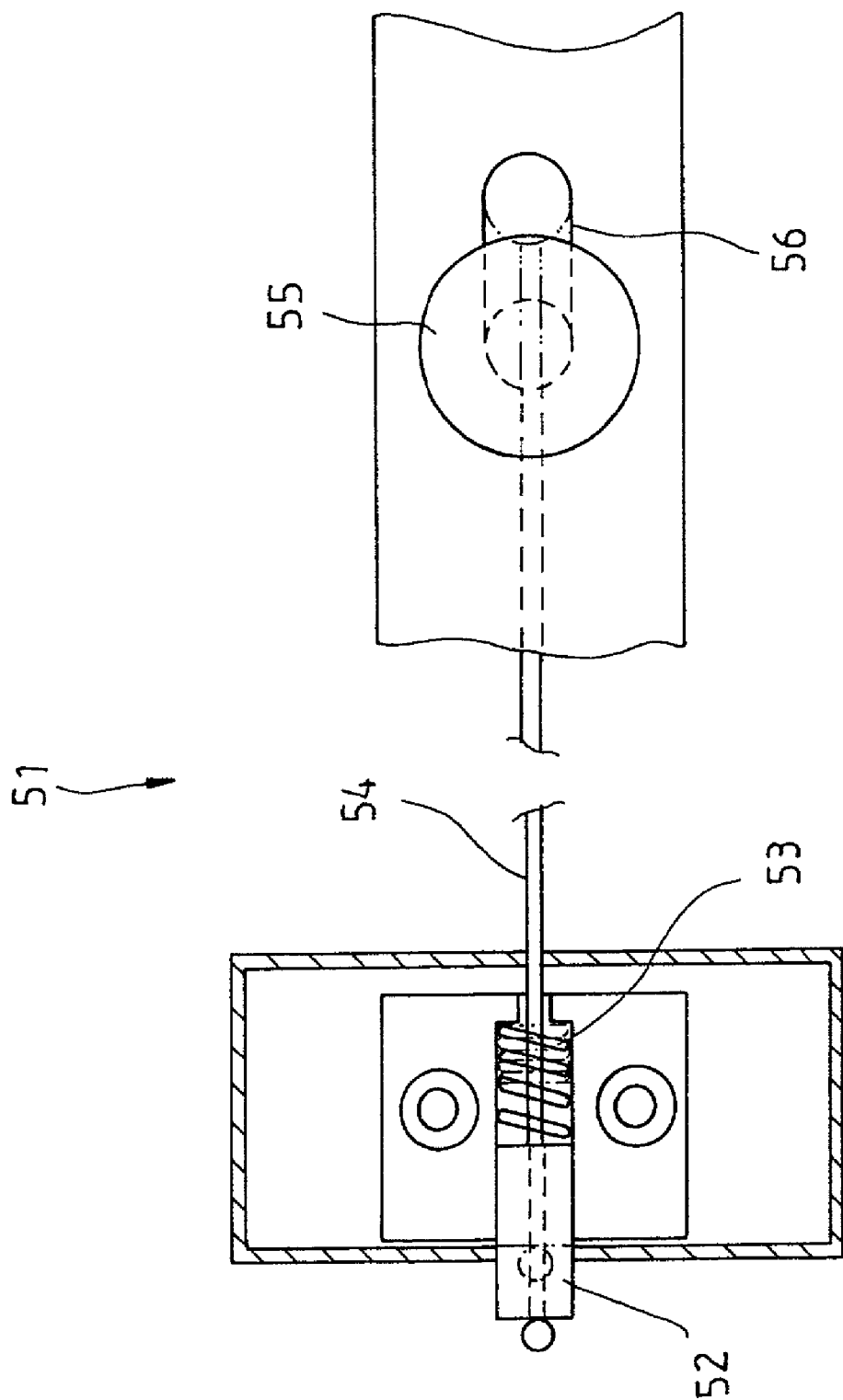


