No. 810,820. PATENTED JAN. 23, 1906.

J. L. SUDDARTH.

SURGICAL TABLE.

APPLICATION FILED MAR. 7, 1903.

2 SHEETS—SHEET 1.

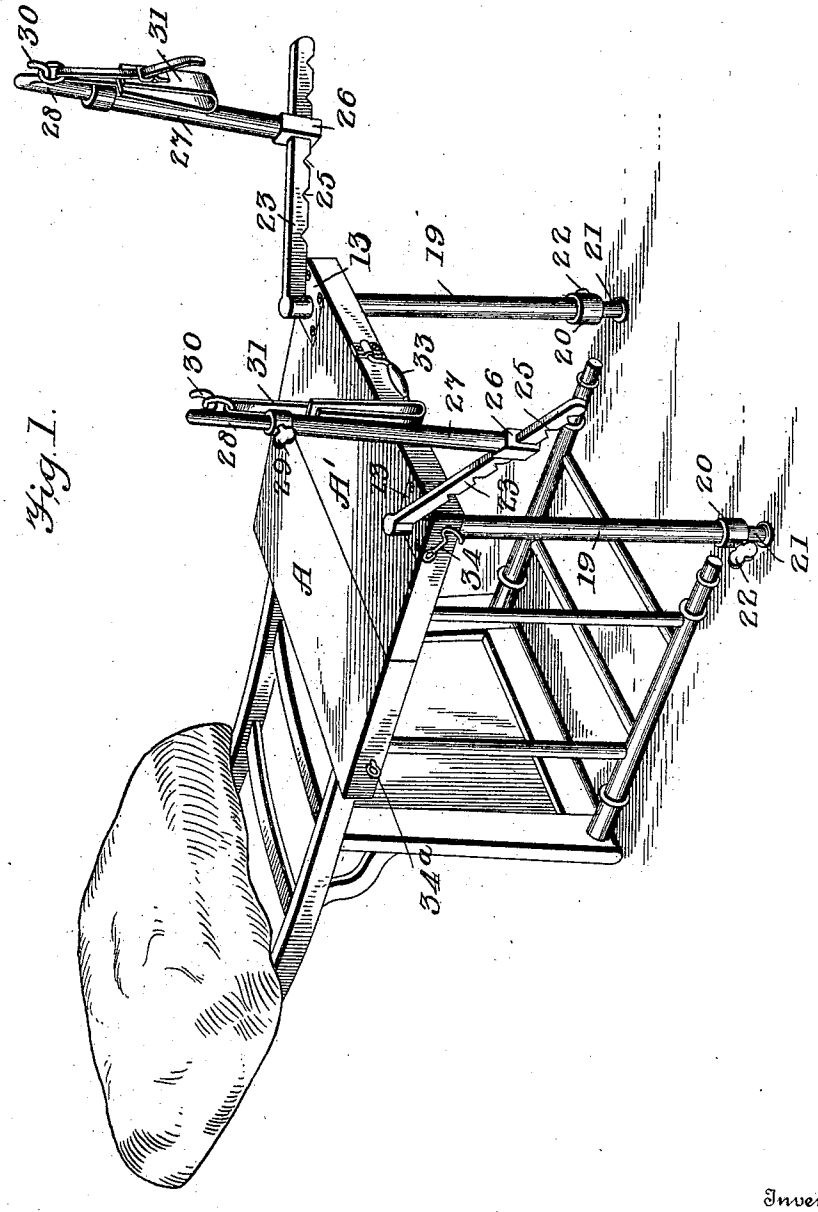


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 5.

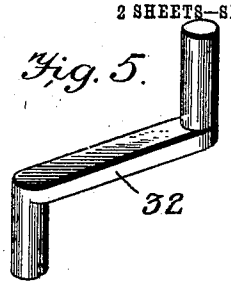


Fig. 2.

