

June 7, 1949.

A. I. MUELLER

2,472,675

SIDE POSTURE CHIROPRACTIC ADJUSTING TABLE

Filed Oct. 31, 1946

3 Sheets-Sheet 1

FIG 1

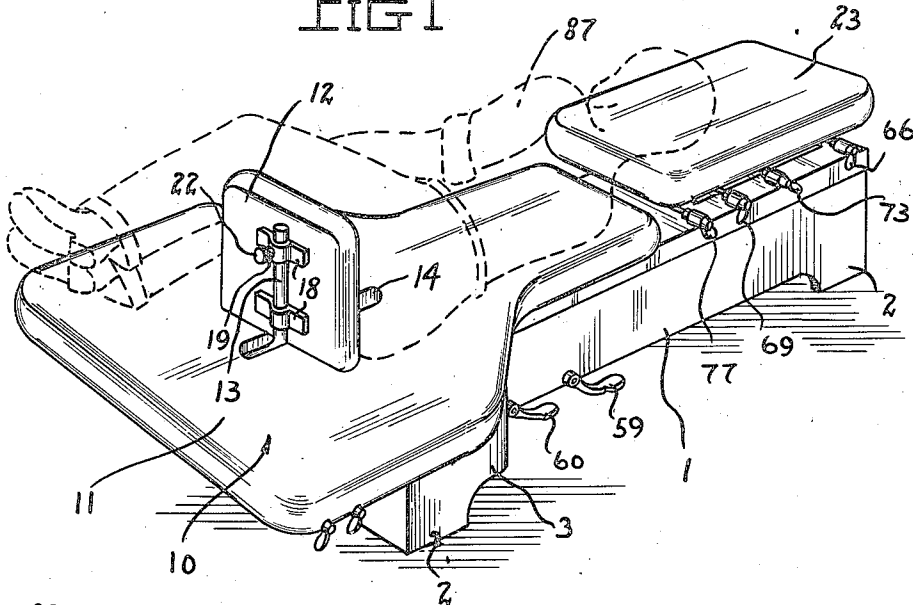


FIG 4

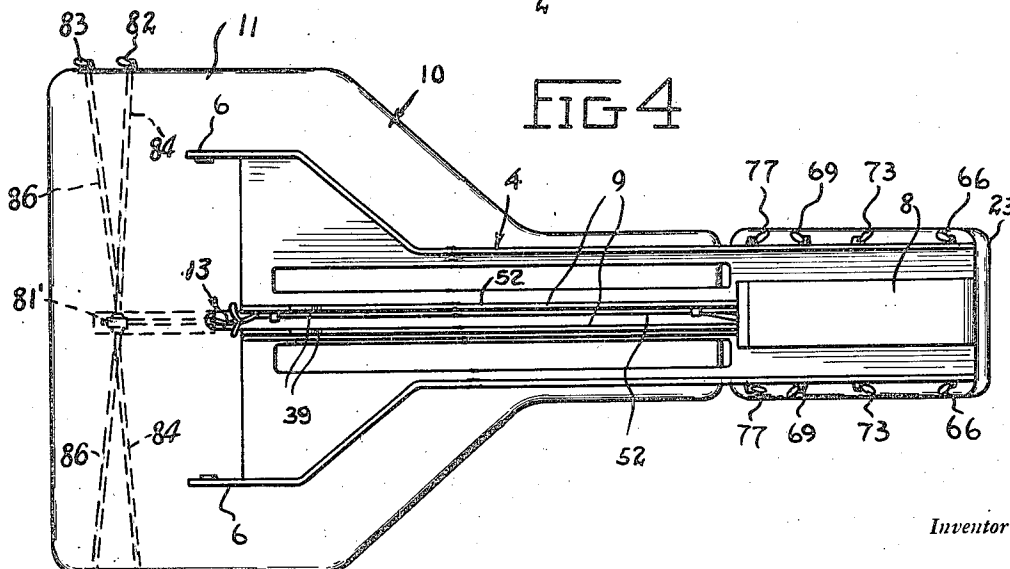
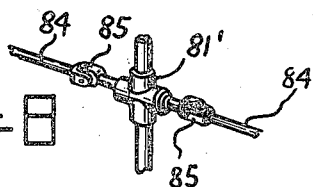


