J. V. McMANIS.

TREATMENT TABLE.

APPLICATION FILED AUG. 16, 1917.

1,371,502.

Patented Mar. 15, 1921.

3 SHEETS—SHEET 1.

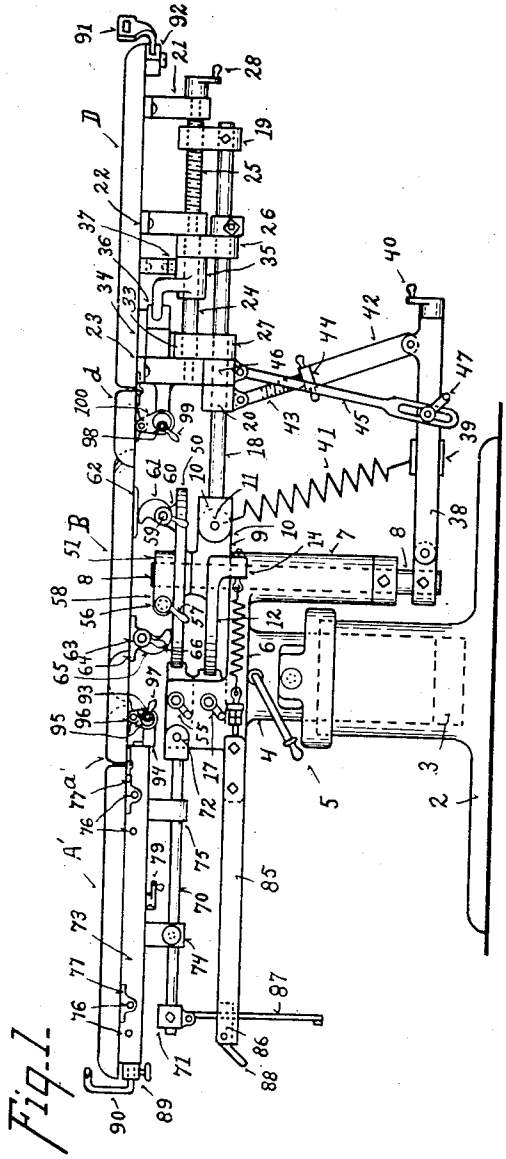


Fig. 1.

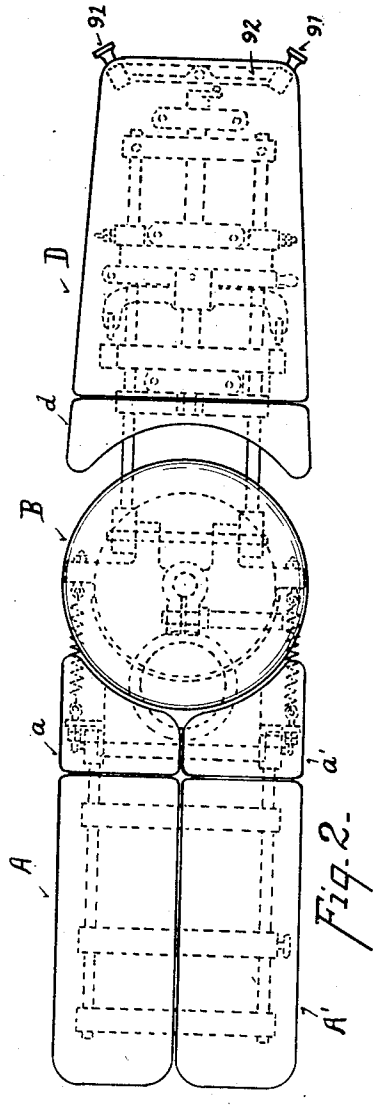


Fig. 2.

Witness

A. Kassan

C. R. Kropff

Inventor.

John V. McManis

By C. W. Miles.

Attorney

J. V. McMANIS.

TREATMENT TABLE.

APPLICATION FILED AUG. 16, 1917.

1,371,502.

Patented Mar. 15, 1921.

3 SHEETS-SHEET 2.

Fig. 3.