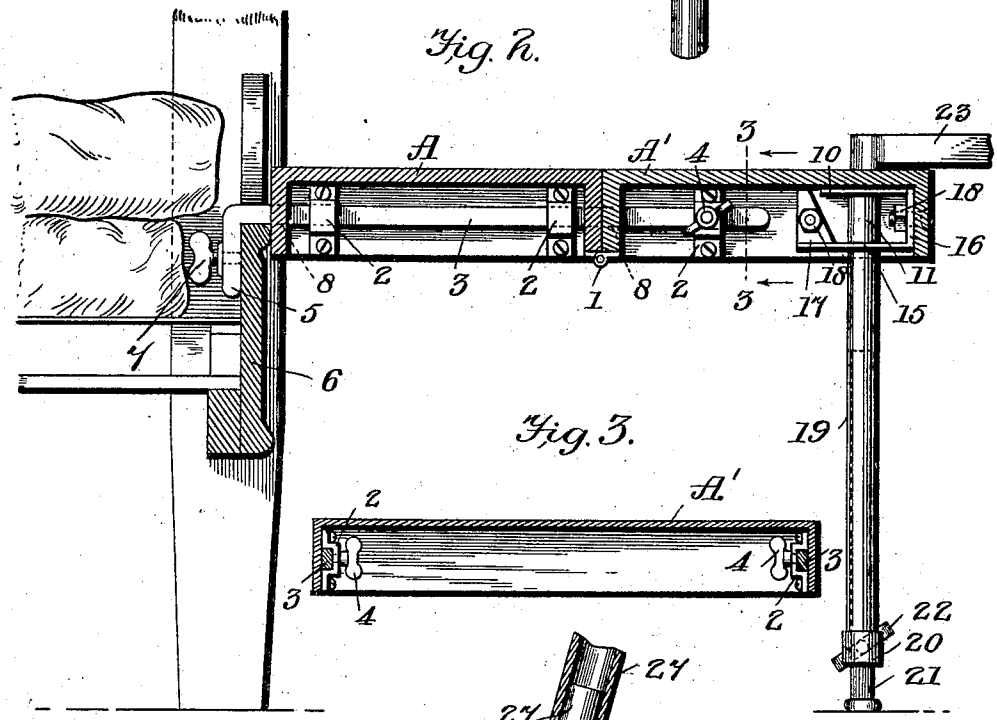


Fig. 3.

Fig. 4.

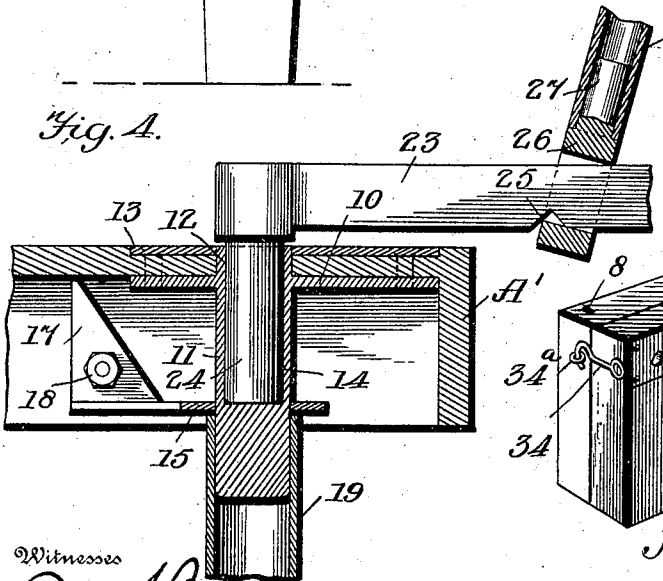
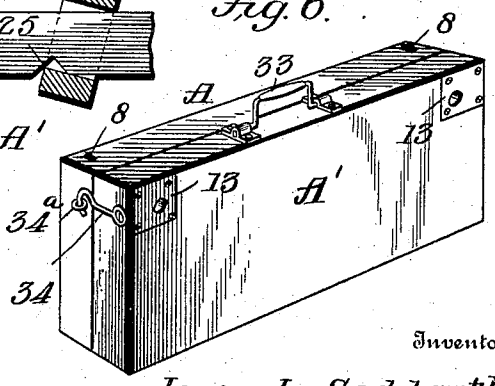


Fig. 6.



