F. KOENIGKRAMER.

TREATING TABLE.

APPLICATION FILED DEC. 2, 1915.

1,314,597.

Patented Sept. 2, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

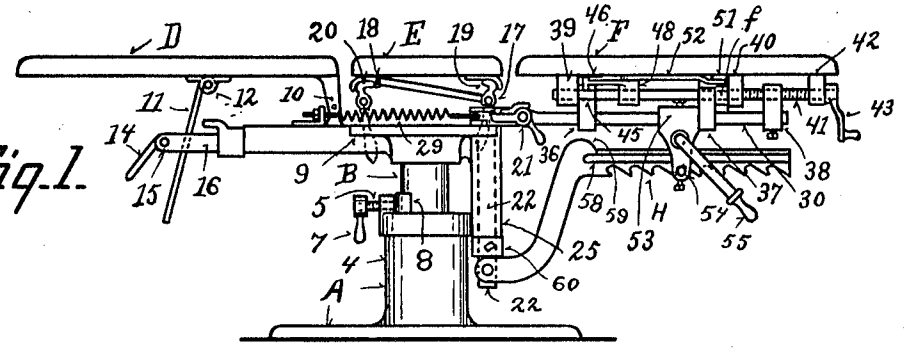
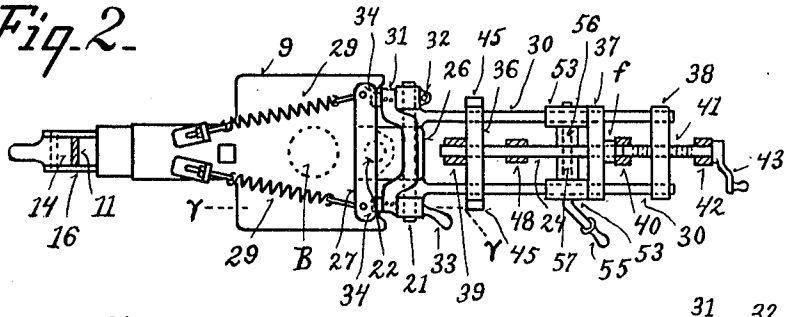


Fig. 2.



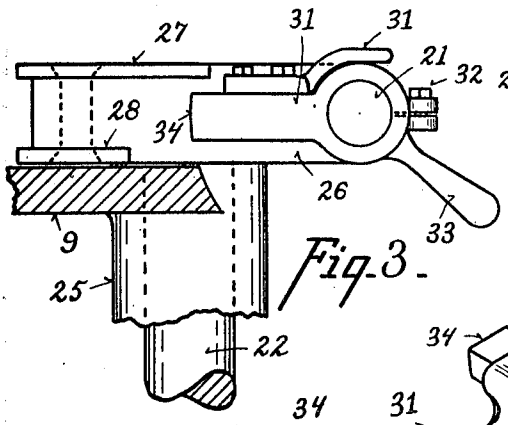


Fig. 3.

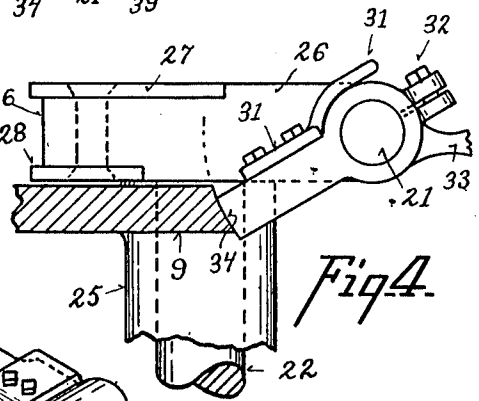


Fig. 4.

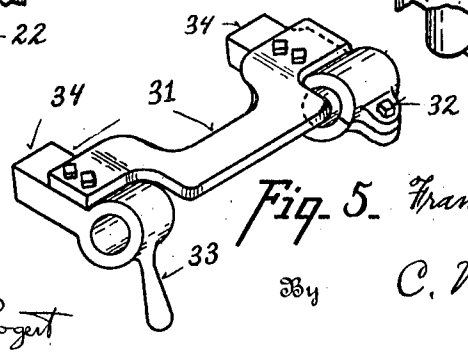


Fig. 5.