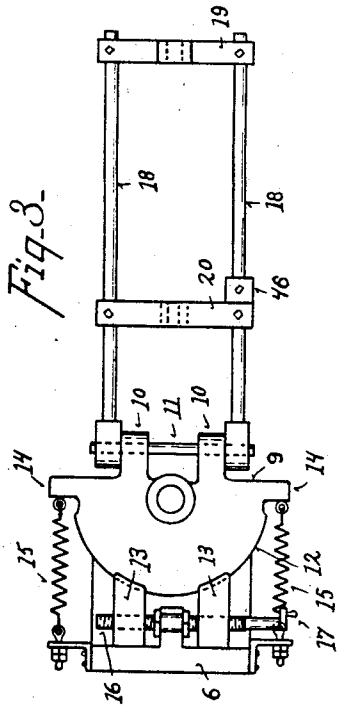


Fig. 4.

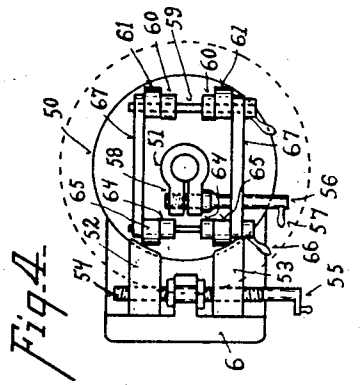


Fig. 5.

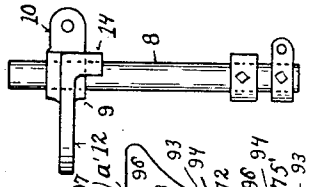


Fig. 7.

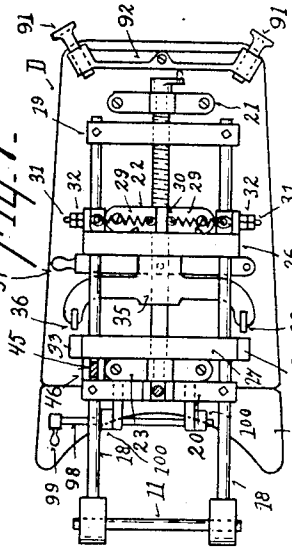


Fig. 8.

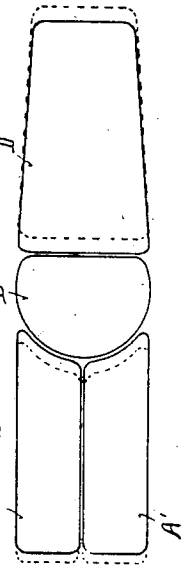


Fig. 6.

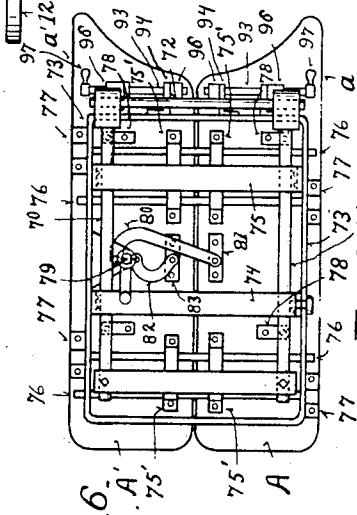
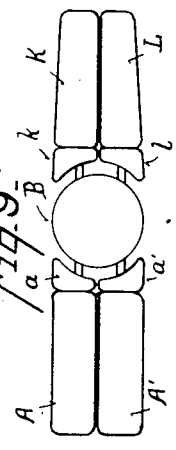


Fig. 9.



Witness

R. D. Kerr

C. R. Kropff

Inventor

John V. McManis.

By C. W. Miles.

Attorney

J. V. McMANIS.

TREATMENT TABLE.

APPLICATION FILED AUG. 16, 1917.

1,371,502.

Patented Mar. 15, 1921.

