Feb. 9, 1971 E. JAMES 3,561,022

HEALTH SLANT BOARD

Filed Jan. 16, 1969

FIG. 1.

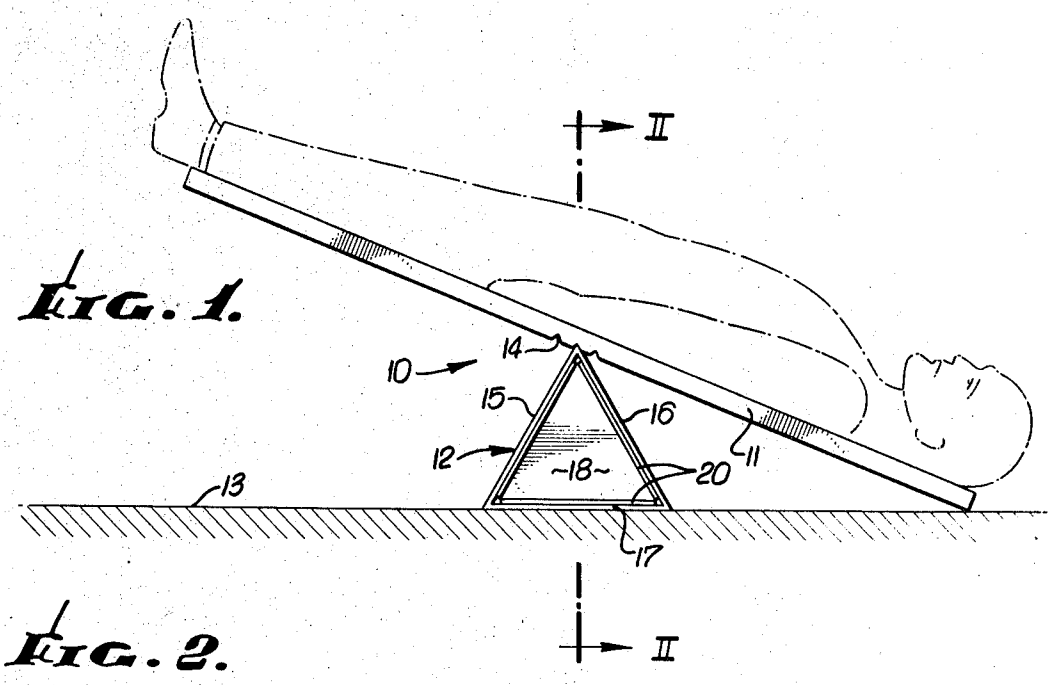


FIG. 2.

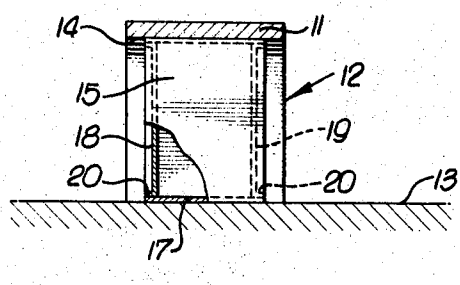
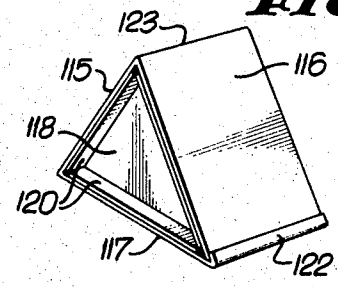


FIG. 3.

FIG. 4.



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HEALTH SLANT BOARD

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ABSTRACT OF THE DISCLOSURE

A board is provided on a support means to allow persons to selectively and optionally position themselves in semi-inverted and semi-upright positions, the support means being formed of a single sheet of metal bent into triangular configuration with triangular end pans positioned in the open ends of said sheet of metal. A retainer lip is provided on one end of the aforementioned sheet of metal to retain the support means in assembled position.

BACKGROUND OF THE INVENTION

This invention relates in general to slant boards utilized in positioning persons optionally in semi-upright and semi-inverted positions. More particularly, the present invention relates to such a health slant board apparatus wherein board means are provided in association with board support means in a manner to facilitate the optional placing of persons in semi-upright and semi-inverted positions.

