March 11, 1930. H. S. ALLISON 1,749,867

EXAMINING TABLE

Filed April 20, 1927 2 Sheets-Sheet 1

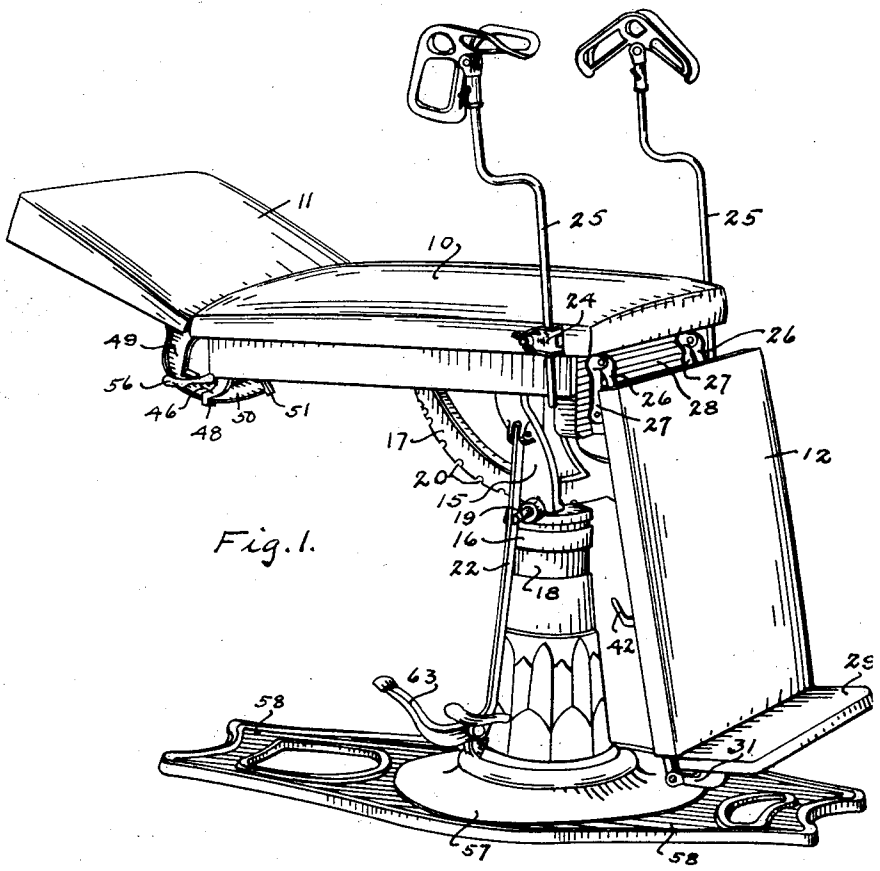


Fig. 1.

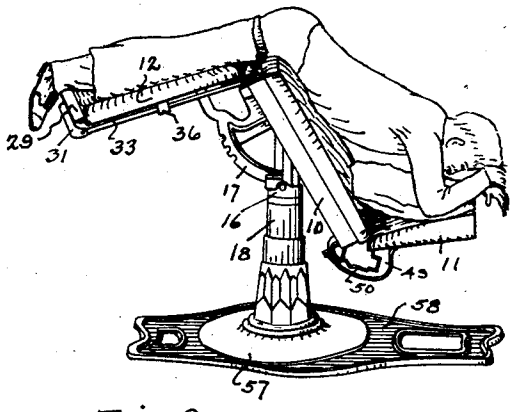


Fig. 2.

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EXAMINING TABLE

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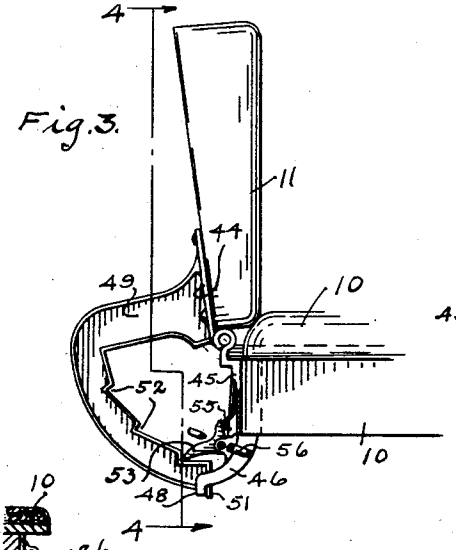


Fig. 3.

