

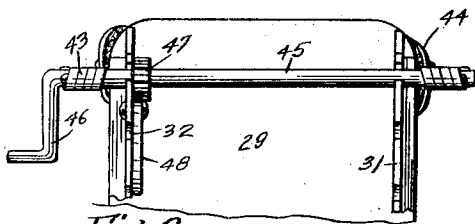
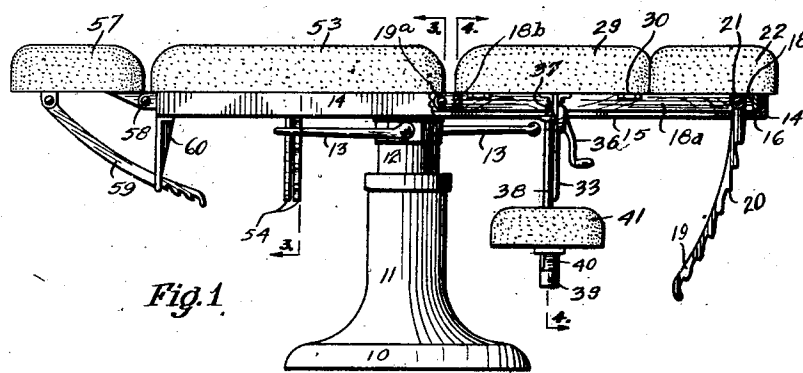
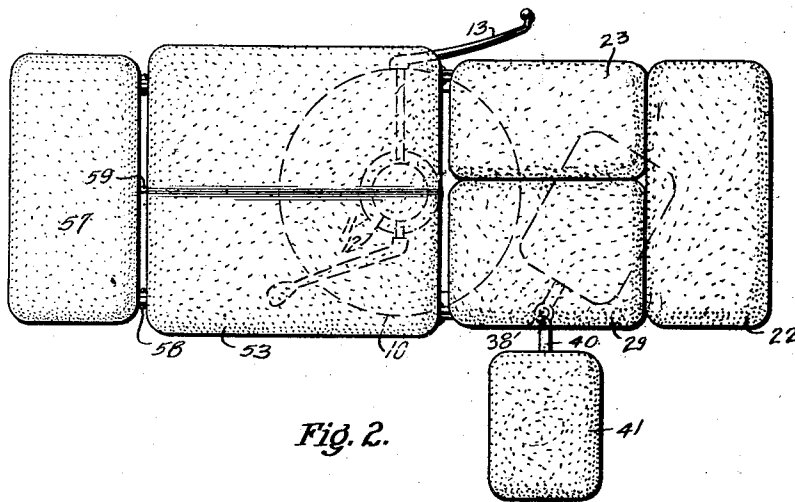
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J. W. MACKLIN  
OSTEOPATHIC OPERATING TABLE

Filed Feb. 7, 1924

2 Sheets-Sheet 1



Inventor  
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2 Sheets-Sheet 2

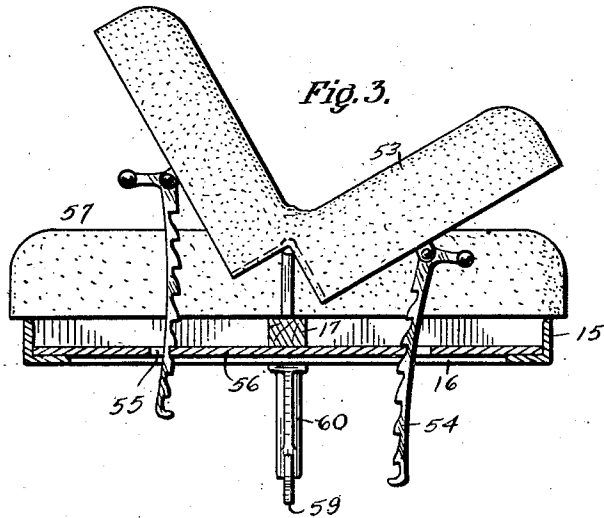


Fig. 3.

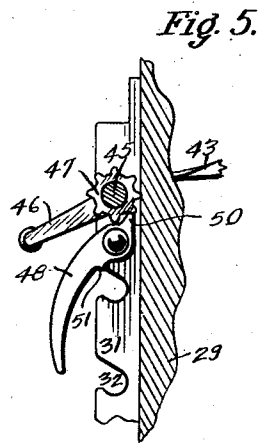


Fig. 5.

