

[72] Inventor **Joseph J. Megal**
3443 North Menomonee River Parkway,
Milwaukee, Wis. 53222
 [21] Appl. No. **744,238**
 [22] Filed **May 24, 1968**
 [45] Patented **June 29, 1971**
Continuation-in-part of application Ser. No.
513,149, Dec. 9, 1965.

2,283,475 5/1942 Wagner 128/24
 2,467,724 4/1949 Baron 128/28
 2,773,499 12/1956 Zur Nieden 128/71 UX
 3,060,925 10/1962 Honsaker et al. 128/25

Primary Examiner—L. W. Trapp

Attorneys—John W. Michael, Gerrit D. Foster, Bayard H.
 Michael, Paul R. Puerner, Joseph A. Gemignani, Andrew
 O. Riteris and Spencer B. Michael

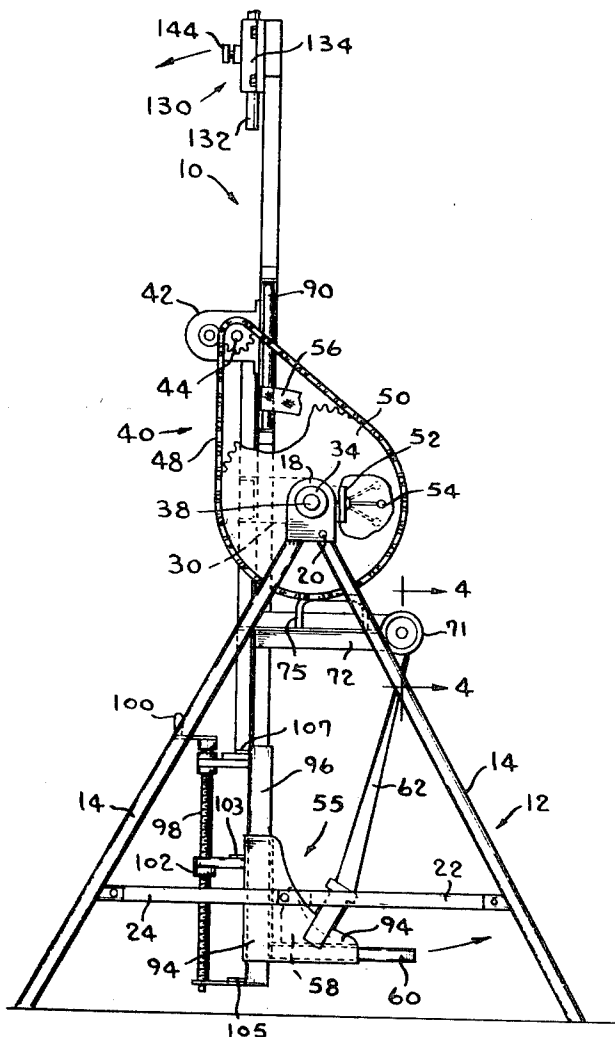
[54] **METHOD AND APPARATUS FOR TREATING
 BACK AND NECK SYNDROMES IN HUMANS**
 16 Claims, 17 Drawing Figs.

[52] U.S. Cl. 128/71
 [51] Int. Cl. A61f 5/00
 [50] Field of Search 128/24, 25,
 33, 28, 68—71; 5/62; 108/6—8; 272/33, 49, 55

[56] **References Cited**
UNITED STATES PATENTS

3,388,700 6/1968 Mountz 128/24
 3,081,085 3/1963 Girolamo 128/24 UX
 3,152,802 10/1964 Heisler et al. 128/24 UX
 1,644,043 10/1927 Tiedemann 128/68 UX

ABSTRACT: Apparatus for treating back and neck ailments including a frame having a body support member or table pivotally mounted thereon. The table member has a foot-anchoring mechanism mounted thereon and a drive means for pivoting the table on the frame. The patient is placed on the table in either a horizontal or vertical position and his feet are anchored to the table. The table is then pivoted by the drive means to gradually place the spinal column in traction by gravitational force as the patient's body is tilted to a position wherein the head is moved below and the feet are moved above the horizontal. Relief is usually obtained by tilting the patient to about 30°—45° below the horizontal. The patient is held in the tilted position for about 6 minutes and then returned to an upright or horizontal position for about 1 minute. This procedure is repeated approximately 4 times per individual treatment.



