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R. E. HOPPE

2,176,342

HEALTH BALANCING BOARD

Filed March 8, 1937

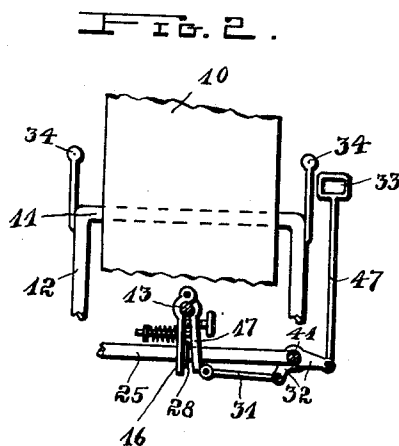
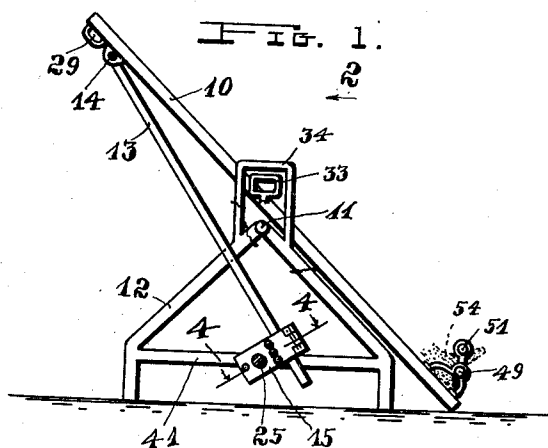


FIG. 3.

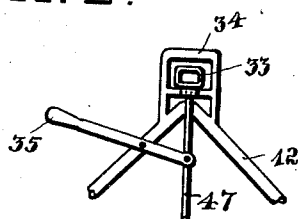


FIG. 4.

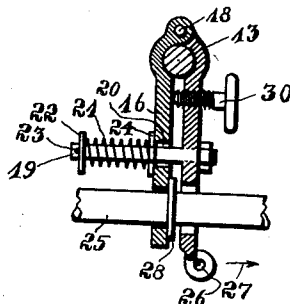


FIG. 5.

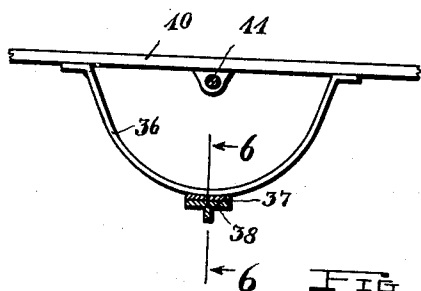


FIG. 6.

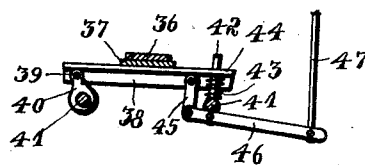
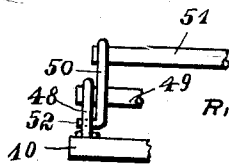
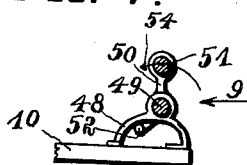


FIG. 7.



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UNITED STATES PATENT OFFICE

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HEALTH BALANCING BOARD

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Application March 8, 1937, Serial No. 129,660

1 Claim. (Cl. 272—55)

This invention relates to devices that may be used by any individual for resting and positioning for the purpose of healthful relaxation and reconditioning of the body and its different parts.

One of the objects of this invention is to provide a device upon which a person may rest in a stretched out position so designed that different parts of the body may be exposed to the sun or other influences.

Another object is to provide a device so designed that a person resting on it may adjust it while so resting, to bring different parts of the body to a higher level.

Another object is to provide a device so designed that a person's feet may take a sufficient hold to allow such different adjustments.

Other objects will appear from the following description and appended claim as well as from the accompanying drawing, in which—

Fig. 1 is a side elevation of a device designed according to this invention, one side frame portion and other parts removed to expose parts to be illustrated.

Fig. 2 is a fragmentary illustration of cooperating parts, somewhat schematically, as seen in the direction of the arrow 2 in Fig. 1.

Fig. 3 is a fragmentary side elevation of the control with an extra operator's lever.

Fig. 4 is an enlarged vertical mid-sectional view of the setting means for the supporting board.