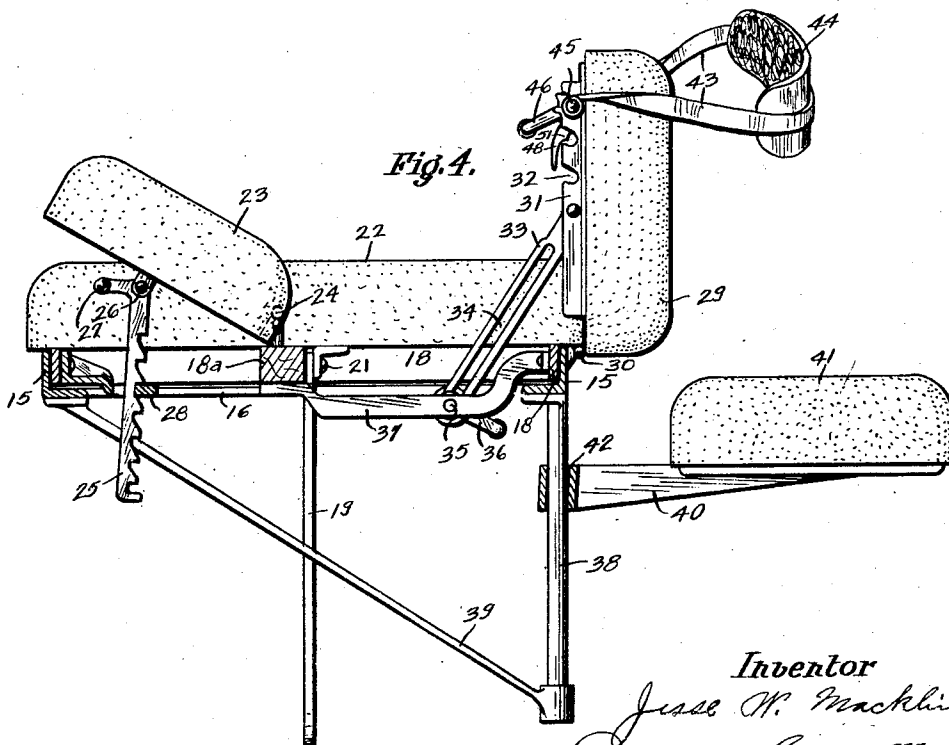


Fig. 4.

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# UNITED STATES PATENT OFFICE.

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## OSTEOPATHIC OPERATING TABLE.

Application filed February 7, 1924. Serial No. 691,155.

The object of my invention is to provide an improved operating table of simple, durable and inexpensive construction so constructed and arranged that the patient may take an easier position while being treated.

More specifically it is the object of my invention to provide a table having a series of hinged members capable of being adjusted to various angles so that a patient may be placed thereon and may take the position desired by the physician and then may easily relax and maintain the same through the treatment.

A further object is to provide in connection with a table, an adjustable seat capable of being adjusted to various heights and moved to different angles relative to the table.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of my improved table.

Figure 2 is a plan view of the same.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a detail transverse sectional view taken on the line 4—4 of Figure 1.

Figure 5 is an enlarged detail sectional view of the mechanism for securing the body strap and pad in position.

Figure 6 is a side elevation of the same.

My improved table comprises a base having a hydraulic cylinder 11 in which is mounted a piston 12. The piston 12 is provided with operating handles 13 for the purpose of elevating and lowering the said piston. The above mechanism is similar to that on barber chairs and the like.

The piston 12 is rotatively mounted in the cylinder 11. Secured to the top of the piston 12 is a main frame 14 constructed of angle iron having side members 15 and end members 16. The frame is also provided with a longitudinally and centrally arranged beam 17. One end of the frame 14 is provided with a pivoted frame 18 secured in position by means of pivots or rivets 19<sup>a</sup> near the center of the side members 15. The outer end of the frame 18 is provided with a ratchet bar 19 having teeth 20. The bar 19 is pivot-

ed to a longitudinally extending beam 18<sup>a</sup>, having its outer end supported in the end of the frame 18 and its inner end supported to a cross beam 18<sup>b</sup>, by means of a pivot 21. The teeth 20 of the ratchet are designed to engage the inner edge of the end member 16. This provides means whereby the free end of the frame 18 may be elevated or lowered so as to place the frame in an inclined position with its outer end extending upwardly and outwardly. The outer end of the frame 18 is provided with a small cushion 22 which serves the purpose of a foot rest.