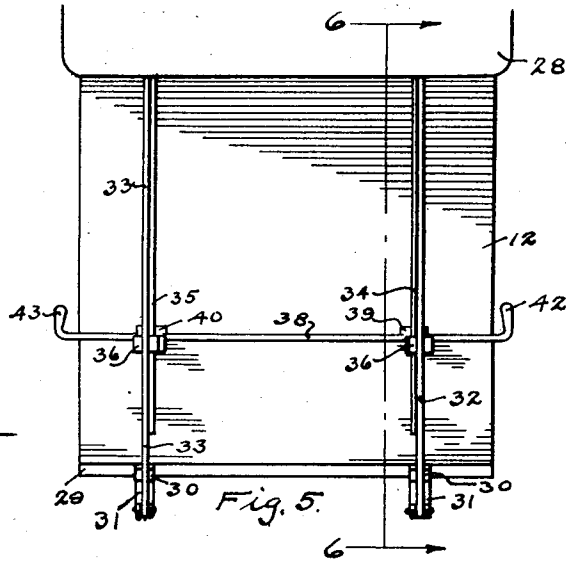


Fig. 5.

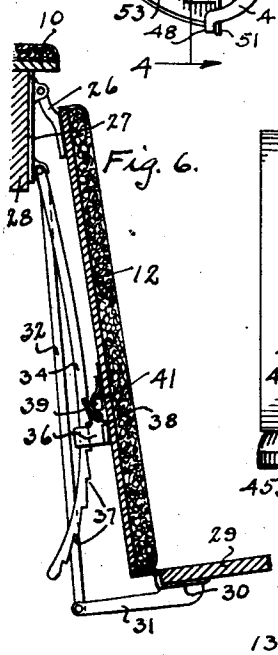


Fig. 6.

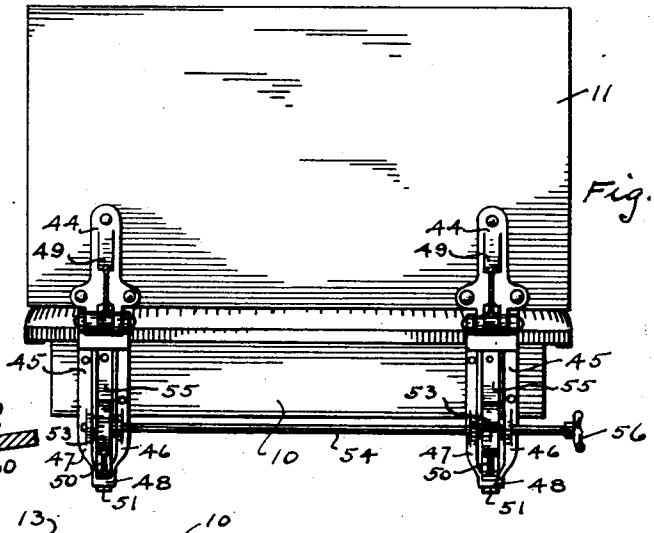


Fig. 4

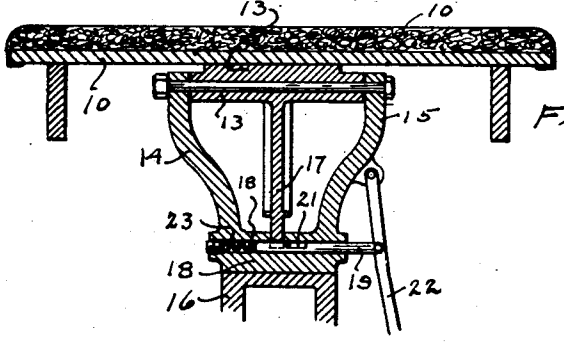


Fig. 7.