FIG. 3

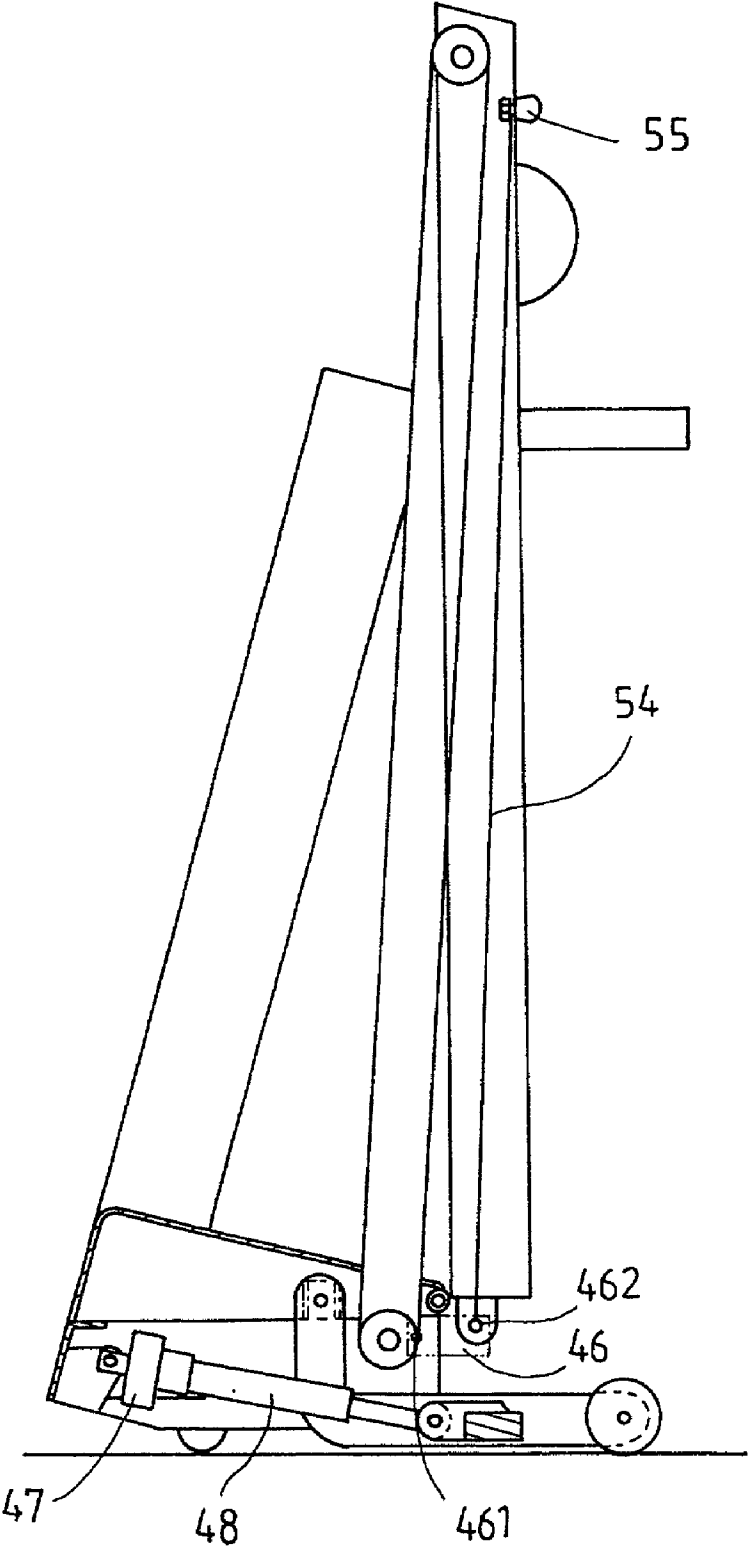
