F. A. DENQUER.

SURGICAL TABLE.

APPLICATION FILED MAR. 18, 1914.

1,201,274. Patented Oct. 17, 1916.

Fig. 1,

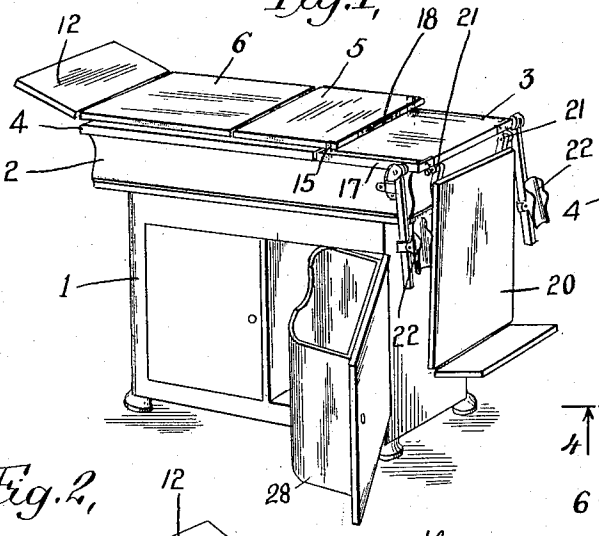


Fig. 3,

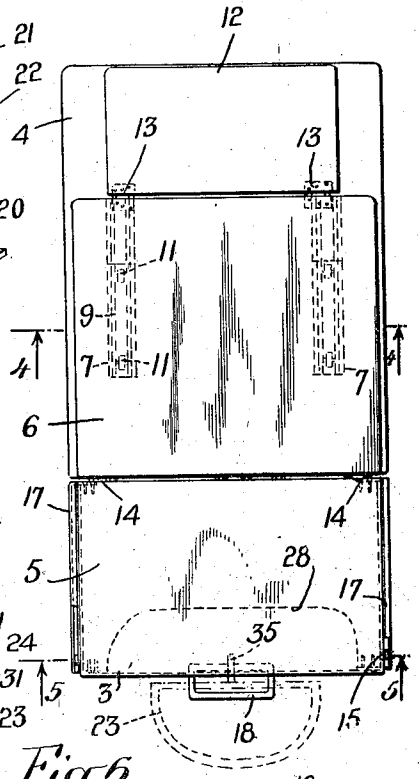


Fig. 2,

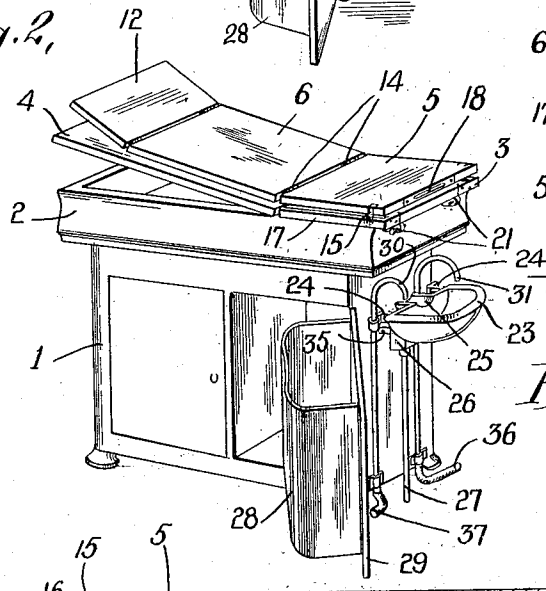


Fig. 6

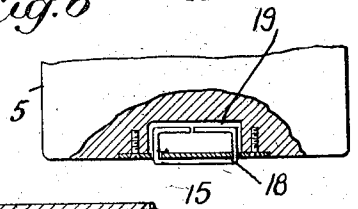


Fig. 4,

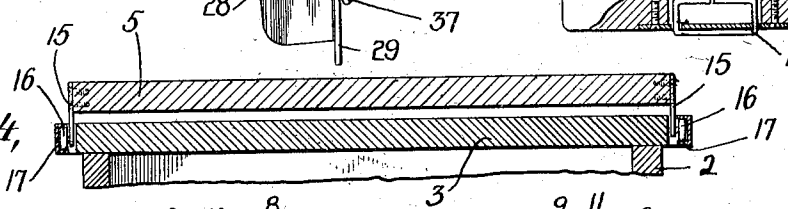
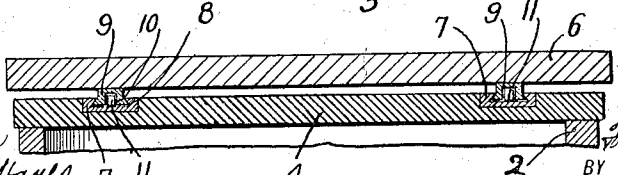


Fig. 5,



WITNESSES

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SURGICAL TABLE.

1,201,274. Specification of Letters Patent. Patented Oct. 17, 1916.

Application filed March 18, 1914. Serial No. 825,544.

