

J. V. McMANIS & W. L. SHERWOOD.

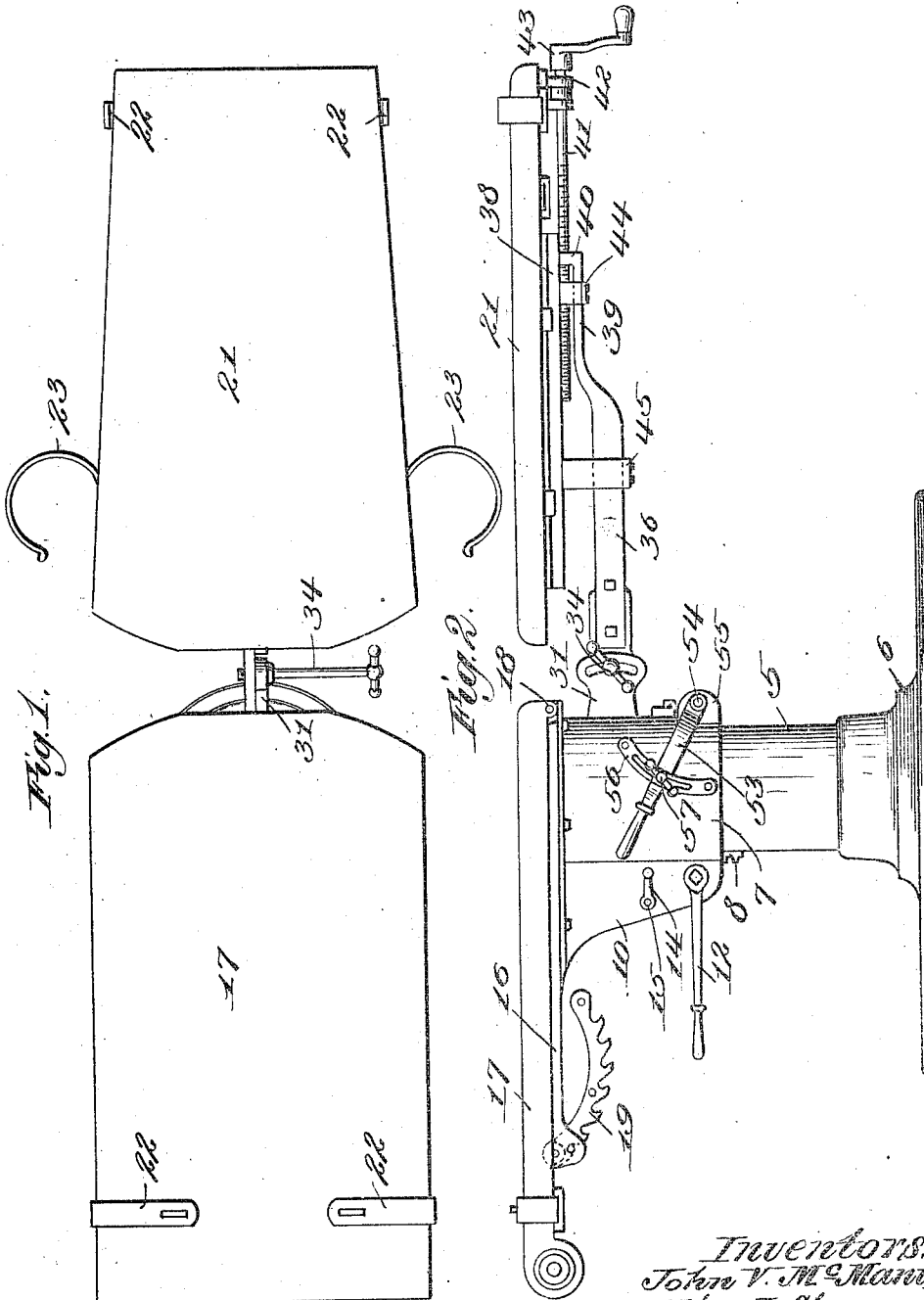
OSTEOPATHIC TABLE.

APPLICATION FILED APR. 3, 1911.

Patented Sept. 17, 1912.

4 SHEETS—SHEET 1.

1,038,619.