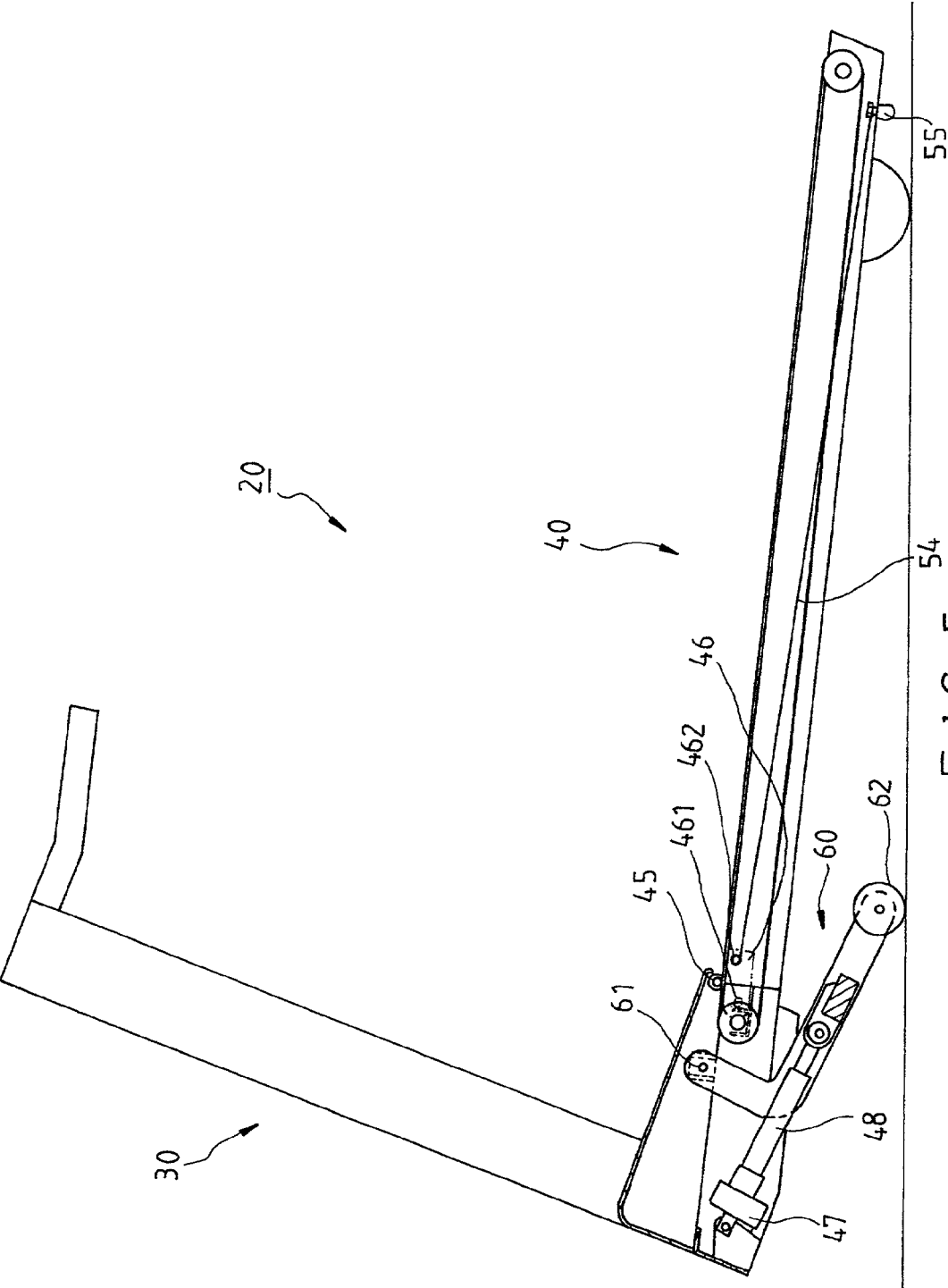
