United States Patent

[11] **3,572,835**

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[73] Assignee **Kees Surgical Specialty Company**
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[54] **SURGICAL HEAD REST**
6 Claims, 15 Drawing Figs.

[52] **U.S. Cl.** **297/410,**
269/328, 297/403
[51] **Int. Cl.** **A47c 7/36,**
A47c 7/42
[50] **Field of Search** 297/403,
407—410; 269/325, 328

[56] **References Cited**

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Primary Examiner—Casmir A. Nunberg
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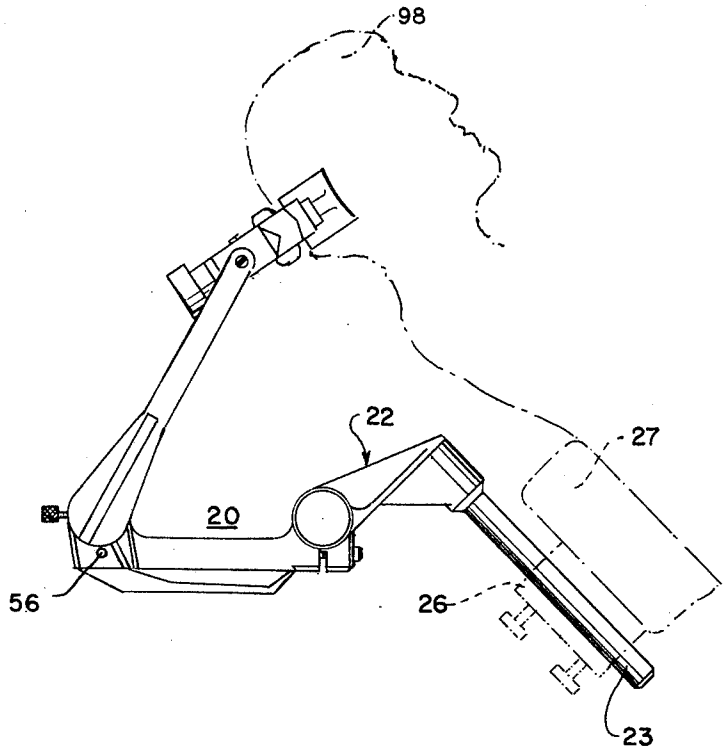
ABSTRACT: A head support assembly including a slide base having an arc-shaped main portion, an arcuate slide complementary to and mounted on the main portion of the slide base in face-to-face relation thereto, the slide being slideable circumferentially of the arc-shaped main portion, a rocker arm pivotally mounted on the slide, and resilient cup members mounted on the rocker arm and engageable with a patient's head or other body part to support same.