Witnesses.
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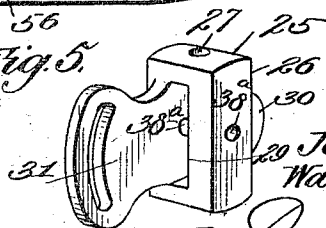
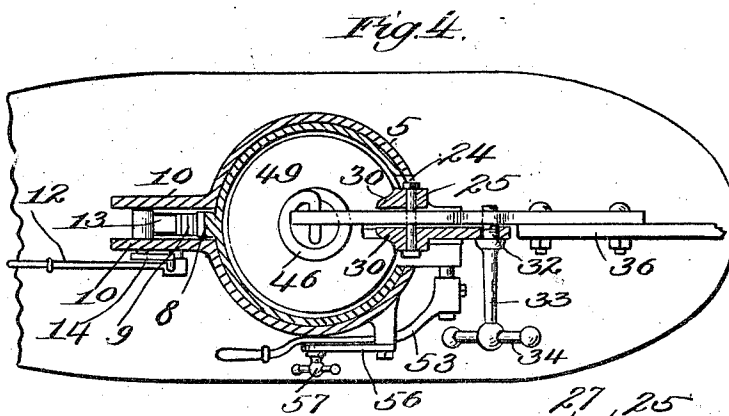
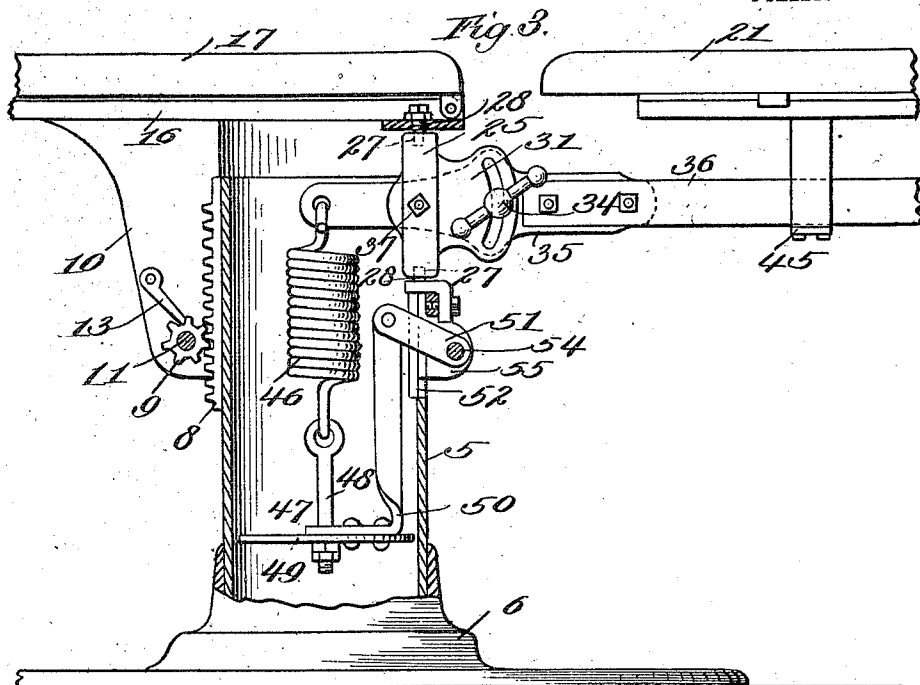
OSTEOPATHIC TABLE.

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4 SHEETS—SHEET 2.

1,038,619.