Pivoted to the member 18<sup>a</sup> I have provided a cushion 23 by means of hinges 24. The said cushion 23 has its outer edge capable of being elevated to various angles by means of a ratchet bar 25 pivotally secured to the under side of the cushion by a pivot 26. The ratchet bar is provided with a hand member 27 by means of which the bar is manually actuated. The teeth of the bar 25 are designed to engage the bar 28. The outer edge of the cushion 23 is designed to rest on the frame member 15 when in a horizontal position.

Pivoted to the frame member 18 is a cushion 29 secured thereto by hinges 30. The inner end of the cushion 29 is adapted to be raised and lowered. The under surface of the cushion is provided with an angle iron 31 having notches 32 in its outwardly extending flange. The angle iron 31 has pivoted to it a link 33 provided with a slot 34 designed to receive a pin 35 of the clamping device 36. The said pin 35 is mounted in a transversely arranged bar 37, one end of which is secured to the frame member 18, while the other is secured to the frame member 18<sup>a</sup>.

By this arrangement it will be seen that the cushion 29 may be supported either in a horizontal position or in a vertical position or any degree between the two positions, when the frame 18 is in a horizontal position. It will be seen that the outer end of the frame 18 may be elevated which will also elevate the cushions 23 and 29, said cushions being adapted to be adjusted relative to said frame while it is in an elevated position.

Secured to the side frame member 15 is a downwardly extending post 38, the lower end of which is provided with a brace 39 extending to the opposite frame member 15. Slidably mounted on the post 38 is a seat

supporting bar 40 having on its outer end a seat member 41. The bar 40 is provided with an opening 42 for receiving the shaft 38 which is slightly larger than the said shaft so the weight of the cushion on the outer end of the bar 40 will cause the bar 40 to grip the shaft 48.

By slightly elevating the outer end of the bar 40 it will be seen that the said bar may be slid up and down on the bar at any desired height, and furthermore, the seat may be swung about the post 38 in a horizontal plane either under the cushion 29 or extending outwardly.

The seat 41 is provided for accomplishing a number of purposes. It serves as a seat in which the physician may rest while giving certain treatments, or the patient may be placed on the seat at other times. It will be seen that by placing the cushion 29 in a vertical position, as shown in Figure 4, the cushion 29 might serve as a back and the member 40 as a bottom of a seat, so arranged that the patient may rest with his back against the cushion 29 or with his breast against the said cushion.

I have provided a strap 43 and a pad 44 which may be placed over the patient's shoulders or his back for the purpose of securing him rigidly to the cushion. The free ends of the straps 43 are wound about a shaft 45 mounted in the notches 32. The shaft is provided with a crank 46 on its outer end and with a ratchet gear 47 on its other end. The shaft 45 is held against rotation by the dog 48 pivotally mounted to the angle iron 31, as clearly shown in Figure 5, and provided with a projection 50 for engaging the ratchet when the shaft 45 is in the upper set of notches 32, and with a lug 51 for engaging the ratchet teeth when the said shaft is in the second set of notches 32 from the top end. The free end of the lug 48 is designed to engage the said ratchet teeth when the shaft is in the lower set of notches 32.

The shaft 45 is detachably mounted so that the pad 44 may be quickly attached or detached. By providing the pad 44, it will be seen that the patient might have his back secured against the cushion 29 which will leave his shoulders free to be moved at the will of the physician. This will permit the patient to completely relax. Or the cushion 29 might be moved to its horizontal position while the cushion 23 is moved to a vertical position, in which case the cushion 23 could be used as a back and the cushion 29 as a seat. The member 41 serves as a foot rest, or the member 41 might be used as a seat for the physician.

There are a large number of combinations of adjustments of these cushions which are too numerous to mention, but the idea is to have a table so constructed that it will assist in placing the patient in the desired posi-

tion and will enable him to completely relax, which is almost impossible as the patient exerts a certain amount of energy in order to maintain his equilibrium. It will be seen that if the vertical adjustment of the seat along the post 38 is not enough, then the whole table may be raised and lowered by means of the hydraulic lift or base.