3 SHEETS—SHEET 3

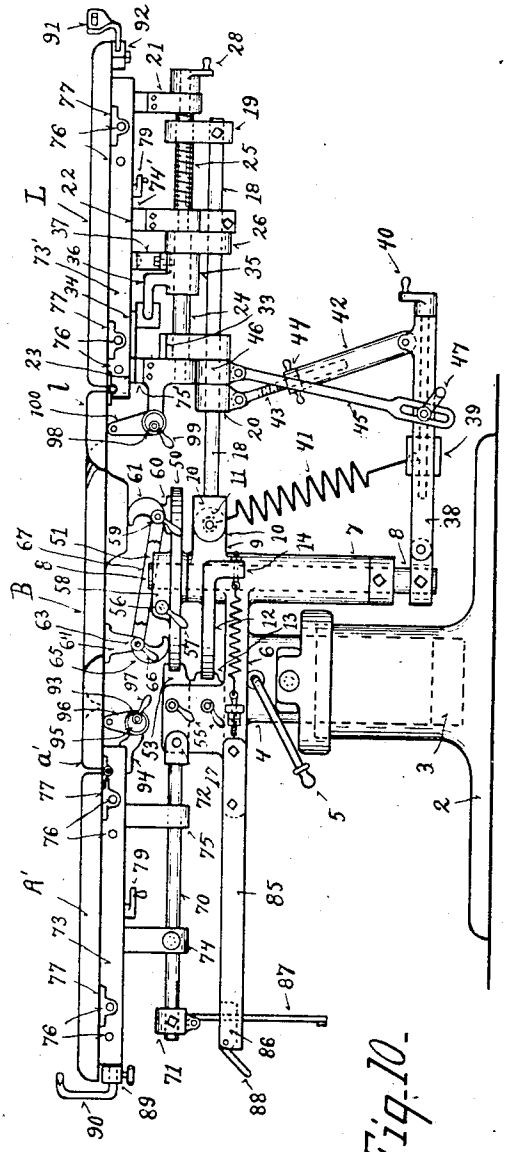


Fig. 10.

Inventor

John V. McManis,

By C. W. Miles.

Attorney

UNITED STATES PATENT OFFICE.

JOHN V. McMANIS, OF KIRKSVILLE, MISSOURI.

TREATMENT-TABLE.

1,371,502. Specification of Letters Patent. Patented Mar. 15, 1921.

Application filed August 16, 1917. Serial No. 186,631.

To all whom it may concern:

Be it known that I, JOHN V. McMANIS, a citizen of the United States, residing at Kirksville, in the county of Adair and State of Missouri, have invented certain new and useful Improvements in Treatment-Tables, of which the following is a specification.

My invention relates to improvements in treatment tables for the use of osteopaths and similar purposes. One of its objects is to provide an improved arrangement and combination of table top sections and means to support the same to obtain a variety of positions and movements thereof. Another object is to provide an improved form of intermediate and auxiliary top sections with means to oscillate and adjust them separately and jointly, and preserving their respective adjustments and their adjustment to and from each other. Another object is to provide an improved relation and adjustment between the main table top section and the intermediate top section. Another object is to provide an improved type of intermediate top section and locking and adjusting mechanism therefor. My invention also comprises certain details of form, combination and arrangement, all of which will be fully set forth in the description of the accompanying drawings, in which:

Figure 1 is a side elevation of a table embodying one form of my improvements.

Fig. 2 is a plan view of the same.

Fig. 3 is a detail of a portion of the auxiliary top section supporting locking and adjusting mechanism detached.

Fig. 4 is a detail of a portion of the intermediate top section supporting, locking, and adjusting mechanism detached.

Fig. 5 is a side elevation of a portion of the mechanism of Fig. 3.

Fig. 6 is a bottom plan of the main top section, and its supporting, locking, and adjusting mechanism.

Fig. 7 is a bottom plan of the auxiliary top section and its supporting locking and adjusting mechanism.

Fig. 8 is a plan similar to Fig. 2 illustrating a modification.

Fig. 9 is a plan illustrating a modification.

Fig. 10 is a view similar to Fig. 1, illustrating the manner of adjustably mounting the oscillatable top sections of Fig. 9.

The accompanying drawings illustrate the preferred embodiments of my invention.

In Figs. 1 to 7, the main table top section is divided longitudinally into two separable segments A A′ with segments *a* and *a′* carried by and adjustable relative thereto. B represents the intermediate table top section, and segments D and *d* the auxiliary table top section having a section *d* carried by and adjustable relative thereto.

Provision is made to move the main top section to and from the intermediate top section, and also to incline the main top section to any desired angle and lock it to position. Provision is also made to separate the two segments A A′ of the main top section carrying with them the segments *a* and *a′* to form a longitudinal gap, and to lock said segments in closed and open positions. Provision is also made to adjust and lock the segments *a* and *a′* to different positions of angularity relative to the segments A and A′.