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UNITED STATES PATENT OFFICE

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EXAMINING TABLE

Application filed April 20, 1927. Serial No. 185,132.

This invention relates to a physician's and surgeon's examining table, and particularly to a table adapted to meet the widest possible range of positions in which the patient being examined may be placed for the greatest convenience and most thorough examination.

One of the objects of the invention is to provide such a table that may permit of placing and holding the patient in an inverted position so as to overcome the heretofore necessity of the patient having to assume the knee and chest position for certain examinations. Other objects of the invention will become apparent from the following description made in reference to the accompanying drawings, in which

Fig. 1, is a perspective view of the table with the leg-rest lowered;

Fig. 2, a perspective view of the table from the opposite side from that shown in Fig. 1, and carrying a patient in the inverted position;

Fig. 3, a side elevation of the head rest adjusting mechanism;

Fig. 4, a rear elevation in section on the line 4—4 in Fig. 3 of the head rest and its adjusting mechanism;

Fig. 5, a rear elevation of the leg rest;

Fig. 6, a vertical section through the leg rest on the line 6—6 in Fig. 5; and

Fig. 7, a transverse section through the table through the axis of rotation of the table with the base.

Like characters of reference indicate like parts throughout the several views.

The table has an upholstered surface on which the patient may lie comprised of the main or central table 10, the head rest 11, and the leg rest 12, both hinged to the table 10 from its respective ends.

The table 10 carries a bracket 13 attached to its under side which is pivotally swung between the arms 14 and 15 extending upwardly from the base 16 so that the table 10 may be rocked in a vertical plane.

A sector 17 is depended from the bracket 13 and has a series of notches 20 cut in it from its periphery. The sector 17 passes through a slot cut in the casting 18 forming the head of the base 16 and a bolt 19 is slidingly carried by the casting 18 to pass across the slot whereby it may pass through any one of the notches 20 as may be presented as the table 10 is rocked. See Figs. 1 and 7. The bolt 19 thereby effectually secures the table 10 in the desired position. A notch 21 is cut in the top side of the bolt 19 so that when the bolt is pressed inwardly by the operating foot lever 22, the bolt notch 21 may register with the casting slot and thereby permit the sector 17 to be rocked therethrough. A spring 23 behind the bolt 19 normally holds the bolt in position to engage in one of the sector notches 20.

The base 16 is further provided with means operatable from the foot lever 63 of elevating the post 18, and may be revolved, all in the manner well known to the art, as is commonly exhibited in the usual barber's chair, and not here forming by its detailed construction a part of this invention.

A socket 24 is attached on each side of the table 10 to adjustably and detachably support the crutches 25 when it may be desired to support the legs of the patient in an elevated position when the table is used in the position as indicated in Fig. 1.

The leg rest 12 is hinged to the foot end of the table 10 through the brackets 26 pivotally attached to the table plates 27 near the top of the table and piece 28. A foot rest 29 is hinged to the lower end of the leg rest by the foot brackets 30 each of which have a rearwardly extending arm 31. The bars 32 and 33 are pivoted by their upper ends to the lower ends of the plates 27, and by their lower ends to the arms 31, so that upon swinging the leg rest 12 upwardly the foot rest 29 will

swing downwardly to approach the plane of the leg rest.

To hold the leg rest 12 at the desired elevation, bars 34 and 35 are pivotally secured to the plates 27 on the same axis as the pivotal axis of the upper ends of the bars 32 and 33, and the bars 34 and 35 are extended downwardly behind the leg rest 12 through the respective yoke brackets 36 and thence curved backwardly. A series of notches 37 are provided in the edges of the bars 34 and 35 facing the leg rest, and a shaft 38, supported by each of the brackets 36 extends between the bars 34 and 35 and the leg rest 12 and carries pawls 39 and 40 held in normal engagement with the notches 37 by a spring 41 back of each pawl. Handles 42 and 43, on each end, are formed on the shaft 38 as a means of permitting the shaft 38 to be rocked to disengage the pawls 39 and 40 from the notches and so permit the leg rest 12 to be lowered.

