J. V. McMANIS AND F. KOENIGKRAMER.

TREATMENT STOOL.

APPLICATION FILED JULY 31, 1918.

1,415,252. **Patented May 9, 1922.**

2 SHEETS—SHEET 1.

Fig. 1.

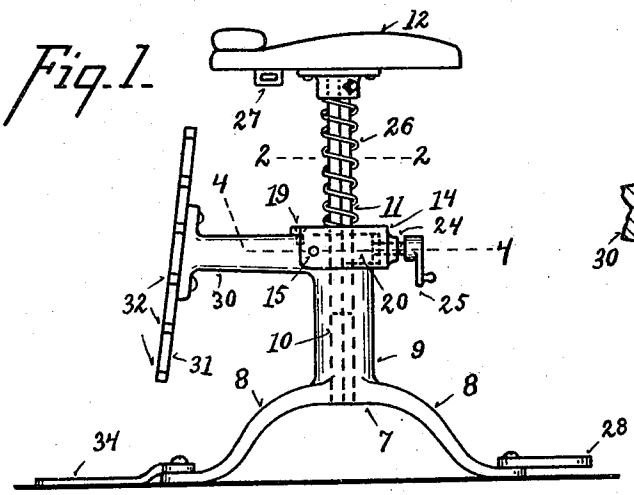


Fig. 4.

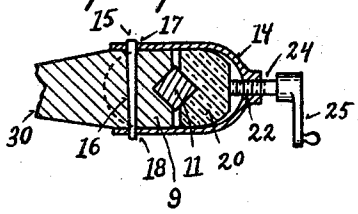


Fig. 5.

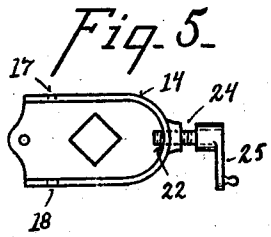
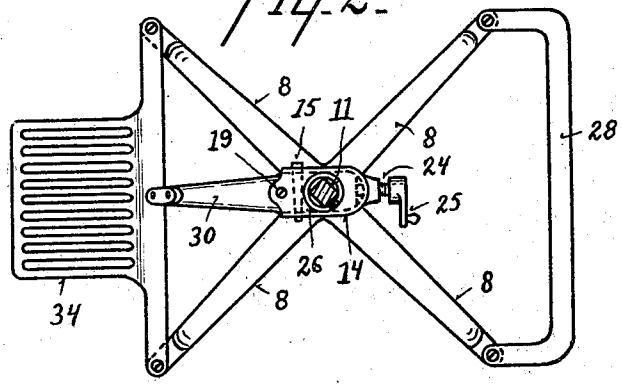


Fig. 2.



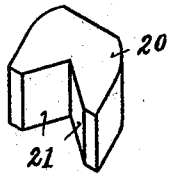


Fig. 6.

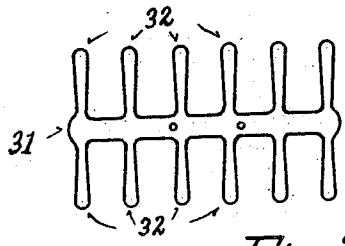


Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 7.

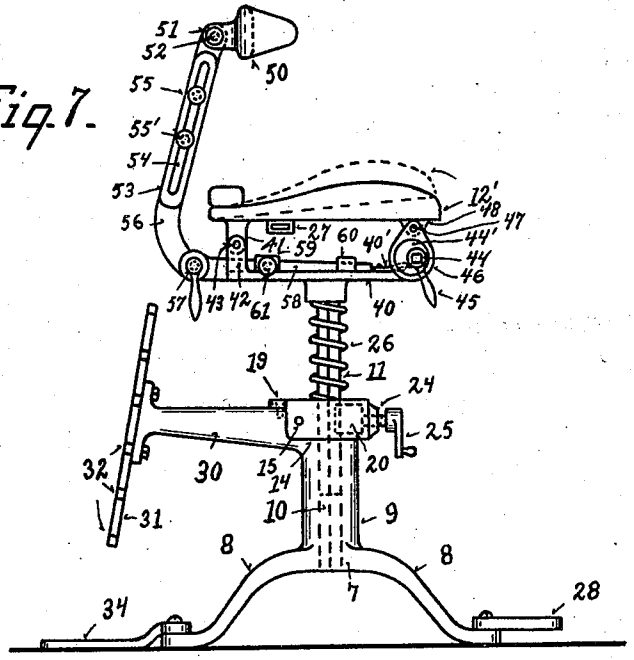


Fig. 8.