It has been recognized heretofore that certain physical benefit can be attained by positioning the human body in a position with the head lower than the feet for selected short periods of time. This can be done by placing a pillow under a person's feet while lying prone in bed. It is an object of the present invention to provide means for allowing a person to easily and conveniently place himself alternately in semi-upright and semi-inverted positions. It is another object of the present invention to disclose and provide such an apparatus wherein the construction of board means and support means allows ease of assembly thereof and use of the apparatus by persons preparatory to and during use of the apparatus.

SUMMARY OF THE INVENTION

Generally stated, the present invention includes the provision of board means for supporting a person lying generally prone thereon. Board support means are also provided, including a base and an upper transverse, narrow bearing surface, to support the board means off of a floor surface. A transversely extending, concave journal surface is formed in an underside of said board means approximately midway along the major axis thereof to receive the aforementioned support bearing surface and thus position the board on the support means. The board means is selectively movable on said support means to place opposite ends of the board means alternately at the approximate level of the base or in a position at least two feet thereabove. A person lying upon the board means is thus able to move selectively between two slant positions wherein he or she is optionally either semi-upright or semi-inverted.

More particularly, the present invention is directed to the provision of a board support means including an assembly of a single sheet of sheet metal and two triangular pans. The sheet of metal is preferably bent into a triangular configuration having three sides and open axial ends. The triangular pans are assembled into the open ends of the bent sheet of metal to provide a triangular support means. One section of the sheet of metal can be made with a greater length to provide additional metal

which can form a retainer lip usable for retaining the assembled position as hereinafter described in detail.

It is believed that those skilled in the art will become aware of various additional advantages of the health slant board apparatus of the present invention as well as obtain a better understanding of the present invention from a consideration of the following detailed explanation of two exemplary embodiments thereof. Reference will be made to the appended sheet of drawings in which:

FIG. 1 is a side elevational view of a preferred exemplary embodiment of health slant board apparatus according to the present invention showing a person, in broken line, positioned on said slant board apparatus in a semi-inverted position;

FIG. 2 is a vertical sectional view of the apparatus of FIG. 1 taken therein along the plane II—II;

FIG. 3 is a side elevational view of an alternative embodiment of the health slant board apparatus of the present invention showing a person, in broken line, positioned on the board apparatus in a semi-upright position; and

FIG. 4 is a perspective view of an alternative exemplary embodiment of support means for the exemplary health slant board apparatus of FIG. 3.

A detailed explanation of two exemplary embodiments of health slant board apparatus, according to the present invention, will now be made. Referring first to FIGS. 1 and 2, a preferred exemplary embodiment of the health slant board apparatus of the present invention is indicated generally at **10**.

In the exemplary embodiment of FIGS. 1 and 2, the health slant board apparatus includes a board **11** selectively movable upon a support means, indicated generally at **12**, positioned on a floor **13**. A transversely extending, concave journal surface is formed in the underside of board **11** for allowing pivotal movement of board **11** upon the support, indicated generally at **12**. In the exemplary embodiment, such journal surfaces on the underside of board **11** are provided by the notches **14**.

Board support means, indicated generally at **12**, are preferably formed from a single sheet of metal, such as sheet metal, and a pair of triangular pans. As can be seen in FIGS. 1 and 2, a single sheet of sheet metal is bent into three sections **15**, **16** and **17** and assembled into a triangular configuration with triangular pans **18** and **19** positioned in the axial open ends of the bent metal sheet. Each of the pans **18** and **19**, as seen in FIG. 2, have surrounding sidewalls or flanges **20** integral with the bottom or web of the pan. These flanges of pans **18** and **19** can be soldered or otherwise secured to the sidewalls **15**, **16** and **17** of the aforementioned single sheet of sheet metal to form an assembled board support means, as indicated generally at **12**. Any one of the sides **15**, **16** or **17** can be used as the base, side **17** forming the base in the exemplary embodiment, with the opposed vertex of the triangular configured support means providing a transversely extending, narrow bearing surface to support the board means **11** via the associated concave journal surfaces **14**.

I have found in practice that the board **11** may be made approximately 64 inches long and 12 inches wide to provide adequate surface area to support persons of average size. A board of approximately 1 inch thick is convenient for such size boards. I have found that for taller and heavier than average persons, a board thickness of 1¼ to 2 inches and a longer board length of approximately 70 or more inches is suitable. In any event, the journal surfaces aforementioned should be positioned approximately midway along the major axis of the board to facilitate movement of the board with the person thereon between semi-inverted and semi-upright positions for the person on said board.

