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(54) **Swinging rowing exerciser**

(57) A swinging implement for simulating a rowing exercise comprises a supporting framework, which can be caused to bear on a floor by supporting elements, and including a seat plane, which can freely slide along

the supporting framework, characterized in that said swinging implement comprises moreover swinging means for causing said supporting framework to swing with respect to a floor, thereby inducing a user to search equilibrium conditions during the gymnic exercise.

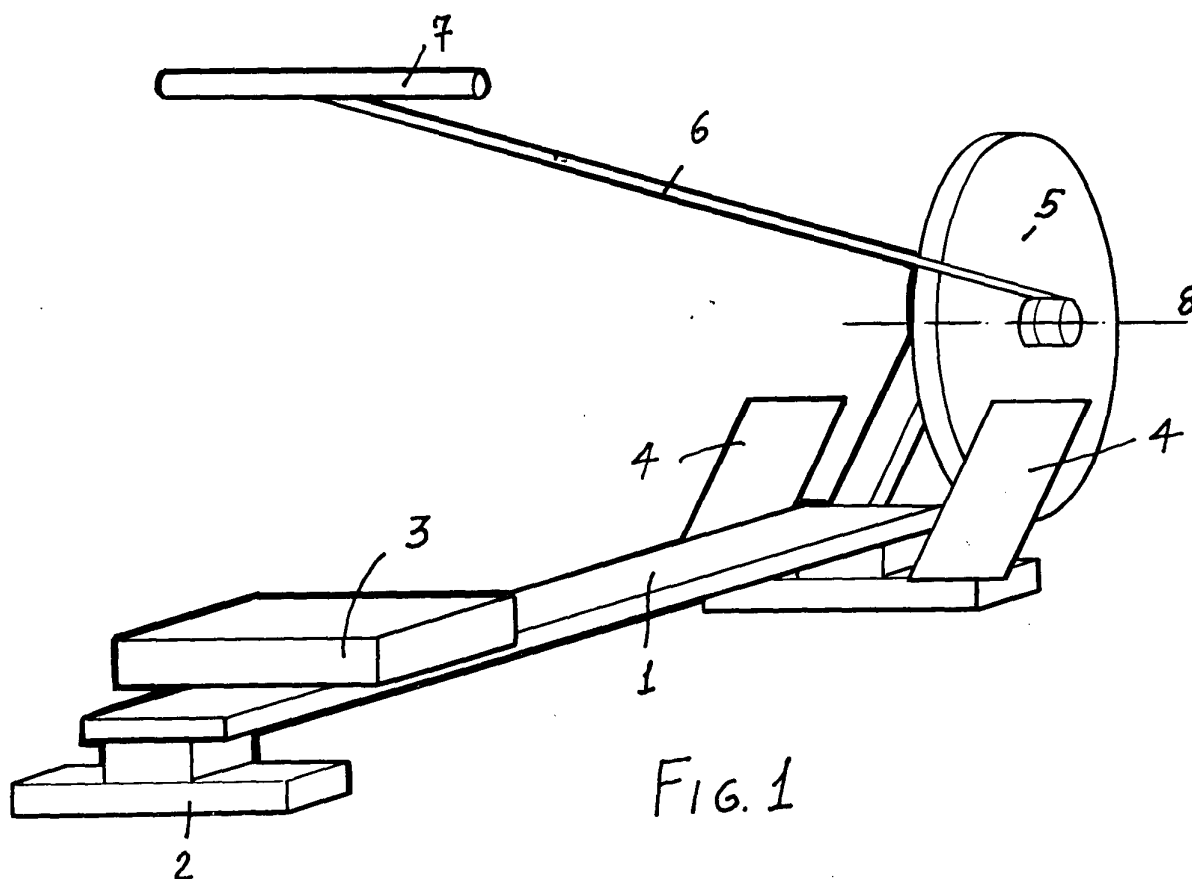


FIG. 1

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Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a swinging implement, adapted to simulate a rowing exercise.