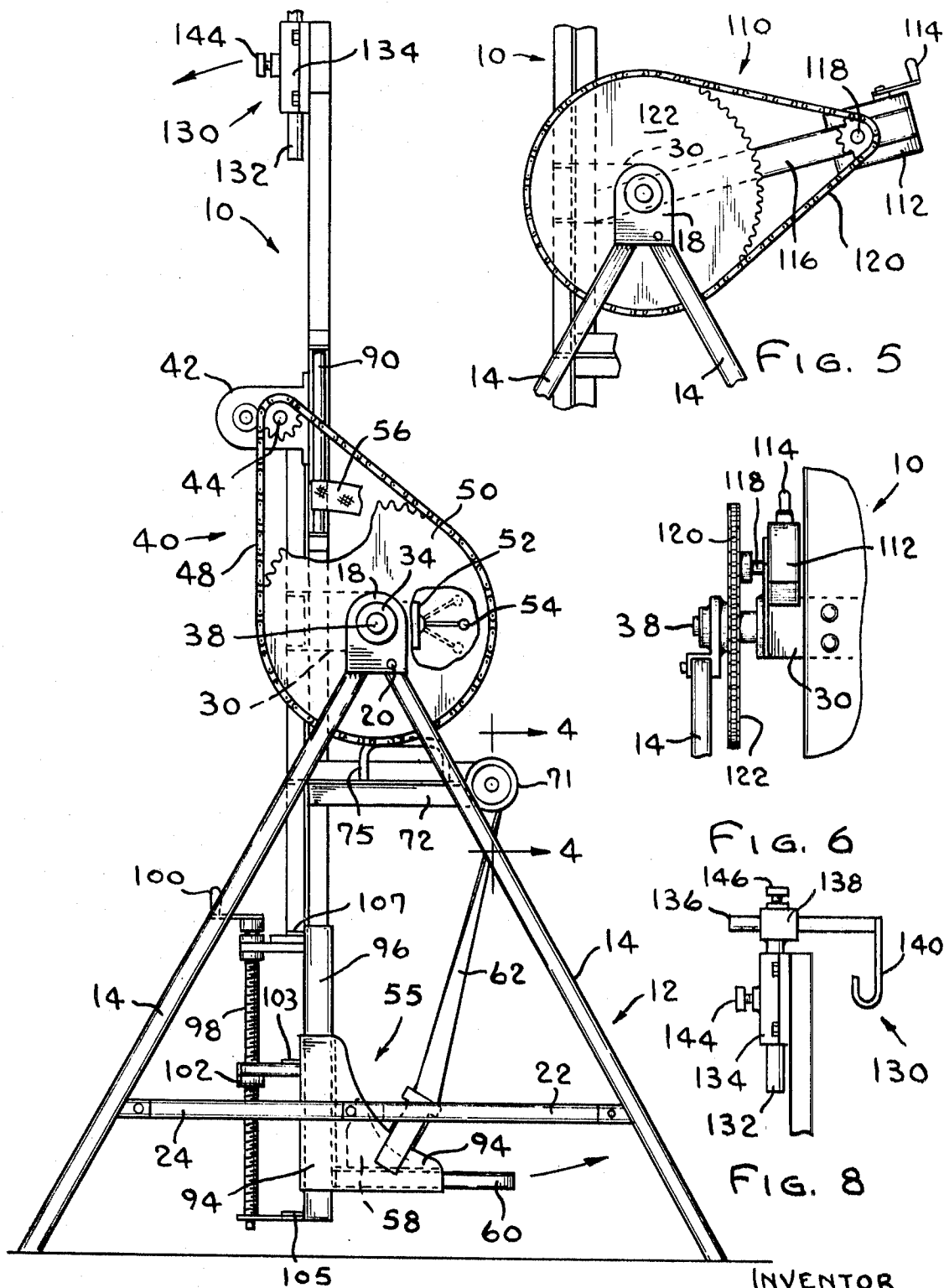


FIG. 1

INVENTOR
JOSEPH J. MEGAL

BY *Paul R. Puerner*
ATTORNEY

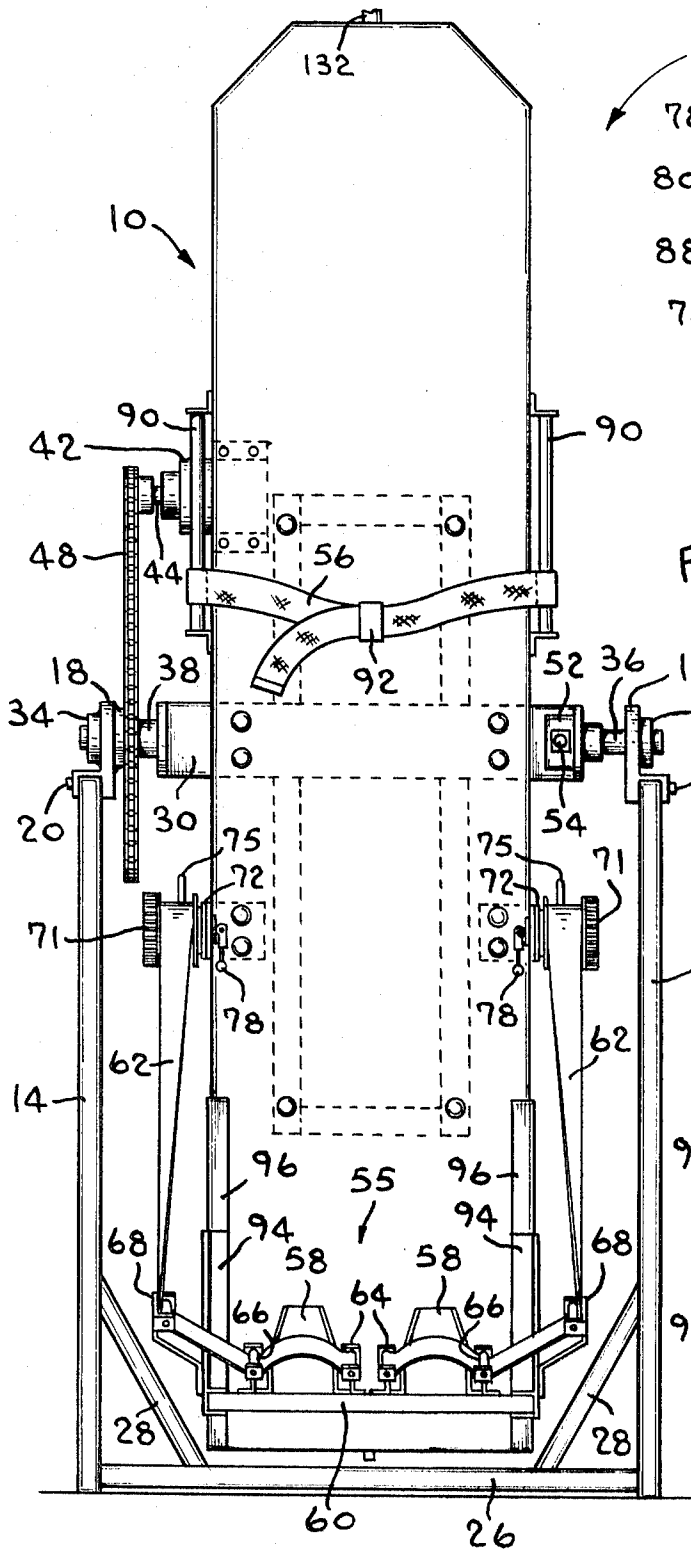


FIG. 2

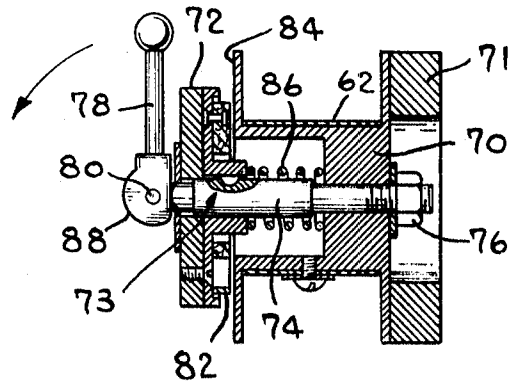


FIG. 4

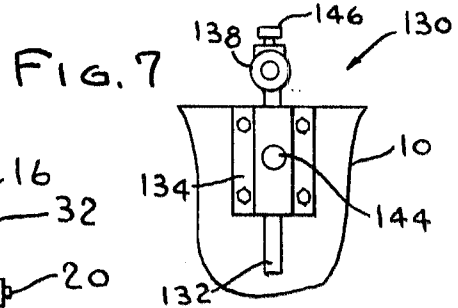
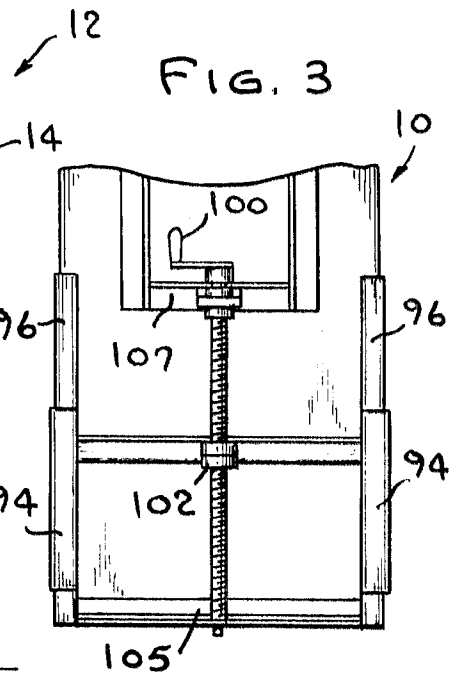