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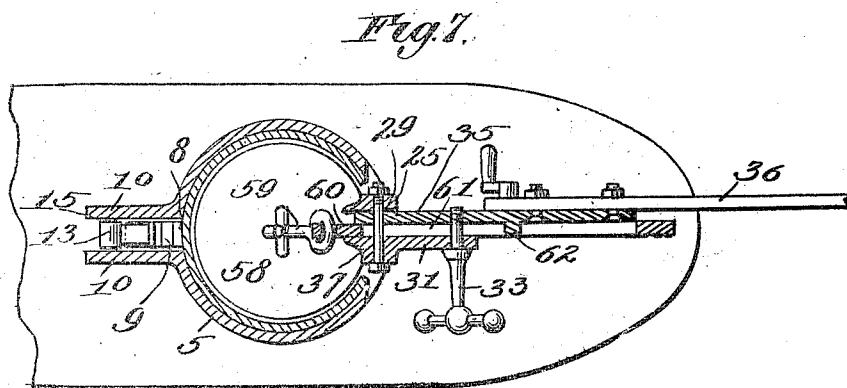
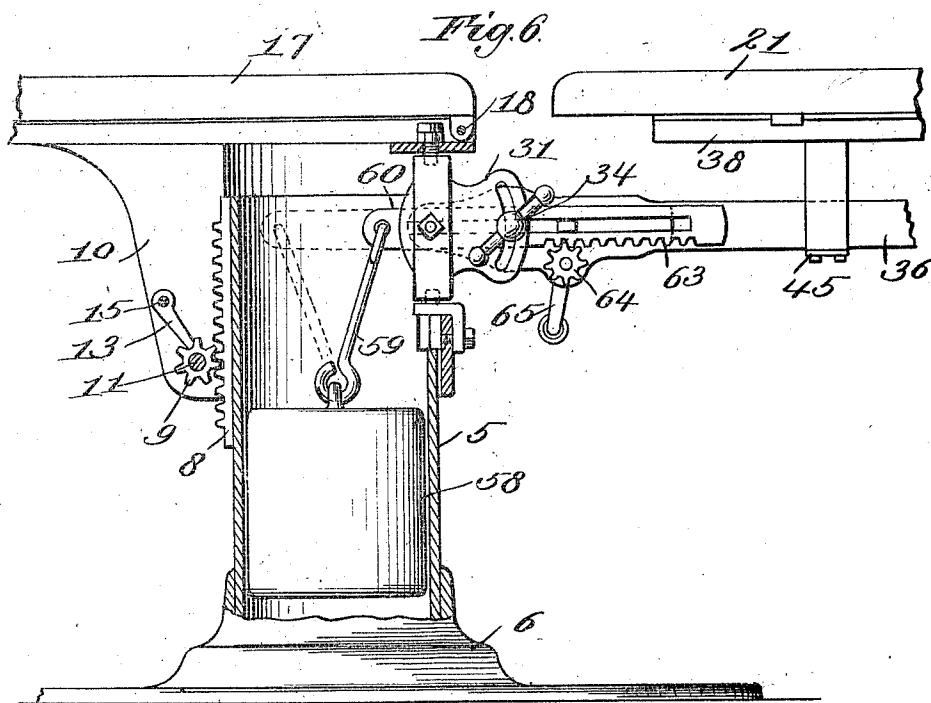
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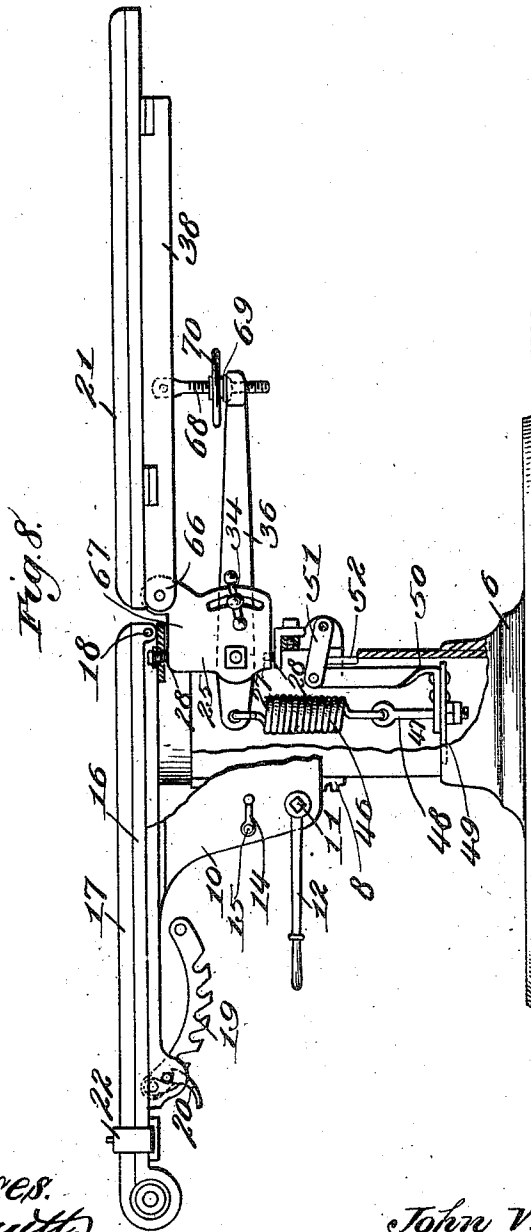
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4 SHEETS—SHEET 4.