[0002] Rowing simulating implements are already known.

[0003] These prior rowing simulating implements, which are conventionally called "rower" have a lot of different constructions, but are all constituted by a seating plane or panel, of movable construction, and means adapted to simulate the "rowing" exercise.

[0004] The prior rowing implements are usually divided into two classes: the "belt" rowing implements, which comprise a bar operating as conventional oars, said bar being coupled through a belt to a braking system, and the "arm" implements, comprising two rods simulating the oars and being coupled to a braking system.

[0005] Starting from the assumption that such an implement is specifically designed for simulating a water rowing, and that the makers have designed means for rendering a ground training fully similar to a water rowing training, a substantially difference still exist between the two mentioned types of sports. exercise.

[0006] In fact, an athlete trained in water, engages his/her body not only in the rowing effort, but also in holding a proper equilibrium condition on the watercraft.

[0007] In fact, due to the configuration of the watercraft or boat, and because of the fluid nature of water, the surface or plane on which the athlete works does not hold a fixed inclination, but the inclination thereof is continuously changed.

[0008] This instability condition causes the athlete to be subjected to a proprioceptive type of reaction involving all the muscle fascia of the athlete, thereby increasing the effort provided during the exercise.

[0009] Figure 1 illustrates a typical prior rower, comprising a supporting framework 1, bearing on a floor through supporting elements 2, which supports the framework in a "rigid" manner.

[0010] The rower comprises a seating plane 3 which can freely slide along the supporting framework 1, foot rests 4, fixed to the supporting framework 1, a flywheel 5 which can freely rotate with respect to a pivot axis 8 fixed to the supporting framework 1, and on the pivot pin of which is entrained a belt 6 ending with a handle 7.

[0011] Such a rower construction allows the athlete to simulate the rowing exercise, by pulling the handle 7, thereby causing the flywheel 5, which usually comprise a braking system for adjusting the athlete effort, to rotate.

[0012] The seating plane 3 can freely slide in order to allow the athlete or user to bend and extend his bottom or lower limbs, providing effort through the athlete feet on support elements 4, thereby facilitating the rowing exercise.

[0013] Further rower construction are moreover

known, which substantially differ with respect to the adopted braking system (hydrodynamic, magnetic, oleodynamic, aerodynamic), or with respect to the arrangement of the component parts thereof.

SUMMARY OF THE INVENTION

[0014] Accordingly, the aim of the present invention is to provide such an implement adapted to simulate a rowing exercise, which, in particular simulates as faithfully as possible, the effort which an athlete or user would provide for rowing through water.

[0015] Within the scope of the above mentioned aim, a main object of the present invention is to provide such an implement which is adapted to simulate the typical swinging movement of a oar boat in its floating through water, thereby subjecting the user to proprioceptive stimulations inducing said user to hold the implement centered during the exercise.

[0016] Yet another object is to provide such an implement which can be applied to any types of "rower", even of a conventional existing type.

[0017] Yet another object of the present invention is to provide such a simulating implement adapted to fully train all the body systems involved in a water rowing exercise, i.e. the muscle (power) system, the cardio-muscle (resistance) system, and the neural-muscular (equilibrium and space movement control) system.

[0018] According to one aspect of the present invention, the above mentioned aim and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by a swinging implement designed for simulating a rowing exercise, comprising a supporting framework, adapted to bear on a floor through support elements, and including a seat plane, which can freely slide along said supporting framework, characterized in that said implement further comprises swinging elements adapted to allow said bearing framework to swing with respect to said floor, thereby inducing the implement user to search an equilibrium condition during the exercise.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] Further characteristics and advantages of the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, through not exclusive, embodiment of the invention, which is illustrated, by way of an indicative, but not limitative, example in the accompanying drawings, where:

Figure 1 is a schematic perspective view of a prior rower assembly;

Figure 2 is a further schematic perspective view of an implement according to the present invention;

Figure 3 is a further schematic perspective view of an implement according to a further aspect of the invention;

Figure 4 is a further schematic perspective view of an implement according to yet another aspect of the present invention;

and

Figure 5 is a schematic perspective view of a further implement.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0020] With reference to the number references of the above mentioned figures, the swinging implement, designed for simulating a rowing exercise, according to the invention, and as shown in figure 1, generally comprises a supporting framework 1, bearing on a floor through supporting elements 2 and including a seating plane or panel 3, which can freely slide along the supporting framework 1.

