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BACK POSTURE AND STRETCH BOARD

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Fig. 1

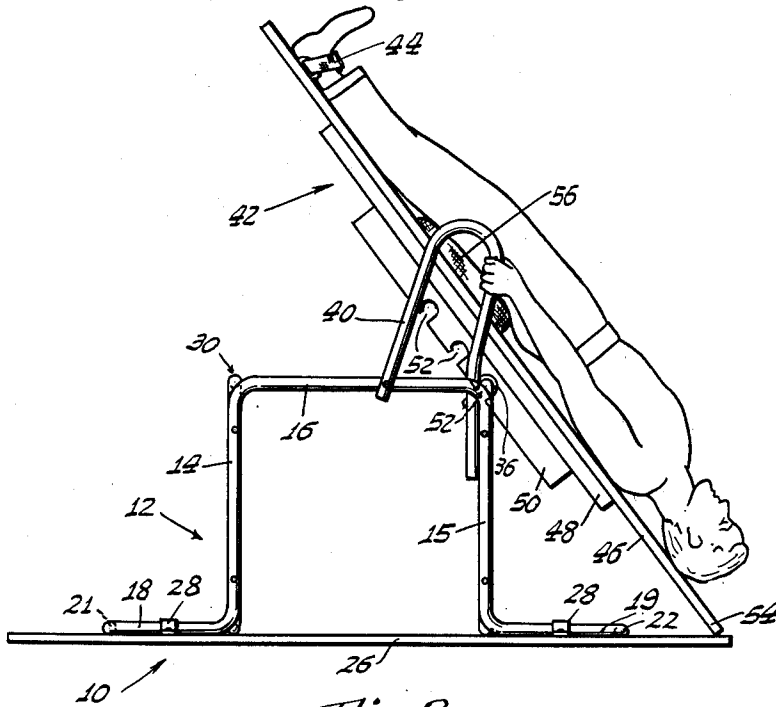
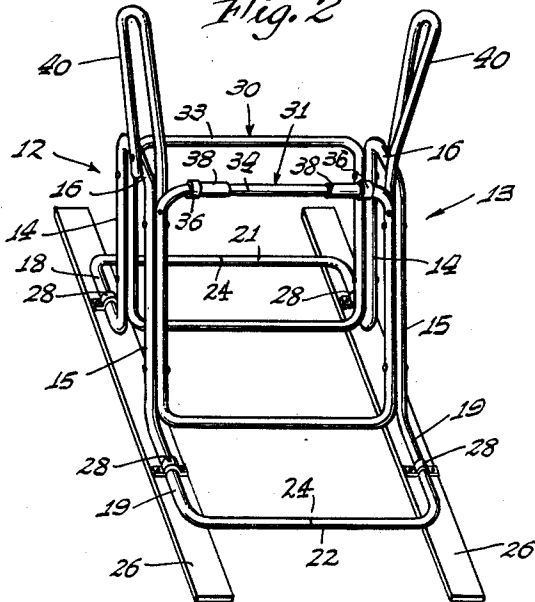


Fig. 2



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1

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BACK POSTURE AND STRETCH BOARD

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This invention relates to health tables such as balancing or posture boards, and more particularly to devices of this type which are intended to give treatments to promote a proper posture and at the same time effect a stretching of the back.

An object of the invention is to provide a novel and improved posture and stretch board which is so constituted as to effect a beneficial, combined flexing and stretching of the back and spine of a person supported on the board.

Another object of the invention is to provide an improved posture and back stretching board as above set forth, which is gentle and safe in its action whereby there is minimized any possibility of improper or excessive stretching of the back and spine.

Still another object of the invention is to provide an improved posture and stretch board which has extremely simple means for effecting an adjustment, in order to accommodate persons of different size and weight.

A still further object of the invention is to provide an adjustable posture and stretch board in accordance with the foregoing, whereby the adjustment is characterized by distinct, readily observable positions which are at any time capable of being duplicated, thereby to enable a given desired adjustment to be effected easily and quickly.

A feature of the invention resides in the provision of an improved back posture and stretch board device which is rugged and sturdy in construction, while at the same time involving relatively few, simple parts which may be readily fabricated and assembled.

Another feature of the invention resides in the provision of an improved posture and stretch board device having all of the above attributes and advantages, and which is nevertheless economical to manufacture and produce.

Other features and advantages will hereinafter appear.

In the drawings accompanying this specification, similar characters of reference are used to designate like components throughout the several views, in which:

FIG. 1 is a side elevational view of the present improved back posture and stretch board device.

FIG. 2 is a perspective view of the frame structure of the posture and stretch board device.

Referring to the figures, the present posture and stretch board device is shown as comprising a frame 10 adapted to be supported on a floor surface, the said frame being preferably constituted essentially of tubular metal structural members as for example aluminum tubing or the like, whereby there is had the combination of great strength and lightness in weight. The frame 10 comprises a pair of side members 12 and 13 having upstanding or raised center portions in the form of inverted U's. Each of the upstanding U-shaped center portions comprises legs 14 and 15 and a horizontal connector or yoke portion 16.