Fig. 5 is a slightly modified form of a setting device for the supporting board in side view.

Fig. 6 is a cross section on line 6—6 of the setting-arch member of the modified form of Fig. 5, showing the control mechanism for holding the board by engaging with the arch-member.

Fig. 7 is a side view of the foot rest and support.

Fig. 8 is a side view of the tiltable toe-engaging member of the foot support.

Fig. 9 is a fragmentary view as seen in the direction of the arrow 9 in Fig. 7.

This is not a treatment or operating table, but a means to be used by individuals on and by themselves, though, of course, it does not mean that some one else could not help the individual resting on the tilting board.

It is a well enough known fact that the habitually adopted posture of human-beings has subjected the human race to many ailments, perhaps due to the difficulty, if ever so slight, of the blood to rise with sufficient ease to the upper parts of the human body.

On the other hand, not everybody can stand on the head for a suitable reversal of the normal posture, and a less than absolute reversal of posture would seem sufficient as long as the normally uppermost and lowermost parts are brought to a changed position to such an extent as to really

amount to a helpful change, sufficient to beneficially affect the blood circulation.

Moreover, it is not just the blood circulation that is affected by the normal posture of human beings, but many parts have the tendency to sag due to habits of years, particularly, such parts as the stomach, intestines, and even any accumulation of fleshy or fat substances about the abdomen.

Not only lack of proper exercises, but often the necessity of sitting at work will develop the tendency of undue relaxation of the muscles, to result in undue sagging of parts.

The principal feature had in mind with this invention involves therefore means for counteracting such a sagging comfortably, and at the same time furnishing the means whereby the human body, or any part requiring it, may be exposed to proper influences, such as sunlight, or heat.

As illustrated, a board 10 is tiltable mounted on a cross member 11 of a frame structure 12.

Such a board is preferably so designed and proportioned that a body may be as nearly as possible rested in a balanced condition on this tiltable board, so as to require only little effort to overbalance it one way or another.

In the form illustrated in Fig. 1, a bracing rod 13 is provided by means of which the tiltable board may be held in any adjusted position, one end of the rod being pivotally connected to the board, as indicated at 14, while the other end is slidably and adjustably disposed in a clutching, clamping, or setting device, indicated at 15.

This setting device is illustrated in detailed and enlarged scale, in a section along the lines 4—4 of Fig. 1 in Fig. 4. Two oppositely disposed jaws 16 and 17 are hingedly connected at 18. A bolt 19 is securely mounted in the jaw 17, while freely passing through the other jaw 16, for which purpose a suitably large aperture or slot 20 is provided in the jaw 16. A spring 21 is arranged in such a manner as to draw the bolt 19 through the aperture 20, a washer 22 being held in position by a pin 23 so that the spring 21 engages at one end against the washer 22 while the opposite end of the spring engages either directly against the outside of the jaw 16, or another washer 24 inserted to cover the aperture to prevent a catching of the spring in this aperture, the whole arrangement resulting in a drawing of the jaw 17 towards the jaw 16, to frictionally engage the jaws over the rod 13.

Inasmuch as the jaws are also mounted on the cross bar 25 of the main frame structure, the bracing rod 13 controls the setting of the supporting board 10.

For releasing this frictional engagement it is only necessary to separate the two jaws, for

which purpose one of the jaws is provided with an engaging or connecting member or portion 26.

While thus the jaw 17 may be moved or drawn in the direction of the arrow 27 against the tension of the spring 21, the other jaw 16 is held against such movement, or against following the movement of the jaw 17, by the stop 28 securely provided on the cross bar 25.

If for any reason the automatic clamping of the jaws is not desired or required, as when another person is helping the person resting on the board, for which case a handle 29 is provided on the board, as indicated in Fig. 1, the jaws may be separated by means of the set screw 30, indicated in Fig. 4, the board being practically balanced, as previously stated, it being an easy matter for any person to hold the board in any position while another person is resting thereon.

For actuating the jaw 17 by means of the member 26 in the direction of the arrow 27, a rod 31 and lever 32 connect with a handle 33, which is conveniently disposed for the person resting on the board 10.