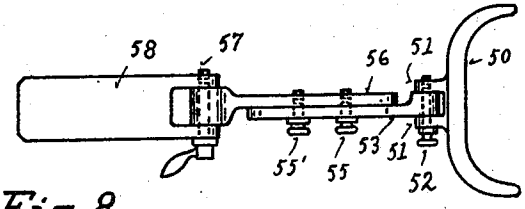
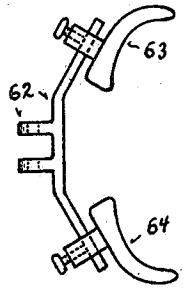


Fig. 9.



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TREATMENT STOOL.

1,415,252. Specification of Letters Patent. Patented May 9, 1922.

Application filed July 31, 1918. Serial No. 247,649.

To all whom it may concern:

Be it known that we, JOHN V. McMANIS and FRANK KOENIGKRAMER, citizens of the United States, residing, respectively, at Kirksville, county of Adair, State of Missouri, and at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Treatment Stools, of which the following is a specification.

Our invention relates to improvements in treatment stools. One of its objects is to provide an improved stool to administer osteopathic and similar treatments. Another object is to provide improved means to support, adjust, and clamp the seat to different positions. Another object is to provide improved means to retain the stool and patient in position relative to the stool supporting means during the treatments, or to enable the operator to maintain definite relations to the patient on the stool. Another object is to provide adjustable and detachable means to support the back upper portion of a patient relative to either a rigid or an adjustable seat. Our 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:

Fig. 1 is a side elevation of a stool embodying our improvements.

Fig. 2 is a section taken on line 2 2 of Fig. 1.

Fig. 3 is a plan of the operator's foot rest, detached.

Fig. 4 is a sectional detail on line 4 4 of Fig. 1.

Fig. 5 is a bottom plan of one of the clamping members, detached.

Fig. 6 is a perspective view of another clamping member, detached.

Fig. 7 is a view similar to Fig. 1 illustrating a modification.

Fig. 8 is a plan of the several members of the back support of Fig. 7 detached from the stool.

Fig. 9 is a detail illustration of a modified and adjustable back support.

The accompanying drawings illustrate the preferred embodiments of our invention, in Figs. 1 to 6 of which 7 represents a base having preferably a plurality of legs 8 to rest upon the floor, and an upright section 9 provided with a vertical polygonal recess or perforation 10. An adjustable standard 11 of polygonal cross section to register with the perforation 10 serves to adjustably support a seat 12.

In order to firmly clamp the standard 11 relative to the base against movement endwise or rotatably, we provide a yoke or cap 14 to seat upon the upper portion of the base section 9, being held thereto by means of a pin 15, preferably tapered, which through its middle portion engages a perforation 16 in the base section 9, and at its ends engages perforations 17 and 18 in the cap or yoke member 14. The member 14 may be further secured to section 9 by a screw 19 if desired.

The upper portion of the member 9 is cut away or recessed at one side of the standard 11 to provide space within the cap 14 to receive the movable clamping member or jaw 20, which seats within and is retained in position by the cap 14. The jaw 20 is provided with clamping faces 21 to engage a plurality of faces of the standard 11 in such manner as to firmly clamp the standard 11 in any desired position to the base member 9, without lost motion or liability of vibration or slipping thereof from its adjusted position when subjected to the strain of administering treatment, as serious injury might occur therefrom. The cap member 14 has a threaded recess 22 into which is threaded a clamping bolt 24 to bear against the rear face of the jaw 20 to force and lock the jaw into contact with the standard 11. The bolt 24 is preferably provided with a hand wheel or a crank arm 25. A spring 26 is coiled about the standard 11 between the seat 12 and the top of the cap 14, and is designed to exert sufficient lifting force upon the seat to substantially counterbalance the weight of the seat and standard 11 so that when the clamp 20 is released the seat will automatically rise to near the upper limit of its adjustment and come to rest. Thus the lifting power of the spring being coaxial with the standard 11, the seat moves readily up or down without canting or binding in the recess in the

base section 9, and in adjusting the seat the operator places one hand on the seat and releases the clamp 20 with the other, whereupon the seat may be moved either up or down with very little effort to any desired new position and again clamped to the base.

Brackets 27 are provided at opposite sides beneath the seat to which any desired harness or strap mechanism may be attached to hold a patient in position with reference to the seat. A foot rest 28 for the patient is also provided and attached to two of the legs of the base, to be employed in assisting the patient in retaining his position upon the seat.