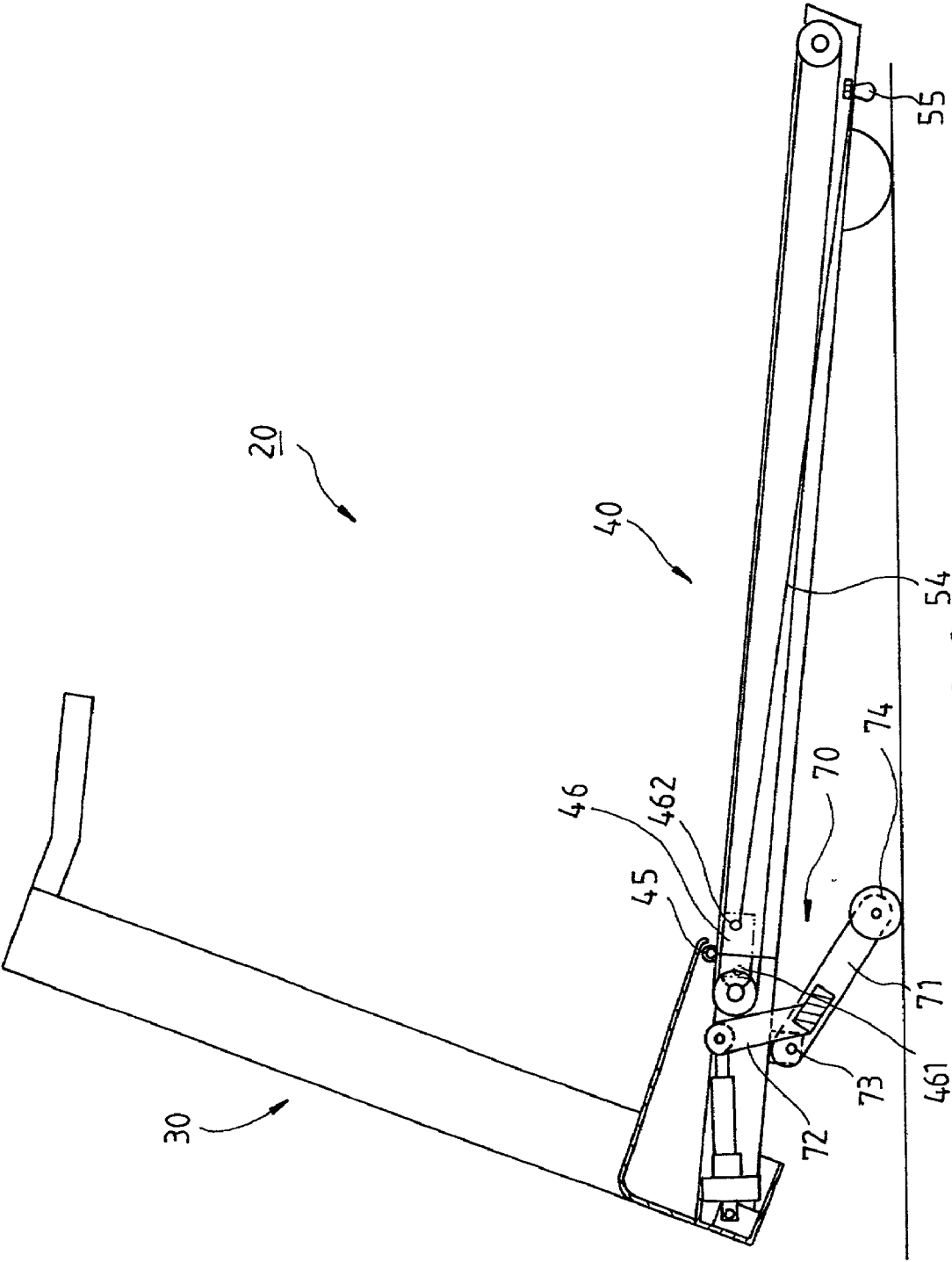