Pivotally mounted on the member 17 I have provided a pair of cushions 53 designed to have their free edges swing upwardly, as clearly shown in Figure 3, and adjustably secured in said position by means of ratchet bars 54 slidably mounted in openings 55 in the cross bar 56. The teeth of the ratchet 54 are designed to engage the said bar 56 in such a manner that the cushion may be adjusted to any desired elevation, and when adjusted, as shown in Figure 3, the cushions form a sort of trough in which the patient may be placed which will hold him against rotation.

The outer end of the frame 15 is provided with a cushion 57 which serves the purpose of a pillow. The cushion 57 is pivotally mounted to the frame by hinges 58. The angle of the said cushion is also adjusted by means of a ratchet bar 59 adjustably mounted in a bracket 60. While I have described the cushion 22 as a foot rest and 57 as the pillow, it will be seen that the cushions might take the reverse order if desired.

Thus it will be seen that I have provided an operating table which consists of a supporting frame adapted to be elevated and lowered, and the said frame designed to carry a number of pivoted cushions adapted to take various angles relative to a horizontal plane, to meet the requirements of the physician, thus providing a table which will greatly assist the physician and lessen his labor, due to the fact that the patient may be placed in such positions as desired by the physician and he can easily maintain that position without any exertion. The device may be operated as a plain table if desired by placing all of the cushions in a horizontal plane, and at the same time is of simple, inexpensive and rigid construction.

I claim as my invention:

1. An operating table comprising a horizontally arranged supporting frame, a number of cushions supported thereon, one of which is pivotally connected on a horizontal axis adjacent to the outer edge of said frame member adapted to swing from a horizontal to a vertical position, a seat member located outside of said frame member and below the pivot member of said cushion, and means for supporting said cushion in any of its swinging positions of movement.

2. An operating table comprising a frame, having a table portion, a vertical seat support depending from one side of said frame, a seat member slidably and rotatively

mounted on said support, said seat being adapted to be supported in a number of elevated positions on said support below the table level and adapted to swing in a horizontal plane when in any of said supported positions, a cushion having one edge mounted on a horizontal pivot located near the upper end of said upright, and means for adjusting said cushion at various inclinations between a horizontal and a vertical position.

3. An operating table comprising a supporting frame, a portion of which has its upper surface provided with cushions, a second frame pivotally mounted to cover the other portion of said frame, a cushion pivotally mounted to said second frame on a horizontal axis, said cushion being adapted to swing from a position in alignment with the first said cushions of said second frame to a position perpendicular therewith, a seat member located outside of said frame member and below the pivot member of the last said cushion.

4. An operating table comprising a supporting frame, a cushion pivotally mounted at one end of said supporting frame on transverse pivot centers, a pair of cushions pivotally mounted on longitudinal pivot members, a second frame pivoted to the first said frame, a pair of cushions pivotally mounted to said second frame, a third cushion pivotally mounted to said second frame, the pivot centers of the first of said cushions of said pivoted frame being parallel with each other and the pivot center of the second cushion at right angles to the pivot centers of the first pair of cushions.

5. An operating table comprising a supporting frame, a cushion pivotally mounted at one end of said supporting frame on transverse pivot centers, a pair of cushions pivotally mounted on longitudinal pivot members, a second frame pivoted to the first said frame, a pair of cushions pivotally mounted to said second frame, a third cushion pivotally mounted to said second frame, the pivot centers of the first of said cushions being parallel with each other and the pivot centers of the second cushions at right angles to the pivot centers of the first pair of cushions, and a seat adjustably mounted on said supporting frame capable of vertical adjustment and also of rotary movement about a vertical center.

6. An operating table comprising a supporting frame, a support for said frame, means for elevating and lowering the table relative to said support, a vertical seat support depending from one side of said frame, a seat member slidably and rotatively mounted on said support, said seat being adapted to be supported in a number of elevated positions on said support below the table level and adapted to swing in a horizontal

plane when in any of said supported positions, a cushion having one edge mounted on a horizontal pivot located near the upper end of said upright, and means for adjusting said cushion at various inclinations between a horizontal and a vertical position.