Witnesses

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TREATING TABLE.

APPLICATION FILED DEC. 2, 1915.

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2 SHEETS—SHEET 2.

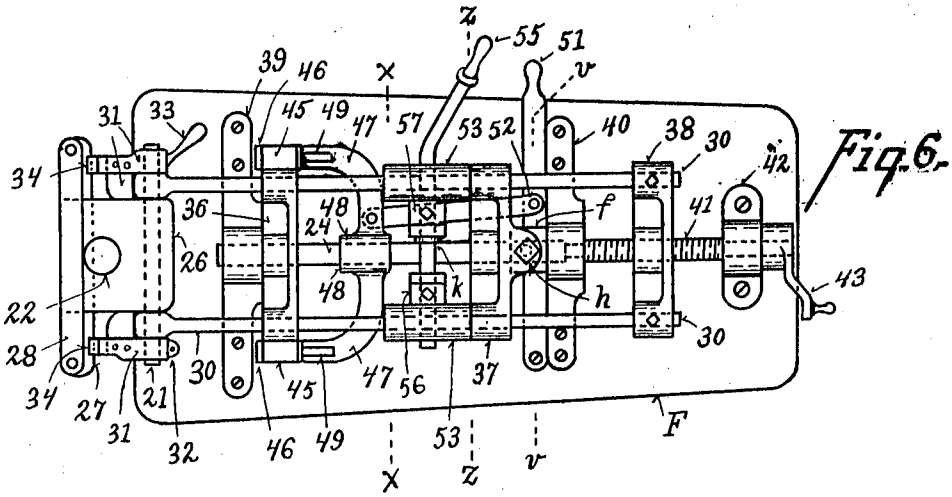


Fig. 6.

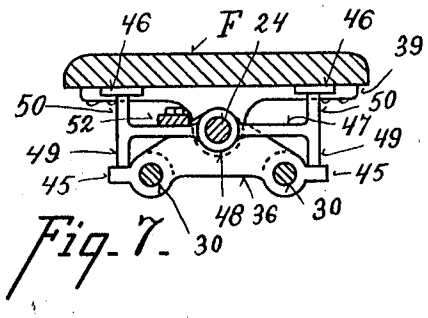


Fig. 7.

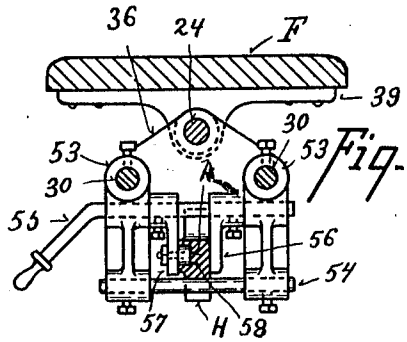


Fig. 8.

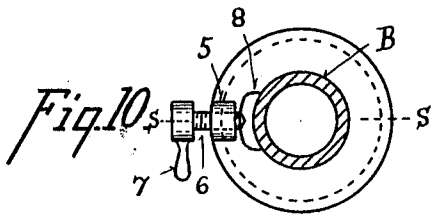


Fig. 10.

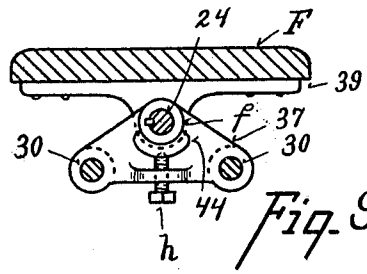


Fig. 9.

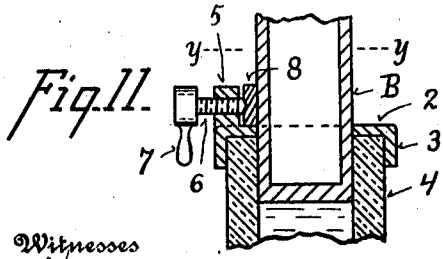


Fig. 11.

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TREATING-TABLE.

1,314,597. Specification of Letters Patent. Patented Sept. 2, 1919.

