W. S. & D. E. WOOD.

COLLAPSIBLE ADJUSTING OR MANIPULATING TABLE.

APPLICATION FILED JAN. 26, 1915.

1,194,112.

Patented Aug. 8, 1916.

6 SHEETS—SHEET 1.

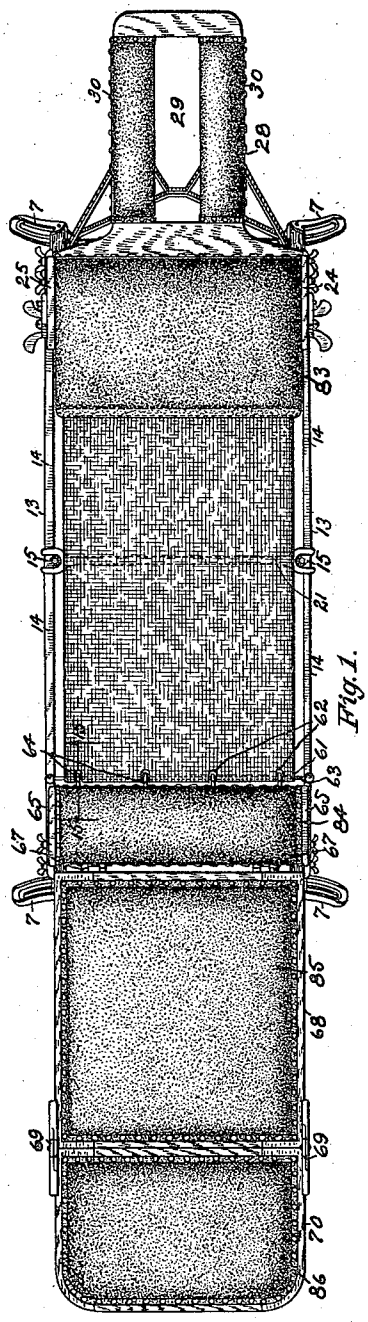


Fig. 1.

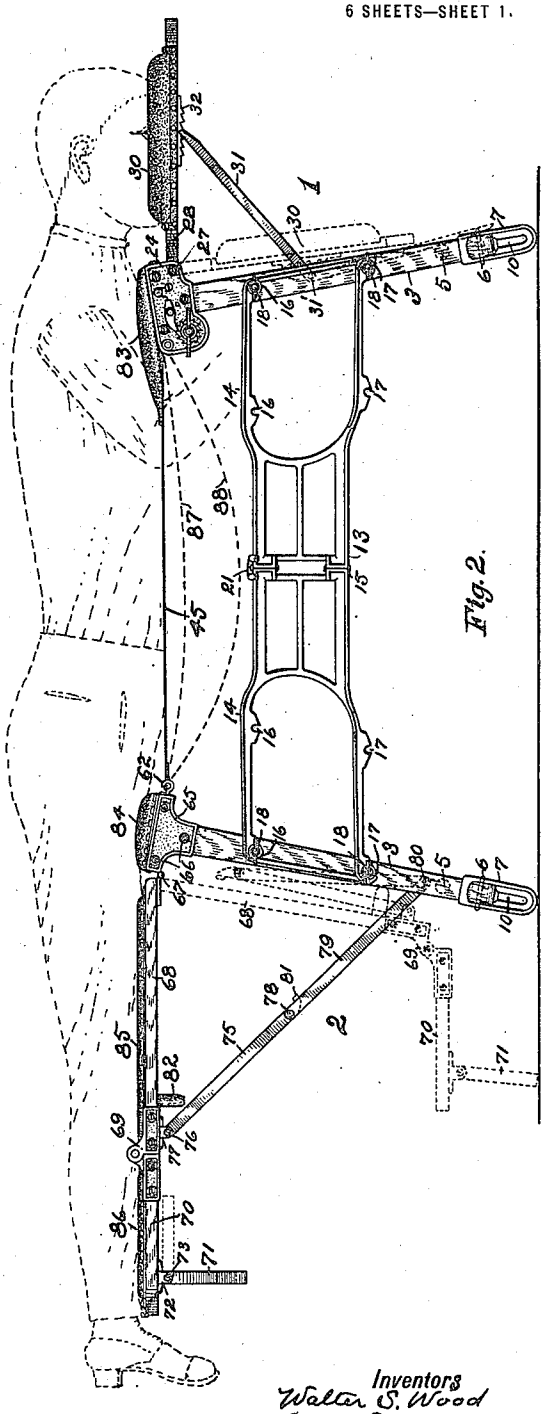


Fig. 2.

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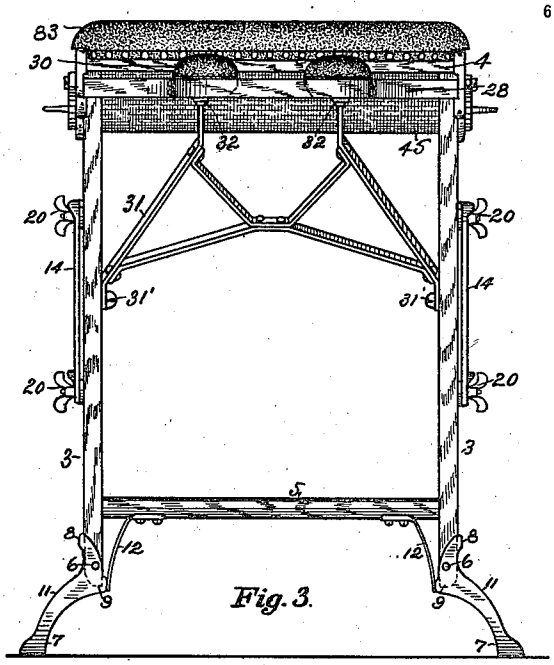


Fig. 3.