[0021] According to the invention, in its embodiment shown in figure 2, the supporting framework 1 is not made rigid with the ground, but rests on arched bases 22, inducing the user or athlete to continuously search to hold an equilibrium condition during the exercise.

[0022] Said bases are advantageously provided with extension elements 23, designed for preventing the athlete or user from following as the implement center of mass is overcome or exceeded.

[0023] Figure 3 shows a possible solution similar to that which has been above disclosed.

[0024] In this case, the flywheel 5 is arranged in a horizontal position, in order to lower the center of mass of the athlete-implement assembly.

[0025] Figure 4 shows a further embodiment, in which the main structure 41, to which the remaining part of the implement is coupled, is connected through articulated joints 43 to the mentioned bases 42.

[0026] The two bases 42 are rigid with the bearing ground, but the implement can swing with respect to the ground.

[0027] Figure 5 shows an implement similar to that shown in figure 4, but including bearing brackets 50 provided for bearing on springs 51 rigid with the bases 42, thereby aiding the athlete or user in holding a centered position, while operating as limit elements for the implement swinging movements, with respect to the axis constituted by the pivot pins 52.

[0028] It has been found that the invention fully achieves the intended aim and objects.

[0029] In fact, the invention has provided a swinging implement, adapted to simulate a rowing exercise, and providing a ground based athlete or user with the same type of training which he/she would obtain in water.