FIG. 7



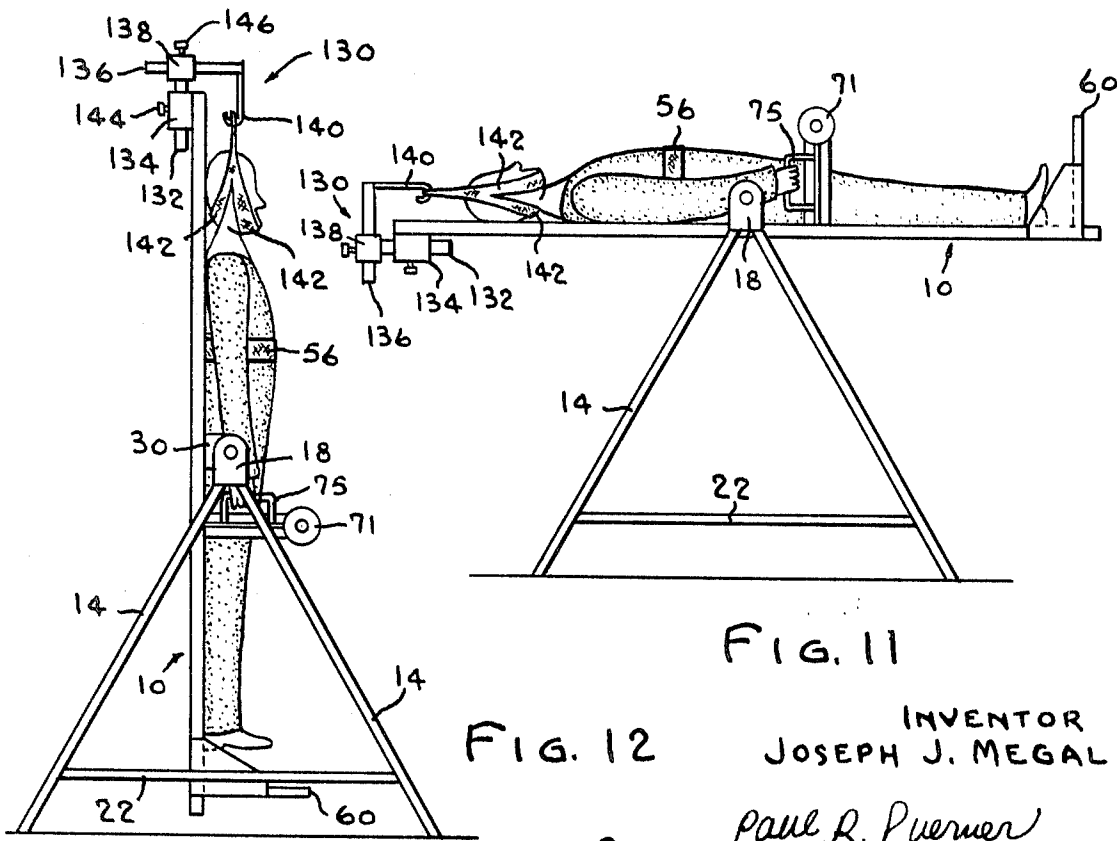
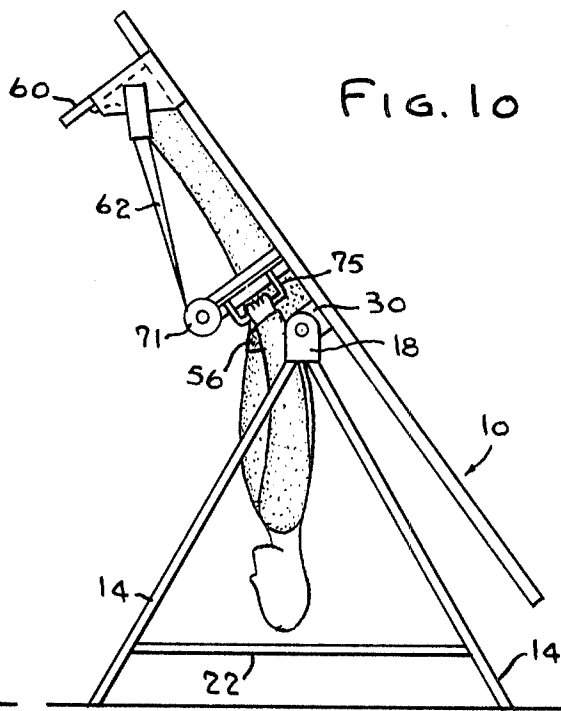
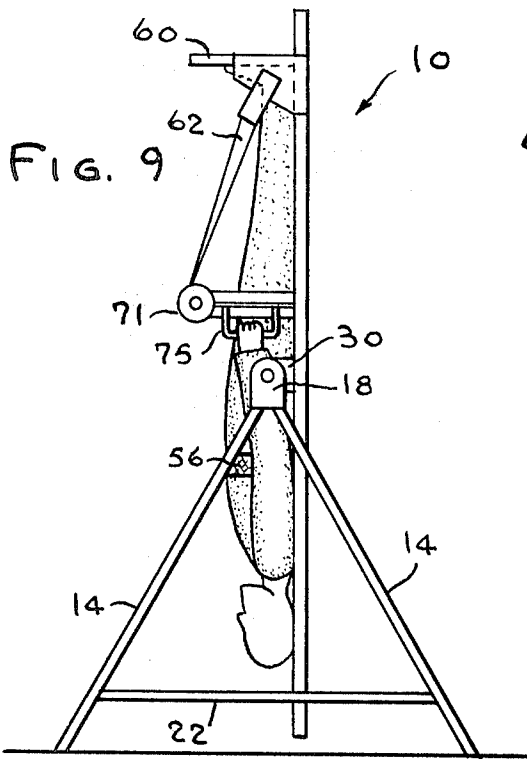
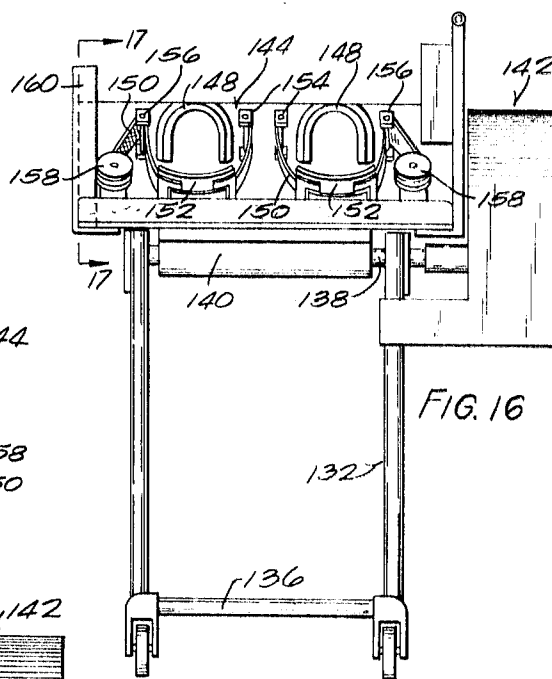
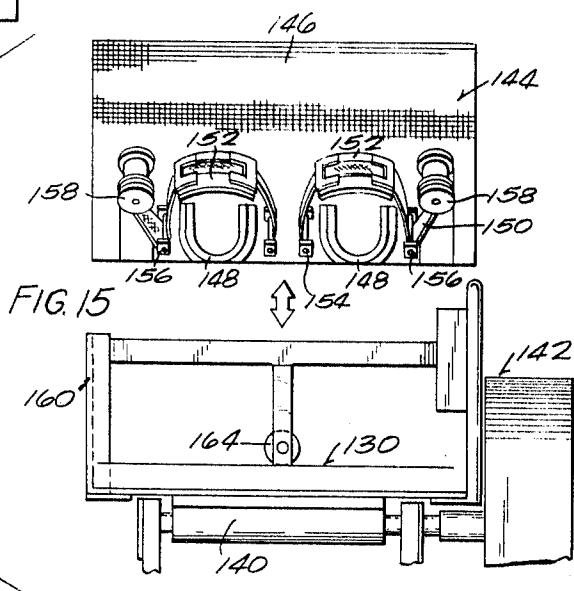
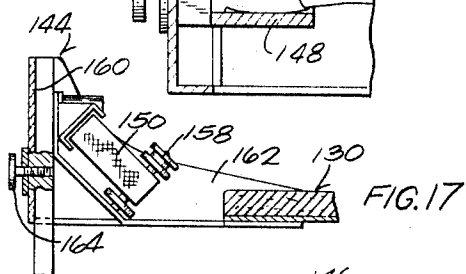
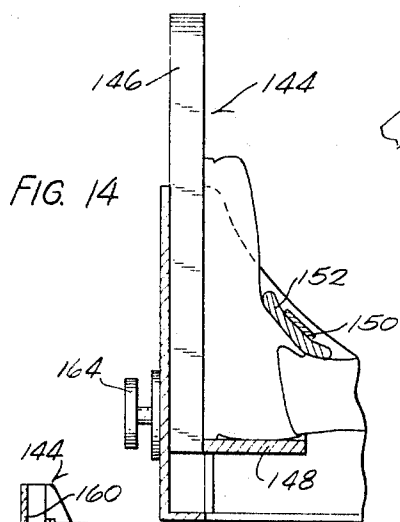
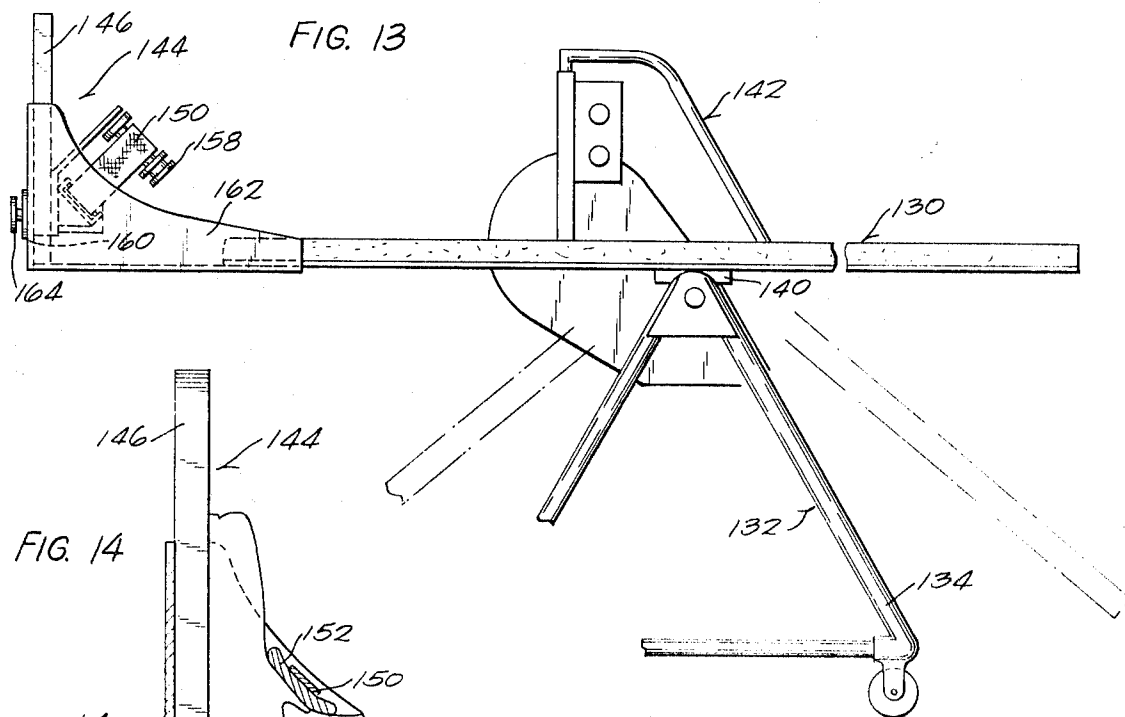


FIG. 11

FIG. 12

INVENTOR
JOSEPH J. MEGAL

By *Paul R. Puerner*
ATTORNEY



INVENTOR
JOSEPH J. MEGAL

BY *Paul R. Puermer*
ATTORNEY

METHOD AND APPARATUS FOR TREATING BACK AND NECK SYNDROMES IN HUMANS

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part of application Ser. No. 513,149 filed Dec. 9, 1965.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to an improved method and apparatus for treating low back and neck syndromes in humans.