1,038,619.



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UNITED STATES PATENT OFFICE.

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SHERWOOD ASSIGNOR TO SAID McMANIS.

OSTEOPATHIC TABLE.

1,038,619.

Specification of Letters Patent.

Patented Sept. 17, 1912.

Application filed April 3, 1911. Serial No. 618,583.

To all whom it may concern:

Be it known that we, JOHN V. McMANIS and WALKER L. SHERWOOD, citizens of the United States, residing at Kirksville, in the county of Adair and State of Missouri, have invented new and useful Improvements in Osteopathic Tables, of which the following is a specification.

This invention relates to osteopathic tables for use by osteopathic practitioners in treating patients by the movement and stretching of various parts of the body.

The primary object of the invention is to provide a table of the class set forth embodying mechanical structures which permit a multiplicity of adjustments and movements and also whereby a stretching tension or force may be applied to a patient and regulated to accord with existing physical conditions, particularly in treating the spine and ribs by means adopted in osteopathic methods.

A further object of the invention is to provide a table to aid an osteopathic practitioner in treating a patient with increased ease of manipulation and with more effectiveness in correcting irregularities of the spine and ribs, and especially the cervical and dorsal vertebrae, as well as ordinary curvatures, sprains and the like.

The invention primarily consists in the provision of a table having a section for supporting or holding the torso of the human body and a swinging section which may be lowered by pressure and having means for compensating for varying weights thereon and operating to return to its original or normal position when pressure is released.

The invention also consists in the construction, arrangement and combination of elements which will be more fully hereinafter described and claimed in preferred form and subject to modification and variations in the proportions and dimensions as well as details of construction without departing from the scope of the claims.

In the drawings: Figure 1 is a top plan view of the table embodying the features of the invention. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged view in sectional side elevation of parts of the table sections and particularly illustrating the mechanism cooperating with the pillar or pedestal which serves as the support for the

whole table. Fig. 4 is a horizontal section taken through the pillar or pedestal near the top portion of the latter. Fig. 5 is a detail perspective view of the swivel to which the leg or lower body section is adjustably connected. Fig. 6 is a view similar to Fig. 3 showing a slight modification. Fig. 7 is a horizontal section through the pillar or pedestal shown by Fig. 6. Fig. 8 is a side elevation of the table showing the pedestal and other parts broken away and illustrating a further modification.

The numeral 5 designates a supporting pedestal or pillar having a base 6 and a tubular cap 7 movably fitted thereover. The pedestal or pillar 5 has a vertical rack 8 secured thereto and engaged by a pinion 9 held between flanges 10 of the cap and fixed on a shaft 11 bearing in said flanges and operated by a crank handle or lever 12 secured on one end thereof exteriorly of one of the flanges 10. A locking dog 13 is also operatively disposed between the flanges 10 to engage and lock the pinion 9 against movement, the said dog being thrown into and out of engagement relatively to the pinion 9 by a handle or analogous device 14 exterior of the flange 10 against which the lever or crank handle 12 is applied and attached to a pin or small shaft 15 to which the dog 13 is fixed. By exerting a downward pressure on the lever 12, the pinion 9 is operated and through the rack 8 the cap 7 is moved upwardly, the dog 13 remaining in engagement with the said pinion 9. When it is desired to lower the cap the dog 13 is released from the pinion and the cap by its weight, together with the parts supported thereon, will gravitate or lower. On the cap 7 a frame or bed 16 is secured and said frame or bed adjustably supports or holds a main body or torso section 17 which is hinged at its inner end as at 18 to the corresponding end or extremity of the frame 16 and has a segmental or curved ratchet bar 19 movably connected to the under side thereof near the outer end and slidable through the outer end of the frame 16, a suitable locking pawl or dog 20 being provided to hold said frame in horizontal position. Through the medium of the ratchet bar just explained and the hinge 18 the main section 17 of the table may be elevated to any angle desired. The pedestal or pillar 5 is hollow, and adjustably connected there-

to so as to have a lateral swinging and vertical movement is an auxiliary or lower body table section 21 which is so controlled by mechanism more fully hereinafter explained that when it is depressed by exerting a pressure thereon and released from said pressure it will return to its original or normal position, as the case may be, and in accordance with its adjustment.