FIG 8



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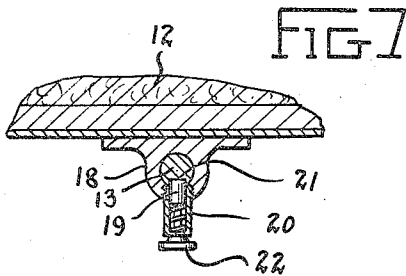
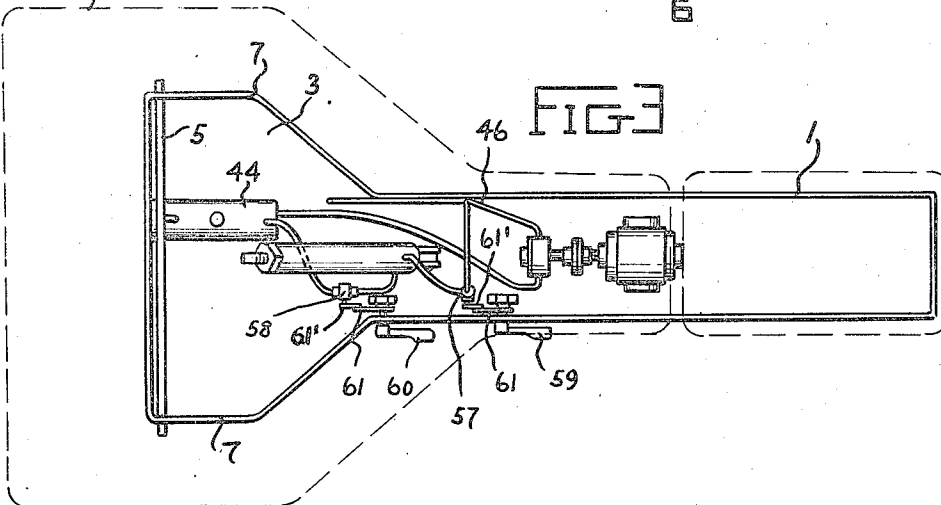
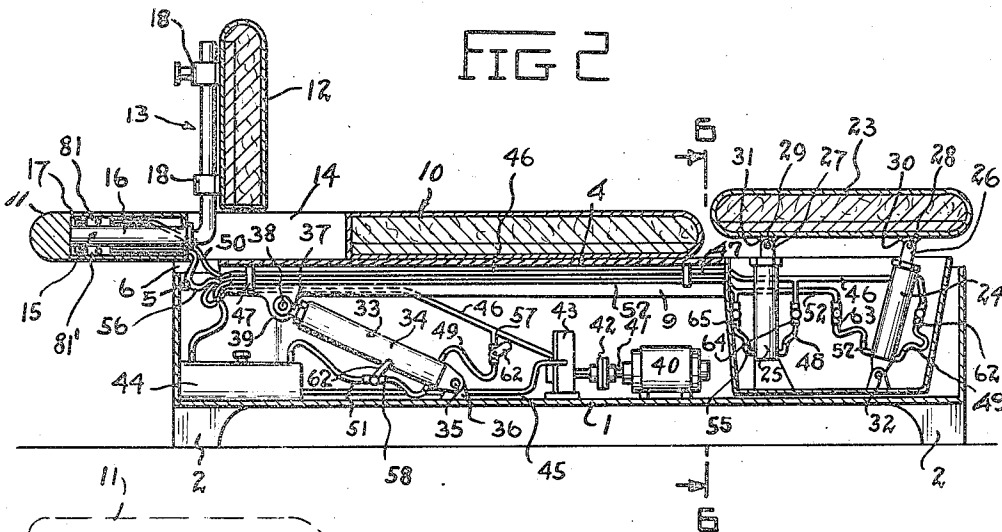
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SIDE POSTURE CHIROPRACTIC ADJUSTING TABLE