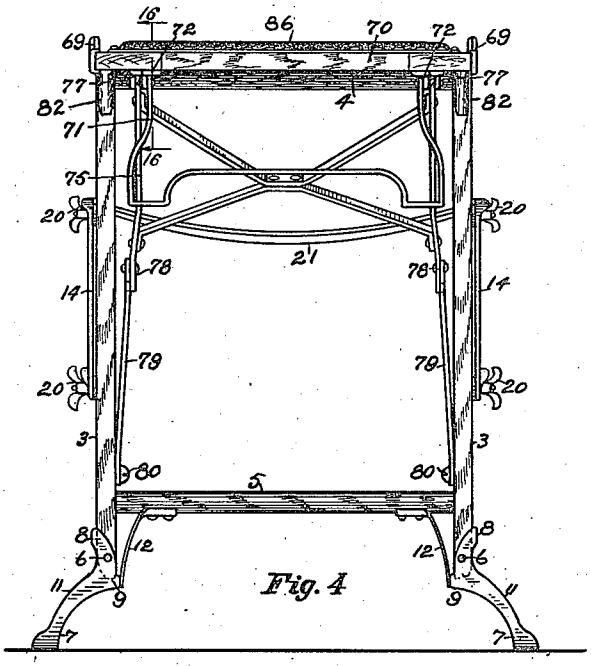


Fig. 4

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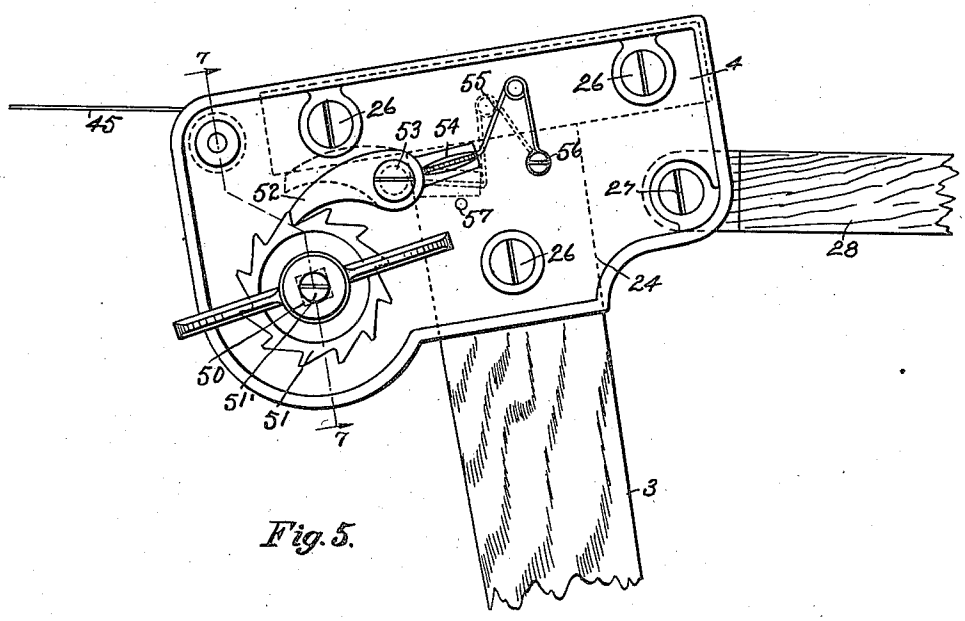


Fig. 5.

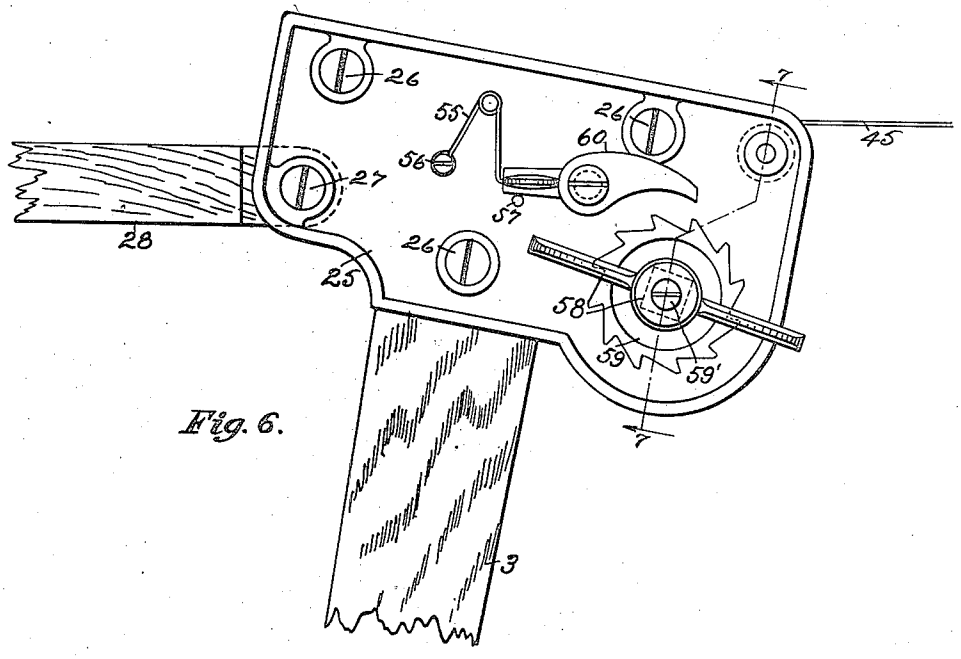


Fig. 6.

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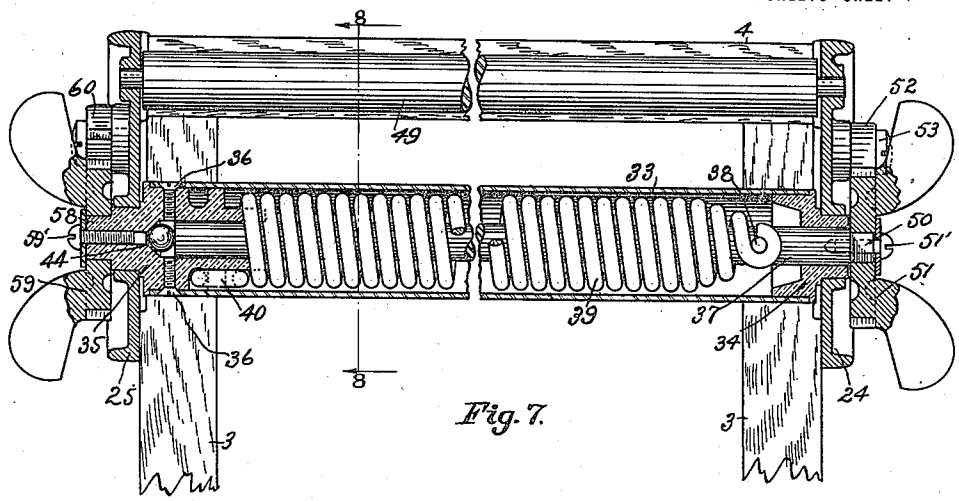


Fig. 7.

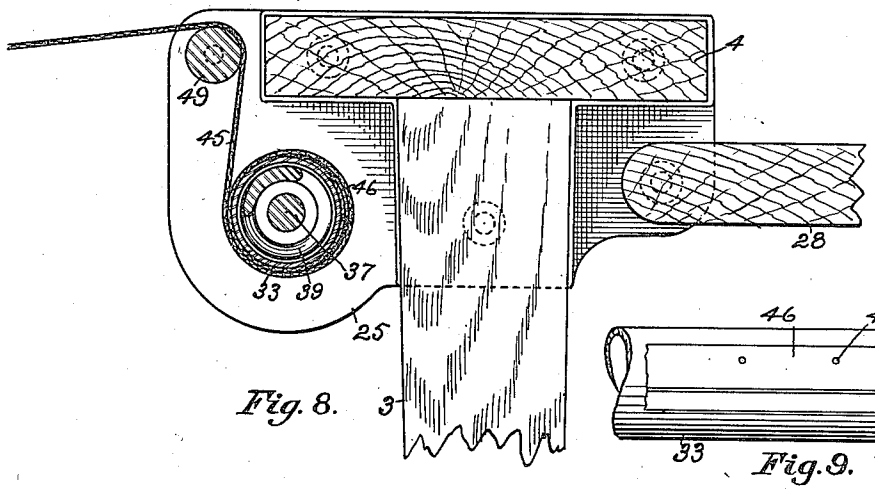


Fig. 8.

Fig. 9.

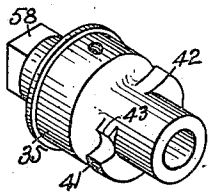


Fig. 10.

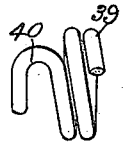


Fig. 11.

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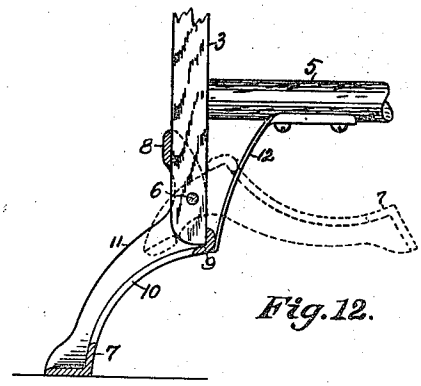


Fig. 12.