The table sections 17 and 21 may be suitably upholstered and padded, or they may be constructed without upholstery or pads, and each section has means as 22 for applying fastenings devices or suitable harness or straps for securing the parts of the body on the table as a whole, and the section 21 is also provided with leg or knee braces or holding means as at 23.

All of the forms of the table shown embody the common features thus far described and the same principle of operation so far as depression and automatic return movement of the auxiliary or lower body section 21 relatively to the main section 17 are concerned.

Referring now particularly to Figs. 1, 2, 3, 4 and 5, the pedestal 5 at a point diametrically opposite the position of the rack 8 is formed with an opening 24 in which a swivel member 25 is mounted and as shown in preferred form consists of an upright block-like member or body 26 having openings 27 in the upper and lower ends thereof engaged by swivel bolts 28 projecting inwardly in opposition from the upper and lower walls of the opening 24. The body 26 has a slot 29 extending therethrough and an inner pair of lugs 30 on opposite sides of the slot. Projecting forward from the body 26 at one side of the slot 29 is a slotted segment 31 which is engaged by a clamping screw 32 of a hand-operated clamp 33 having an outer cross-head 34 within easy reaching distance of an operative. The screw 32 engages an inner metallic section 35 of an arm 36, said section 35 extending through the opening 29 and pivoted in the swivel member 25 by means of a suitable bolt or pin 37 extending through openings 38 in the said swivel and a corresponding opening in the portion of the section 35 projecting through the swivel. The arm 36 continues outwardly under the auxiliary table section 21 and has its outer extremity reduced and projected upwardly in a plane parallel with a frame 38 supporting the auxiliary table section 21 as at 39, the outer end of the arm 36 being formed with a guide 40 of an adjusting screw 41, the said guide being in the form of a screw-eye so that by the operation of the screw 41 the section 21 and its frame 38 may be shifted longitudinally in opposite directions relatively to the section 17 to increase or decrease the distance between the inner ends of the two table

sections. The outer extremity of the screw rod 41 is mounted in a bearing 42 in which it freely turns, and on its outer end the said rod has an operating crank-handle 43. Depending from the frame 38 are guides 44 and 45 which are in the form of slides movable on different portions of the arm 36 to maintain the frame 38 and auxiliary table section 21 in constant relation as to position to the said arm 36. The inner end of the arm 36 or rather the section 35 of said arm extends into the upper portion of the pedestal 5, and secured thereto is the upper extremity of a retractile spring 46 having its lower extremity connected to a tension regulating means 47 embodying an eye-bolt 48 to which the end of the spring is attached, a foot plate 49 engaged by the said eye-bolt, an angle arm 50 having its lower end attached to the plate 49 and its upper end movably connected to a link 51 projecting through an opening 52 in the pedestal 5, and an operating lever or adjusting device 53 secured to one end of a shaft 54 having bearing in ears 55 and to which the link 51 is fixed. The link 51 operates as a crank-arm and with the shaft 54 constitutes crank mechanism for adjusting the arm 50 and the plate 49 and bolt 48. The lever 53 is maintained in its adjusted position through the medium of suitable cranking devices comprising a slotted segment 56 secured to the cap 7 and under which the said lever 53 projects, and engaging the lever and the segment 56 is a suitable clamping screw 57 which is freely shiftable in the slot of said segment when loosened. The purpose of modifying the tension of the spring 46 is to compensate for the weight pressure on the auxiliary table section 21 and also to always maintain the said auxiliary section, so far as the action of the spring is concerned, in horizontal position. The adjustment of the arm 36 and the movement therewith of the auxiliary section 21 in a downward direction will be performed against the resistance of the spring 46, and to maintain the said auxiliary section 21 in depressed position the clamping device 33 is brought into play and is operated so as to tightly engage the slotted segment 31 and thereby hold the section 21 at any angle of depression that may be desired. When the clamping device 33 is released the spring 46 by its retractile effort and through the arm 36 and section 35 of the latter will automatically elevate the auxiliary section 21 and its frame 38 to normal position or to the position it may have originally had prior to depression thereof.