FIG. 4





FOLDABLE JOGGING MACHINE

FIELD OF THE INVENTION

[0001] The present invention relates generally to a jogging machine, and more particularly to a foldable jogging machine.

BACKGROUND OF THE INVENTION

[0002] A foldable jogging machine of the prior art comprises a jogging set and a support structure. The jogging set is formed of a power mechanism, a cyclic belt, and an outer frame. The support structure is formed of a main support rod, a front fork, and a pull rod. The front fork is pivoted to the midsection of the main support rod. The main support rod and the bottom side of the front fork are pivoted respectively with the pull rod and the jogging set. The pull rod is fastened pivotally at other end with the jogging set. When the jogging set is lifted, the main support rod is drawn by the pull rod to move toward the front fork. In light of the jogging set being pivoted with the front fork by a pivot, a greater moment of force is brought about at the pivoting point at the time when an exerciser is doing a jogging exercise on the jogging set. As a result, the machine frame is apt to deform.

SUMMARY OF THE INVENTION

[0003] The primary objective of the present invention is to provide a foldable jogging machine which is free from the structural deficiency of the prior art foldable jogging machine described above.

[0004] The foldable jogging machine of the present invention comprises a handrail frame and a machine stand which is formed of a front machine stand and a rear machine stand. The front and the rear machine stands are provided with a spindle. The spindles are driven by a motor via a track. Located in the proximity of the front and the rear spindles is a swiveling shaft enabling the front and the rear machine stands to be folded. An elevating leg frame is connected with the front machine stand for bringing about a reverse moment of force relative to the swiveling shaft, so as to cancel out a forward moment of force brought about by the jogging machine and the weight of a user of the machine in relation to the swiveling shaft.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. 1 shows a perspective view of the present invention.

[0006] FIG. 2 shows a side schematic view of the present invention.

[0007] FIG. 3 shows a schematic view of a fixation mechanism of the present invention.

[0008] FIG. 4 shows a schematic view of the folding of the present invention.

[0009] FIG. 5 shows a schematic view of the elevating leg frame of a first preferred embodiment of the present invention in action.

[0010] FIG. 6 shows a schematic view of the elevating leg frame of a second preferred embodiment of the present invention in action.

DETAILED DESCRIPTION OF THE INVENTION

[0011] As shown in FIGS. 1-3, a foldable jogging machine 20 of the present invention comprises a handrail frame 30, a machine stand 40, and an elevating leg frame 60.

[0012] The machine stand 40 is formed of a front machine stand 41 and a rear machine stand 42. The front machine stand 41 is fastened with the handrail frame 30 and is provided with a front spindle 43, a transmission mechanism 44, a swiveling shaft 45, and a connection piece 46. The connection piece 46 is provided with two locating holes 461 and 462. The transmission mechanism 44 is formed of an oil pressure cylinder 47 and a piston rod 48. The transmission mechanism 44 is intended to provide the elevating leg frame 60 with a driving force to cause the elevating leg frame 60 to move up and down.

[0013] The rear machine stand 42 is pivoted with the swiveling shaft 45 of the front machine stand 41 such that the rear machine stand 42 can be swiveled to be coplanar with the front machine stand 41. The rear machine stand 42 is provided with a rear spindle 49 and a fixation mechanism 51. The fixation mechanism 51 has an insertion pin 52 and a spring 53 urging the insertion pin 52. The insertion pin 52 can be drawn into or out of the locating holes 461 and 462 of the connection piece 46 by a steel cable 54 which is put through the spring 53. The steel cable 54 is fastened at other end with a control knob 55 of the rear machine stand 42. The control knob 55 is slidably disposed in a slide slot 56.

[0014] The elevating leg frame 60 is of an L-shaped construction and is fastened pivotally at the top end with a pivoting point 61 of the front machine stand 41, and at the bottom end thereof with a moving wheel 62 which is located behind the swiveling shaft 45. The elevating leg frame 60 is fastened at the center with the piston rod 48 of the transmission mechanism 44. The piston rod 48 is actuated by the oil pressure cylinder 47 to pull the elevating leg frame 60 so as to adjust the height of the machine stand 40.

[0015] As illustrated in FIG. 4, the jogging machine 20 of the present invention is folded by pulling outward the control knob 55 first before pushing the control knob 55 along the slide slot 56 toward the top end of the slide slot 56, thereby causing the steel cable 54 to actuate the insertion pin 52 to compress the spring 53. The compressed spring 53 is thus located under the end of the locating hole 461. In the meantime, the rear machine stand 42 is swiveled upward on the swiveling shaft 45 until the insertion pin 52 is aligned with the second locating hole 462. In light of the recovery spring force of the spring 53, the insertion pin 52 is once again juttied out of the second locating hole 462 to fix the rear machine stand 42. The folded machine 20 can be then pushed on the moving wheel 62 of the elevating leg frame 60 to a desired location.