Application filed December 2, 1915. Serial No. 64,761.

To all whom it may concern:

Be it known that I, FRANK KOENIGKRAMER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Treating-Tables, of which the following is a specification.

My invention relates to improvements in treating tables. One of its objects is to provide improved means to adjust, support, and lock the auxiliary table top section to different positions of inclination upon its transverse horizontal axis of adjustment. Another object is to provide improved means to support and lock the auxiliary top section relative to its standard against movement upon its vertical axis. Another object is to provide improved means to support and lock the auxiliary top section against movement upon its longitudinal axis of adjustment. Another object is to provide improved means to horizontally adjust and lock the table top sections relative to their supporting base. 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 treating table embodying my improvements.

Fig. 2 is a plan view with the table top sections omitted.

Fig. 3 is an enlarged detail on line *y y* of Fig. 2, of the mechanism to lock the auxiliary top section to its standard, showing the unlocked position.

Fig. 4 is a similar view of the parts in the locked position.

Fig. 5 is a perspective view of said locking mechanism detached.

Fig. 6 is an enlarged bottom plan view of the auxiliary top section and its supporting mechanism detached.

Fig. 7 is a sectional detail on line *x x* of Fig. 6.

Fig. 8 is a sectional detail on line *z z* of Fig. 6.

Fig. 9 is a sectional detail on line *v v* of Fig. 6.

Fig. 10 is an enlarged sectional detail on line *y y* of Fig. 11.

Fig. 11 is an enlarged central vertical section through the supporting standard on line *s s* of Fig. 10.

My invention relates to treating tables for osteopathic treatment and treatments of a similar nature in which a maximum range of adjustability in different directions is required and in which locking means of firm and rigid nature may be brought into action to independently lock the top sections, against movement upon any one of the axes of adjustment without interfering with adjustments upon other axes, and which when locked will enable the table top to firmly support the heavy weights and oscillatory movements thereof, on other axes to which the table top is subjected.

The accompanying drawings illustrate the preferred embodiment of my invention, in which A represents a rigid base. B represents a plunger or standard hydraulically vertically adjustable relative to the base. An annular collar 2 having a downwardly projecting flange 3 is seated loosely on but closely fitting the upper end of the column 4 of the base A. The collar 2 has a projection 5 into which is fitted a screw rod 6 operated by a handle 7. The inner end of the screw rod 6 engages a brake shoe 8 which when the screw 6 is tightened forces the shoe 8 against the face of the plunger B and also shifts the collar 2 causing its flange 3 to engage and lock with the side of the column 4 opposite to the shoe 8, thus in one operation locking the collar to the plunger and also to the base, and serving to hold the plunger B and table top mounted thereon to any desired position, and firmly enough to resist the force employed by the operator in oscillating the table top sections. When the screw 6 is released the plunger B is supported within the column 4 upon a column of fluid and is thus free to be adjusted about its vertical axis and also raised and lowered by increasing or decreasing the fluid column by means not shown.

The upper end of the plunger is extended horizontally into a platform 9 rigid relative to the plunger B which platform and its extensions serves as a point of attachment and support for the respective table top sections D. E. F. The main table top sec-

tion D is hinged at 10 to the platform 9 and is adjustable on said hinge as an axis to different positions from a horizontal position to an inclination of about forty five degrees, and is supported in any desired position by means of a rod 11 hinged at 12 and automatically engaged by a locking pawl 14 hinged at 15 to a rigid extension 16 of the platform 9.

The intermediate top section E is supported upon hinge centers 17 and 18 relative to the platform 9 and cam levers 19 and 20 are employed to adjust and support said top section so as to enable it to be lowered independently at either end or conjointly at both ends, thereby affording it four positions of adjustment, an elevated horizontal position, inclined positions to the right and left, and a depressed horizontal position.