The base section 9 is provided with a rearwardly projecting bracket 30 to which is attached a foot rest member 31 provided with a series of foot rests 32 in pairs at different heights above the floor to serve as foot rests for the operator in different treatments, and for treatment of patients of different dimensions. A metallic mat or standing plate 34 is rigidly attached to two legs of the base and rests upon the floor in rear of the stool. The plate 34 also under certain circumstances serves substantially in the same manner as members 32 as a rest for the feet of the operator.

In the modification Figs. 7, 8 and 9, the parts are as heretofore described, except that the seat 12′ instead of being mounted rigidly relative to the standard 11 is adjustably mounted relative to a plate 40 carried rigidly by the standard 11, by means of ears 41 carried by opposite sides of the seat at one end, and ears 42 carried by the plate 40, which ears 41 and 42 are hinged together by the axle 43. At the opposite end of the seat is a partially squared shaft 44 journaled in ears carried by the plate 40 and provided with two eccentrics 44′ at opposite ends and a hand operating lever 45. A squared section of the shaft 44 bears against a leaf spring 40′ carried by the plate 40 to hold the eccentrics in any adjusted position. Eccentric straps 46 engage said eccentrics and are also hinged at 47 to ears 48 carried by the seat 12′, whereby the seat may be tilted at its forward edge upwardly or downwardly from the full line position, of Fig. 7. We have also illustrated a detachable and adjustable support for the back or upper portion of a patient, comprising a pad 50, preferably provided with curved ends to engage under the arms of a patient. This pad 50 has a forked shank 51 pivotally connected by a clamping bolt 52 to a link member 53, which is slotted at 54, and adjustably connected by clamping bolts 55 and 55′ to a link section 56 which in turn is pivotally connected by a clamping bolt 57 to the forked arms of a shank 58. The shank 58 is detachably connected to the plate 40 by inserting it under the yokes or loops 59 and 60 and clamping it in place with a set-screw 61.

The bolts 55 and 55′ when loosened permit the sections 53 and 56 to slip endwise relative to each other to increase or decrease the distance between the centers 52 and 57 to secure different positions for the pad 50. Adjustment of the pad 50 upon the centers 52 and 57 and adjustment of the seat 12′ also provide for securing practically any desired position of the pad and seat relative to each other. In the modification Fig. 9 we have shown a pad support 62 to be adjustably supported upon the bolt 52 in place of the pad 50. The member 62 is provided with two pads 63 and 64 which may be adjusted to and from each other to engage and support patients of different dimensions, the curved ends of said pads 63 and 64 being adjustable to fit snugly under the arms of a patient to retain him in the desired position.

A considerable variety of treatments are designed to be employed upon different patients varying considerably in dimensions, which treatments are provided for by adjustment of the seat and back, and different positions of the operator. In some treatments the patient is positioned upon the seat, and may be harnessed thereto, with or without the back supporting pad, and the operator stands upon the mat 34 to retain the stool in position upon the floor, and the patient in definite relation to the operator, while the upper portion of the patient is moved by the operator to various positions to secure the desired muscular and joint movements. In other treatments the patient is positioned upon the seat and may be harnessed thereto, while the operator is seated upon a chair or table or other object in rear of the patient with the feet of the operator upon one or other pair of foot rests 32 and the knees of the operator resting against some portion of the spine or back of the patient the hands of the operator being employed to grasp the shoulders of the patient to cause such movements as desired on the part of the patient. By moving the feet of the operator from one to another of the several foot rests 32, the knees of the operator may be brought to bear upon any desired portion of the back of the patient to serve as a support in securing the desired movements.

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

What we claim is:

1. A treatment stool of the character disclosed comprising a seat for a patient having a polygonal seat standard and vertically adjustable relative to its supporting base, a supporting base having a vertically dis-

posed channel with converging walls to engage a plurality of faces of said seat standard, and a clamping member pivotally mounted relative to said base opposite the channel on the base and provided with a vertically disposed channel with converging walls to engage a plurality of faces of said seat standard to retain said standard rigidly to its adjusted position against movement axially or rotatably relative to said base under the variety of strains incident to the use of said stool.

2. A treatment stool of the character disclosed comprising a seat for a patient having a polygonal seat standard and vertically adjustable relative to its supporting base, a supporting base having a vertically disposed channel with converging walls to engage a plurality of faces of said seat standard, a clamping member pivotally mounted relative to said base opposite the channel on the base and provided with a vertically disposed channel with converging walls to engage a plurality of faces of said seat standard to retain said standard rigidly to its adjusted position against movement axially or rotatably relative to said base under the variety of strains incident to the use of said stool, and a spring coiled about said standard and interposed between said seat and said base to substantially counterbalance the weight of said seat and standard, to facilitate the adjustment of said seat vertically.