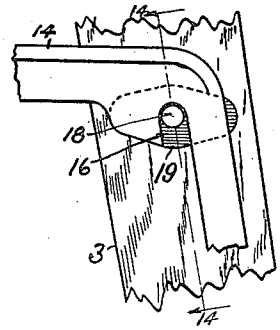


Fig. 13.

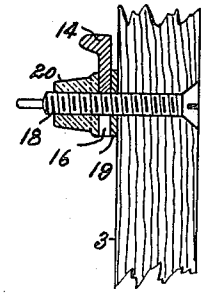


Fig. 14.

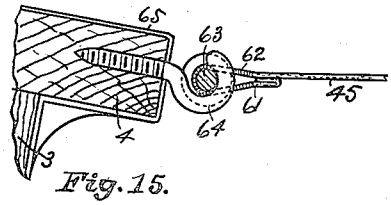


Fig. 15.

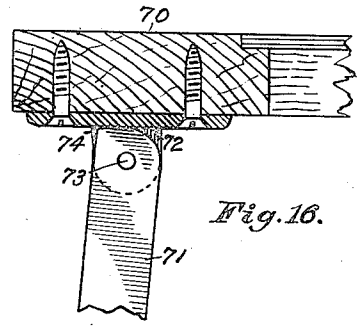


Fig. 16.

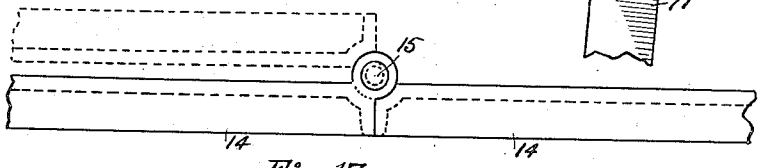


Fig. 17.

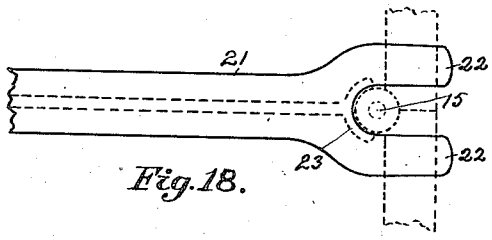


Fig. 18.

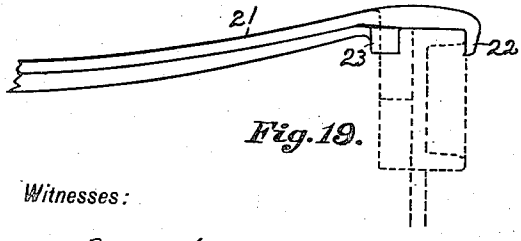


Fig. 19.

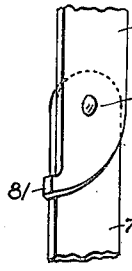


Fig. 20.

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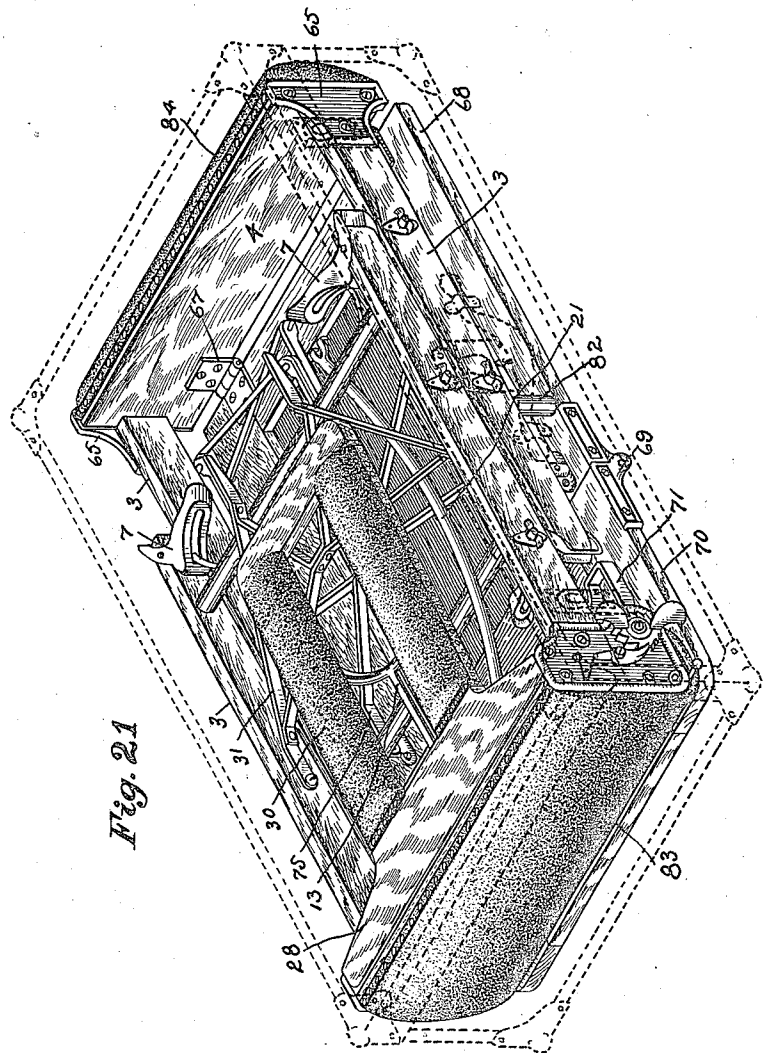


Fig. 21

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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE ADJUSTING OR MANIPULATING TABLE.

1,194,112. Specification of Letters Patent. Patented Aug. 8, 1916.

Application filed January 26, 1915. Serial No. 4,430.

To all whom it may concern:

Be it known that we, WALTER S. WOOD and DORR E. WOOD, citizens of the United States, residing, respectively, at the city of Kalamazoo, county of Kalamazoo, and State of Michigan, and at the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Collapsible Adjusting or Manipulating Tables, of which the following is a specification.

This invention relates to improvements in collapsible adjusting or manipulating tables for use by doctors of chiropractic, osteopathy, mechanotherapy and others practising healing methods wherein various spinal adjustments, manipulations or massage treatments of the human body are performed.

The objects of this invention are: to provide an adjusting or manipulating table which shall be light, strong and durable and when not in use capable of being folded and packed in a compact form to be easily contained within an ordinary suit, or carrying-case for ease and convenience in transportation; to provide a table whereby a person can be placed thereon, either face downward, or lying on the back, with the greatest of ease and comfort, be maintained in a comfortable position while thereon and be removed therefrom in an easy, courteous and comfortable manner; to provide a table in which the supporting-legs or members shall be substantially radially disposed with relation to the typical anterior curvature of the abdominal portion of the human body when lying prone thereon, and that the supporting tops of such members shall lie in planes substantially tangent to such curvature, in order that the radial-lines of such supporting-members shall stand in a more direct line with the line of thrust in giving spinal adjustments; to provide a table in which the supporting-legs or members are provided with feet adapted to be projected outwardly for the purpose of widening the supporting base when set up for use, thereby increasing its supporting stability without the necessity of unduly widening the top, and when collapsed for the purpose of packing, said feet being adapted to fold or shift inwardly, and to be retained in either position by means of springs, or other suitable means; to provide a table in which is embodied such adjustable features as will permit of placing the patient in the most approved position for the performance of the various adjustments and manipulations required with the greatest of ease and comfort, as well as the minimum amount of exertion on the part of the practitioner, and to remove the patient therefrom, easily, quickly and courteously, with as little effort to both as possible.