The auxiliary top section F is adjustable relative to the platform 9 in a vertical plane upon or about the horizontal axis 21, in a horizontal plane upon the vertical axis 22, and in a vertical plane parallel to the axis 21 upon the horizontal axis 24. The platform 9 has a depending sleeve 25 in which is pivotally mounted the vertical rod or axis 22 with a head block 26 above and resting on the platform 9. Cross arms 27 and 28 attached to the head 26 are provided at their ends with opposed tension springs 29 which normally yieldingly hold the head 26 in a definite position with reference to the platform 9. The horizontal rod or axis 21 is carried rigidly by the head 26. Eye-bars 30 are pivoted upon the rod 21 on opposite sides of the head 26 to serve as a support for the top section F. A yoke frame 31 is journaled at opposite ends upon the rod 21 outside of the eye-bars 30. One of the journals of said yoke frame is split and an adjusting screw 32 serves to adjust the rotative tension of the yoke frame upon the rod 21 so that it will retain any position thereon to which it may be adjusted by the handle 33. Lugs 34 projecting from opposite ends of the yoke frame 31 are limited as to their movement rotatively about the rod 21 in one direction by said lugs, engaging the under face of the cross arm 27 and in the opposite direction by the yoke or central portion of frame 31 contacting with the face of the head 26. At one extreme of the movement of yoke frame 31 the lugs 34 are out of engagement with the platform 9 while at the other extreme the ends of both of the lugs 34 are wedged into firm engagement with the inclined edge of the platform 9 to firmly lock the head 26 and rods 21 and 22 against movement relative to the platform 9, as illustrated in Figs. 3 and 4. The joint locking action of the lugs 34 at separate points distant from the axis 22 enables the top section to be locked to a central position so as to resist the heavy weight and strain to which the top section F is subjected.

The eye-bars 30 are held in place on the rod 21 by the yoke frame 31, and said eye bars are tied together and spaced apart by means of cross arms 36, 37 and 38. The cross arms 36 and 37 serve as journals for a rod or axis 24 which is rigidly mounted in the brackets 39 and 40 attached to the under face of top section F, thus permitting the top section F to turn upon the axis 24 relative to the eye-bars 30 and cross arms 36 and 37. A screw rod 41 to adjust the top section F endwise relative to the eye-bars 30 is pivotally supported at one end by the bracket 40 and at the opposite end by the bracket 42, being rotatable by a hand crank 43. The cross arm 38 is threaded onto the screw rod 41, and rigidly connected to the ends of eye-bars 30, while the cross arms 36 and 37 are free to slide endwise to a limited extent on the eye-bars 30 to permit endwise adjustment of the top section. A collar *f* keyed to the rod 24 is engaged by a brake shoe 44 adjustable as to tension by a set screw *n*, carried by the cross arm 37 to prevent a too free pivotal movement of the top section F upon the rod 24.

In order to provide for firmly locking the top section F entirely against rotation upon the rod 24 I provide lugs 45 projecting outwardly from the cross arm 36, and metal shoes 46 attached to the under face of the top section F. A yoke shaped locking bar 47 is mounted by a hub 48 upon the rod 24 to slide endwise thereon, and the free ends of the bar 48 are provided with lugs 49 and 50 opposite each other to enter between the lugs 45 and the shoes 46 on opposite sides of the axis 24 so as to firmly and rigidly lock the top section F to the eye bars 30 against rotation on axis 24, but leaving the top section free to move endwise on eyebars 30. The locking bar 47 is shifted endwise on rod 24 by means of a hand lever 51 pivoted to the under face of the top section F and a connecting link 52.

A depending frame comprising the brackets 53 rigidly carried by the eyebars 30 and the cross bar or rod 54 rigidly attached to the brackets 53, serves as a support and journal for the crank shaft 55 which carries the crank arms 56 and 57 intermediate of the brackets 53. A rack bar H is pivotally attached to the lower end of rod 22 with its serrated portion between the rod 54 and the crank shaft 55. The crank arms 56 and 57 serve as lateral guides for said rack bar, and the crank arm 57 is provided with a roller *k* which engages a channel 58 in the side of the rack bar to serve as a lock to keep the teeth of said bar locked to the rod 54, and also when unlocked to lift the rack bar out of engagement with the rod 54 for a

new adjustment. The rack bar is adjustable relative to the rod 54 to secure various positions of inclination vertically for the top section F and a firm support therefor which permits the top section to move about on its axis 22. The nose 59 of the rack bar by engaging the crank shaft 55 automatically forces the end tooth or recess of the rack into engagement with the rod 54.