7. An operating table comprising a frame having a table portion, a vertical seat support depending from one side of said frame, a seat member slidably and rotatively mounted on said support, said seat being adapted to be supported in a number of elevated positions on said support below the table level and adapted to swing in a horizontal plane when in any of said supported positions, a cushion having one edge mounted on a horizontal pivot located near the upper end of said upright, means for adjusting said cushion at various inclinations between a horizontal and a vertical position, a pad having a pair of straps, a shaft rotatively mounted on the under surface of said cushion designed to receive the free ends of said straps and to be wound thereon as the said shaft is rotated, and a means for rotating said shaft in such a manner that the pad will be drawn toward said cushion.

8. An operating table comprising a frame having a table portion, a vertical seat support depending from one side of said frame, a seat member slidably and rotatively mounted on said support, said seat being adapted to be supported in a number of elevated positions on said support below the table level and adapted to swing in a horizontal plane when in any of said supported positions, a cushion having one edge mounted on a horizontal pivot located near the upper end of said upright, means for adjusting said cushion at various inclinations between a horizontal and a vertical position, a pad having a pair of straps, a shaft rotatively mounted on the under surface of said cushion designed to receive the free ends of said straps and to be wound thereon as the said shaft is rotated, a crank for rotating said shaft in such a manner that the pad will be drawn toward said cushion, and means for detachably and adjustably mounting said shaft relative to said cushion.

9. An operating table comprising a horizontally arranged supporting frame, a number of cushions supported thereon, a vertical support depending from one side of said frame, a seat member slidably and rotatively mounted on said support, a cushion pivotally mounted near the upper end of said support adapted to swing from a horizontal to a vertical position, means for supporting said cushion in any of its swinging positions of movement, said cushion being adapted to lie in a common plane with the first said cushions when in a horizontal position.

10. An operating table comprising a sup-

porting frame, a portion of which has its upper surface provided with cushions, a second frame pivotally mounted to cover the other portion of said frame, a vertical support depending from the first said frame and beneath one edge of said second frame, a seat slidably and rotatively mounted on said vertical support, cushions for said second frame, one of which is pivotally mounted to said second frame at a point above said upright, said cushion being adapted to swing from a position in alinement with the first said cushions of said second frame to a position perpendicular therewith.

11. An operating table comprising a supporting frame, a portion of which has its upper surface provided with cushions, a second frame pivotally mounted to cover the other portion of said frame, a vertical support depending from the first said frame and beneath one edge of said second frame, a seat slidably and rotatively mounted on said vertical support, cushions for said second frame, one of which is pivotally mounted to said second frame at a point above said upright, said cushion being adapted to swing from a position in alinement with the first said cushions of said second frame to a position perpendicular therewith, and means for adjusting said second frame at various inclinations relative to the main frame.

12. An operating table comprising a rectangular supporting frame, a cushion pivotally mounted at one end of said supporting frame on transverse pivot centers, a pair of cushions having their inner edges pivotally mounted on central longitudinal pivot members, said pair of cushions being mounted between the first cushion and a transverse central portion of said frame, a second frame

pivoted to the first frame near the inner end of said pair of cushions, a second pair of cushions pivotally mounted to said second frame, one of the last said cushions having its inner edge pivoted longitudinally with the main frame, and the other one of said cushions having its outer edge pivotally mounted longitudinally with said frame, a cushion mounted on said second frame adjacent to the outer end of both of said second pair of cushions, means for supporting said second frame in a number of inclined positions relative to the main frame, means for supporting the first said cushion in a number of inclined positions relative to the main frame, means for independently and adjustably supporting each of the cushions of the first pair of cushions in inclined positions relative to said main frame, and means for adjusting each of the cushions of the second pair of cushions at inclined positions relative to the said second frame.

13. An operating table comprising a supporting frame, a transverse cushion mounted at one end of said frame, the inner edge of said cushion being mounted on transverse pivot centers, means for adjusting said cushion at various inclinations relative to said main frame, a second pair of cushions mounted longitudinally with said main frame having their outer ends adjacent to the inner edges of the first said cushion, the inner edges of said pair of cushions being pivotally connected with said main frame on longitudinal pivot centers, and means for adjusting said second pair of cushions independently at a number of inclinations relative to said main frame.

JESSE W. MACKLIN.