Filed Oct. 31, 1946

3 Sheets-Sheet 2



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SIDE POSTURE CHIROPRACTIC ADJUSTING TABLE

Filed Oct. 31, 1946

3 Sheets-Sheet 3

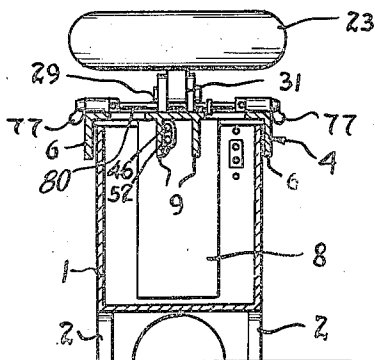
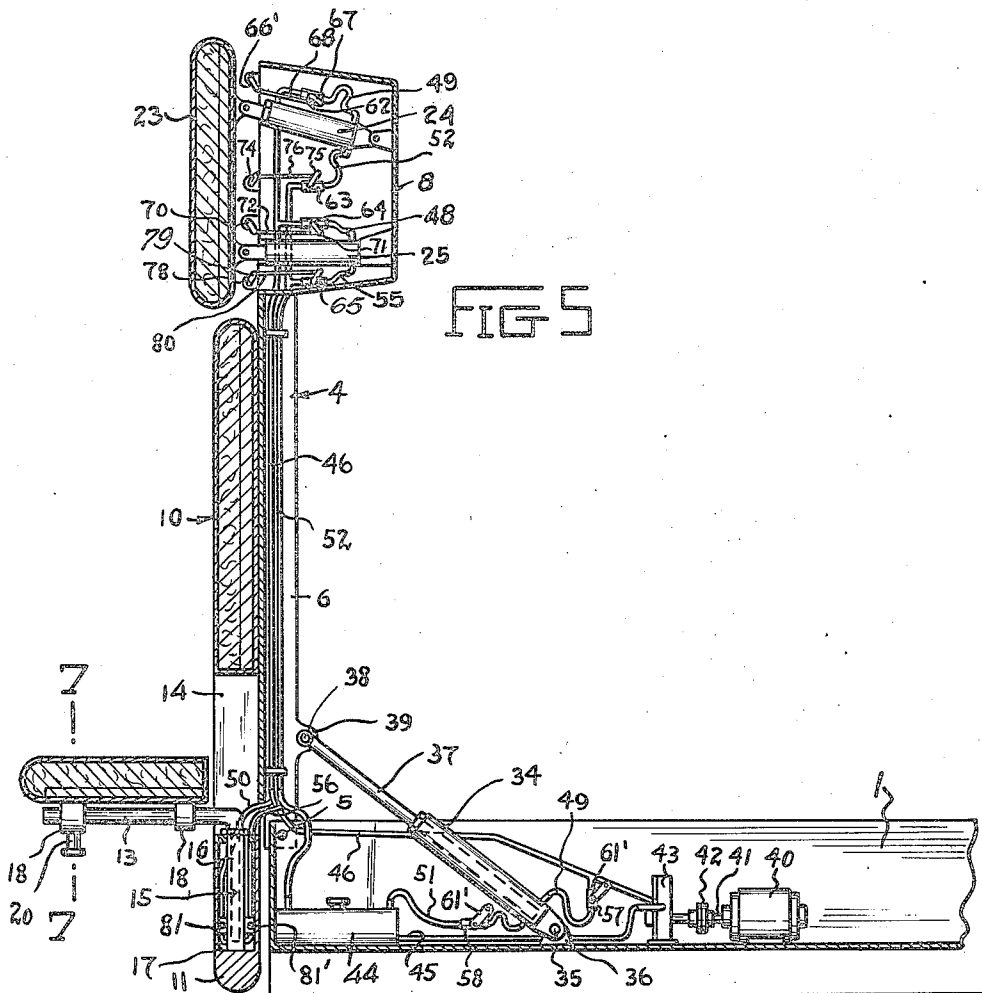


FIG 6

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UNITED STATES PATENT OFFICE

2,472,675

SIDE POSTURE CHIROPRACTIC
ADJUSTING TABLE

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Application October 31, 1946, Serial No. 706,905

5 Claims. (Cl. 311—7)

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My invention relates to improvements in chiropractor's tables for use especially, although not necessarily, in chiropractic treatment with the patient in side posture position thereon.