In order to enable a person resting on the board to balance and hold himself or herself with respect to the main structure 12, a handle 34 is provided on each of the main end-frame portions of the main structure, near one of which the operating handle 33 is arranged in such a manner that the resting person may grasp the actuating handle 33 while also having a secure hold of the handles 34 on the two oppositely disposed end-frame portions.

By having a firm hold of both oppositely disposed main handles 34, the resting person may easily control the balancing of the board 10 as well as of the body resting on the balancing board, and the releasing or setting of the bracing may just as easily be accomplished since the actuating handle 33 is within easy reach of one of the main handles 34.

When another person is controlling the balancing, it is not necessary to eliminate the clamping jaws, since a lever 35 is conveniently located for such other person, whereby to actuate the jaws instead of by the handle 33, this lever being indicated in Fig. 3 in operative connection with the jaw actuating mechanism.

Instead of the brace 13 and the jaw mechanism, the slightly modified form illustrated in Figs. 5 and 6 may just as well be used, embodying an arch member 36 attached to the board 10, and a brake shoe 37, operative by the mechanism illustrated in Fig. 6.

The brake shoe 37 is mounted on a lever 38, which, in turn, is pivotally supported at one end as indicated at 39, by means of the link 40, which, in turn, is mounted on one of the cross bars 41 of the main framework. On another cross bar 41 of the main framework, a pin 42 is provided so that a spring 43 can be arranged to be maintained on this pin while the spring is inserted between the second-named cross bar 41 and the opposite end 44 of the lever 38 serving as a means for pressing the brake shoe 37 with sufficient force against the arch-member 36 to lock and hold the supporting board 10 in any adjusted position.

For releasing this type of setting device, a link 45 and a lever 46 connect to the same rod 47 that has the handle 33, to be operative in a similar manner as clamping device described above with reference to the illustrations in Figs. 1, 2, 3 and 4.

Though a person may hold to the handles 34

while resting on the board 10, foot-rests and engagements are also provided, illustrated in detail in Figs. 7, 8, and 9. A bracket 48 is arranged near each side edge of the board 10, at the foot end of the board, so that a pair of brackets at the opposite edges carry a bar 49, disposed across the board.

A pair of levers 50 are mounted to swivel on the bar 49 and, in turn, carry another bar 51, parallel to the bar 49. The levers 50 are provided with hook-ends 52, to engage with the brackets 48 in such a manner that the levers 50 may swing to a limited extent.

This arrangement is designed to facilitate a mounting of the structure by a person in such a manner that the person may step on the double bars to mount the structure.

A mounting is best accomplished when the board is disposed in the position illustrated in Fig. 1, with the foot rest at the lowermost end of the inclined board, so that a person may readily step on the foot-rest in order to take a proper position on the board 10.

When a person is stretched out on the board, the feet may be pushed between the two bars 49 and 51 by tilting the upper bar 51 in the direction of the arrow 53 until the feet can conveniently be inserted in the manner indicated at 54 in Fig. 1, the heel of the shoe of the person being quite securely locked between the bar 49 and the bar 51 and the bar 51 being designed to tilt far enough that the feet of the person resting on the board are really sufficiently locked in this hold that the board 10 may then be tilted to any desired position, eventually to bring the head of the person to a low position with the feet pointing distinctly higher, the resting person readily holding to the board by the toe-hold and by the hands on the handles 34.

The person, using this structure, being at all times able to control the tilting movements of the board, may make such adjustments so as to make the positions comfortable and desirable as well as to comply with anything suggested and advised, and this may readily be according to the advice of a doctor, to influence the blood circulation as well as to correct any displacements of parts of the body, or otherwise help the body.

Having thus described my invention, I claim:

In a device of the class described, a rest-member of elongated form to support a stretched-out person, the rest-member having a transverse pivot support at about its middle, a rigid stationary frame with means for pivotally and tiltably supporting the rest-member, a stationary handle on the frame within reach of a person resting on the rest-member for controlling the tilting movements of the rest-member, bracing means on the rest-member and in frictional engagement with the frame normally holding the rest-member in fixed position, and friction releasing means including a handle normally spaced from the first-named handle but within reach of out-stretched fingers of a hand on the first-named handle, the friction releasing movement of the friction releasing means being within contracting movement of the fingers while on the first-named handle to facilitate a steadying of the supported person while holding to the first-named handle and manipulating the friction controlling means with the same hand.

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