Other objects will more definitely appear in the detailed description to follow.

We accomplish the objects of our invention by the devices and means described in this specification and more definitely pointed out in the claims.

Structures embodying the features of our invention are clearly illustrated in the accompanying drawings which form a part of this specification, in which—

Figure 1 is a plan view of our improved table in position for use. Fig. 2 is a side elevation of the same, with certain folding features shown in dotted lines, and also, the outline form of the human figure shown thereon in dotted lines, all to be more fully referred to hereinafter. Fig. 3 is an end elevation of the right hand end or chest-supporting-section when looking from the right of Figs. 1 and 2. Fig. 4 is an end elevation of the left hand end of hip-supporting-section when looking from the left of Figs. 1 and 2. Figs. 5 and 6 are obverse and reverse enlarged detail elevations of certain parts in the chest-supporting-section of the table. Fig. 7 is an enlarged detail sectional elevation taken on line 7 7 of Figs. 5 and 6. Fig. 8 is an enlarged detail sectional elevation taken on line 8 8 of Fig. 7. Fig. 9 is an enlarged detail view of a broken portion of one of the parts shown in Figs. 7 and 8. Fig. 10 is a perspective view of one of the parts appearing in Fig. 7. Fig. 11 is a detail of the end of the coiled spring shown in Fig. 7. Fig. 12 is a detail elevation showing the supporting-feet and the spring for retaining them in either position as shown in dotted lines. Fig. 13 is an enlarged detail side elevation of certain parts to be more fully referred to hereinafter. Fig. 14 is a detail sectional view taken on line 14 14 of Fig. 13. Fig. 15 is an enlarged detail sectional elevation taken on line 15 15 of Fig. 1. Fig. 16 is an enlarged detail sectional elevation taken on line 16 16 of Fig. 4. Figs. 17, 18, 19 and 20 are enlarged details of certain

parts to be more definitely referred to in the detailed description to follow. Fig. 21 is a perspective view of the table with all its parts folded and packed in a suit or carrying-case, the case being shown in dotted lines.

In the drawings the sectional views are taken looking in the direction of the little arrows at the ends of the sectional lines and similar reference characters refer to similar parts throughout the several views.

Referring to the details of construction of our improved table, it is composed substantially of two main parts, or sections; the chest-supporting-section being indicated by the reference numeral 1, while the hip-supporting-section is indicated by the reference numeral 2, see Fig. 2. Each of these supporting-sections is substantially identical in construction. Each section is provided with the two supporting-legs 3, which are connected at their top by means of the cross-piece 4, and at or near their bottom by means of the round 5, all of which is clearly shown and pointed out in Figs. 3, 4, 7 and 8.

Pivotally secured to the lower end of each of the supporting-legs 3, by means of the pins 6, is a foot member 7, which member is adapted to be held in an open or closed position by means of the spring 12, said spring being preferably secured to the round 5, as particularly shown in Figs. 3, 4 and 12. These feet project laterally from the sides of the supporting-legs 3 when in their normal position and are chiefly for the purpose of widening the supporting base of the table to insure its greater stability on the floor without unduly widening the top. By reference to Fig. 12 it will be seen that these feet 7 are substantially hollow or channel shaped in cross section and that the ends of the supporting-legs 3 are inserted in their upper extremity and have a cramped or binding connection therewith when in their normal position under weight by contacting at opposite sides and the lower end thereof with the bearing parts 8 and 9, said parts also connecting the sides 11, thus securing a most rigid contact between said feet and supporting-legs. It will also be observed that the pivotal-pin 6 is relieved from all strain whatever and only serves to pivotally maintain said feet in their proper relation with said supporting-legs. It will also be observed by reference to Figs. 2 and 12 that the feet 7 are provided with an elongated slot or opening 10 in their web portion which is for the purpose of allowing the spring 12 to pass through or into when said feet are folded or shifted to the position indicated by the dotted lines. It will also be noticed that the springs 12 serve to hold the feet in either position while permitting of their being readily shifted from one position to the other. This is a very important feature, as when the feet are in their normal position the table can be picked up and moved about without their becoming misplaced.

The chest-supporting-section and the hip-supporting section of our improved table are connected together preferably in substantially the relative position as shown in Figs. 1 and 2 by means of the two folding side-braces 13. Each of said braces is identically alike and will fit either side of the table interchangeably, which is a great convenience when setting up the table. These side-braces are each composed of two parts or members 14, which are hinged together at 15, thereby adapting them to be folded together as shown in dotted lines in Fig. 17 for the purpose of packing in more compact form. Each of the members 14 are provided with the upper notches 16 16 and the lower notches 17 17 as shown in Figs. 2 and 13. These notches permit the chest-supporting-section and the hip-supporting-section to be adjusted at varying distances from each other for the accommodation of persons of varying stature, from a child up, which is a most important feature in a table of this character.

Inserted in each of the supporting-legs of the two supporting sections are the binding-screws 18, as particularly shown in Figs. 2, 13 and 14. These screws are preferably threaded into the legs 3 and turned therein firmly. A screw-threaded washer 19 is turned onto each of said screws firmly against the outside of the legs 3, which serves as a lock-nut to prevent said screws from becoming loosened and also affords a bearing-plate for the side-braces 13 to bear against, as shown in Figs. 13 and 14.

In securing the side-braces 13 to the supporting-legs 3 of either the chest-supporting-section or the hip-supporting-section, one each of the notches 16 and 17 in relative alinement, of one of the members 14 are hooked over their respective binding-screws 18 and firmly clamped thereto by means of the winged thumb-nuts 20, threaded thereon as shown in Figs. 2, 3, 4 and 14. When one end of one of the side-braces is thus secured, the opposite end is likewise secured to the opposing supporting-section when the two sections will be in substantially the proper position for the adjustment and securing of the opposing side-brace which is accomplished in a like manner, which makes the table very rigid and permits of its being picked up and moved about as desired. To prevent any undue lateral springing or buckling of said side-braces when connected at their outer extremities to said supporting sections as shown in Fig. 2, and under the weight of a heavy person while on the table, we employ a tie-piece 21, which ties or locks the two side-braces together substantially midway between their secured ends as shown in

Figs. 1, 4, 18 and 19. This tie-piece is provided with forked ends adapted to engage the side-braces at their hinged joints 15 as clearly shown in Fig. 18. Downwardly projecting lugs or hooks 22 engage the outside of said side-braces, while the downwardly projecting lug 23 engages the hinge portion 15 as shown in Figs. 18 and 19. This tie-piece is bowed downward between its forked ends as shown in Figs. 4 and 19 so that the abdomen of corpulent people will not come in contact therewith when taking treatment while lying face downward on the table.

