

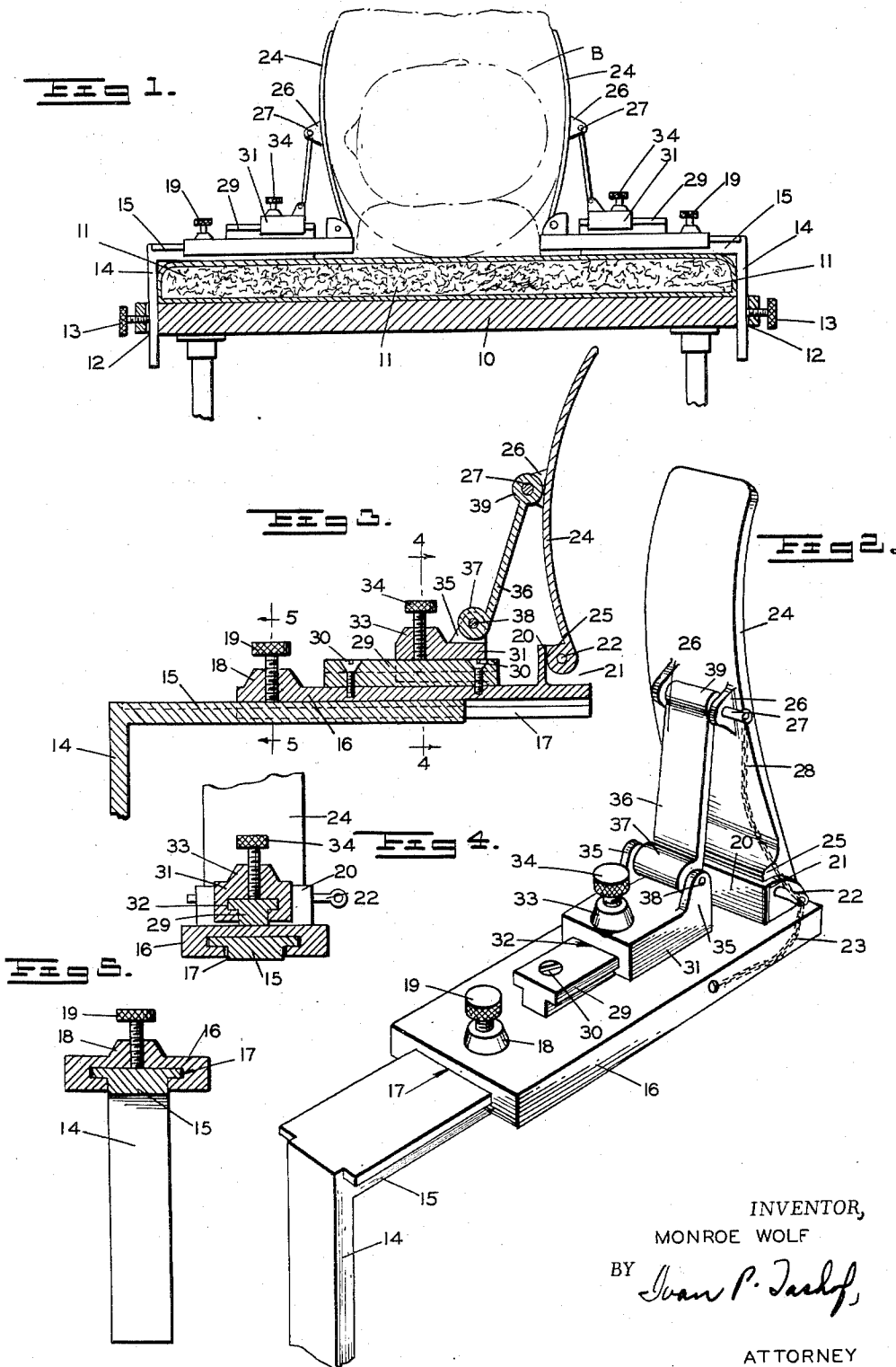
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SURGICAL CLAMP

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SURGICAL CLAMP

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1 Claim. (Cl. 311—10)

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This invention relates to surgical clamps such as are used in holding a patient's body or parts thereof quiescent during operations performed on the usual surgical operation table.

One important object of this invention is to provide a novel form of clamp for this purpose which will replace the belts, straps, and adhesive tape quite commonly used during surgical operations.

A second important object of the invention is to provide a novel device of this character which may be attached and fixed in any one of the slots usually found adjacent to the edges of operating tables and there held securely.

A third important object of the invention is the provision of a novel form of such clamp wherein the body engaging member may be moved bodily to and from the patient on the table.

A fourth important object of the invention is to provide a novel device of this character wherein the body engaging member may be tilted in a vertical plane as desired by the surgeon.

A fifth important object of the invention is to provide a novel device for the purpose wherein provision is made for readily substituting one body engaging member for another so that members of different lengths and curvatures may be selected for use with patients of different ages and sizes as well as parts of different curvatures can be properly engaged by the clamps.