The head rest 11 is hinged to the head end of the table 10 in a peculiar manner. Each of the two hinges attaching the head rest 11 to the table 10 has a head plate 44 secured to the back or under side of the head rest 11 and is pivotally secured by its lower end to the upper end of the guide plate 45, which plate is secured to the head end of the table. (See Figs. 3 and 4.) The plate 45 extends downwardly and below the end of the table 10 to have a bifurcated end formed by the two arms 46 and 47. A bar 48 joins the extreme lower ends of the arms 46 and 47.

The head plate 44 carries an arm 49 having an I cross section which extends backwardly substantially at right angles to the plane of the plate 44 and then elbows downwardly and around back with a section 50 toward the plane of the plate 44 to have its under side formed substantially as the arc of a circle having its center at the pivot axis between the plates 44 and 45.

The section 50 passes freely through between the arms 46 and 47 and over the bar 48 and is prevented from being withdrawn entirely from over the bar 48 by having a lug 51 depended from the end of the section 50 which will strike the forward side of the bar 48, as in Fig. 3.

Now to hold the head rest 11 in any one of a predetermined number of positions, the section 50 carries a series of notches 52 formed in its upper edge, and a pawl 53 secured to the transverse shaft 54 is normally pressed against the top edge of the section 50 to engage in the notches 52 as they are presented by a spring 55 carried by the plate 45. The shaft 54 is carried by each of the plates 45 and extends to one side of the table 10 to carry a handle 56 as a convenient means for rocking the shaft to disengage the pawls 53 from the notches 52 when the head rest 11 is to be lowered.

The structure just described as the means for carrying the head rest is provided to meet the demand for a head rest quickly and positively adjustable, and particularly that condition where the patient is best placed in an inverted position as in Fig. 2, where, instead of sitting on the table 10 as upon a chair, the patient stands upon the floor, leans over the table 10 in the position in Fig. 1, resting by his elbows against the head rest 11 which is turned to its highest position, and the table 10 is then tilted to bring the entire table and the patient to the position in Fig. 2. Considerable weight is thereby carried on the head rest 11 and its supporting elements must be of considerable strength, but yet easily operatable.

The base 16 carries the usual base plate 57, but to insure safety when the table is to be rocked to the position of Fig. 2, a base extension plate 58 is employed so as to prevent any accidental overturning of the table as the weight shifts, though as a matter of fact, by the construction as shown, the entire weight including that of the patient is nicely balanced on the base 16 so that the table is easily rocked to any desired position. It is generally not desirable that the base plate 57 be secured to the floor, but by securing it to the extension plate 58, the table is still movable over the floor. The plate 58 is formed to lie entirely directly below the table 10 and its extended rests so that the operator is not bothered by any extensions therebeyond.

I claim:

1. The combination of a table and a head rest hinged to the table, with head plates secured to the under side of the head rest, fixed arms on each plate extending substantially at right angles thereto to form stops by contact with the end of the table said arms curving thence in arcs of circles having their centers at the pivot axes of the hinges, the inner sides of the curved arms having ratched notches sloping toward the table, guide plates secured to the end of the table and extending below in the plates of the curved arms and having holes through which the respective arms pass, pawls pivoted to the guide plates having springs which press them normally into engagement with the ratchet teeth and manually operated means for moving the pawls out of engagement with the ratchet teeth to release the head rest for lowering.

2. The combination of a table and a head rest hinged to the table, with head plates secured to the under side of the head rest, fixed arms on each plate extending substantially at right angles thereto to form stops by contact with the end of the table said arms curving thence in arcs of circles having their centers at the pivot axes of the hinges, the inner sides of the curved arms having ratched notches sloping toward the table, guide plates secured to the end of the table and extending

below in the plates of the curved arms and having holes through which the respective arms pass, pawls pivoted into engagement with the ratchet teeth and manually operated means for moving the pawls out of engagement with the ratchet teeth to release the head rest for lowering the head plates and guide plates being integral with the respective adjacent hinge members between the table and head rest.

In testimony whereof I affix my signature.

HARRY S. ALLISON.