Referring again to the chest-supporting section of the table, side-plates 24 and 25, constructed in pairs, are secured to the sides of the supporting frame work at the top thereof by means of screws 26 as shown in Figs. 5 and 6. These plates serve to strengthen the joint between the legs 3 and the supporting cross-piece 4 and also afford means for attaching and securing other parts to said chest-supporting-section. Pivotally secured between these side plates at 27 27 is the head-rest 28 as shown in Figs. 5 and 6. This head-rest is provided with a central longitudinal opening 29, of sufficient size to allow ample air supply to the patient for breathing when lying face downward thereon. It is also upholstered and heavily padded as at 30 30 so as to make it soft and easy to rest the face against. A brace 31 is pivotally connected to the inner sides of the legs 3 of the chest-supporting-section at 31′, its free ends being adapted to engage the ratchet-plates 32 32, secured to the under side of the head-rest 28, as shown in Figs. 2 and 3, which permits its adjustment up or down at varying angles to suit the requirements of the patient as well as that of the practitioner. When not in use it will readily fold and lie close to the legs as shown in dotted lines in Fig. 2. Journaled within and lying between said side-plates 24 and 25 is a spring-actuated hollow cylinder or spool 33, as particularly shown in Fig. 7. This cylinder is provided with the journal-end 34, which is forced into the end of said cylinder and firmly held in place by frictional contact, while the journal-end 35 is removably secured in place within the opposite end of said cylinder by means of the screws 36 36. Journaled within said journal-ends is the shaft 37. Secured to this shaft by means of the pin 38 is the coiled spring 39. This spring is also secured at its opposite end to the journal-end 35 by means of the loop 40 which engages the lug 41. By reference to Fig. 10 it will be seen that a portion of the annular-flange 42 of said journal-end is removed, thus providing the lug 41 and also the little projection 43. In assembling said spring and shaft within said cylinder, the spring is placed on said shaft and the pin 38 driven through the eye of said spring firmly into said shaft. A ball, preferably of hardened steel, is then placed in the end of the bore of journal-end 35 and the opposite end of shaft 37 inserted. Spring 39 being substantially a close coiled spring slightly shorter than the distance between the pin 38 and the lug 41 when in an assembled position on the shaft 37, is slightly stretched longitudinally until its loop 40 can be hooked over the lug 41. This is accomplished by simply stretching the spring until the loop will be in position to engage said lug, then turning said spring to the left and the journal-end to the right until said loop shall spring over the little projection 43, which will serve to prevent said spring from becoming released from said journal-end by reason of any recoil when in use. The ball 44 takes the end thrust of shaft 37 produced by the stretching of said spring as above described, which thereby serves to hold the several parts in place as shown and prevents rattling. The shaft 37, the spring 39 and the journal-end 35 being thus assembled are now placed inside of the cylinder 33 by passing the end of said shaft through the journal-end 34 and inserting journal end 35 in the opposite end of said cylinder and securing the same with the two screws 36.

Secured to and wound around cylinder or spool 33 is a canvas or other suitable fabric 45 as shown in Fig. 8. To provide for securely fastening said canvas to said cylinder, a thin flexible metal strip is soldered or otherwise secured longitudinally to said cylinder at its edge 47, the opposite edge being left free and provided with small holes as 48, through which the end of the canvas 45 is placed. In lieu of said holes to which to lace said canvas, small pointed projections may be formed on the edge of said strip and inserted into said canvas and their points bent over on the opposite side of the canvas from which they were inserted and the canvas wound thereon as shown in Fig. 8. Journaled in side-plates 24 and 25 above the cylinder 33, is also an idle shaft or roller 49 over which the canvas 45 passes. This roller serves to maintain the canvas in its proper relation with the top of the supporting cross-piece 4 as well as to relieve cylinder 33 of much of the consequent strain thereon, as shown in Fig. 8.

The end of shaft 37 projecting through journal-end 24 is squared at 50 to which is detachably secured the winged ratchet-wheel 51 by means of the screw 51′ as shown in Figs. 5 and 7. A spring actuated pawl 52 is pivotally secured to end-plate 24 by means of the screw 53 and is adapted to engage said ratchet-wheel as shown in Fig. 5. Pawl 52 has also a rearward extension 54 to which is pivotally connected the actuating-spring 55, which spring is also pivotally

connected to side-plate 24 by means of the screw 56. This spring serves the double purpose of holding said pawl engaged with said ratchet-wheel, or disengaged therefrom as shown in dotted lines. A stop 57 secured to side-plate 24 and projecting out within the path of travel of the rearward extension of pawl 52 serves to limit the upward movement of said pawl, all of which is shown in Fig. 5. The outwardly projecting end of journal-end 35 is also squared at 58 as shown in Figs. 7 and 10, to which is detachably secured the winged ratchet-wheel 59 by means of the screw 59'. A spring-actuated pawl 60, having the same functions as previously described for pawl 52 and actuated in the same manner, is secured to the side-plate 25 in the same manner as described for pawl 52, and being clearly illustrated in Fig. 6, further detailed description is not deemed necessary.

Referring again to the canvas 45, the free or detachable end thereof is provided with a hem 61. Slots or buttonholes 62 are worked in the folded edge thereof. A rod 63, (provided with a ball at each end) is inserted in said hem which adapts the free end of said canvas to be detachably secured to the hip-supporting-section of the table by means of a series of hooks 64 secured to the supporting cross-piece 4 for the purpose of engaging the rod 63 through the slots in the hem 61, all of which is shown in Figs. 1, 2 and 15.

It will be observed by reference to Figs. 5, 6 and 7 that one of the functions of ratchet-wheel 51 is to turn shaft 37, while that of ratchet-wheel 59 is to turn the cylinder or spool 33. One end of the coiled-spring 39 being secured to shaft 37 and the other end substantially to the cylinder 33, it is obvious that when said spring is wound up by turning ratchet-wheel 31 to the left and held by pawl 52, that said spring will exert its force to rotate cylinder 33, therefore when canvas 45 is wound around cylinder 33 and passed over roller 49 and secured to the hip-supporting-section it will be maintained in a practically taut position by means of the exerted force of said spring and may be deflected, either by force or weight against the force of said spring, and when again released from said force or weight, will again resume its normal taut position through the force of said spring.

Referring more definitely to the details of construction of the hip-supporting-section, side-plates 65 65 are secured to the outer opposing sides thereof at their upper extremity of the supporting-legs 3 by means of screws 66 as shown and pointed out in Fig. 2, which are identically the same as screws 26 shown in Figs. 5 and 6 for securing side-plates 24 and 25. These side-plates 65 are for the purpose of protecting and strengthening the joint between the legs 3 and the supporting cross-piece 4 and maintaining said cross-piece in its relative position therewith. Hinged to said supporting cross-piece by means of the two hinges 67, as shown in Figs. 1, 2 and 21, is the thigh-support 68. Hinged to said thigh-support by means of the hinges 69 69 is the kneeling support 70. Hinges 69 are provided with an off-set which permits the kneeling-support to fold upon the thigh-support and allow sufficient space between the two for the upholstering or padding of both. Also, when the thigh-support and kneeling-support are in their normal position as shown in Fig. 2 the kneeling-support will be held in abutting alinement with the thigh-support. A supporting-bail 71 is pivotally secured to said kneeling-support by means of the ears 72 72, which are secured to said kneeling-support by means of screws as shown in Fig. 16. This supporting-bail is pivotally secured to said ears at 73, which adapts it to be folded up under said kneeling-support as shown in dotted lines in Fig. 2. Said supporting-bail is provided with a stop 74 which engages the ear members 72 as shown in Fig. 16, and is for the purpose of preventing rearward displacement of said bail when under pressure in the position shown in dotted lines when said bail is resting on the floor as shown in Fig. 2.