The usual chiropractor's table necessitates that a patient mounting the same must, in assuming a side posture, reclining position, with the legs bent, lower the body from an upright sitting position with the legs disposed over the side edge of the table, and raise the legs onto the table. Many patients find this very difficult to accomplish and, in the case of severe back and leg injuries, next to impossible.

Having the foregoing in mind, it is the primary object of my invention to provide a chiropractor's side posture table equipped for mounting by the patient in a sitting position and for lowering of the patient in such position to a side posture position without any effort on the part of the patient.

Another object is to provide in such a table for varying the level at which the patient sits, prior to lowering, in accordance with the stature of the patient, so that the legs will be in correctly bent position.

Another object is to provide for tilting the body in sitting position to assist in properly relaxing the legs.

Still another object is to provide in such tables, a side posture head-rest adjustable against the head of the patient while seated and according to the shoulder width of the patient to accurately align the spine before the patient is lowered and obtain proper head posture.

Still another object is to provide in a chiropractor's side posture table, a body rest adapted to raise the legs of the sitting patient off the floor and to adequately support the legs of patients of different sizes while the patient is being lowered into the side posture position.

Still another object is to provide for hydraulic adjustment of the parts of the table under easy control.

Other and subordinate objects, also comprehended by my invention, together with the precise nature of my improvements, and the advantages thereof, will be readily understood when the succeeding description and claims are read with reference to the drawings accompanying and forming part of this specification.

In said drawings:

Figure 1 is a view in perspective of my improved chiropractor's table with a patient illustrated thereon in correct side posture position and represented in dotted lines.

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Figure 2 is a view in longitudinal central section.

Figure 3 is a view in top plan of the base, the body rest and head rest being shown in dotted lines.

Figure 4 is a view in bottom plan of the top with the body rest and head rest thereon.

Figure 5 is a view in vertical longitudinal section showing the body rest swung upwardly into vertical position.

Figure 6 is a view in transverse section taken in the line 6—6 of Figure 2 and drawn to a larger scale.

Figure 7 is a retail view in transverse section taken on the line 7—7 in Figure 5 and drawn to a larger scale, and

Figure 8 is a view in perspective of one of the seat control pressure and pressure relief valves.

Referring to the drawings by numerals, my improved chiropractor's table, as shown therein, comprises an elongated, hollow, box-like base 1 with corner legs 2 and which is substantially spatulate in shape, in top plan, to provide a laterally widened end 3 thereon at the inferior, or tail end, of the table, as best shown in Figure 3.

A skeleton table top 4 of the same shape as the base 1 is hinged at the inferior, or tail, end thereof to the end 3 of the base 1 by a cross rod 5 extending through side flanges 6 on the top 4 and through the sides 7 of the base 1, said top 4 being vertically swingable on said rod 5 from an overlying position of rest on said base 1 into a vertical position at the inferior, or tail, end of the table. At the superior, or head, end of the top 4, a relatively narrower well forming casing 8 is formed on said top and which is adapted, in the rest position of said top 4, to be lowered into the base 1. In the rear of the well forming casing 8, a pair of longitudinal laterally spaced bottom ribs 9 extend along the top 4 upon opposite sides of the longitudinal center of said top and in closely spaced relation.

Surmounting the top 4, and suitably fixed thereon, is a suitably padded body rest 10, also substantially spatulate in shape to provide a widened inferior, or tail, end 11 thereon. The body rest 10 extends rearwardly from substantially the well forming casing 8 and is substantially wider throughout said end 11 than the top 4, for a purpose presently seen, with said end 11 adapted to overhang the corresponding ends of the top 4 and base 1 when the top 4 is at rest. The purpose of this overhang will presently be seen.

A seat 12 of generally square form and suitably padded construction is mounted, in a manner to

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be described, on the body rest 10 to extend at a right angle from the end 11 of said rest in the approximate center of said end 11.