The side frame members further comprise base portions 18 and 19 which are arranged to rest on the floor surface and to be generally flat thereon. Preferably, as shown in FIG. 2, the frame also comprises cross members 21 and 22 extending between the base portions 18 and 19 respectively. As seen in FIG. 2, the frame as thus constituted may be formed of either a single length of aluminum or metal tubing, or else several lengths, in any suitable manner. In this figure, joints 24 are shown in the cross members 21, 22, indicating that the frame is formed of two identical halves each of which includes a half of

2

the two cross members 21, 22. Preferably, the frame also comprises a pair of flat strips 26 which may be advantageously constituted of wood, secured to the base portions 18, 19 by suitable metal straps 28, thereby to provide a more stable assemblage and one which has a greater floor-engaging area and which is not likely to mar finished floor surfaces.

The frame 10 further comprises bracing front and rear tie members 30 and 31 which are preferably of rectangular shape and also constituted of metal tubing such as aluminum. The tie members 30, 31 are disposed between the upright legs 14, 15 respectively of the center portions of the side frame members, and are secured to the said legs in any suitable manner, as by bolts, rivets or the like. The tie members 30, 31 have uppermost horizontal sections 33 and 34 respectively, which are spaced apart and are generally parallel to the base members 21 and 22 of the frame. The horizontal sections 33, 34 constitute supporting bars, and the bar 34 is also arranged to constitute a pivot for a board construction shortly to be described. For this purpose, the bars 34 may have collars 36 and bearing sleeves 38, as shown in FIG. 2.

Carried by the frame 10 are two upstanding inverted U-shaped handles 40, the said handles being secured to the connector portions 16 of the side members as by the rivets indicated, and secured to the rear rectangular tie member 31 by similar rivets. The handles 40 are also fabricated of tubular metal stock, and preferably incline rearwardly of the frame, as seen in FIG. 1.

In accordance with the invention, in conjunction with the above described frame 10 there is provided a tilt board 42, said board being arranged to hold a person in the lying-down position. The board 42 adjacent one end is provided with feet or ankle-engageable fasteners 44 for securing the feet or ankles of a person to said end. The fasteners 44 may be constructed in any suitable manner. For example, they may comprise straps having buckles for encircling the ankles, said straps passing through staples or U-bolts secured to the board.

As seen in FIG. 1, the board 42 may comprise a long main board member 46, a shorter reinforcing member 48, and still shorter fulcrum members 50 constituted preferably of T-section aluminum structural members, the latter having hook-like notches 52 disposed in closely spaced relation, and being adapted to receive the cross bar 34 and more particularly the bearing sleeves 38 thereof, for the purpose of enabling the board 42 to be swung about the said bar. By using one or another of the notches, the board 42 may be variously positioned on the frame, to accommodate it to persons of different height, stature, etc., and this simple adjustment is an important feature of the invention.

It will be noted that the board 42, particularly the fulcrum means 50, is adapted to also rest on the cross bar 30 whereby the frame provides a two-point or two-bar support for the tiltable board 42. The two-bar support of the board is effective when the board is in the horizontal position, as will be understood. However, when the board 42 is tilted as shown in FIG. 1, the fulcrum members 50 become disengaged from the cross bar 30, and instead of such point of support, the top-most or back-most end 54 of the board becomes engaged with the rear portion of the frame 10, as shown.

In conjunction with the board 42, there is provided by the invention a pad-like raised member 56 of tapered cross section, which is arranged to engage the person's body at a point adjacent the hips thereof, thereby to elevate the mid-section of the body with respect to the head and feet when a person is resting on the board. The provision of the hip raising pad 56 having a thick upper portion and a thin lower portion as shown constitutes an important feature of the invention, since it has been found to

3

have a beneficial effect in conjunction with stretching of the spine, in cases of sciatica and sacro-iliac discomfort or strain. Preferably, as shown in FIG. 1, the pad 56 is disposed to engage the rear of the thighs of a person at a point below the waist, thereby to provide for a flexure of the body in the manner indicated.

The operation of the device is briefly as follows:

With the board 42 in horizontal position, supported by the two horizontal bars 30, 42 a user sits on the board between the handles 40. The user, sitting on the pad 56, places his feet in the straps 44, and tightens the same about the ankles. Thereupon the user grasps the handles 40 and lowers the upper portion of the body, permitting it to swing slowly backward until it becomes engaged with the upper or back end portion of the board 42. Then the user exerts a pushing force on the handles 40 to cause the board 42 and his body to swing to the position shown in FIG. 1, wherein the feet are uppermost and the head is lowermost, with the body sloping downward and backward as indicated. The user then releases his grip upon the handles 40, whereupon the weight of the upper portion of the body will effect a gentle and effective stretching of the spine. This stretching action, in conjunction with the flexure effected by the pad 56, has been found to be of great benefit in sacro-iliac and sciatica conditions of the spine. Usually only a short interval of time is required to effect a sufficient stretching of the spine in the manner above described. A matter of one or several minutes generally suffices for the user to obtain considerable benefit and relief from the abnormal condition. The user then again grasps the handles 40 and pulls on them, whereupon the board 42 is again swung to the horizontal position. The user sits up, releases the ankle straps 44, and dismounts from the board.