Thigh-support 68 and kneeling-support 70 are supported in their normal position as shown in Fig. 2 by means of the collapsible or folding-brace 75. This brace is pivotally connected at 76 to the ears 77, which ears are secured to the thigh-support 68 by means of screws identically as shown in Fig. 16. This brace is provided with the collapsible or toggle-joints 78 78. Arms 79 79 extend from said joints and are pivotally connected to the inside of the legs 3 at 80, of the hip-supporting-section as shown in Figs. 2 and 4. The joints 78 are adapted to lock in their normal position slightly off the central line between the pivotal centers 76 and 80 by means of the stop member 81 which engages with the upper edge of arms 79 and prevents said brace from collapsing under end thrust or pressure, but may be readily collapsed by a slight pressure on the under side thereof, as shown in Figs. 2 and 20. The position which this folding-brace takes when the thigh-support is folded down parallel with the supporting-legs 3 is clearly shown in dotted lines in Fig. 2.

The downwardly projecting pins or stops 82, secured to the under side of the thigh-support as shown in Figs. 2 and 4, are for the purpose of engaging the supporting-legs 3 to hold the thigh-support in its proper relation to the supporting legs of the hip-supporting-section when folded to its down position as shown in dotted lines in Fig. 2.

The chest-supporting-section is provided with a soft thick pad 83, which is secured to the supporting cross-piece 4 and extends well onto the canvas 45 as shown in Figs. 1 and 2, but is not secured thereto. This pad provides a soft and comfortable chest-support. The hip-supporting-section is also provided with a soft pad 84, secured to the cross-piece 4, which supplies a soft comfortable hip-support. This pad may also be extended well over onto the canvas 45, similarly to the pad 83 if desired, although not so shown. The thigh and kneeling supports are each supplied with soft padding as indicated by the reference numerals 85 and 86.

For greater ease and comfort to the patient in placing him on the table, be he feeble or decrepit from any cause, the thigh-support and kneeling-support are lowered to the position indicated in dotted lines in Fig. 2, when the patient can readily kneel from his chair on to the kneeling support and then lie forward on to the hip, abdominal and chest supports, when the attendant or practitioner raises the thigh and kneeling supports to their normal horizontal position as shown in Fig. 2, when the patient is on the table with scarcely any effort of his own and hardly knows how he came there. It sometimes becomes necessary to assist the patient in adjusting himself either forward or backward on the table, but this requires very little effort. When desired to remove the patient from the table, the thigh and kneeling supports are again lowered to the same position which they occupied when the patient was placed thereon, when he again assumes a kneeling position from which he can easily arise to his chair, or a standing position. This is a very important feature of our table by reason of its great convenience to old, feeble or crippled people, as well as a courtesy much appreciated by women, as it relieves much of the embarrassment attendant with the use of ordinary tables of this character not provided with this feature.

The canvas 45, when connected between the chest and hip supporting sections in the manner previously described and shown in Fig. 2, becomes a very easy and comfortable abdominal support, which can be readily adjusted to suit the size of any abdomen from that indicated by the dotted line 87 to that of the line 88, or even larger, by simply winding or unwinding said canvas to or from the cylinder 33. This feature adds greatly to the comfort of corpulent people when lying prone on the table in taking chiropractic adjustments, or manipulations which are administered to the back.

When the practitioner desires a substantially rigid or unyielding abdominal support, which is many times necessary, he adjusts the canvas 45 to the required position for the patient and the manipulation or adjustments to be made, by turning ratchet-wheel 59, either to the right or left to wind or unwind the canvas to or from the spool or cylinder 33, and then locks it in this desired position by means of the pawl 60, shown in Figs. 6 and 7, when said abdominal support becomes practically rigid and unyielding. On the other hand, should the practitioner desire a yielding abdominal support, which is also very necessary in performing certain adjustments and manipulations, he turns the ratchet-wheel 51 to the left, thereby increasing the tension of spring 39 acting on the cylinder 33 to wind up the canvas 45, as previously described, and when suitable tension is obtained, locks the ratchet-wheel 51 by means of the pawl 52, as shown in Figs. 5 and 7, at the same time disengaging pawl 60 from ratchet-wheel 59 as shown in Fig. 6, which provides the much desired spring-actuated or yielding abdominal support. These are also, very important features of our table as it many times becomes necessary in making lumbar adjustments of the spinal column and performing other manipulations to curve the back downward to quite an extent. This spring-actuated or yielding abdominal-support makes such adjustments and manipulations much easier, both for the patient and the practitioner, as such a support follows closely the deflections of the abdomen and causes the patient to feel that he has something to support him underneath his abdomen.

By reference to Fig. 2 it will be seen that the supporting-legs or members of both the chest-supporting-section and the hip-supporting-section when set up for use, are substantially radially disposed with relation to the typical anterior curvature of the abdominal portion of the human body when lying prone thereon as indicated by the dotted line 87, and that the supporting tops of such members lie in planes substantially tangent to such curvature. There are several good reasons assigned for this arrangement and construction; first, the tangentially arranged supporting-tops, by reason of their lying in planes substantially tangent to the normal anterior curvature of the body, and being substantially a continuation of the abdominal-support when distended by the abdomen, and the fact that the greater amount of the weight of the body is supported by such tops, makes the table much easier and more comfortable for the patient in taking adjustments; second, the resistance of the supporting-legs to the weight to be supported is more in a direct line with said legs, as is also the line of direction of the thrust of the practitioner in making spinal adjustments, by reason of the fact that in nearly all adjustments of this character the thrusts

are given in a radial direction to the curvature of the spine. This direct resistance of the supporting members of the table makes such adjustments much easier for the patient as well as the practitioner, as less effort or force is required on the part of the practitioner in making the desired adjustment.

When giving sacral adjustments the thigh-support is lowered to the position indicated by the dotted lines in Fig. 2, and the kneeling-support is folded upon said thigh support. A pillow or roll-cushion may be placed on top of the hip-supporting section underneath the patient's hips if desired.

Thus it will be obvious that in the construction of our table we have supplied both a rigid or unyielding abdominal-support, and a yielding or spring-actuated abdominal-support, which can be readily changed from one to the other without any inconvenience or discomfort to, or attention of the patient. It will also appear, that we have practically supplied every possible comfort for the patient in taking the adjustments and manipulations to be given, as well as aiding the practitioner in performing them.

By reference to Fig. 21, it will be seen that our table is adapted to be folded and packed in a most compact form so as to be contained in an ordinary suit or carrying-case as clearly indicated by the dotted lines. This provides the practitioner with a light, strong and inexpensive portable adjusting or manipulating table provided with the best and most approved features known to the profession at the present time. Our table is also admirably adapted to be used as an office adjusting table.

While we have illustrated and described our improved table in its preferred and most approved construction, we are aware that many minor changes in the details of construction can be made without departing from the essential features of our invention.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. A table for the purpose described comprising a chest-supporting-section and a hip-supporting section each provided with radially-disposed legs supporting tangentially arranged tops, shifting supporting feet pivotally secured to each of said legs and adapted to project laterally from the sides thereof, interchangeable adjustable folding side-braces detachably secured to said legs to maintain said supporting-sections in their relative positions, a tie-piece detachably secured to each of said side-braces to prevent buckling of same, oppositely disposed side-plates secured to each of said supporting sections at the junction of their legs and tangentially arranged tops, a head-rest provided with a central face-opening pivotally secured to the side-plates of the chest-supporting-section, ratchet-plates secured to the under side of said head-rest, a brace pivotally secured to the legs of the chest-supporting section and adapted to engage said ratchet-plates for the purpose of adjusting said head-rest to varying positions, a spring actuated cylinder between the side-plates of the chest-supporting-section and journaled therein, a coiled-spring within said cylinder for actuating the same, a ratchet and pawl mechanism for varying the torsional tension of said spring, a ratchet and pawl mechanism for locking said cylinder against turning in one direction, an idle-roller between said side-plates and journaled therein, a flexible abdominal-support secured to said cylinder and wound thereon and adapted to pass over said idle-roller and be detachably secured to the hip-supporting-section, a thigh-support hinged to the top of said hip-supporting-section, a kneeling-support hinged to said thigh-support in abutting alinement therewith, a supporting bail pivotally secured to said kneeling-support and provided with a stop to limit its rearward movement, a foldable-brace pivotally secured to said thigh-support and the legs of the hip-supporting-section and provided with joints having stop members to lock said brace against folding in one direction while permitting of its being folded in the opposite direction.