It will be understood that the auxiliary section 21 may be elevated above a horizontal plane and such position maintained by the same means as just explained. The auxiliary section 21 through the medium of

the swivel member 25 is also movable laterally in opposite directions, no matter what the position of the said auxiliary section 21 may be relatively to a horizontal plane.

In the form of the table illustrated by Figs. 6 and 7, the essential features heretofore described are embodied and similar parts have like reference characters applied thereto, and the specific differences will now be described. The arm 36 in the modified form shown by Figs. 6 and 7 is provided with a metallic section 35 which is pivoted in the slot 29 of the swivel member 25 and the adjustment of the said arm is accomplished through the medium of the slotted segment 31 and clamping device 33 to raise and lower said arm and the auxiliary table section 21 below or above a horizontal plane in a manner similar to the construction hereinbefore described. The longitudinal adjustment of the auxiliary section 21 is also present in the modification shown by Figs. 6 and 7 and the same means will be used for this particular movement as illustrated by Fig. 2. In the modification, however, the spring 46, heretofore described, is replaced by a weight 58 which is vertically movable in the pedestal 5 and has a link 59 secured to the upper end thereof and to the inner end of a shifting bar 60 associated with the section 35 of the arm 36 and longitudinally slotted as at 61 to move relatively to the pivot bolt or pin 37 which extends through the said slot. To maintain the shifting bar 60 in proper relation to the section 35 and arm 36, a lug 62 is formed with or secured to the section 35 and also projects through the slot 61 of the said shifting bar. The shifting bar is formed with rack teeth 63 in a portion of its lower edge, said teeth being held in continual mesh with a pinion 64 rotatably supported on a depending portion of the section 35 and having an operating crank-handle 65, as clearly shown by Fig. 6. The purpose of the shifting bar 60 and the adjusting means therefor is to modify the leverage of the arm 36 to compensate for varying weight pressures that may be imposed on the auxiliary section 21 and when the said auxiliary section is depressed it may be maintained at any angle desired relatively to a horizontal plane through the clamping means coöperating with the arm 36, but as soon as the said clamping means is released the weight 58 will be free to act and automatically raise or elevate the auxiliary section 21 to its original or normal position. In view of the fact that the link 59 is loosely attached at its opposite extremity to the weight and shifting bar, the auxiliary section 21 and the parts coöperating therewith may be readily shifted laterally in opposite directions in the same manner as in the construction hereinbefore explained.

In the form of the device shown by Fig. 8 the essential features of the invention are also embodied in a manner similar to the constructions heretofore described and like reference characters are applied to the common features. In the form of the table shown by Fig. 8 the auxiliary table section 21 is not longitudinally adjustable and has its inner end hinged as at 66 to an upper extension 67 of the swivel member 25. The arm 36 is shorter than in the preceding structures but is adjustable in the swivel member 25 vertically with respect to a horizontal plane and has the spring 46 attached to the inner end thereof in a manner similar to the construction of the table disclosed by Figs. 1, 2, 3 and 4. Depending from the frame 38 of the auxiliary section 21 is a screw-rod 68 which is pivoted at its upper end to said frame 38 and has its screw-threaded portion adjustably projecting through the outer end of the arm 36. Disposed on the upper edge of the arm 36 and always maintained in the same relative relation thereto is a screw adjusting device 69 having an operating hand-wheel 70, and by operating the latter wheel the auxiliary table section 21 may be elevated or depressed relatively to the arm 36 without adjusting the latter and after the spring 46 has been set to exert a specific tension or spring action on the auxiliary table section 21. The downward adjustment of the screw-rod 68 and the table section 21 will, however, tighten the spring 46, or the tension of the spring is increased and a reverse operation of the screw-rod lessens the tension on the spring, and by this means variations in pressure on the section 21 may be readily accomplished and accommodated.