The mounting for the seat 12 comprises a right angled seat post 13 extended through a longitudinal slot 14 in the widened end 11 of the body rest 10, in the longitudinal center thereof, said post providing on one side of the angle thereof, a plunger of a hydraulic jack, designated as a unit, by the numeral 15, the other element of said jack being a closed cylinder 16 suitably fixed in said end 11 of the body rest 10 in axial alignment with the longitudinal center of said rest, said cylinder being enclosed in a chamber 17 formed in the end 11 of the body rest 10 as best shown in Figure 2. The seat post 13, on the other side of the angle thereof, projects out of said slot 14 at a right angle to the body rest 10, and the seat 12 is mounted on said post by sleeve bearings 18 suitably fixed to the seat 12 and providing for tilting of said seat on the post 13 about an axis at a right angle to the body rest 10. As will be apparent, the described hydraulic jack 15 provides for sliding adjustment of the seat post 13 longitudinally of the body rest 10, said post playing in the slot 14 during such adjustment and correspondingly adjusting the seat 12 relative to the body rest.

A spring biased latch bolt 19, in a cylinder 20 on the bottom of one sleeve bearing 18, and which is adapted to snap into a socket 21 in the seat post 13, provides for locking the seat 12 in normal level position against tilting. A head 22 on the latch bolt 19 provides for manually unlocking the seat 12 by a pull on said bolt.

A head rest 23 of rectangular shape, and suitably stuffed form, surmounts the top 4, in front of the body rest 10, and overlies the well forming casing 8 in longitudinal alignment with the body rest 10.

A pair of front and rear hydraulic jacks 24, 25 upstanding from the bottom of the well forming casing 8 support the head rest 23, said jacks 24, 25 being arranged in the longitudinal center of the top 4 and head rest 23 with the plungers 26, 27 thereof pivoted, as at 28, 29, to depending lugs 30, 31 on said rest 23 so that said rest is vertically swingable on either plunger 26, 27, for tilting adjustment of the head rest forwardly or rearwardly. The front jack 24 is pivoted, as at 32, in the well forming casing 8 to swing forwardly and rearwardly and thus compensate for tilting adjustment of the head rest 23. The rear jack 25 is rigid with the bottom of the well forming casing 8. Obviously, the head rest 23 may be adjusted vertically while being maintained horizontal, by said jacks 24, 25, and correspondingly adjusted when the same is swung, together with the body rest 10, into vertical position for a purpose presently seen.

Returning now to the top 4, for swinging said top and body rest 10 into vertical position, or into rest position, a hydraulic jack 33 is provided in the base 1 to incline upwardly and rearwardly from the bottom of said base with its cylinder 34 pivoted at the bottom end thereof, as at 35, to a lug 36 on said bottom of the base 1, so that said jack may swing in a vertical plane, and its plunger 37 is pivoted, as at 38, between a pair of ears 39 depending from the aforementioned ribs 9 forwardly of the pivot rod 5.

The hydraulic jacks 15, 24, 25 and 33 are operated and controlled by the following means.

A suitable electric motor 40 is provided in the base 1, on the bottom of the same, and which is

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operatively connected by the armature shaft 41 thereof, and a friction clutch 42, to a suitable pump 43 in said base 1. The motor 40 and the pump 43 are preferably arranged forwardly of the hydraulic jack 33. The motor 40 is designed for plug-in connection, in any suitable manner to the house current. A fluid storage tank 44 is provided in the base 1 adjacent to the inferior, or front, end thereof with a feed pipe 45 extending therefrom to the intake side of the pump 43. A flexible pressure line 46 extends from the output side of the pump 43, rearwardly in the base 1, and then forwardly along the top 4 between the ribs 9 in hangers 47, and then through the well forming casing 8 to the bottom of the front jack 24 with a branch line 48 to the bottom of the rear jack 25. A branch pressure line 49 extends from the pressure line 46 to the bottom of the cylinder 34 of the hydraulic jack 33. A branch pressure line 50 extends from the pressure line 46 into the chamber 17 to the bottom of the cylinder 16 of the hydraulic jack 15. A pressure relief line 51 extends from the bottom of the cylinder 34 of the jack 33 to the storage tank 44. A flexible pressure relief line 52 extends from the bottom of the front jack 24, out of the well forming casing 8, along the top 4, between the ribs 9 and through the hangers 47 to the storage tank 44, with a branch pressure relief line 55 to the bottom of the rear jack 25. A branch pressure relief line 56 extends from the bottom of the cylinder 16 of the jack 15 to the pressure relief line 52.