Provision is made to incline the intermediate top section to the left hand or right hand in Fig. 1, or by elevating or lowering it at the same time at both points to adjust it to different positions vertically with its upper face in horizontal planes, and to lock it to any of said positions. The intermediate top section is also independently rotatably mounted upon a vertical axle, and may be locked to various positions of adjustment about said axle. The intermediate top section is also adapted to be locked to said vertical axle so as to move in unison with the movements of the auxiliary top section upon said vertical axle.

The auxiliary top section comprises the segment D and segment *d* carried by and angularly adjustable relative to segment D, and is oscillatable relative to its support or base upon said vertical axle and also upon a transverse horizontal axle and upon an axle longitudinally of and parallel to said auxiliary top section, and is adjustable to and from said intermediate top section along said longitudinal axle. Independent locking mechanism is provided to lock said auxiliary top section against movement upon each of said axles. The endwise adjustment of the auxiliary top section to and from the intermediate top section may be made independently of and without disturbing the other adjustments and locking means. All of the top sections are adjustable together vertically and rotatably relative to the base on which they are supported.

The base 2 has a vertical cylinder 3 formed therein to receive a plunger or pedestal 4 which is provided with a pump mechanism actuated by a pump handle 5 to pump a liquid from a storage chamber in pedestal 4 into the cylinder 3 below the pedestal to elevate the pedestal. At another position of the pump handle ports are opened to return the liquid from the cylinder to the storage chamber to lower the pedestal.

The pedestal 4 is provided with a platen 6 and a vertical sleeve 7 to form a journal box for the vertical axle 8. A head 9 is rigidly attached to the axle 8 and is provided with ears 10 to support the transverse horizontal axle 11, a locking segment 12, and cross arms 14 to which springs 15 are attached to resiliently support the auxiliary top section and return it to a predetermined or normal position relative to its movement upon axle 8. A pair of brake shoes 13 movable to and from each other by means of a right and left hand screw 16 journaled to the platen 6 and actuated by a hand lever 17 serve to lock the head 9 to any position of angularity relative to the pedestal.

The axle 11 rotatably supports a rectangular frame composed of the cylindrical rods 18 and the cross bars 19 and 20. Attached to the under side of the auxiliary top section are three brackets 21, 22 and 23 in which are independently journaled a longitudinal axle 24 and a screw rod 25. Brackets 26 and 27 are rotatably mounted on the axle 24, and mounted to slide endwise on the cylindrical rods 18 which adjustment is effected by turning the hand crank 28 of screw rod 25, said screw being threaded through the cross bar 19, which causes the auxiliary top section to move endwise to or from the intermediate top section. Opposed springs 29, see Fig. 7, attached at one end to a downward projection 30 of bracket 22 and at their opposite ends to eye-bolts 31 passing through lugs attached to bracket 26 and tensioned by means of nuts 32 serve to resiliently hold the auxiliary top section in a predetermined position relative to axle 24. The bracket 27 carries lugs 33, and shoes 34 are attached to the under face of the auxiliary top section. A hub 35 movable endwise on axle 24 and having projecting arms 36 to enter between the lugs 33 and shoes 34, serves when actuated by hand lever 37 to lock the auxiliary top section against oscillatory movement upon the axle 24.

At the lower end of the vertical axle 8 is pivotally connected a slotted frame 38 on which is mounted a carriage 39 adjustable endwise of frame 38 by means of a screw rod actuated by hand crank 40. One or more springs 41 are attached at one end to the transverse axle 11 and at the opposite end to the carriage 39, and tend to lift the frame 38. Attached pivotally to frame 38 is a tubular member 42, and pivotally attached to the cross bar 20 is an eye bolt 43 the threaded end of which telescopes in the tubular member 42, a nut 44 is threaded to eye bolt 43 and rests upon the upper end of tubular member 42 to transmit the upward thrust of frame 38 to the rectangular frame carried on the transverse axle 11 to resiliently support the auxiliary top section relative to its movement upon the transverse axle 11. By moving the carriage 39 this resilient support for the auxiliary top section may be varied as required to support patients of different weight. A locking bar 45 is pivotally connected to a collar 46 on one of the rods 18, and is slotted at its opposite end, and adapted to be locked to frame 38 by a bolt and hand lever 47, to lock the auxiliary top section against movement on the axle 11. When the bar 45 is locked to frame 38, the auxiliary top section will still yield downwardly to a limited extent due to extension of the springs and to a separation of the nut 44 under strain from the end of the tubular member 42.