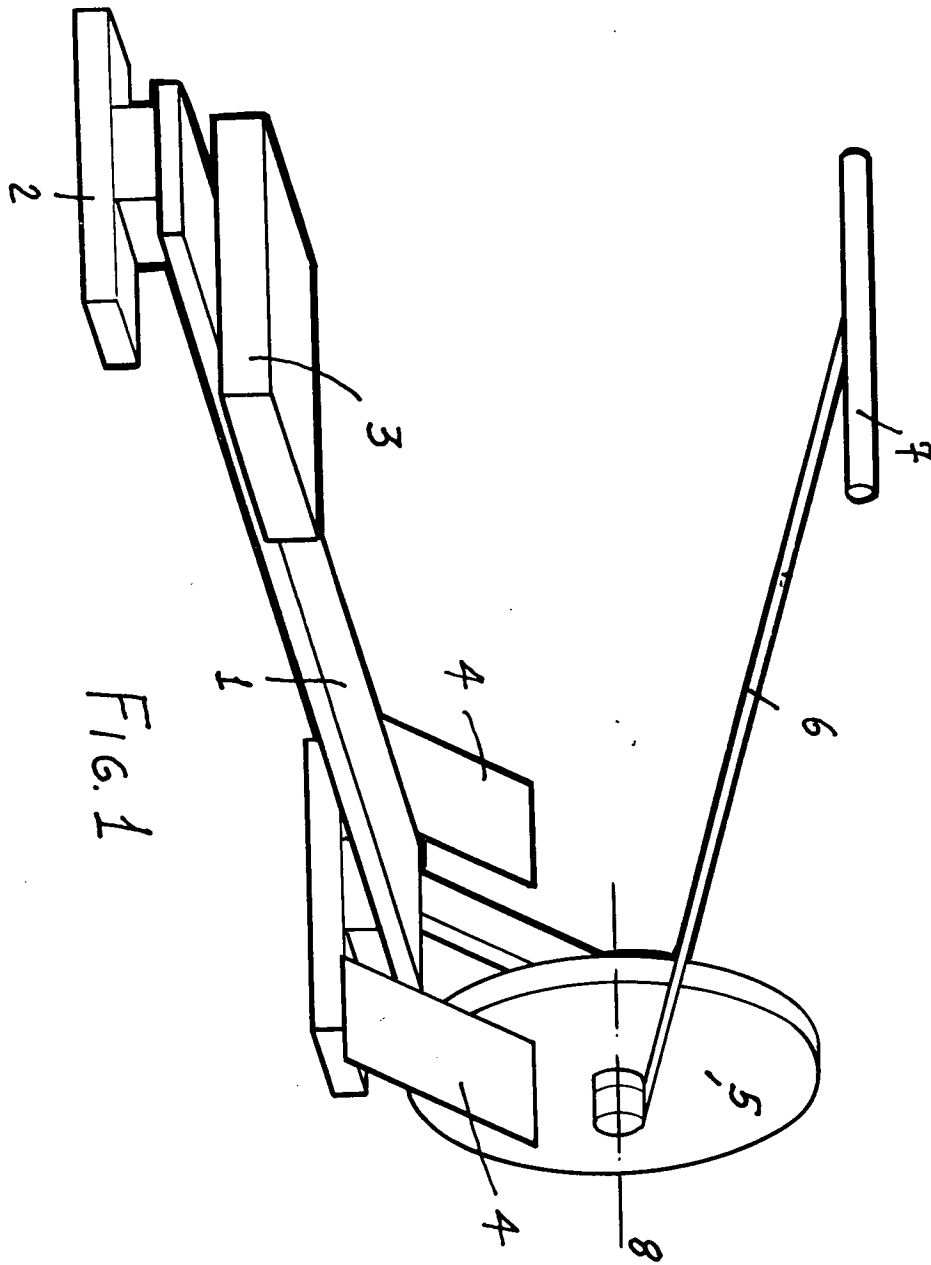
[0030] For achieving that result, the implement can sideway swing, either in a free or guided manner, as shown in the disclosed embodiments, while the invention actually relates to the concept, and is not limited to the shown and/or disclosed embodiments.

[0031] In practicing the invention, the used materials,

as well as the contingent size and shapes, can be any, depending on requirements and the status of the art.

Claims

1. A swinging implement designed for simulating a rowing exercise, comprising a supporting framework, adapted to bear on a floor through supporting elements, and including a seating plane, which can freely slide along said supporting framework, **characterized in that** said swinging implement further comprises swinging means for allowing said supporting framework to swing about said floor, thereby inducing an implement user to search to hold an equilibrium condition during the exercise.
2. An implement, according to Claim 1, **characterized in that** said swinging means comprise curved bases rigid with said supporting framework.
3. An implement, according to Claim 2, **characterized in that** said curved bases comprise extension elements designed for preventing the implement user from following as a center of mass of said implement is exceeded.
4. An implement, according to one or more of the preceding claims, **characterized in that** said implement comprises a flywheel arranged at a horizontal position in order to lower the center of mass of the user or athlete-implement assembly.
5. An implement, according to one or more of the preceding claims, **characterized in that** said supporting framework, to which the remaining part of said implement is coupled, is connected through articulated joints to said bases, and that said articulated joints provide said swinging means, thereby the two bases are rigid with the bearing ground, while allowing the implement to swing with respect to said ground.
6. A swinging implement, according to one or more of the preceding claims, **characterized in that** said implement comprises brackets which, by bearing on springs rigid with said bases, provide the implement user or athlete with an aid for holding a centered position, while operating as a limit elements for the swinging movements of said implement with respect to an axis constituted by pivot pins.
7. An implement, according to one or more of the preceding claims, **characterized in that** said swinging implement comprises one or more of the disclosed and/or illustrated characteristics.