A pair of body rest control valves 57, 58 are interposed in the branch pressure line 49 and in the pressure relief line 51, to which a pair of pressure and pressure relief foot pedals 59, 60, at one side of the base 1, are operatively connected by links 61 and cranks 61'.

Duplicate pairs of head rest control valves are provided, there being in the well forming casing 8, in one pair, a pressure control valve 62 in the pressure line 46 for the front jack 24, and a pressure relief valve 63 in the pressure relief line thereto, and, in the other pair, a pressure control valve 64 for the rear jack 25 in the branch pressure line 49 thereto, and a pressure relief control valve 65 in the branch pressure relief line 53 to said jack 25.

Duplicate pairs of head rest control hand levers are provided at opposite sides of the top 4 beneath the head rest 23, there being a pair of pressure control levers 66 on opposite sides of said top 4 operatively connected by a crank shaft 66', a crank 67, and a link 68 to the pressure control valve 62, a similar pair of hand levers 69 with a similar crank shaft 70, crank 71 and link 72 connecting the same to the pressure control valve 64, another similar pair of pressure relief hand levers 73 operatively connected by a crank shaft 74, a crank 75 and a link 76 to the pressure relief valve 63, and still another similar pair of hand levers 77 with a crank shaft 78, a crank 79, and a link 80 connecting the same to the pressure relief valve 65.

A pair of seat control pressure and pressure relief valves 81, 81' are suitably connected in the chamber 16 in the branch pressure line 50 and the branch relief line 56, respectively, on the jack 15.

A pair of seat control hand levers 82, 83 are provided on each side of the end 11 of the body rest 10. The levers 82 are connected in pairs to the pressure relief valve 81' by shafts 84 and universal joints 85 in said body rest 10, and the levers 83 are similarly connected to the pressure

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control valve 81, the shafts being shown in dotted lines in Figure 4, at 86.

Referring now to the use and operation of the described invention. The body rest 10 is swung into a vertical position, as shown in Figure 5, by rendering the jack 33 operative under control of the foot lever 59. This swings the seat 12 into horizontal position for seating the patient 87 thereon. The seat 12 may next be adjusted vertically, under control of either of the hand levers 82 or either hand lever 83, for rendering the jack 15 appropriately effective to either raise or lower the seat 12 as may be required. When the patient 87 is being seated, the seat 12 may be unlocked for tilting forwardly or rearwardly to facilitate the patient's assuming, primarily, a proper seating posture relaxing the legs, and after the seat has been properly adjusted vertically, said seat 12 may be locked in untilted position. With the patient 87 seated, the head rest 23 may be adjusted with the head of the patient 87 against the same, for obtaining proper head posture in alignment of the spine. The head rest 23 may be adjusted by tilting the same laterally, or not, as may be desired, under control of the hand levers 66, 69, 73, 77, selectively, to thereby render the front and rear jacks 24, 25 operative as occasion may require. The body rest 10 may then be swung down into horizontal rest position with the patient 87 thereon in proper prearranged side posture position as shown in Figure 1. The downward swinging of the body rest 10 and the patient 87 is accomplished by operating the foot pedals 60 to relieve the jack 33 of pressure, gradually, and pushing the body rest 10 down while such pressure is being relieved. As the body rest 10 moves down, the widened end 11 thereof lifts the patient's legs off the floor and supports the same after being lifted in properly bent position for side posture adjustment of the patient.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention, without further explanation.

Manifestly, the invention, as described, is susceptible of modification, without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the appended claims.

