CONTROL MECHANISM OF AN ELECTRIC TREADMILL

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ABSTRACT

A control mechanism of an electric treadmill having a large area pressure strip located on each of handles of the treadmill while a touch switch is disposed under the pressure strip. The touch switch is electrically connected to an electronic console either for an easy control of the rotational speed of a running belt or for a practical adjustment of the fold-up inclination of a tread base.
CONTROL MECHANISM OF AN ELECTRIC TREADMILL

BACKGROUND OF THE INVENTION

[0001] 1. Fields of the Invention

The invention relates to a control mechanism of an electric treadmill, and more particularly, to a mechanism that ensures an easy control of the rotational speed of a running belt as well as a practical adjustment of the inclination of a tread base without distracting the attention of the operator.

[0002] 2. Description of the Related Art

The electric treadmill provides an optimal simulation of walking movement so that it becomes more and more popular and is one of the important indoor exercise devices. Moreover, the treadmill allows an easy control of the rotational speed of a running belt and a practical adjustment of a tread base. The relevant techniques belong to the prior art so that no further descriptions thereof are given hereinafter.

[0003] The control of the rotational speed of the running belt and the adjustment of the tread base is often done either by the operation keys on an electronic console or by the touch switches on handle bars. However, the operation keys and the touch switches are often so small and far away from the operator that the operator has to be concentrated to locate the operation keys and the touch switches when he wants to execute the adjustment. In other words, the operator has to avoid false input while keeping up with the speed of the running belt during the exercise session, and this would pose a hazard to the operator.

SUMMARY OF THE INVENTION

[0004] A primary object of the invention is to avoid the above-mentioned drawbacks and to provide a control mechanism of an electric treadmill that ensures an easy control of the rotational speed of a running belt as well as a practical adjustment of the inclination of a tread base without distracting the attention of the operator.

[0005] In order to achieve the above-mentioned object, a large area pressure strip is located on each of handles of the treadmill while a touch switch is disposed under the pressure strip. The touch switch is electrically connected to an electronic console either for an easy control of the rotational speed of a running belt or for a practical adjustment of the fold-up inclination of a tread base.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The accomplishment of this and other objects of the invention will become apparent from the following description and its accompanying drawings of which:

[0007] FIG. 1 is a perspective view of a preferred embodiment of the invention;

[0008] FIG. 2 is a cutaway view of a handle and a pressure strip of the preferred embodiment of FIG. 1;

[0009] FIG. 3 is a cutaway view of the handle and the pressure strip of the preferred embodiment of FIG. 1 after a force acts on the pressure strip;

[0010] FIG. 4 is a cutaway view of the handle and the pressure strip in accordance with another preferred embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0013] Referring to FIGS. 1 through 3, an electric treadmill 10 in accordance with a preferred embodiment of the invention includes a support base 11, two handles 12, an electronic console 13, a tread base 14, a running belt 15 and bottom support elements 16. The tread base 14 can be driven by a lifting motor (not shown) to create change of supporting inclination. The running belt 15 is driven by another motor (not shown) for an in-place rotation. Each of the handles 12 is provided with at least one large area pressure strip 20 under which a touch switch 22 is disposed. The touch switch 22 is electrically connected to the electronic console 13 either for an easy control of the rotational speed of the running belt 15 or for a practical adjustment of the fold-up inclination of the tread base 14.

[0014] The operation will be described by use of a simple example as follows. For example, a command of acceleration can be given to the motor for the running belt 15 via the electronic console 13 when the pressure strip 20 on one handle 12 is compressed to trip the touch switch 22. Meanwhile, the corresponding elements on the other handle 12 are designed for the deceleration command. The pressure strip 20 occupies such a large space that the operator can easily reach one of the pressure strips 20 for a desired action of the treadmill.

[0015] Of course, a spring element 24 is interposed between the pressure strip 20 and the handle 12 for resetting the pressure strip 20 to its original position after removal of an external force on the pressure strip 20.

[0016] Alternatively, the pressure strips 20 on the handles 12 and the associated touch switches 22 can be designed for controlling the lifting motor to adjust the inclination of the tread base 14. This belongs to a prior art so that no further descriptions are given hereinafter.

[0017] As shown in FIG. 4, a T-shaped pressure strip 30 can be employed in cooperation with two touch switches 22. In this way, the T-shaped pressure strip 30 can be compressed at both sides thereof while both touch switches 22 are correspondingly designed both for acceleration or deceleration and for fold-up or fold-down action. Thus, the operator can install on both handles 12 of the electric treadmill 10 two sets of control units for adjusting the operation speed of the running belt 15 and the inclination of the tread base 14. As a result, the application value of the treadmill can be enhanced.

[0018] Many changes and modifications in the above-described embodiment of the invention can, of course, be carried out without departing from the scope thereof. Accordingly, to promote the progress in science and the useful arts, the invention is disclosed and is intended to be limited only by the scope of the appended claim.

1. A control mechanism of an electric treadmill, comprising at least one large area pressure strip located on each of handles of the treadmill, a plurality of touch switches being disposed under the pressure strip such that the touch switches can be activated as a result of the application of an external force on the pressure strip,

wherein the touch switches are electrically connected to an electronic console either for an easy control of the
2. The control mechanism according to claim 1 wherein a spring element is interposed between the pressure strip and the handle.

3. (canceled)

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