To all whom it may concern:

Be it known that I, FRANK A. DENQUER, a citizen of the United States, residing in the borough of Brooklyn, city of New York, county and State of New York, have invented certain new and useful Improvements in Surgical Tables, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to adjustable tables used by surgeons and the principal objects of my present improvements are to give greater facility to the operator in shifting the position of the subject on the table and to provide a convenient and compact water-supply basin together with drainage for the same.

With these and other objects in view my invention consists in the various novel and peculiar combinations and arrangements of the several different parts of the apparatus, all as hereinafter fully set forth and then pointed out in the claims.

I have illustrated a type of my invention in the accompanying drawings, wherein:—

Figure 1 is a perspective view of my improved table with the subject-receiving support shifted to the rear end of the table and in flat position which may be termed the normal position, with the basin and water pipes omitted. Fig. 2 is a similar view to that shown in Fig. 1, but with the subject-receiving support shifted to the front end of the table and with the back-rest elevated so as to elevate a portion of the support. Fig. 3 is a top plan view of the part shown in Fig. 1, with the leg-rest omitted and the basin shown in dotted lines. Figs. 4 and 5 are enlarged cross-sectional views of the table-top and the subject-receiving support, the views being taken on planes indicated by lines 5—5 and 4—4, Fig. 3, respectively. Fig. 6 is a detailed view showing the front edge of the subject-receiving support as broken away to show the construction of the collapsible handle.

Referring to the drawings in which like numbers of reference designate like parts throughout, 1 is the base of the table which is provided with the usual compartments found in this class of table. Upon the upper part of the base is mounted the usual tilting-frame 2, which is provided in a well known manner with suitable mechanism for tilting this rectangular frame at an angle to the horizontal when desired. Upon the upper part of the frame 2, is a fixed section 3, which may be termed a seat and to the rear of this is a larger section 4, which is hinged to the first mentioned section 3, and is provided in a manner well known with devices for raising and lowering the rear end of the section so as to adjust it to any desired angle, and this part is usually termed the back-rest. The parts thus far described are old in this class of apparatus and constitute an ordinary physician's or surgeon's chair.

My present improvements comprise a subject-receiving support which is mounted to slide upon the upper part of the table, and in the present instance this support is shown as made substantially of two sliding sections 5 and 6, which are so mounted upon the seat 3 and the back-rest 4, as to have capacity of endwise adjustment thereon. The supporting section 6, is shown as being shorter than the back-rest 4, and is mounted thereon by means of longitudinally arranged sliding joints each comprising a groved track 7, which is countersunk in the upper side of the back-rest 4, and has its side edges undercut at 8. Upon the under side of the supporting section 6, is a rail 9, having its side edges projecting outwardly at an angle at 10, to fit the undercut in the track 7, and this rail 9, is provided with antifriction rollers 11, for causing a smooth action in the sliding joint. This sliding joint serves also to lock the section 6, and the back-rest 4, together so that in the tilting of the latter part, the section 6, may respond to the movements thereof. This sliding joint is made of sufficient length to provide for any possible desired range of movement of the supporting-section 6. The rear end of the supporting-section 6, is provided with an ordinary adjustable head-rest 12, which is hinged to the supporting-section at 13. The forward end of the supporting-section 6, is hinged at 14 to the rear edge of the supporting-section 5, so that the latter is maintained at the same level with the section 6, and is raised a slight distance above the subjacent parts of the table as clearly shown in the drawings and particularly in Fig. 4. It should also be noted that the supporting-section 6, is raised above the sub-

jacent back-rest 4 by means of the track and rail connection so that the parts slide clear of one another. The supporting-section 5, near its front end is provided upon its opposite sides with a hanger 15, carrying an antifriction roller 16, which runs upon a track 17, which is secured to the sides of the fixed seat 3. This track 17, is substantially in the form of a channel-iron so as to fully conceal the roller 16, traveling upon the inside of it and this forms a neat construction which conceals the rollers and prevents the same from catching in anything. This construction of hanger and inclosed rail serves also to lock the parts together so that the section 5, while it is slidable over the fixed part 3, cannot be separated from the same. The sliding joint between the supporting-section 5, and the seat 3, is substantially the length of the two parts so that the support can be shifted the entire length of the seat.

The front edge of the supporting-section is provided with a telescoping handle 18, which moves in and out of a socket 19, formed in the section, and by means of this handle the two sections 5 and 6, may be readily drawn forwardly whenever desired and particularly when the subject is reclining upon the two sections.

A leg-rest 20, is removably mounted at the front edge of the top-frame 2, by means of detachable fasteners 21, and at each side of the forward end of the frame 2, there is mounted an ordinary stirrup 22. Upon the forward end of the table-base 1, just beneath the frame 2, is mounted a folding basin 23, which is hinged at 24, to the base and is provided with a discharge spout 25, which when the basin is tipped up discharges its contents into a small receptacle 26, having a waste-pipe 27, which may lead to any desirable point for discharging waste-water. In cases where the waste-pipe 27, cannot be used, the ordinary waste-receptacle 28, which is fixed upon the swinging door 29, of the base of the table may be used and the waste-water may then drain from the small receptacle 26, located upon the outside of the table-base to the interior of such base and thence into the receptacle 28. Adjustable water-supply pipes 30 and 31, for hot and cold water are mounted upon the forward end of the table-base so as to discharge into the basin when it is tipped down as shown in Fig. 2, and these pipes may be turned sidewise so as to lie flatly against the table-base and be out of the way of the leg-rest when the basin is folded.