Referring now to FIGS. 3 and 4, an alternative exemplary embodiment of the health slant board apparatus according to the present invention is shown. In the alternative exemplary embodiment, the slant board apparatus includes a somewhat longer and heavier board **111** from **11** in the exemplary embodiment of FIGS. 1 and 2, supported on support means **112** positioned on the floor **113** with the person shown in broken in a semi-upright position. In this embodiment, board **111** is provided with a reinforcing board **121** which provides added strength to board **111**. A transversely extending concave journal surface **114'** is provided in the underside of reinforcing board **121** to allow selected movement of board **111** on support means **112** as in the aforedescribed exemplary embodiment.

In the alternative exemplary embodiment of FIGS. 3 and 4, support means **112** is preferably made from a single sheet of sheet metal bent into three sections **115**, **116** and **117**. Sections **115** and **116** are preferably of equal size. While section **117** has the same width as sections **115** and **116**, it is preferably made of greater length in order to form not only the third side, the base in FIGS. 3 and 4, of the support means but also to allow the provision of integral retainer lip or stop means **122**. Retainer lip **122** can be formed integrally with the base section **117** and bent upwardly as shown in FIG. 4 so that when the sheet metal, comprising sections **115**, **116** and **117**, is bent into the general triangular configuration of FIG. 4, the opposite free end of section **116** is received in and held within the retainer lip **122**. With the triangular pans **118** and **119** (**119** not being shown) assembled within the sections **115**, **116** and **117**, the base support hold itself in assembled relation without the need for additional soldering or fastening means due to the retention of the free end of section **116** to base **117** by lip **122**. This latter form of support base is easily adaptable for providing a portable, easily stored apparatus wherein the support means can be disassembled and placed in a semi-flat relationship with board **111**. When the board is to be placed in use, the sections **115**, **116** and **117** can be readily assembled about pans **118** and **119** and held in such assembled relation by lip **122**. The user can then place board **111** on the vertex portion **123** of the support means and, resting or laying upon board **111**, place himself selectively in semi-inverted or semi-upright positions for suitable periods of time. I have found that it is desirable in using the apparatus to lower the head 24 inches below the level of the feet for 2 or 3 minutes when in the semi-inverted position and then reverse the position for another 2 or 3 minutes, alternating as indicated for overall periods as much as 30 minutes.

From the foregoing, it can be seen that the health slant board apparatus according to the present invention allows a person using the same to place himself or herself selectively and optionally in semi-inverted or semi-upright positions for any desired period of time. The disclosed construction of support means allows the use of lightweight metals in a manner which provides a structurally strong support for supporting the moving weight of the board and person thereon during such movement between semi-upright and semi-inverted positions. It should be noted that the foregoing description is exemplary of the present invention only and that various modifications, adaptations, changes and alterations may be made by persons skilled in the art which come within the scope of the present invention which is defined and limited only by the following claims.

I claim:

1. A health slant board apparatus for use in maintaining persons in semi-inverted and semi-upright positions for selected periods of time comprising:

board means for supporting a person lying thereon, said board means having a lower surface with a concave journal surface formed therein approximately midway along the major axis thereof and adapted to be received on an edge of a support assembly; and

a board support assembly including a single metal sheet bent into a triangular configuration with three edges, three sides and axial open ends and two triangular pans, each of said pans having a web surrounded by side flanges and positioned within one of said pairs of axial open ends of said metal sheet to stiffen the same, one of said edges of the assembly pointing upwardly to receive the concave journal surface thereon to support the board means thereon, opposite ends of said board means being alternatively movable between the approximate level of a bottom side of said assembly lying opposite said one edge and a position at least two feet thereabove to move the person lying on said board means between two slant positions of said board means whereby said person is optionally semi-upright or semi-inverted.

2. The board as in claim **1** wherein said metal sheet is bent into three sections to form three sides, two of the adjacent sections being of equal size and the third section of a greater size than the two sections, said third section having an integral retainer lip formed therein to extend outwardly therefrom and to define a third side generally equal to the other sides, said retainer lip being engaged by the opposite edge of the sheet metal in the triangular configuration to retain the sheet metal in the triangular configuration despite the load of the board means thereon.

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U.S. Cl. X.R.

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