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SURGICAL TABLE.

No. 810,820. Specification of Letters Patent. Patented Jan. 23, 1906.

Application filed March 7, 1903. Serial No. 146,664.

To all whom it may concern:

Be it known that I, JAMES L. SUDDARTH, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Surgical Tables, of which the following is a specification.

My invention has relation to improvements in surgical tables; and the object is to construct and provide a portable surgical table which will generally meet the exigencies of its uses, and is particularly designed and intended for use in obstetric observations, examinations, and operations and also to be used in minor operations of the hand or foot.

The invention embodies a folding table, means to connect and hold it in extended connection to an object, means to support the table, and means to support the members of the patient, arranged and constructed as will be hereinafter more particularly defined.

With the objects and embodiments in view the invention consists in the novel construction of parts and their assemblage and aggroupment in operative combinations, as will be hereinafter fully described, and the novelty claimed particularly pointed out and distinctly defined.

I have fully and clearly illustrated the invention in the accompanying drawings, to be taken as a part of this specification, and wherein—

Figure 1 is a perspective view of the device set up and attached to the hind legs of a turned-down chair. Fig. 2 is a transverse sectional view through the leaves or sections of the table, showing it as attached to the side rail of a bed and showing one of the legs or supports and the means for holding the sections in horizontal relation and for holding them clamped to the bed-rail. Fig. 3 is a longitudinal section taken on the line 3 3 of Fig. 2. Fig. 4 is a detail view, partly in transverse section, showing one of the corner-brackets for receiving the supporting-legs and the pivotally-supported arms. Fig. 5 is a view in perspective of one of the interchangeable crank-brackets, one arm of which may be arranged in the sockets in the table and the other arm be engaged in the hollow base of the limb-standards. Fig. 6 is a perspective view of the table as folded and in condition to be carried by the hand.

In the drawings similar reference-notations appearing in the several illustrations indicate the same parts.

It will be premised that while means of some kind for holding the table in position for use are required they may be varied in kind and construction, and therefore I do not desire to be limited to the appliances intended to effect this purpose which are illustrated in the drawings, nor do I wish to be restricted in my rights to the particular construction of the table shown and described.

Referring to the drawings, A A′ designate the table-sections, substantially duplicates in form and construction and consisting of boxes of such capacity and dimensions as will suit them to the purposes intended and of such superficial area that when turned flat on their hinges a table of the desired size will be provided. These sections are hinged together at the edges of their inner sides, as at 1, so that they may be turned into a flat or horizontal relation, as shown in the drawings, or turned together in closed position, as seen in Fig. 6 of the drawings, in which condition the folded device forms a receptacle wherein all the detachable members and elements used as adjuncts therewith may be packed and carried, as well as such instruments as the physician or surgeon may require.

To hold the hinged sections of the table in horizontal alinement when extended, keepers or socket-irons 2 are secured in the end pieces or flanges of the sections, as seen in Figs. 2 and 3 of the drawings, and in these keepers are slidably arranged braces or bars 3, which are held in adjusted position by means of the keepers to bear against the bars with their ends. The outer ends of these bars 3 may be bent down at right angles, as seen at 5, so that a bed-rail 6 or similar object may be clamped between the turned-down ends and the face of the side flange of the section, the clamp being effected by a clamping-screw 7, let through the turned ends of the bars. The bars 3 pass through suitable apertures 8, made in the side flange or piece and through the meeting sides, as indicated in Fig. 2 of the drawings.

In Figure 1 of the drawings the table is shown as applied to a turned-down chair, upon which the table may be simply laid and held by the weight of the patient, or, if necessary, the table may be fastened by any suitable means, as a clamp, engaging some part of the chair and one of the side flanges of the sec-

tion A. In this arrangement the portion of the chair unoccupied by the device may be supplied with a pillow, as is indicated in Fig. 1, whereby all comfort of an operating-chair is insured to the patient.