With the above and other objects in view, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and particularly claimed.

In the drawings like characters of reference indicate like parts in the several views, and:

Fig. 1 is a typical cross-section of the body supporting part of a surgical table and showing a pair of the clamps of this invention in elevation as applied thereto.

Fig. 2 is a perspective view of one of the clamps removed from the table.

Fig. 3 is a longitudinally extending vertical median section of the clamp.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is a section on the line 5—5 of Fig. 3.

As here shown there is disclosed a surgical table top 10 having padding 11 thereon for supporting the body of a patient as indicated at B. Adjacent each side edge of the table is a slot 12 and it is to be understood that a number of such slots are often found spaced along the side edges of such tables so that body holding straps may be

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passed therethrough and held from movement by thumb screws 13.

The clamps of this invention are generally used in pairs and several pairs are often required for use in an operation. Each clamp includes an L-shaped bracket having a vertical leg 14 of rectangular cross-section so that it may be located in a slot 12 and there held by a screw 13. From the upper end of the leg 14 there extends a horizontal leg 15 of T-shaped cross-section and in use the leg 15 rests on the pad 11 as shown in Fig. 1. This bracket forms the general support for the adjustable elements of the invention.

In the adjustable elements there is provided an elongated base 16 having a longitudinally extending T-shaped slot 17 opening through the bottom of the base. The slot 17 is of less vertical dimension than the leg 15 so that when the leg is engaged in the slot 17 the base 16 will not contact the pad 11. A boss 18 projects upwardly from the base 16 and through this boss is screwed a thumb-screw 19 which engages the leg 15 to hold the base in desired adjustment along said leg. At the forward end of the base 16 is a transverse rib 20 having at its ends parallel lugs 21 through which removably passes a hinge pin 22 secured to the base against loss by a chain 23. The body engaging member 24 is preferably in the form of a longitudinally curved plate and may be of any length and curvature found desirable. In fact, it is intended to provide for use with each base 16 a variety of such plates, but it is only thought necessary to illustrate one of these plates as the construction of all plates used is alike so far as their relation to the remainder of the invention is concerned. The lower end of the plate 24 is provided with a thickened transverse portion forming a hinge eye 25 for the reception of the pin 22. The plate 24 also has a pair of lugs 26 forming hinge eyes, these lugs being spaced from the eye 25 and holding a removable hinge pin 27 secured to the base against loss by a chain 28. Extending longitudinally of the base on the center line thereof is a T-shaped rib 29 here shown as secured in place by screws 30, but this rib may, if desired, be formed integrally of the base. A slide 31 is provided with a T-shaped slot 32 so that the slide may fit on and be moved longitudinally along the rib 29. This slide is provided at its rear end with a boss 33 wherethrough is screwed a thumb-screw for holding the slide in adjusted position on the rib 29. At its forward end the slide is provided with a pair of spaced parallel lugs 35 forming

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hinge eyes. For connecting the plate 24 and slide 31 there is provided a link 36 having a hinge eye 37 at its lower end and a hinge pin 38 passes through this eye 37 and the eyes 35, this pin preferably being so fixed in the eyes 35 as to form a permanent pivot for the link. At its upper end the link 36 is provided with a hinge eye 39 for the reception of the removable pin 27. It will now be obvious that one plate 24 may be removed and another substituted therefor by removing the hinge pins 22 and 27, removing one plate 24, placing another in position and reinserting the hinge pins.

The plate 24 may be bodily adjusted toward and from the patient by loosening the screw 19, moving the base 16 along the leg 15 and tightening screw 19. The plate 24 may be tilted to desired position and there held by loosening the screw 24, moving the slide along the rib 29 and tightening said screw.

As shown in Fig. 1, the patient is lying on one of his sides and one pair of clamps may be positioned in line with the shoulders or not lower down than the armpits of the patient, while the other pair of clamps register with the hip or buttock portions. Of course, the clamps are substantially oppositely disposed with respect to the center line of the body.

The device of the present invention maintains the body in an accurate and fixed position when the patient is lying on his side. This cannot be accomplished with straps unless a large number of straps are carefully laced around the patient with a corresponding consumption of a large amount of time and a substantial amount of inconvenience to the patient. When prepar-

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ing for operations and when operating, time is of the essence.

What is claimed, is:

In a surgical body clamp, an L-shaped bracket having a horizontal leg T-shaped in cross-section, a base having a longitudinally extending T-shaped slot engaging said horizontal leg, a thumb screw engaging in said base for contact with said horizontal leg, a T-shaped rib extending along said base, a slide having a longitudinally extending T-shaped slot engaging said rib, a thumb-screw engaging in said slide for contact with said rib, hinge lugs on the forward end of said base, a body engaging plate having one end loosely pin connected to said lugs, other hinge lugs on the forward end of said slide, a link hinged to said last lugs at one end and extending towards the central portion of said plate, and a loose pin hinge connection between the other end of said link and said plate.

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