3. A treatment stool of the character disclosed comprising a base, a seat, means to non-rotatably and vertically adjustably support said seat relative to said base comprising a polygonal standard carried by said seat engaged between a rigid clamping member and a movably mounted clamping member carried by said base, said clamping members being each provided with vertically disposed channels having a plurality of converging faces to respectively engage a plurality of faces upon said polygonal standard to retain said standard rigidly relative to said base against movement axially or rotatably relative to said base under the variety of strains incident to the normal use of said stool.

4. A treatment stool of the character disclosed comprising a base, a seat, means to non-rotatably and vertically adjustably support said seat relative to said base comprising a polygonal standard carried by said seat engaged between a rigid clamping member and a movably mounted clamping member carried by said base, said clamping members being each provided with vertically disposed channels having a plurality of converging faces to respectively engage a plurality of faces upon said polygonal standard to retain said standard rigidly relative to said base under the variety of strains incident to the normal use of said stool, and a spring coiled upon said standard intermediate of said seat and base to substantially counterbalance the weight of said seat and standard to facilitate the adjustment of said seat vertically.

5. A treatment stool comprising a base, a standard having a seat for a patient at its upper end and adjustable in a substantially vertical direction relative to said base, means to clamp said standard rigidly to said base, and an operator supporting mat rigidly attached to said base to sustain both feet and the entire weight of the operator to retain definite relations between the operator and a patient during the operation of treating a patient mounted upon said seat.

6. A treatment stool comprising a base, a seat for a patient supported upon said base, and an operator supporting mat rigidly attached to said base and resting upon the floor and substantially flush with the floor to support both feet of the operator and to sustain the entire weight of an operator and thereby enable the operator to retain definite relations to a patient during the operation of treating a patient mounted upon said seat.

7. A treatment stool comprising a base having a polygonal substantially vertical recess, a polygonal seat standard having a seat for a patient at its upper end and registering with and vertically adjustable in the recess of said base, a cap member pivotally attached to the base and provided with an adjustable clamping member, and a clamping member housed within said cap member between said adjustable clamping member and said standard and engaging a plurality of faces on said standard to rigidly clamp said standard to the base at different positions of adjustment.

8. A treatment stool of the character disclosed comprising a base, a seat vertically and non-rotatably adjustable relative to said base, a mat rigidly attached to said base to sustain the weight of an operator and enable the operator to retain definite relations to a patient during the operation of treating a patient mounted upon said seat, supporting pads adjustable to and from each other to engage under the arms of a patient mounted on said seat, and pad supporting means pivotally and extensibly adjustable relative to said seat.

9. A treatment stool of the character disclosed comprising a base, a seat vertically and non-rotatably adjustable relative to said base, a floor mat rigidly attached to said base to sustain the weight of an operator and enable the operator to retain definite relations to a patient during the operation of treating a patient mounted upon said seat, and a support for the upper portion of a patient on said seat detachably mounted relatively to said seat and pivotally and extensibly adjustable relative to said seat.

10. A treatment stool of the character disclosed comprising a base, a seat vertically and non-rotatably adjustable relative to said base, a support to engage under the arms of a patient on said seat, and means to pivotally and extensibly adjust said support.

11. A treatment stool of the character disclosed comprising a base, a seat vertically and non-rotatably adjustable relative to said base, supporting pads adjustable to and from each other to engage under the arms of a patient on said seat, and pad supporting means pivotally and extensibly adjustable relative to said seat.

12. A treatment stool of the character disclosed comprising a base, a seat vertically and non-rotatably adjustable relative to said base, supporting pads adjustable to and from each other to engage under the arms of a patient on said seat, and detachable pad supporting means pivotally and extensibly adjustable relative to said seat.

13. A treatment stool of the character disclosed comprising a base, a seat-post vertically and non-rotatably adjustable relative to said base, a seat having a rearwardly inclined seat-face-section tending to retain a patient on said seat against forwardly directed strains and pivotally connected upon a transverse axle relative to said seat post, and means to positively adjust said seat to different positions of inclination upon said axle relative to said seat-post.

14. A treatment stool of the character disclosed comprising a base, a seat post vertically and non-rotatably adjustable relative to said base, a seat having a seat-face-section tending to retain a patient on said seat against rearwardly directed strains and pivotally connected upon a transverse axle relative to said seat-post, and means to positively adjust said seat to different positions of inclination upon said axle relative to said seat-post.

In testimony whereof we have affixed our signatures.

JOHN V. McMANIS.
FRANK KOENIGKRAMER.