In the use of this table, the positions of the parts shown in Fig. 1 may be assumed to be the normal positions, and the subject by means of the foot-rest may be seated upon the end of the table and substantially upon the fixed part 3, and the section 5. When the subject assumes the dorsal position by reclining upon the supporting-sections 5 and 6, such sections may then be drawn to the forward edge of the table so as to bodily move the subject, without, however, disturbing him, the handle 18, being conveniently used for drawing the sections forward while the subject reclines thereon. By the reverse movement of the sections 5 and 6, the subject may be shifted in the opposite direction longitudinally of the table, if desired. When the subject is in dorsal position upon the supporting sections 5 and 6, the back-rest 4, may then be slightly raised by means of the usual mechanism which is ordinarily applied to this adjustable part, and the supporting-section 6, may likewise be raised and particularly when the supporting sections are drawn forward so that the line of the hinges 14, between the two sections corresponds with the hinged line of the back-rest 4, and the fixed seat 3, as indicated clearly in Fig. 2. When thus drawn forward upon the sliding support the buttocks of the subject are brought to the end of the table and conveniently above the basin thus giving the operator easy and full access to the parts of the subject both for treatment and irrigation purposes.

While I have shown the distance from the front end of the table to the front edge of the section 5, when at its rearward limit of movement, as approximately the length of the thigh of the average person, so that when the subject seats himself upon the part 3, his buttocks may just reach or may rest upon the said forward section 5, I wish to be understood as not limiting my invention to such proportions of said elements, for it is manifest that various changes may be made in the proportions as well as in the different elements themselves, without departing from the spirit of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In a surgical table, the combination of a fixed and a hinged part, and a subject-receiving support slidably mounted above said fixed and hinged parts and comprising two sections hinged together and adapted to be slid over said fixed and hinged parts and so that the hinge-joint between the two sections may be brought into the same vertical plane with the joint of said hinged part, substantially as described.

2. In a surgical table, the combination of a fixed and a hinged part, and a subject-receiving support mounted above said fixed and hinged parts and comprising two sections hinged together and one section having a sliding connection with the said fixed part and the other section having a sliding connection with said hinged part, substantially as described.

3. In a surgical table, the combination of

a tilting frame, a fixed and a hinged part mounted on said frame, and a subject-receiving support slidably mounted above said fixed and hinged parts and comprising two sections hinged together and adapted to be slid over said fixed and hinged parts and so that the hinge-joint between the sections may be brought into the same vertical plane with the joint of said hinged part, substantially as described.

4. In a surgical table, the combination of a fixed part serving as a seat, a swinging part hinged to the rear edge of said fixed part, and a subject-receiving support comprising two pivotally connected sections slidably mounted above the level of said fixed and swinging parts and maintained above said level so as to be capable of free sliding movement in all positions of the range of movement thereof and the pivotal connection between said sections being adapted to be brought into substantially the same vertical plane as the axis of the hinge-joint between said fixed and swinging parts, substantially as described.

5. In a surgical table, a table-top comprising a forward fixed member and a rearward tilting member, a subject-receiving support comprising two pivotally connected sections slidably mounted upon the said fixed and tilting members and having capacity of longitudinal adjustment thereon in the horizontal and one of said supporting-sections responding to the tilting movement of said tilting member, substantially as described.

6. In a surgical table, a table-top comprising a fixed member or seat and a tilting member, a subject-receiving support comprising two sections the forward section being slidably mounted above said fixed seat and the rearward section being slidably mounted upon said tilting member, the aggregate lengths of said supporting sections being less than that of said seat and tilting member, substantially as described.

7. In a surgical table, a top comprising a fixed seat and a tilting member, a subject-receiving support comprising two sections the rear section being mounted above said tilting member and a sliding joint between said tilting member and rear section said joint adapted to lock the said parts together though permitting them to slide on each other, the forward section of said support being hinged at its rear end to the front end of said rear section, and sliding joints between said forward section and fixed seat and the said joints serving to lock the parts together but permitting a sliding movement thereof, substantially as described.

8. In a surgical table, the combination of a fixed part serving as a seat, and a subject-receiving support comprising two pivotally connected sections slidably mounted above said fixed part, and tracks located at the sides of said fixed part below the level of its upper surface and rollers on one of said sections adapted to travel on said tracks, substantially as described.

9. In a surgical table, the combination of a fixed part 3, and a hinged part 4, at the rear end of said fixed part two sections 5 and 6 pivotally connected and mounted to slide above said parts 3 and 4, and maintained above the level of said parts, substantially as described.

In testimony whereof, I have hereunto set my hand in the presence of the two subscribing witnesses.

FRANK A. DENQUER.

Witnesses:
WILLIS FOWLER,
EDWARD W. HAYES.

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