The collar 60 on the rod 22 above the rack bar locks the rod 22 against movement endwise in the sleeve 25.

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 table top which in its normal operation is subjected to lateral strains in alternate directions, a stationarily mounted base, a cylindrical standard to support said table top telescopically and rotatably mounted in the bore of said base, a collar loosely seated upon said base and provided with a flange overhanging the upper portion of said base, a set-screw threaded to said collar above said base, and a shoe at the end of said set-screw having a face to frictionally engage the cylindrical face of said standard and thereby to lock said collar by its shoe to the standard and by its flange to the base.

2. In a treating table a standard, a main table top section supported by said standard an auxiliary table top section supported by said standard and movable relative to said main top section upon a vertical axle and upon a horizontal axle to have movement in two planes at substantially right angles to each other, a yoke pivotally mounted at opposite ends upon said horizontal axle and having movable members at opposite ends to simultaneously engage stationary members carried by said standard to lock said auxiliary top section against movement upon its vertical axle while permitting it to move freely upon its horizontal axle.

3. In a treating table a standard, a main table top section supported by said standard, an auxiliary table top section supported by said standard and movable relative to said main top section upon a vertical axle and upon a horizontal axle to have movement in two planes at substantially right angles to each other, a rack bar pivotally supported and carried by said vertical axle, and means carried by said auxiliary top section to selectively engage different teeth of said rack bar to support said auxiliary top section in different positions of inclination relative to its horizontal axle while permitting it to move upon its vertical axle.

4. In a treating table a standard, a main table top section supported by said standard, an auxiliary table top section supported by said standard and movable relative to said main top section upon a vertical axle at one end, a transverse horizontal axle at one end, and a longitudinal horizontal axle, and means to lock said auxiliary top section against movement upon its longitudinal horizontal axle comprising shoes on the under face of said auxiliary top section and a locking member mounted to slide endwise upon said longitudinal axle into and out of engagement with said shoes.

5. In a treating table a standard, a main table top section supported by said standard, an auxiliary table top supporting frame supported by said standard and movable relative to said main top section upon a vertical axle and upon a transverse horizontal axle at one end of said frame auxiliary table top section pivotally mounted above and relative to said supporting frame upon a longitudinal horizontal axle, shoes carried by said auxiliary top section and supporting frame opposite each other in pairs on opposite sides of said longitudinal axle, and a locking member movable endwise on said longitudinal axle into and out of engagement with said shoes.

6. In a treating table a standard, a main table top section supported by said standard an auxiliary table top section supported by said standard and movable relative to said main top section upon a vertical axle and a transverse horizontal axle at one end of said auxiliary top section, a rack bar pivoted at one end to the lower end of said vertical axle, a bracket depending from said auxiliary top section and provided with a dog to engage the teeth of said rack bar, and a crank shaft provided with means to guide said rack bar and to move it into and out of engagement with said dog to adjust and support said auxiliary top section upon its vertical axle in various inclined positions.

7. In a treating table a standard a main table top section supported by said standard, an auxiliary table top section supported by said standard and movable relative to said main top section upon a vertical axle and upon a horizontal axle a locking member pivotally mounted at opposite ends upon said horizontal axle and having a limited pivotal movement relative to said standard, and locking faces in pairs carried by said standard and locking member and located at opposite sides of said vertical axle to lock said auxiliary top section against movement upon its vertical axle.

8. In a treating table, a main table top section, an auxiliary table top section pivotally mounted relative to the main top section upon a vertical axle and a horizontal

axle to have movement in two planes at substantially right angles to each other, means independently operable to lock said auxiliary top section against movement upon its vertical axle, and a rack bar pivoted at one end to the lower end of said auxiliary top section vertical axle, and means independently operable carried by said auxiliary top section to engage said rack bar to lock said auxiliary top section to different positions of angularity in a vertical plane while enabling both the rack bar and auxiliary top section to move together upon said vertical axle.

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

FRANK KOENIGKRAMER.

Witnesses:
C. W. MILES,
W. THORNTON BOGERT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."