The intermediate top section is mounted upon a horizontal disk 50 having a split hub 51 which seats upon the vertical axle 8 above the head 9, and when not clamped to said axle is free to rotate thereon with the head 9 as a thrust bearing. A pair of brake shoes 52, and 53 movable to and from each other by means of a right and left hand screw rod 54 actuated by a hand lever 55, and journaled to the platen 6 serve to lock the disk 50 to any desired position. A screw rod 56 with a hand lever 57 is threaded to one of the ears 58 of the split hub 51, which enables the split hub to be rigidly clamped to the upper end of axle 8 so as to rotate therewith. An axle 59 is journaled in ears 60 carried by the upper face of the disk 50. Attached rigidly to the axle 59 are cams 61 which engage shoes 62 on the under face of the intermediate top section to support one end thereof in either an upper or lower position relative to the disk 50. A hand lever enables axle 59 to be turned by hand to adjust the cams 61. An axle 63 is journaled in ears 64 attached to the under face of the intermediate top section, and said axle has rigidly mounted thereon cams 65 which engage the upper face of disk 50 to raise or lower the opposite end of the intermediate top section relative to said disk. A hand lever 66 enables axle 63 to be turned to adjust the cams 65. Links 67 serve to connect the axles 59 and 63 together. The intermediate top section may thus be inclined toward the right hand or the left hand or raised or lowered simultaneously at both ends. It may also be adjusted rotatably about the axle 8 and locked, or it may be locked to the axle 8 so as to oscillate with

the axle 8 and the auxiliary top section, and the gap between the intermediate top section and auxiliary top section may be increased or decreased as desired.

The main table top section is supported upon and above a rectangular frame comprising the cylindrical side bars 70, cross bar 71, and the axle 72 journaled to the platen 6. A rectangular frame 73 is provided with cross bars 74 and 75 which are perforated to slide endwise on the bars 70 to adjust the main top section to or from the intermediate top section. A set screw serves to lock the cross bar 74 to one of the side bars 70.

The respective segments A A′ of the main top section are adjustably mounted upon the rectangular frame 73 by means of cross rods 76 which slide endwise through perforations in opposite sides of frame 73, and also through brackets 75′ attached to the respective segments A and A′ and are rigidly attached to the respective segments A A′ in pairs by brackets 77. The brackets 77 limit the movement in one direction and stops 78 limit the movement in the opposite direction. A crank shaft 79 is journaled in a bracket attached to frame 73, and has pivotally attached thereto at one end a link 80 pivotally attached at its opposite end by bracket 81 to segment A and said shaft is also pivotally attached by link 82 to segment A′. A half revolution of the crank shaft 79 serves to separate the segments A and A′ from each other, or to force them together, each movement of crank shaft 79 throwing to dead center positions the crank arms by means of which the links are attached to crank shaft 79, and thereby serving to lock the segments A and A′ to their respective positions of adjustment. A supporting bracket 85 has pivotally attached thereto a gravity latch 86 through a rectangular recess in which passes a rectangular bar 87. The bar 87 is pivotally attached to the cross bar 71 and serves to support or lock the main top section at any desired position of angular adjustment. Pressure on the handle 88 of the gravity latch releases the bar 87 and permits a new adjustment to be secured.

A socket 89 provides for the attachment of a bracket 90 to which flexible harness about the neck of a patient may be attached while the ankles of the patient are attached by flexible ankle cuffs to the stirrups 91 carried by a cross bar 92 pivotally attached to the end of the auxiliary top section, thereby providing for applying strain longitudinally to the spinal column of a patient.

The gaps between the main top section and the intermediate top section, and between the intermediate top section and the auxiliary top section provide for lateral exercise of spinal column of a patient at two different points without changing the position of the patient. By varying the length of the gaps, longer or shorter sections of the spinal column may be exercised.