2. A table for the purpose described comprising a chest supporting-section and a hip-supporting-section each provided with radially disposed legs supporting tangentially arranged tops, shifting supporting feet secured to each of said legs and adapted to project laterally for the purpose of widening the supporting base of the table, springs to hold said feet in either of their shifted positions, interchangeable adjustable foldable side-braces adapted to be detachably secured to said legs to maintain said supporting-sections in their relative positions, oppositely disposed side-plates secured to each of the supporting-sections, a head-rest provided with a face-opening pivotally secured to the side-plates of the chest supporting-section, a brace pivotally secured to the legs of the chest-supporting-section and adapted to engage with said head-rest for supporting the same in varying positions, a spring-actuated cylinder between the side-plates of the chest supporting-section and journaled therein, a spring within said cylinder for actuating the same and means for varying the torsional tension thereof, a ratchet and pawl for locking said cylinder against turning in one direction, an idle-roller journaled to the side-plates of the chest-supporting-section, a flexible

abdominal-support secured to said cylinder and wound thereon and adapted to pass over said idle-roller and its free-end detachably secured to the hip-supporting-section, a thigh-support hinged to said hip-supporting-section, a kneeling-support hinged to said thigh-support in abutting alinement therewith, a supporting-bail pivotally secured to said kneeling-support and provided with a stop to limit its rearward movement, a foldable-brace pivotally secured to said thigh-support and the legs of the hip-supporting-section and provided with stop-members to lock said brace against folding in one direction while permitting of its folding in the opposite direction.

3. A table of the character described comprising a chest-supporting-section and a hip-supporting-section each provided with radially disposed legs supporting tangentially arranged tops secured thereto, shifting supporting-feet secured to said legs, interchangeable adjustable side-braces detachably secured to said legs to maintain said sections in their relative positions, a head-rest provided with a face opening pivotally secured to said chest-supporting-section and means for supporting the same in varying positions, a spring-actuated cylinder suitably journaled to said chest supporting-section, a spring within said cylinder for actuating the same in one direction and means for varying the torsional tension thereof, suitable means for locking said cylinder against turning in one direction, an idle-roller suitably journaled in said chest-supporting-section, a flexible abdominal-support secured to said cylinder and wound thereon and adapted to pass over said idle-roller and be detachably secured to said hip-supporting-section, a thigh-support hinged to said hip-supporting-section, a kneeling-support hinged to said thigh-support, a supporting-member suitably secured to said kneeling-support, a foldable-brace pivotally secured to said thigh-support and the legs of the hip-supporting-section and provided with joints adapted to lock said brace against collapsing or folding in one direction under end pressure while permitting of its being readily collapsed or folded in the opposite direction.

4. A table for the purpose described comprising a chest supporting-section and a hip-supporting section each provided with legs divergently disposed with relation to each section and supporting top-members perpendicular thereto, interchangeable adjustable side-braces detachably secured to said legs to maintain said sections in their relative positions, a head rest provided with a face opening pivotally secured to said chest-supporting-section and means for supporting the same in various positions, a spring-actuated cylinder journaled to said chest-supporting-section, a suitable spring for actuating said cylinder and means for varying the torsional tension thereof, suitable means for locking said cylinder against turning in one direction, an idle-roller suitably journaled to said chest-supporting-section, a flexible abdominal support secured to said cylinder and wound thereon and adapted to pass over said idle-roller and be detachably secured to said hip-supporting section, a thigh-support hinged to said hip-supporting section, a kneeling-support hinged to said thigh-support, a supporting member suitably secured to said kneeling-support, a foldable brace pivotally secured to said thigh-support and the legs of the hip-supporting section and provided with joints adapted to lock said brace against folding in one direction while permitting it to fold in the opposite direction.

5. A table for the purpose described comprising a chest supporting-section and a hip-supporting-section, interchangeable adjustable side-braces detachably secured to said sections to maintain the same in their relative positions, a head rest secured to said chest-supporting-section and provided with suitable means for supporting it in various positions, a spring-actuated cylinder suitably journaled to said chest-supporting-section, a spring for actuating said cylinder and means for regulating the torsional tension thereof, a flexible abdominal-support secured to said cylinder and wound thereon and adapted to be detachably secured to said hip-supporting-section, a thigh-support hinged to said hip-supporting section, a kneeling-support hinged to said thigh-support, a supporting-member suitably secured to said kneeling support, a foldable-brace suitably secured to said thigh-support and said hip-supporting-section and provided with joints adapted to lock against folding in one direction while permitting of their being folded in the opposite direction.

6. In a table for the purpose described the combination with suitable chest and hip-supporting-sections suitably maintained in their relative positions, of opposing side-plates secured to the chest-supporting-section, a hollow cylinder provided with a fixed journal-end and a removable journal-end journaled in said side-plates, a shaft journaled in said journal ends, a coiled-spring within said cylinder secured at one end to said shaft and at the opposite end to the removable journal-end of said cylinder, a ratchet-wheel secured to said shaft to regulate the torsional force or tension of said spring, a pawl adapted to engage said ratchet-wheel to prevent same from turning in one direction, a ratchet-wheel secured to the removable journal-end of said cylinder, a pawl adapted to engage said ratchet-wheel to prevent it from turning in one direction,

an idle-roller journaled in said side-plates, a flexible abdominal-support secured to said cylinder and wound thereon and its free-end passed over said idle-roller and adapted to be detachably secured to the hip-supporting-section, substantially as shown and specified.

7. In a table for the purpose described the combination with a chest-supporting-section and a hip-supporting-section suitably maintained in their relative positions, of opposing side-plates secured to the chest-supporting-section, a hollow cylinder provided with a fixed journal-end and a removable journal-end journaled in said side-plates, a shaft journaled in said journal-ends, a coiled spring within said cylinder secured at one end to said shaft and at the opposite end to the removable journal-end of said cylinder, a ratchet-wheel secured to said shaft to turn the same to regulate the torsional force of said spring, a pawl adapted to engage said ratchet-wheel to lock it against turning in one direction, a flexible abdominal-support secured to said cylinder and wound thereon and adapted to be detachably secured to the hip-supporting-section, substantially as shown and described.

8. In a table for the purpose specified the combination with a chest-supporting-section and a hip-supporting-section provided with supporting-legs, of binding-screws threaded in said legs, washers threaded on said binding-screws against said legs, a thumb-nut threaded on said binding-screws outside of said washers, interchangeable foldable side-braces composed of end-members having parallel bars provided with a series of notches adapted to engage said binding-screws whereby said side-braces may be firmly clamped between said washers and thumb-nuts to maintain said supporting-sections in their relative positions, substantially as shown and specified.

9. In a table for the purpose specified the combination with a chest-supporting-section and a hip-supporting-section, of interchangeable foldable side-braces composed of end-members having parallel-bars provided with a series of notches adapted to be engaged by detachable retaining members secured to said supporting-sections for the purpose of adjusting said sections at varying distances from each other and maintaining their relative positions, substantially as shown and specified.