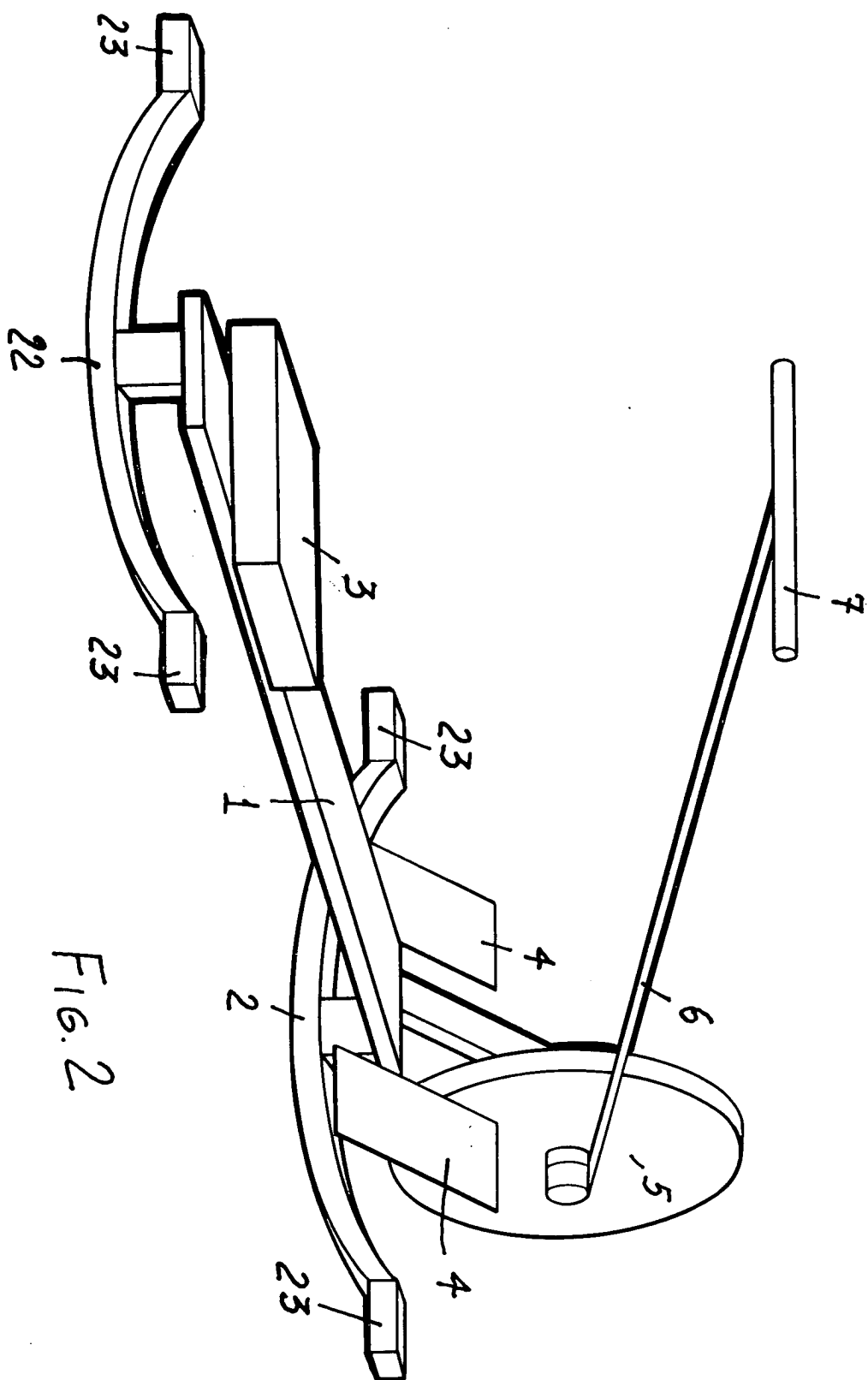


FIG. 2