2. Description of the Prior Art

Back ailments, particularly among men, present an increasingly serious health problem. It has been recognized that one effective treatment for back ailments is to somehow place the spinal column of the patient under traction. None of the prior art devices and/or methods, to applicant's knowledge, has proven successful from the stand point of effectiveness and/or acceptance by the medical profession. As will be explained hereinafter the present method and apparatus has, after experimentation by several orthopedic surgeons, provided beneficial results in a great majority of cases.

SUMMARY OF INVENTION

The principal object of this invention is to provide an improved apparatus which will perform the required back tensioning safely, efficiently, and at a reasonable cost. Another object is to provide an effective method of using the apparatus.

The objects of this invention are attained by apparatus comprising a portable frame structure having a body support member or table pivotally mounted thereon. The body support member is provided with a foot-anchoring mechanism of improved design adapted to hold and anchor the user's feet when the member is pivoted on the frame. Such foot-anchoring mechanism includes a foot support member on which the feet of the user rest when in upright position and a pair of specially designed heel cups, one for each foot. A strap member is provided for each foot and positioned to be tightened across the tops of the user's feet to hold the feet against the heel cups. A belt-tightening mechanism is provided for each strap which includes a tightening drum mounted on opposite sides of the body support member at a location within easy reach of the user's hands and a drum-locking mechanism for each drum to lock the drums in tightened position. The anchoring mechanism not only provides a safe means for holding the user on the body support member but, in addition, is designed for ease of operation by the user himself thus requiring no additional attendant for operation of the apparatus.

The apparatus further includes a drive means for pivoting the body support member on the frame. Such drive means includes a stationary gear member mounted on the frame, a drive gear mounted on the body support member, and a drive chain member mounted between said drive gear and said stationary gear. The drive gear may be driven either by an electric motor mounted on the body support member or manually by means of a gear box mounted on the body support member. When a drive motor unit is used a control switch is provided which is positioned on the support member at a place convenient to the user so that the user himself can readily operate the apparatus.

In use the user steps into the apparatus with his back positioned against the body support member and his feet resting in the heel cups provided. The foot straps are then tightened and locked in place by the user and a chest strap is fastened in place. The user then pivots the body support table to any desired position by actuating the motor control (or manual gear box) in the proper manner. As the body support table is pivoted the weight of the user acts to gradually place the spinal column in traction. The degree of tension can be accurately controlled by controlling the position of the table. More

specifically, best results are obtained by tilting the patient to about 30°—45° below the horizontal, holding the patient in such position for several minutes, tilting the patient back to at least a horizontal position and then repeating the procedure several times.

The body support member is further provided with an adjustable chin strap above the user's head. In use the user steps onto the foot support member but does not tighten the foot straps but proceeds to tilt himself back to a substantially horizontal position wherein he can easily slide himself on the board to slip into the chin strap. He then tilts himself back toward the upright position to put the desired degree of tension in his neck and upper spinal column.

A modified form of the apparatus particularly designed for ambulatory patients is also disclosed herein. This embodiment is designed to provide unobstructed access to the body support table from at least one side to facilitate placement of a patient thereon while in a prone position. This embodiment is also provided with a specially designed foot anchoring mechanism which can be reversed to accommodate patients with either their back or abdomen facing the support table.

Other objects and advantages will be pointed out in, or be apparent from, the description and claims, as will obvious modifications of the several embodiments shown in the drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevation view of the back-tensioning apparatus of this invention;

FIG. 2 is a front elevation view of the apparatus shown in FIG. 1;

FIG. 3 is a fragmentary rear elevation view of the apparatus shown in FIG. 1;

FIG. 4 is a fragmentary enlarged sectional view taken along line 4-4 of FIG. 1;

FIG. 5 is a fragmentary side elevation view of a modified form of the apparatus shown in FIG. 1;

FIG. 6 is a fragmentary front elevation view of the structure shown in FIG. 5;

FIG. 7 is a fragmentary front elevation view showing the adjustable chin strap mechanism;

FIG. 8 is a fragmentary side elevation view showing the chin strap mechanism;

FIG. 9, 10, 11 and 12 are partially schematic views showing the various ways in which the apparatus may be used;

FIG. 13 is a side elevation view of a modified version of the apparatus (with parts broken away);

FIG. 14 is an enlarged fragmentary side view of the foot anchoring mechanism;

FIG. 15 is a fragmentary end elevation view of the foot anchoring mechanism showing how it can be slidably removed as a unit;

FIG. 16 is an end elevation view similar to FIG. 15 but with the foot anchoring mechanism in reversed position for use with a patient lying on his abdomen; and

FIG. 17 is a fragmentary side elevation view taken along line 17-17 of FIG. 16.

Referring to the drawings in detail, FIGS. 1-4 show one embodiment of the invention which includes a body support member or table 10 rotatably mounted on a frame 12. Frame 12 comprised of two sets of A-frame members 14, the front leg of each vein pivotally connected to bearing supports 16 and 18 by pivot pins 20. The A-frame members 14 are braced to each other by foldable cross brace members 22 and 24 and the two A-frames are interconnected across the front and back by bracing members 26. Additional strengthening braces 28 are also provided. It will be appreciated that the frame structure described above can be readily collapsed for portability and storage by simply pivoting cross brace members 22, 24 upwardly thus causing the two legs of A-frames 14 to be pivoted toward each other.

Support member 10 is pivotally mounted on the frame by means of a channel member 30 to which the support member is bolted. Channel member 30 in turn is pivotally mounted in bearings 32, 34 by stub shafts 36 and 38.