By the invention, the raised bars 30, 31 are spaced inward from the extreme ends of the elongate base construction by a distance which is roughly equal to the distance between the bars themselves. The bars 30, 31 and the rail portions 16 constitute a rigid raised rectangular structure which comprises roughly one-third of the plan size of the frame when viewed from the top, as is evident from an inspection of the figures.

I have found that a back posture and stretch board as above constituted provides great relief in cases of simple sciatica and sacro-iliac discomfort. The board device is seen to be simple in construction, and may be economically fabricated and produced. With the construction shown, it is extremely rugged and sturdy. By the provision of the notches 52 various desired adjustments may be duplicated at any time, and this is of considerable advantage since it provides for the duplication of discrete or distinct adjusted positions of the board. The provision of the pad 56 is of importance in effecting a flexure of the body as indicated, and the use of such pad increases appreciably the benefits which are had from the device.

Variations and modifications may be made within the scope of the claims, and portions of the improvements may be used without others.

I claim:

1. A back posture and stretch board device comprising a frame having an elongate base portion of appreciable width to provide substantial stability, said base portion being adapted for support on a floor surface, and said frame having a pair of spaced, supporting bars carried by the base portion and arranged to be positioned above the floor surface in substantially parallel relation thereto, said bars being spaced inward from the ends of the frame base portion an appreciable horizontal distance which is commensurate with the spacing between the bars themselves, said frame further comprising raised side rails connected at their end portions to the said bars and constituting therewith a rigid rectangular structure forming the entire uppermost part of the frame, said rigid rectangular structure constituting roughly one-third of the plan size of the frame when viewed from the top; and a board mounted on said frame and arranged to hold a person

4

lying down, said board adjacent one end having feet-engageable fasteners for securing the feet of the person to said one end, and the board further resting on the spaced supporting bars to position it horizontally above the floor and provide a stable horizontal support whereby a user may safely mount and lie on the board, and said board being swingable about one of said bars to an angular position wherein the feet are raised above the head and having receptacle means on its underside to receive said one bar and constitute therewith a pivot for the board.

2. The invention as defined in claim 1, in which the board has intermediate its ends a pad-like raised member of tapered cross section having a thick portion at its upper end and a thin portion at its lower end, said pad being adapted to engage the person's body at a point adjacent the hips, thereby to angularly elevate the mid-section of the body with respect to the head and feet when the person is resting on the board.

3. The invention as defined in claim 1, in which the frame comprises tubular metal side members, each of said side members having a raised central portion in the form of an inverted U, the yoke portion of which constitutes the said side rails, and in which the frame further comprises tubular metal tie members secured to and extending between the raised central U-shaped portions of the side members, said tie members having top sections constituting the said pair of spaced supporting bars.

4. The invention as defined in claim 1, in which the frame comprises tubular metal side members, each of said side members having a raised central portion in the form of an inverted U, the yoke portion of which constitutes the said side rails, and in which the frame further comprises a pair of rectangular tubular metal tie members secured to and extending between the side members and, said tie members having top sections constituting the said pair of spaced supporting bars.

5. A back posture and stretch board device comprising a frame adapted to be supported on a floor surface, said frame having a pair of spaced, supporting bars arranged to be positioned above the floor surface in substantially parallel relation thereto; and a board mounted on said frame and arranged to hold a person lying down, said board adjacent one end having feet-engageable fasteners for securing the feet of the person to said one end, and the board further resting on the spaced supporting bars to position it horizontally above the floor and provide a stable horizontal support whereby a user may safely mount and lie on the board, and said board being swingable about one of said bars to an angular position wherein the feet are raised above the head, said frame including tubular metal side members, each of said side members having a raised central portion in the form of an inverted U, and said frame further including a pair of rectangular tubular metal tie members secured to and extending between the side members and having top sections constituting the said pair of spaced supporting bars, said raised central U-shaped portions of the side frame members being provided with upwardly extending inverted U-shaped tubular metal handles, said handles being secured to one of the said rectangular tie members.

6. A back posture and stretch board device comprising a frame adapted to be supported on the floor surface, said frame having a pair of spaced, supporting bars arranged to be positioned above the floor surface in substantially parallel relation thereto; and a board mounted on said frame and arranged to hold a person lying down, said board adjacent one end having feet-engageable fasteners for securing the feet of the person to said one end, and the board further resting on the spaced supporting bars to position it horizontally above the floor and provide a stable horizontal support whereby a user may safely mount and lie on the board, and said board being swingable about one of said bars to an angular position wherein the feet are raised above the head; a notched member secured to the underside of the board, the notches of said member

being adapted to receive one of the said supporting bars whereby the board may be variously positioned on the bars and retained against shifting from said position while the board is swung about the said one bar.

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