The adjustment of the segments *a* and *a′* relative to segments A and A′ is to provide for the tongues or ends of segments *a* and *a′* being brought into proper relation as to height with the intermediate top section B irrespective of the inclination or other adjustment of segments A and A′. The segments *a* and *a′* are hinged to segments A and A′ at their meeting edges, and the free ends of segments *a* and *a′* are supported by means of shafts 93 journaled to brackets 94 carried by segments A and A′. Eccentrics 95 are carried rigidly on said shafts, and links or pitmen 96 actuated by said eccentrics are pivotally attached at their opposite ends to the under faces of segments *a* and *a′*. The shafts 93 are actuated by hand levers 97. In like manner the segment *d* is angularly adjustable relative to segment D by means of an eccentric shaft 98, hand lever 99 and links 100. In the modification Fig. 9, the segments *k* and *l* are separately supported relative to segments K and L and adjustable angularly relative thereto as described for the segments *a*, *a′* and *d*.

In the modification Fig. 8 I have illustrated the intermediate top section B′ and the auxiliary top section D′ of slightly different outline. The adjustments and operation for the table Fig. 8 are otherwise as heretofore described.

In Fig. 9 I have also illustrated the auxiliary top section divided longitudinally into two segments K and L to which are attached the two segments *k* and *l* which are angularly adjustable relative to the sections K and L. The sections K and L are adjustably mounted upon a rectangular frame 73′ identical with the frame 73 of Fig. 6, and in the manner described and illustrated in Fig. 6 for mounting the longitudinally divided main top section A and A′, except that where the members 74 and 75 of the main top section A and A′ slide endwise upon the rods 70, corresponding members 74′ and 75′ of the auxiliary top section K, L, and 73′ are rigidly connected to or formed integral with members 22 and 23 illustrated in Fig. 1, which indirectly support the auxiliary top section upon the rods 18.

The mechanism herein illustrated and described is capable of considerable modification without departing from the principle of my invention.

Having described my invention, what I claim is:

1. A treatment table comprising a main table top section, an intermediate table top section and an auxiliary oscillatable table top section, means to lock said intermediate

top section to a rigid position, means to lock said intermediate top section to the support for said auxiliary top section so as to oscillate with said auxiliary top section irrespective of the relative longitudinal position of said auxiliary section.

2. A treatment table comprising a main table top section, an intermediate table top section and an oscillatable auxiliary table top section, said main top section and said auxiliary top sections being independently adjustable to and from said intermediate top section longitudinally of the table.

3. A treatment table comprising a main table top section, an intermediate table top section, and an oscillatable auxiliary top section, said main and auxiliary top sections being independently adjustable longitudinally of the table to and from said intermediate top section, means to lock said intermediate top section to oscillate with said auxiliary top section, and means to lock said intermediate top section to a rigid position.

4. A treatment table comprising a main table top section a substantially circular intermediate table top section, and an oscillatable auxiliary table top section, said main top section, and said auxiliary top sections being independently adjustable to and from said intermediate top section longitudinally of the table.

5. A treatment table comprising a main table top section, an intermediate table top section and an oscillatable auxiliary table top section, said intermediate top section and said auxiliary top section being rotatably adjustable in substantially horizontal planes, and means to independently lock said intermediate and auxiliary top sections to any desired horizontal position of adjustment.

6. A treatment table comprising a main table top section composed of a plurality of segments angularly adjustable relative to each other, an intermediate table top section adjustable rotatably in a horizontal plane relative to said main top section, and an oscillatable auxiliary table top section.

7. A treatment table comprising a main table top section, an intermediate table top section adjustable rotatably in a horizontal plane relative to said main top section, and an oscillatable auxiliary table top section composed of a plurality of segments angularly adjustable relative to each other.

8. In a treatment table, a table top section rotatably adjustable in a substantially horizontal plane, a table top section oscillatable upon one or more axles of rotation, means to lock said top sections together so as to oscillate in unison, and means to independently lock said sections to rigid position.

9. In a treatment table, a table top section adjustable to different positions and rotatably adjustable upon a substantially horizontal axle, a table top section oscillatable upon one or more axles of rotation, means to lock said top sections together so as to oscillate in unison, and means to independently lock said sections to rigid position.

10. In a treatment table in combination with a main table top section and an oscillatable auxiliary table top section, an intermediate table top section rotatably mounted and adjustable in a substantially horizontal plane, and means to lock said intermediate top section rigidly to any desired position of adjustment.