[0016] In operation, the rear machine stand 42 is exerted on by the weight of a user thereof such that a forward moment of force is brought about by the reaction force of the rear machine stand in relation to the swiveling shaft 45. In light of the moving wheel 62 being connected via the elevating leg frame 60, the reaction force relative to the ground is concentrated on the front machine stand 41. The moving wheel 62 is located behind the swiveling shaft 45. Therefore, a reverse moment of force is brought about by the

reaction force in relation to the swiveling shaft 45, thereby resulting in the cancellation of the forward moment of force by the reverse moment of force. The insertion pin 52 of the fixation mechanism 51 of the front end of the rear machine stand 42 is retained in the locating hole 461 so as to enable the contact surfaces of the front machine stand 41 and the rear machine stand 42 to press against each other. These two contact surfaces press against each other more intimately at the time when the rear machine stand 42 is exerted on by a greater load. As a result, the front and the rear machine stands 41 and 42 are kept in the stable state.

[0017] As shown in FIG. 5, an increase in the resistance force against the jogging motion of an exerciser is effected by the oil pressure cylinder 47 which actuates the piston rod 48 to move inward, thereby causing the elevating leg frame 51 to move upward to raise the rear machine stand 42. In the elevating process, a friction force is brought about to resist the downward slide. As a result, the exercise must resort to a greater effort to do the jogging exercise on the rear machine stand 42.

[0018] As shown in FIG. 6, an elevating leg frame 70 of the second preferred embodiment of the present invention comprises a first connection rod 71 and a second connection rod 72. The first connection rod 71 is fastened pivotally at one end with a pivoting point 73 of the front machine stand 41, and at other end with a moving wheel 74. The second connection rod 72 is connected at one end with the piston rod 48, and is pivoted at other end with the first connection rod 71. The up-and-down motion of the elevating leg frame 70 is effected by the oil pressure cylinder 47, so as to adjust the inclination of the machine stand 40.

What is claimed is:

1. A foldable jogging machine comprising:

a handrail frame;

a machine stand fastened with said handrail stand and provided with a front spindle, a rear spindle, and a track connecting said front spindle and said rear spindle;

wherein said machine stand is formed of a front machine stand, a rear machine stand, and a swiveling shaft on which said front machine stand and said rear machine stand swivel, said front machine stand and said rear machine stand being provided with a contact surface, said machine stand further being formed of an elevating leg frame fastened with said front machine stand to bring about a reverse moment of force by a reaction force relative to said swiveling shaft at the time when said machine stand is exerted on by the weight of an exerciser whereby said reverse moment of force cancels out a forward moment of force brought about by the exerciser's weight in relation to said swiveling shaft.

2. The machine as defined in claim 1, wherein said front machine stand and said rear machine stand are mounted pivotally on said swiveling shaft such that said front machine stand and said rear machine stand can be swiveled to be in the same plane.

3. The machine as defined in claim 1, wherein said elevating leg frame is provided with a moving wheel for lifting said machine stand.

4. The machine as defined in claim 1, wherein said front machine stand is provided with a locating hole; wherein said rear machine stand is provided with a fixation mechanism whereby said fixation mechanism is retained in said locating hole to enable said contact surfaces of said front machine stand and said rear machine stand to join together intimately.

5. The machine as defined in claim 4, wherein said fixation mechanism comprises an insertion pin and a spring urging said insertion pin, with said insertion pin being fastened with one end of a steel cable which is put through said spring, said steel cable being fastened at other end with a control knob slidably disposed in a slide slot such that said control knob is slid in said slide slot to actuate said steel cable to extract said insertion pin out of said locating hole, or to retract said insertion pin into said locating hole.

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