In the FIGS. 1-4 embodiment the body support member or table 10 is pivoted on the frame 12 by a drive mechanism 40. Such drive mechanism is comprised of a combination motor unit and gear box 42 mounted on the back of the board which is drivingly connected to a drive pinion gear 44. A driving connection between pinion 44 and board 10 is provided by means of a chain member 48 and a stationary gear member 50 of relatively large diameter which is welded or otherwise secured to the bearing support 18.

Thus it will be seen that when the motor 42 is energized to rotate drive pinion 44 in the counterclockwise direction as viewed in FIG. 1, a driving movement will be imparted to the board 10 by the action of chain member 48 and stationary gear 50. Such counterclockwise rotation of the pinion will cause the board to be pivoted in a backward or counterclockwise direction as indicated by the arrows in FIG. 1.

The operation of drive motor 42 is controlled by a three-position control switch 52 having an actuating lever 54. The switch is designed to energize the motor in one direction when arm 54 is actuated to one driving position and to energize the motor in the opposite direction when the arm is actuated to the other position. The two driving positions of arm 54 are shown in dotted lines in FIG. 1. When the switch is positioned in the middle or neutral position the motor will be deenergized. It should be noted that both motor drive 42 and control switch 52 are mounted on member 10 to thus make it easy for the user himself to control the operation of the apparatus.

To securely anchor and support the user's body on support member 10, a foot-anchoring mechanism 55 and a chest strap mechanism 56 are provided. The foot-anchoring mechanism 55 is comprised of two separate identically constructed mechanisms, one for each foot. Since these two mechanisms are of identical construction only one will be described in detail herein. Each mechanism 55 includes a heel cup 58 mounted on the body support member. Heel cup 58 (as shown in dotted lines in FIG. 1 and in full lines in FIG. 2) is curved to fit around the rear of the foot and ankle of the user and is bent inwardly at the top portion thereof to provide a heel-receiving pocket to provide firm and secure engagement with the user's feet and ankles. A foot support 60 is provided across the bottom of the board adjacent the heel cups 58 on which the bottoms of the user's feet rest when the board is in its vertical position as shown in the drawings. The feet of the user are securely anchored in heel cups 58 on member 60 by means of strap members 62. Each strap is anchored on the inside of the foot by means of a bracket 64. The straps are reeved over a pair of rollers 66 and 68. Rollers 66 are mounted adjacent the stirrups and on the outside thereof and rollers 68 are mounted adjacent the board 10 on opposite sides thereof above the level of foot board 60 at a position where they can be conveniently manipulated by the user when he is on the table.

Straps 62 are tightened across the top of the user's feet by means of a pair of tightening drums 70, the detailed construction of which is shown in FIG. 3. Each drum 70 is rotatably mounted on a bracket 72 bolted to opposite sides of the board 10 about at the level at which the user's hands will be positioned when the user is supported in the apparatus. Gripping handles 75 are provided on each bracket 72 as shown in FIG. 1. The drums are rotatably mounted on the brackets 72 by means of rod members 74 having nuts 76 threaded on one end thereof to hold the tightening drum 70 thereon. A locking handle 78 is pivotally mounted on the other end of rod 74 by a pin 80. Locking cams 88 are formed at the base of each handle as shown. Each bracket 72 is provided with a brake-lining member 82 mounted thereon between the bracket and one face 84 of the tightening drum 70 as shown clearly in FIG. 3. Drum 70 is provided with a turning knob portion 71 and rod 74 is prevented from rotating by a key and slot arrangement 73 between the rod and bracket 72.

With the parts shown in the FIG. 3 position, the spring 86 mounted between the bracket and the drum will force the drum out of engagement with brake-lining member 82 leaving the drum free to be rotated by means of knob 71. Thus, with the parts so positioned each strap member 62 can be tightened across the top of the foot by rotating the drum 70 until the strap becomes tight. To lock the parts in strap-tightened position, handle members 78 are pivoted about pins 80 to cause cam members 88 to force face 84 on each drum 70 into tight engagement with the brake-lining members 82. The feet of the user are thus securely anchored in the heel cups.

The chest strap means 56 is mounted between a pair of rod members 90 mounted on either side of the board at chest level. Straps 56 are slidable on rods 90 to permit vertical adjustment of the straps. The chest straps are provided with a buckle 92 of any suitable type which can be adjusted and locked into place across the chest of the user.

The relative position between the foot-anchoring mechanism 54 and the chest belt 56 can be adjusted as shown in FIG. 3. The foot-anchoring mechanism is mounted for slidable movement with respect to the board as a whole by means of telescoping channel members 94 and 96 mounted on the foot support mechanism and the board, respectively. The foot-anchoring structure can be moved with respect to the board by means of a threaded rod 98 having a handle 100 mounted on one end thereof which, when rotated in a threaded collar 102 fastened to a crossmember 103, will cause the foot support 55 to move with respect to the board 10. The ends of rod 98 are journaled in brackets 105 and 107.

As shown in FIGS. 7 and 8, the board 10 is provided with an adjustable chin-strap support mechanism 130 comprising a first member 132 slidably mounted in a bracket 134 fastened to the rear face of the board and a second member 136 slidably mounted in a collar 138 mounted on the upper end of the first member and having a hook portion 140 on which a medical-type chin strap 142 of conventional design can be attached. The position of strap 142 can be adjusted up and down and in and out from the board 10 by means of adjustment knobs 144 and 146 on bracket 134 and collar 138, respectively. The manner in which the chin strap mechanism is used will be described hereinafter under the heading "Operation."

A modified drive mechanism 110 is shown in FIGS. 5 and 6. Mechanism 110 is comprised of a gear box 112 mounted on board 10 by means of a bracket 116. Gear box 112 is provided with an actuating handle 114 which is operatively connected to a drive pinion gear 118. Just as in the FIGS. 1-4 embodiment, a driving connection between pinion 118 and board 10 is provided by means of a chain member 120 and a stationary gear member 122 of relatively large diameter mounted on bearing support 18.

To operate mechanism 110, the user simply rotates handle 114 in the desired direction to thereby pivot board 10 on the frame.

A modified embodiment of the invention particularly designed for unambulatory patients is shown in FIGS. 13-17. As shown in FIG. 13, a body support member or table 130 is rotatably mounted on a frame 132 comprised of a pair of A-frame members 134, 134 interconnected by suitable cross braces 136. The frame is provided with wheels 136 for improved portability of the unit. Support table 130 is pivotally mounted on frame 132 by means of a shaft 138 mounted between the top portions of A-frame members 134, 134. A mounting bracket 140 fastened to the rear face of the table 130 is rotatably mounted on shaft 138. It is significant to note at this point that the level of the pivoted axis of the table (shaft 138) is below the level of table 130 when in a horizontal position.