11. In a treatment table in combination with a main table top section and an oscillatable auxiliary table top section, an intermediate table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, and means to lock said intermediate top section rigidly to any desired position of rotative adjustment.

12. In a treatment table, a main table top section, an oscillatable auxiliary and an intermediate table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, and means to lock said intermediate top section against rotation, said main top section and said auxiliary top section being respectively adjustable to and from said intermediate top section.

13. In a treatment table in combination with a main table top section and an auxiliary table top section a substantially circular intermediate table top section rotatably mounted and having a plurality of positions of adjustment as to height and inclination, and means to lock said intermediate top section rigidly to any position of rotative adjustment.

14. In a treatment table, a table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, a table top section oscillatable upon a vertical axle and upon a transverse horizontal axle and adjustable to and from said first named top section, and means to lock said top sections together to oscillate in unison upon an axle common to both, irrespective of the relative positions of adjustment of said top sections.

15. In a treatment table, a table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, and a table top section adjustable to and from said first named top section and composed of a plurality of segments angularly adjustable relative to each other.

16. In a treatment table, a substantially

circular table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, means to lock said top section to a plurality of positions of rotative adjustment, and a table top section adjustable to and from said first named top section and composed of a plurality of segments angularly adjustable relative to each other.

17. In a treatment table, a table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, and a table top section adjustable to and from said first named top section and composed of a plurality of longitudinally divided segments adjustable transversely of the table to and from each other to open and close a medial longitudinal gap.

18. In a treatment table, a table top section comprising two medially separated segments, adjustable to and from each other and each composed of two segments angularly adjustable relative to each other.

19. In a treatment table, a table top section rotatably adjustable in a substantially horizontal plane and having a plurality of positions of adjustment as to height and inclination, and a table top section composed of two medially longitudinally separated segments adjustable to and from each other, each of said segments having a segment attached thereto and angularly adjustable relative thereto.

20. A treatment table comprising an intermediate table top section rotatably adjustable in a substantially horizontal plane, a main top section adjustable to and from said intermediate top section and composed of two medially longitudinally separated segments adjustable to and from each other, and an auxiliary table top section at the opposite side of said intermediate top section composed of two medially longitudinally separated segments adjustable to and from each other.

21. A treatment table comprising a base a pedestal vertically adjustable relative to said base, a vertical axle carried by said pedestal, a table top section rotatably mounted upon said vertical axle and adjustable thereon in a horizontal plane, means to lock said top section to said vertical axle, means to independently lock said top section to any one of a plurality of positions relative to said pedestal, an oscillatable table top section supported upon said vertical axle, and means to lock said oscillatable top section to any one of a plurality of positions relative to said pedestal.

22. A treatment table comprising a base a pedestal vertically adjustable relative to said base, a vertical axle carried rotatably by said pedestal, a table top section rotatably mounted upon said vertical axle and adjustable thereon in a horizontal plane, means to lock said top section to said vertical axle, means to independently lock said top section to any one of a plurality of positions relative to said pedestal, a table top section supported upon said vertical axle and oscillatable therewith relative to said pedestal and oscillatable relative to said vertical axle upon a transverse horizontal axle carried by said vertical axle means to lock said oscillatable top section against oscillation upon said transverse axle, and independent means to lock said oscillatable top section to any one of a plurality of positions rigidly relative to said pedestal.

23. In a treatment table, a rotatably supported table top section, a brake member movable therewith, a brake shoe to engage said movable brake member to lock said table top section to any one of a plurality of positions, and means to actuate said brake shoe.

24. In a treatment table, a plurality of table top sections independently rotatably mounted upon an axle common to both, independent brake members movable with said respective top sections, independently actuated brake shoes to engage and lock said brake members to rigid positions, and means to lock said top sections together to move in unison upon said axle.

25. In a treatment table, a rotatably supported table top section, a brake member movable therewith, a plurality of brake shoes to jointly engage said movable brake member to lock said table top section to any one of a plurality of positions, and means to actuate said brake shoes in unison.

In testimony whereof I have affixed my signature in the presence of two witnesses.

JOHN V. McMANIS.

Witnesses:
C. W. Miles,
W. Thornton Bogert.