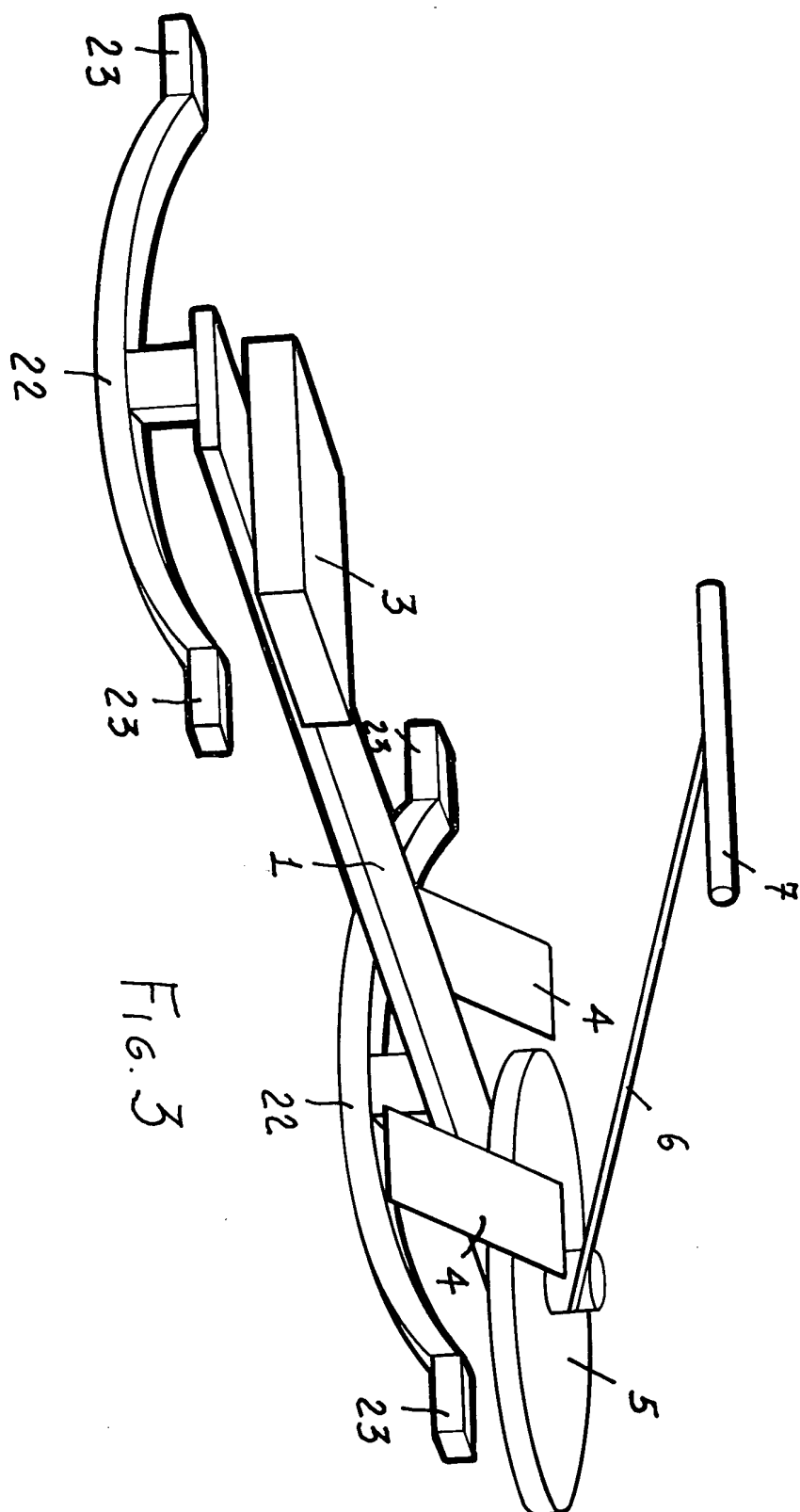


Fig. 3