What I claim as my invention is:

1. In a table of the class described, a base, a body rest pivoted on said base for vertical swinging into upright position and for lowering into substantially horizontal position and having a tail end portion disposed lowermost when said rest is in upright position, a seat on said portion at a right angle thereto for supporting a patient in sitting position when said rest is upright and with the legs of the patient bent and one side of the body of the patient opposed to said rest for lowering of the patient in sitting side posture position with the body reclining against said rest and the legs bent, said portion being widened relative to the remainder of said rest at both sides of said rest and said seat being relatively narrower than said portion and disposed in the longitudinal center of said rest to provide for supporting in bent position the legs of the patient being lowered with the patient occupying the seat with either side opposed to said rest, and pressure means for swinging said rest.

2. In a table of the class described, a base, a body rest pivoted on said base for vertical swinging into upright position and for lowering into substantially horizontal position and having a tail end portion disposed lowermost when said

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rest is in upright position, a seat on said portion at a right angle thereto for supporting a patient in sitting position when said rest is upright and with the legs of the patient bent and one side of the body of the patient opposed to said rest for lowering of the patient in sitting side posture position with the body reclining against said rest and the legs bent, said portion being widened relative to the remainder of said rest at both sides of said rest and said seat being relatively narrower than said portion and disposed in the longitudinal center of said rest to provide for supporting in bent position the legs of the patient being lowered with the patient occupying the seat with either side opposed to said seat, a side posture head rest at the opposite end of the body rest adjustable for obtaining different positions of the head of the patient prior to lowering of the patient, and pressure means for swinging said body rest and adjusting the head rest.

3. In a table of the class described, a base, a body rest pivoted on said base for vertical swinging into upright position and for lowering into substantially horizontal position and having a tail end portion disposed lowermost when said rest is in upright position, a seat on said portion at a right angle thereto for supporting a patient in sitting position when said rest is upright and with the legs of the patient bent and one side of the body of the patient opposed to said rest for lowering of the patient in sitting side posture position with the body reclining against said rest and the legs bent, said portion being widened relative to the remainder of said rest at both sides of said rest and said seat being relatively narrower than said portion and disposed in the longitudinal center of said rest to provide for supporting in bent position the legs of the patient being lowered with the patient occupying the seat with either side opposed to said rest, said seat being adjustable along said rest to position the patient longitudinally of the body rest.

4. In a table of the class described, a base, a body rest pivoted on said base for vertical swinging into upright position and for lowering into substantially horizontal position and having a tail end portion disposed lowermost when said rest is in upright position, a seat on said portion at a right angle thereto for supporting a patient in sitting position when said rest is upright and with the legs of the patient bent and one side of the body of the patient opposed to said rest for lowering of the patient in sitting side posture position with the body reclining against said rest and the legs bent, said portion being widened relative to the remainder of said rest at both sides of said rest and said seat being relatively narrower than said portion and disposed in the longitudinal center of said rest to provide for supporting in bent position the legs of the patient being lowered with the patient occupying the seat with either side opposed to said rest, a side posture head rest at the opposite end of the body rest adjustable for obtaining different positions of the head of the patient prior to lowering of the patient, said seat being adjustable along the body rest to position the head of the patient while seated relative to said head rest.

5. In a table of the class described, a base, a body rest pivoted on said base for vertical swinging into upright position and for lowering into substantially horizontal position and having a tail end portion disposed lowermost when said rest is in upright position, a seat on said portion at a right angle thereto for supporting a patient in

sitting position when said rest is upright and with the legs of the patient bent and one side of the body of the patient opposed to said rest for lowering of the patient in sitting side posture position with the body reclining against said rest and the legs bent, said portion being widened relative to the remainder of said rest at both sides of said rest and said seat being relatively narrower than said portion and disposed in the longitudinal center of said rest to provide for supporting in bent position the legs of the patient being lowered with the patient occupying the seat with either side opposed to said rest, said seat being pivotally mounted on said portion for tilting sidewise to adjust the body of the patient forwardly or rearwardly into selected position relative to said rest.

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