In the outer corners of the table are secured suitable brackets constituting the means for supporting the legs of the table and the limb-supports. These brackets consist of an upper plate 10 of any suitable shape and an integral cylindrical piece 11 of such length as will fit it for the purposes intended. The cylindrical piece 11 extends above the plate 10 and vertically through the table, as seen at 12, and on the outer face of the table is set a plate 13, made with an opening which fits around the flange 12, so that when the plates 10 and 13 are clamped together by screws (see Fig. 4) passed through them and the table the plates will be held firmly in position. In the upper portion of the cylinder is formed a socket 14 of such depth as to afford substantial support for the studs or arms of the crank-brackets or for those of the swinging bars.

15 designates a brace and stop-plate through which the cylindrical piece 11 extends, as shown. The plate 15 is formed with a vertical end piece 16, and at the inner side adjacent the end is formed a vertical piece 17. Suitable fastening-screws 18 secure the plate 15 in position. It will be seen that this plate 15 serves the double purpose of bracing the cylindrical piece and that of a stop against which the upper end of the leg abuts when in use.

19 designates the legs, consisting of suitable metal tubes provided with collars 20 at their lower ends. Within the legs 19 are telescopically-arranged bars 21, which are held in any position to which they may be adjusted by set-screws 22, let through the collars 20, as indicated in the drawings. The upper ends of the legs fit over the cylindrical piece 11 and lodge against the plates 15, as seen in Fig. 4 of the drawings.

23 designates the arms or bars which carry the limb-supporting standards. These bars are formed at their rear ends with bearing-pins 24, arranged at right angles to the bars and adapted to pivotally fit in the sockets 14 in the brackets of the table. In the under edges of the bars 23 are made a series of notches 25, which serve to lock the stirrups to the bars. It will be perceived that the bars 23 may be swung in a horizontal plane to and from each other, and thus serve to move the limbs of the patient into right position for operation and examination. On the bars 23 are slidably and loosely placed stirrup-brackets 26, formed with vertical round stems 27, on which the lower ends of the tubular limb standards or supports fit and are held. Within the tubular limb-standards are slidably disposed rods 28, held in any adjusted position in the standards by set-screws 29, as seen in the drawings. The rods 28 are formed with hooks 30 at their upper ends, to which are hung suitable strap-loops 31, adapted to be secured to the limbs of the patient and hold them in the position required. These strap-loops may be made of any suitable material and consist of a broad band, to one end of which is connected a strap which is looped on a ring and the free end extended and connected to a buckle on the band, substantially as shown in Fig. 1 of the drawings.

Crank-brackets 32 may be substituted for the bars 23 and the tubular limb-standards 27 secured on the free stud or arm of the crank-bracket. The mode of operation is substantially the same as that when the bars are employed.

The crank-brackets 32, with the limb-supporting standards mounted thereon, are particularly useful in minor operations of the hand or foot, since the member may be secured in the strap and presented in the most convenient position for operation.

It may also be stated that the connection of the device to a chair or other rest affords means for the patient to be placed upon and receive examination or undergo operation in instances required without detriment to the coverings of the bed or couch and in positions affording the best light available.

When the device is not in use or when it is desired to transport it, the detachable members are placed in the sections of the table and the sections then closed together, as seen in Fig. 6 of the drawings. A handle 33 is provided, and the sections are held closed by hooks 34, engaging eyes 34^a.

The utilization of the device is apparent to those skilled in the art. The leaves of the table are extended and the retaining-bars passed through the keepers and secured, and the table is then in condition to be secured to a support. The legs are applied to the brackets and adjusted to the proper lengths, and so secured. The swinging bars or crank-brackets are then disposed in position, and then the limb-supporting standards are placed in their position. The limb-straps are then hung to the hooks, and the table is ready for the patient. The patient is arranged with a portion of the trunk on the table and the legs generally extending beyond its outer end. The legs of the patient are then secured at the proper points in the straps and then swung apart to suit the convenience of the operator. When the device or apparatus has served its purpose, the patient is removed, the elements and adjuncts disengaged or detached, placed within the case, and then the case may be closed. It will

thus be seen that I not only provide the profession with a convenient and reliable operating-table, but that the table constitutes a case wherein all the parts which are used may be assembled and packed and ported as a case.