In the use of any one of the forms of table shown in the accompanying drawings the patient is placed on the sections 17 and 21 and the different parts of the body secured. By adjusting the auxiliary section 21 or by moving it laterally in opposite directions as well as vertically various movement treatments may be pursued, and, furthermore, the body may be stretched to rectify spinal and vertebral irregularities, and when the clamping means for the arm 36 is loosened the section 21 may be readily depressed against the resistance of the spring or the weight in the pedestal 5 and when the pressure is released from said section the latter will be caused to return to its original position, with great convenience in treating deformities and in expeditiously manipulating the table without requiring a delay or the inconvenience incident to releasing and securing devices that are ordinarily adopted for holding parts of tables of this class in elevated position against the weight pressure imposed thereon.

The table as a whole through the mecha-

nism hereinbefore described may be raised and lowered, and the main section 17 may also be elevated when it is desired to pursue or to perform gynecological treatments 5 or operations.

What is claimed as new is:

1. In a table of the class specified, the combination of a main table section having a supporting means, an auxiliary terminal 10 table section held by and extending from the supporting means of the main table section, means permitting the auxiliary section to have depressing and lateral movements, and means operating with the auxiliary section to restore the latter to its original position from either a depressed or lateral position. 15

2. In a table of the class specified, a main table section having a single intermediate 20 supporting pedestal, an auxiliary terminal table section movably suspended at one extremity by and extending from the said pedestal and having depressing and lateral movements, the space below the means for 25 holding the auxiliary table to the pedestal being clear, and means cooperating with the auxiliary table section to restore the latter to its original position when released.

3. In a table of the class specified, the 30 combination of a supporting pedestal, a main table section mounted on the said pedestal, an auxiliary table section movably associated with the main table section and having a depressing movement, and means 35 cooperating with the auxiliary table section to restore the latter to its original position when released and also to adapt the same to compensate for variations in weight pressure thereon.

4. In a table of the class specified, the 40 combination of a main table section having supporting means, an auxiliary table section movably associated with the main section and depressible below the horizontal plane 45 of the main table, and means cooperating with the auxiliary section to compensate for variations in weight pressure thereon.

5. In a table of the class specified, the 50 combination of a main table section having supporting means, an auxiliary table section movably attached to the supporting means and capable of a lateral adjustment in opposite directions and also a vertical movement, and means cooperating with the auxiliary 55 section to restore the latter to its original position when released.

6. In a table of the class specified, a main table section having supporting means, an auxiliary table section movably associated

with the main table section and depressible 60 below a horizontal plane, means for clamping the auxiliary table section in its adjusted position relatively to a horizontal plane, and means for compensating for weight variations on and for restoring the auxiliary 65 section to its original position when pressure is relieved from the said auxiliary section.

7. In a table of the class specified, a main table section having a single intermediate 70 supporting means, an auxiliary table section movably held at one extremity by the supporting means and capable of depression and lateral movements by manual power, and means cooperating with the auxiliary 75 section to set up a resistance to depression thereof from a normal position and to restore the same to normal position when relieved of pressure.

8. In a table of the class specified, a main 80 table section having vertically adjustable supporting means, an auxiliary table section movably held by said supporting means and depressible below the plane of an original position, and means cooperating with 85 the auxiliary section to restore the latter to its original position when released from a depressed position.

9. In a table of the class specified, a main 90 table section having supporting means, an auxiliary table section movably associated with the main table section and its supporting means and adjustable laterally in opposite directions and also vertically, means for 95 adjusting the auxiliary section longitudinally with relation to the main section, and means cooperating with the auxiliary section to cause the latter to exert a resistance to the pressure imposed thereon.

10. In a table of the class specified, a main 100 table section, an auxiliary table section suspended in relation to said main section and having means cooperating therewith and freely movable to permit rising and depressing and lateral swing movements of said 105 auxiliary section relatively to a normal position, and means cooperating with said auxiliary table section tending to restore it to normal position.

In testimony whereof we have hereunto 110 set our hands in presence of two subscribing witnesses.

JOHN V. McMANIS.
WALKER L. SHERWOOD.

Witnesses:

JAMES T. PAYNE,
EDWARD G. LONG.