The table 130 is pivoted on frame 132 by means of a drive mechanism 142 mounted at one side of the table. The detailed construction of drive mechanism 142 may be the same basic design as previously described drive mechanism 40 and thus will not be described in detail herein.

By pivotally mounting table 130 on the top of frame 132 in the manner previously described, unobstructed access to the table from at least one side thereof is provided to facilitate placement of a patient thereon while in a prone position. The frame 132 may be dimensioned to position table 130 (when horizontal) at the approximate height of a hospital bed to facilitate movement of a patient directly from his bed onto the table for treatment.

To anchor the patient's body on table 130, a foot-anchoring mechanism 144 is provided. Mechanism 144 is comprised of a foot support platform 146 on which the bottoms of the patients feet rest as shown in FIG. 14. A pair of heel cups 148 are fastened to platform 146 and are designed to fit around the heels and ankles of the patient. The feet of the patient are securely anchored in heel cups 148 on platform 146 by means of strap members 150. Each strap 150 is provided with a foot-engaging pad member 152 and is anchored on the inside of the foot by means of brackets 154. The straps are reeved under a pair of brackets 156 mounted on platform 144 on the outside of heel cups 148 as clearly shown in FIG. 15. Straps 150 are tightened across the patient's feet by means of a pair of tightened drums 158 mounted on platform 144 adjacent brackets 156. The construction of drums 158 may be like previously described drums 70 and thus will not be described in detail herein.

A unique feature of this embodiment is the reversibility of foot anchoring mechanism to accommodate patients on table 130 while lying on either their back or their abdomen. This is accomplished by slidably mounting platform 144 on table 130 in a pair of channel members 160 fastened to opposite edges of table 130 by means of brackets 162. Channel members 160 are positioned to slidably receive platform 144 in either the position shown in FIG. 15 or the position shown in FIG. 16. A locking screw 164 is provided to securely hold the platform in either of these two positions. Thus with the platform positioned as shown in FIGS. 13 and 14 a patient lying on his back can be treated. When it is desired to treat a patient while lying on his abdomen, the platform is simply removed as shown in FIG. 15, reversed, and then reinstalled as shown in FIG. 16.

OPERATION

To use the above-described apparatus the user will first adjust the foot-anchoring mechanism 55 on board 10 to accommodate his particular height. He will then step into the heel cups 58 on ledge member 60 with his back against the board and with the board positioned as shown in FIGS. 1 and 2. He will then tighten the foot straps 62 across the tops of his feet by manipulating belt drums 70 as previously described. When the straps are tight the drums are locked in place by pivoting handles 78 in the direction shown by the arrow in FIG. 4. With the feet securely anchored in place the user will attach chest strap 56 across his chest and he will then be ready to use the apparatus. The body support member with the person thereon can be pivoted to any desired position by actuation of switch control arm 54 (or handle 114). Normally the drive motor will be energized to pivot the board slowly backwardly thus causing the weight of the body to gradually be exerted by gravity on straps 62 and thus place the spinal column in traction. The degree of traction can be accurately controlled by the position of the board. For maximum traction the board is rotated 180° from the position shown in FIG. 1 to the position shown in FIG. 9 in which position the person on the board will be in completely inverted position. The user, by rotating board 10 to various positions can provide very valuable therapeutic treatment to his body. When the treatment is completed the motor will be actuated in the opposite direction causing the board to return to its original position. The user will then stop the motor, unbuckle the chest belt, loosen the foot straps, and step out of the apparatus.

It should also be noted that when desired the board 10 can be rotated past the 180° position of FIG. 9 to a position like that shown in FIG. 10. When this type of treatment is desired

the strap 56 is adjusted downwardly on rods 90 so that it fits across the hips of the user. With the belt thus positioned the user can rotate the board to the FIG. 10 position and proceed to exercise his back and stomach muscles while his spinal column is in traction.

While as indicated, the apparatus may be used in various ways, experience has verified that the preferred method is as follows. All abdominal corsets and supports are removed prior to treatment. With the patient lying on his back on the table his feet are anchored thereon and a pillow is folded under the knees in order to raise them off the table and thus reduce the lumbar curve. In acute cases a hydrocollator pack of the cervical type is placed around the neck in order to cause forward flexion and in less acute cases a towel is rolled and placed under the neck posteriorly to cause forward flexion which in turn tends to bring the spinal column to a more natural position.

The table is then pivoted to a position wherein the head is moved below and the feet are moved above the horizontal. Such tilting action will gradually cause the spinal column to be placed in traction by the force of gravity. Experience has established that with most patients relief is usually obtained by tilting the patient to about 30°—45° below the horizontal. When relief is obtained the tilting movement is stopped and the patient is held in such position for a period of about 6 minutes. The patient is then returned to at least a horizontal position for about 1 minute. The procedure is then repeated three to five times per treatment. Patients are advised not to eat or consume liquids one hour before a treatment because of possible undesirable gastric reactions. Statistical studies have established that the procedure described above will produce beneficial results in a great majority (72 percent) of the patients treated.

An alternative use for the above-described apparatus is shown in FIGS. 11 and 12. Such alternative use involves the tensioning of the upper portion of the spinal column by the use of the chin-strap mechanism 130. The straps involved are to first step onto the ledge member 60 with the user's back against the board and with the board positioned as shown in FIGS. 1 and 2. Chest strap 56 is buckled but foot straps 62 are not tightened. The drive means is then actuated to pivot the board back to a substantially horizontal position (FIG. 11) wherein the user can easily slide himself on the board to enable him to slip his head into the chin strap 142. It will be noted that the chin-strap mechanism has been adjusted beforehand to a position wherein the strap will hang at an elevation somewhat above the head of the user when he is standing on ledge 60. With the chin strap in place on the user he simply actuates the board back toward the upright position to thereby place his upper spinal column in traction to whatever degree is desired. Maximum traction is provided in the substantially vertical position like that shown in FIG. 12.

It will be appreciated that the entire treatment described above can be easily performed by the user without the help of any additional attendants. The foot straps can be tightened by the user without undue stretching and straining and once tightened provide a safe effective anchoring means for the body when the apparatus is used. The same is true of the chin strap 142. Furthermore, it will be noted that the apparatus is not excessively bulky or heavy and can be folded for ease of portability when desired.