10. In a table for the purpose described the combination with a chest-supporting-section and a hip-supporting-section suitably maintained in their relative positions, of a thigh-support hinged to said hip-supporting-section, a foldable-brace pivotally secured to said thigh-support and to said hip supporting-section and provided with joints adapted to lock against folding in one direction while permitting of its being folded in the opposite direction for the purpose of lowering said thigh-support in close proximity to the supporting members of said hip-supporting-section, substantially as shown and specified.

11. In a table for the purpose described the combination with a chest-supporting-section and a hip-supporting-section suitably maintained in their relative positions, of a thigh support hinged to said hip-supporting-section, a kneeling support hinged to said thigh-support in abutting alinement therewith, a supporting-member pivotally secured to said kneeling-support and provided with a stop to limit its rearward movement, a foldable-brace pivotally secured to said thigh-support and to said hip-supporting-section and provided with joints adapted to lock against folding in one direction while permitting of folding in the opposite direction for the purpose of lowering said hip-support to a position whereby said kneeling-support will assume a substantially horizontal position when its supporting-member is resting on the floor, substantially as shown and specified.

12. A table for the purpose described comprising a chest-supporting-section, a hip-supporting-section, laterally projecting shifting feet suitably secured to the lower extremities of said supporting-sections, foldable adjustable side-braces suitably secured to said supporting-sections to maintain said sections in their proper relative positions, a head rest provided with a face-opening suitably secured to said chest-supporting-section, suitable means for supporting said head-rest in varying positions, a spring-actuated cylinder suitably journaled to one of said supporting sections, a coiled-spring within said cylinder to actuate the same, means for varying the torsional tension of said spring, means for locking said cylinder against turning in one direction, a flexible abdominal-support secured to said cylinder and wound thereon and adapted to be detachably secured to the opposing supporting-section, a thigh-support suitably secured to said hip-supporting-section, a foldable-brace suitably secured to said thigh-support and to said hip-supporting-section and provided with means whereby said brace may be locked against folding in one direction while permitting of its being folded in the opposite direction for the purpose of lowering said thigh-support to a position whereby said kneeling-support will be supported by its supporting-member in substantially a horizontal position, substantially as shown and described.

13. A table comprising a chest-supporting-section and a hip-supporting-section each provided with suitably disposed legs, laterally projecting shifting-supporting-feet

pivotally secured to the ends of said legs to increase the supporting stability of said sections and adapted to have a binding engagement with opposite sides of said legs when supporting the weight of said sections, means for holding said feet in either of their shifted positions, detachable adjustable side-braces to maintain said supporting-sections in their relative positions, a spring-actuated-cylinder journaled to said chest-supporting-section, means for locking said cylinder against turning in one direction, a flexible abdominal-support secured to and wound on said cylinder with its free-end adapted to be detachably secured to said hip-supporting-section, a head-rest pivotally secured to said chest-supporting-section, and means for supporting it in any desired position, a thigh-support hinged to said hip-supporting-section, means for maintaining said thigh-support in its relative positions, a kneeling-support hinged to said thigh-support, and a supporting-member suitably secured thereto, to maintain said support in a position to permit a person to kneel thereon, all co-acting for the purpose specified.

14. A table comprising a chest-supporting-section and a hip-supporting-section, shifting supporting-feet pivotally secured to the lower extremities of said sections to increase the supporting-stability of said sections, springs to hold said feet in either of their shifted positions, detachable side-braces to hold said sections in their relative positions, a cylinder journaled to one of said sections and provided with means for locking the same against turning in one direction, a coiled-spring within said cylinder and provided with means for varying the torsional tension thereof, an abdominal support secured to and wound upon said cylinder its free-end adapted to be detachably secured to the opposing supporting-section, a thigh-support hinged to said hip-supporting-section, and a collapsible brace to maintain the same in a horizontal position, all coacting as specified.

15. A table comprising a chest-supporting-section and a hip-supporting-section, shifting supporting-members secured to the lower extremities of said sections to increase the supporting stability of said sections, suitable side-braces to retain said sections in their relative positions, a cylinder journaled to one of said supporting-sections, a spring within said cylinder to actuate the same and means for varying the torsional tension thereof, an abdominal-support secured to and wound upon said cylinder its free-end adapted to be detachably secured to the opposing section, a thigh-support secured to said hip-supporting-section, and means for supporting it in its extended position, all co-acting as specified.

16. A table comprising a chest-supporting-section provided with an adjustable-head-rest, a hip-supporting-section provided with an adjustable thigh-support, shifting supporting-members secured to the lower extremities of said sections to increase the supporting stability of said sections, adjustable side-braces to hold said supporting-sections in their relative positions, a yielding abdominal-support suitably secured to one of said supporting-sections and adapted to be detachably secured to the opposing supporting-section, all co-acting for the purpose specified.

17. A table of the character described comprising a chest-supporting-section and a hip-supporting-section each provided with suitably disposed supporting-legs, detachable adjustable side-braces to maintain said sections in their relative positions, a cylinder journaled to said chest-supporting-section and means provided for locking the same against turning in one direction, a flexible abdominal-support secured to and wound upon said cylinder with its free end adapted to be detachably secured to said hip-supporting-section, a head-rest pivotally secured to said chest-supporting-section and provided with means for supporting it in various positions, a thigh-support hinged to said hip-supporting-section and provided with suitable means for maintaining the same in its relative positions, a kneeling-support hinged to said thigh-support and provided with a supporting-member adapted to maintain said support in a position to permit a person to kneel thereon, all co-acting for the purpose specified.

18. A table of the character described comprising a chest-supporting-section and a hip-supporting-section, shifting-supporting-members suitably secured to the lower extremities of said sections to increase their supporting stability, side-braces to maintain said sections in their relative positions, a cylinder journaled to one of said sections and provided with means for locking said cylinder against turning in one direction, an abdominal-support secured to and wound upon said cylinder with its free end adapted to be detachably secured to the opposing section, a coiled-spring within said cylinder to actuate the same and provided with means for varying the torsional tension of said spring against the action of said abdominal-support, a thigh-support suitably secured to said hip-supporting-section and provided with means for maintaining the same in an extended position, all co-acting for the purpose specified.

19. A table of the character described comprising a chest-supporting-section and a hip-supporting-section, suitable side-braces to maintain said sections in their relative positions, a cylinder journaled to one of said

sections, an abdominal-support secured to and wound upon said cylinder with its free end adapted to be detachably secured to the opposing section, a coiled-spring within said cylinder to actuate the same and means provided for varying the torsional tension of said spring against the action of said abdominal support, a thigh-support pivotally secured to said hip-supporting-section and provided with means for supporting the same in its extended position, all co-acting for the purpose specified.

20. A table of the character described comprising a chest-supporting-section provided with an adjustable head-rest, a hip-supporting-section provided with an adjustable thigh-support, shifting supporting-members secured to the lower extremities of said sections to increase their supporting stability, adjustable folding side-braces to maintain said sections in their relative positions, a yielding abdominal-support secured by suitable means to one of said supporting-sections and adapted to be detachably secured to the opposing section, all co-acting for the purpose specified.

In witness whereof, we have each hereunto set our hands and seals in the presence of two subscribing witnesses.

WALTER S. WOOD. [L. S.]

Witnesses:
EMERSON B. WOOD,
STANLEY K. WOOD.

DORR E. WOOD. [L. S.]

Witnesses:
BESSIE J. WOOD,
THEONE H. WOOD.