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

1. In surgical appliances, a table comprising leaves provided with retaining devices, a brace engaging said retaining devices to support the leaves to form a table, means forming part of said brace to support one end or edge of the table, and supporting means for the other end of the table.

2. In surgical appliances, a table comprising leaves, a brace adapted to engage the leaves and support them in operative position to form a table and provided with a fastening to secure one end of the table to a suitable support, and means for supporting the other end of the table.

3. In surgical appliances, a table comprising leaves each in the form of a box or case-section, a brace passing through portions of the leaves and connecting them in rigid relation to form a table and provided with a projecting device, to secure one end of the table to a support, and means for supporting the other end of the table.

4. A surgical table, comprising two hinged sections to be opened to form a table, keepers secured to the sections, bars carried by the keepers to hold the sections open and having hooked ends to engage an article with one of the sides of the sections to secure the table in operative position and support one end thereof, and means for supporting the opposite end of the table.

5. A surgical table, comprising two hinged sections arranged to be opened to form a table, keepers secured to the sections, bars slidingly arranged in the keepers to hold the sections open and having their outer ends formed to engage and clamp an article against one of the sides of the sections to hold the table in operative position and support one end thereof, means to hold the bars in adjusted position, and means for supporting the outer end of the table.

6. A surgical table comprising two box-sections hinged together, keepers secured in the ends of the sections, bars adjustably passed through the keepers, and having their ends turned down and projecting beyond the end of the table, means to support the table at its outer end, vertically-adjustable and laterally-movable limb-standards rising from the table and provided with hooks at their upper ends, and limb-securing means hung to the hooks.

7. In a surgical table, two box-sections hinged together, keepers secured in the ends of the sections, bars passed through the keepers and projecting outwardly with their ends bent downward, clamping-screws through the turned-down ends of the bars, and legs at the opposite end of the sections from that through which the bars project.

8. A surgical table, comprising hinged sections to be opened to form a table, a brace connecting said sections to hold the sections open and provided with means to engage an article to secure the table in operative position and to support one end thereof, means for supporting the opposite end of the table, brackets secured to one of the sections and formed with upwardly-opening sockets and pendent studs, legs having their upper ends fitted upon the studs, and limb-supporting devices fitted into the sockets.

9. A surgical table, comprising hinged sections to be opened to form a table, means embodying a brace to hold the sections open, said brace having a fastening to engage an article to secure the table in operative position and to support one end thereof, means for adjustably supporting the opposite end thereof, horizontally-swinging members mounted upon the table, and limb-supporting standards adjusably mounted upon the members.

10. A surgical table, comprising two hinged sections to be opened to form a table, means adapted to hold the sections open and engage an article to secure the table in operative position and to support one end thereof, brackets secured to one of the sections and consisting of upper plates having formed thereon rigid depending studs having sockets in their upper ends, stop-plates formed with vertical end pieces and through which pass the studs, means passing through the end pieces to secure the stud-plates in applied position, face-plates, means carried by the face-plates to engage the upper plates to secure the studs in applied position, means carried by the studs for supporting the outer end of the table, and limb-supporting means carried by the sockets.

11. A surgical table, comprising hinged sections to be opened to form a table, means embodying a brace to hold the sections open, said brace having a fastening to engage an article to secure the table in operative position and to support one end thereof, means for adjustably supporting the opposite end thereof, horizontally-swinging arms mounted upon a table, vertically-adjustable limb-supporting standards mounted upon the arms, and slings or straps detachably suspended at their upper ends on said standards.

12. A portable surgical table, comprising two box-sections hinged together, keepers in the ends of the sections, rods adapted to engage through the keepers, and having turned-down ends, brackets secured in the outer corners of one of the sections and formed with a

rigid depending cylindrical stud having a socket in its upper end, tubular extensible legs having their upper ends fitted to the said studs, laterally-swinging members having depending studs to pivotally engage in the said sockets, vertically-extensible limb-supporting standards having their bases loosely and slidably mounted on the said members, and straps secured to the tops of the extensible limb-supporting standards.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES L. SUDDARTH.

Witnesses:

WM. J. KOERTH,

EDWIN G. MCKEE.