The procedure followed in the use of the FIG. 13—17 embodiment is essentially the same as that employed in the FIG. 1—4 embodiment except that in the former the patient is placed on the table in a prone position and helped by an attendant as necessary to anchor his feet and to position his knees and head as required.

Although several embodiments of the present invention have been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claims.

I claim:

1. A therapeutic apparatus comprising:

a frame;

a body support member pivotally mounted on said frame;
 foot-anchoring mechanism mounted on said body support
 member adapted to hold and anchor the user's feet when
 said member is pivoted on said frame; and
 drive means for pivoting said body support member on said
 frame, said drive means including a stationary gear
 member mounted on said frame, a drive gear mounted on
 said body support member, and a drive member mounted
 between said drive gear and said stationary gear.

2. A therapeutic apparatus according to claim 1 in which
 said drive means further includes a reversible motor mounted
 on said body support member and operatively connected to
 said drive gear.

3. A therapeutic apparatus according to claim 2 in which
 said reversible motor is controlled by a control switch
 mounted on said body support member to facilitate control of
 the apparatus by the user.

4. A therapeutic apparatus according to claim 1 in which
 said drive gear is driven manually by the user by means of a
 gear box mechanism mounted on said body support member.

5. A therapeutic apparatus according to claim 1 in which
 said foot-anchoring mechanism includes a foot support
 member on which the feet of the user rest when in upright
 position, a pair of heel cups one for each foot, a strap member
 one for each foot positioned to be tightened across the tops of
 the user's feet, and a tightening mechanism for each strap, said
 tightening mechanism including a tightening drum mounted
 on opposite sides of said body support member, and a drum
 locking mechanism for each drum to lock said drum in
 tightened position.

6. A therapeutic apparatus according to claim 5 in which
 each of said drum locking mechanisms includes a shaft on
 which a tightening drum is rotatably mounted, a stationary
 braking member mounted adjacent one face of each tighten-
 ing drum, and a locking cam pivotally mounted on one end of
 each shaft which when actuated will force said drum into
 locking engagement with said braking member.

7. A therapeutic apparatus according to claim 1 in which
 said frame includes a pair of A-frame members, the legs of
 which can be pivoted together for ease of portability.

8. A therapeutic apparatus comprising:

a frame;

a body support member pivotally mounted on said frame;
 foot-anchoring mechanism mounted on said body support
 member adapted to hold and anchor the user's feet when
 said member is pivoted on said frame, said foot support
 mechanism including a foot support member on which
 said user is supported when in upright position, a heel cup
 for each foot, a strap member for each foot positioned to
 be tightened over the tops of the user's feet, and a tighten-
 ing mechanism for each strap, each tightening mechanism
 including a tightening drum mounted on the side of said
 body support member, and a drum-locking mechanism
 for each drum adapted to lock said drum in tightened
 position; and

drive means for pivoting said body support member on said
 frame.

9. A therapeutic apparatus according to claim 8 in which
 said drive means includes a stationary gear mounted on said
 frame, a drive gear mounted on said body support member,
 and a drive member mounted between said drive gear and said
 stationary gear.

10. A therapeutic apparatus according to claim 9 in which
 said drive means further includes a reversible motor and a
 control switch mounted on said body support member, said
 motor being operatively connected to said drive gear.

11. A therapeutic apparatus according to claim 8 in which
 each of said drum-locking mechanism includes a shaft on
 which a tightening drum is rotatably mounted, a stationary
 braking member mounted adjacent one face of each tighten-
 ing drum, and a locking cam pivotally mounted on one end of
 each shaft which when actuated will force said drum into
 locking engagement with said braking member.

12. A therapeutic apparatus comprising:

a frame;

a body support member pivotally mounted on said frame
 and adapted to support a user's body thereon;

a foot-anchoring mechanism mounted on said body support
 member, said foot-anchoring mechanism including a first
 foot support means for supporting the user thereon when
 in a first position of said body support member wherein
 the user's feet are below his head and a second foot sup-
 port means for supporting the user thereon when in a
 second position of said body support member wherein the
 user's feet are above his head, said second foot support
 means including a strap member for each foot adapted to
 be tightened over each of the user's feet and a tightening
 mechanism for each strap mounted on said body support
 member at a location within easy reach of the user's
 hands; and

drive means for pivoting said body support member back
 and forth between said first and second positions.

13. A therapeutic apparatus according to claim 12 in which
 said second foot support means further includes a pair of heel
 cups one for each foot, said heel cups being curved to fit
 around the rear of the foot and ankle of the user and being
 curved inwardly at the top portion thereof to provide a heel
 receiving pocket to provide firm and secure engagement with
 the user's feet and ankles.

14. A method of treating back and neck syndromes in hu-
 mans comprising the steps of:

positioning a patient on a pivotally mounted body support
 table with his back against the member;

pivoting the table to the rear until the patient's head is tilted
 below his feet slightly to permit easy sliding movement of
 the patient on the table toward the head end of the table;

sliding the body toward the head end of the table;

attaching a head support member to the head;

pivoting the table forwardly to gradually place the user's
 spinal column in traction by the force of gravity.

15. A therapeutic apparatus comprising:

a frame;

a body support member pivotally mounted on said frame
 and adapted to support a user's body thereon;

a foot-anchoring mechanism mounted on said body support
 member, said foot-anchoring mechanism including a first
 foot support means for supporting the user thereon when
 in a first position of said body support member wherein
 the user's feet are below his head and a second foot sup-
 port means for supporting the user thereon when in a
 second position of said body support member wherein the
 user's feet are above his head, said foot-anchoring
 mechanism being removably mounted on said body sup-
 port member to permit reversing the position thereof to
 accommodate patients with either their back or abdomen
 facing the body support member; and

drive means for pivoting said body support member
 between said first and second position.

16. A therapeutic apparatus comprising:

a frame;

a body support member pivotally mounted on said frame,
 said body support member adapted to support a user's
 body thereon and to pivot on said frame whereby the
 user's feet are below his head in some positions and the
 user's feet are above his head in other positions; and

a foot-anchoring mechanism mounted on said body support
 member, said foot-anchoring mechanism including a first
 foot support means for supporting the user thereon when
 in a first position of said body support member wherein
 the user's feet are below his head and a second foot sup-
 port means for supporting the user thereon when in a
 second position of said body support member wherein the
 user's feet are above his head, said second foot support
 means including a strap member for each foot adapted to
 be tightened over each of the user's feet and a tightening
 mechanism for each strap mounted on said body support
 member at a location within easy reach of the user's
 hands.