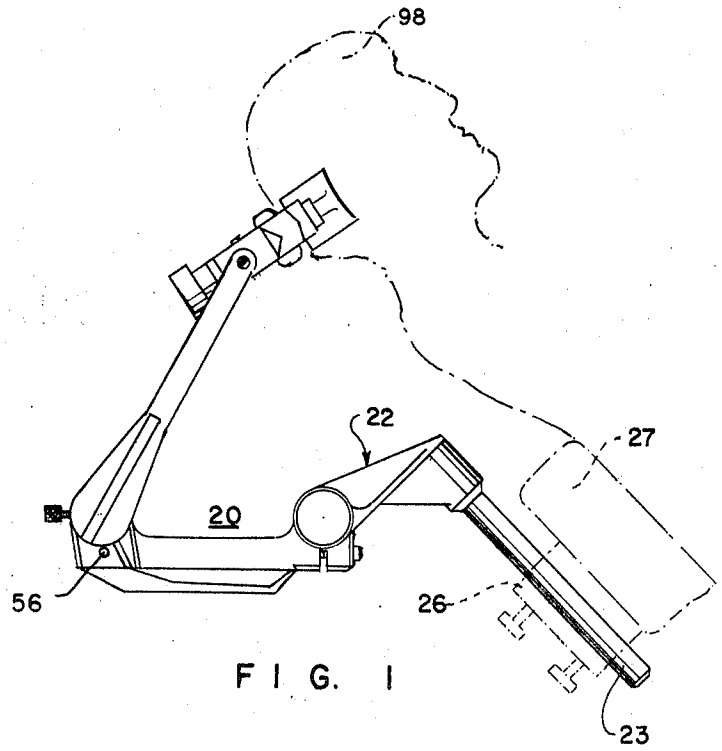


FIG. 1

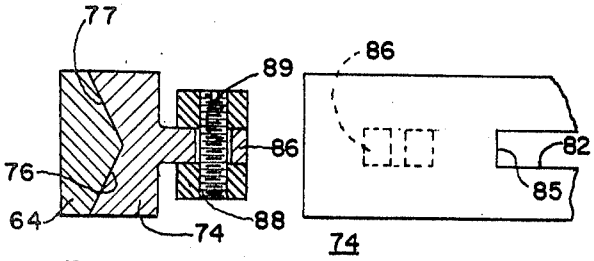


FIG. 12

FIG. 13

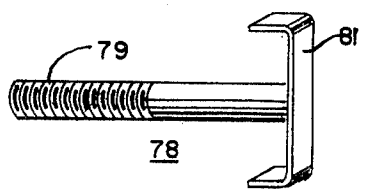


FIG. 14

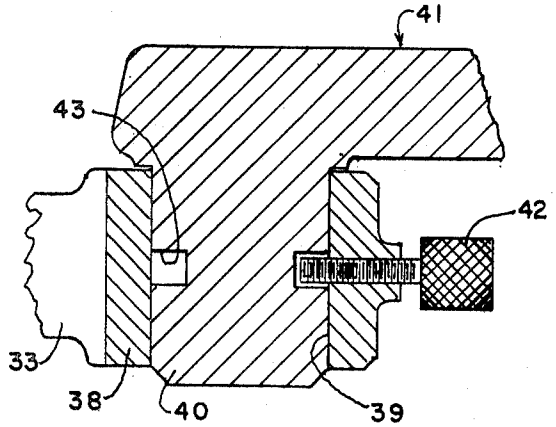


FIG. 15

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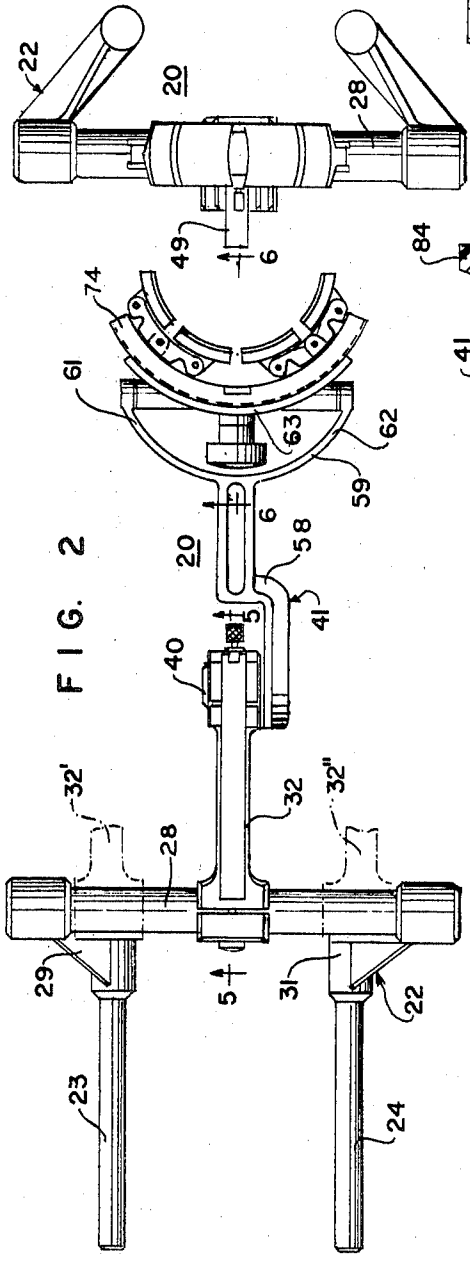

FIG. 2

FIG. 3

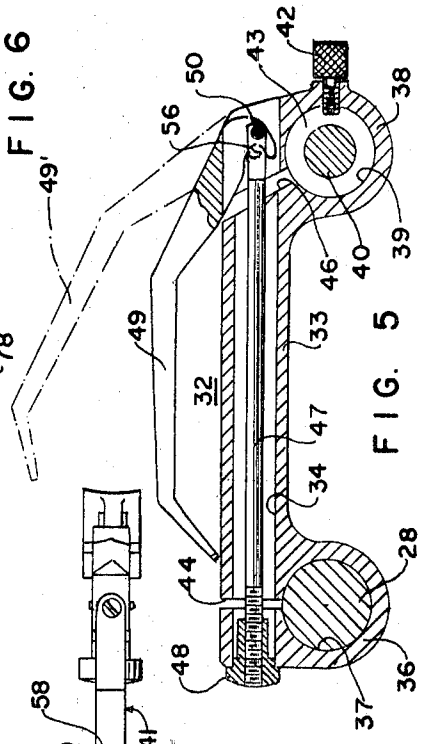

FIG. 5

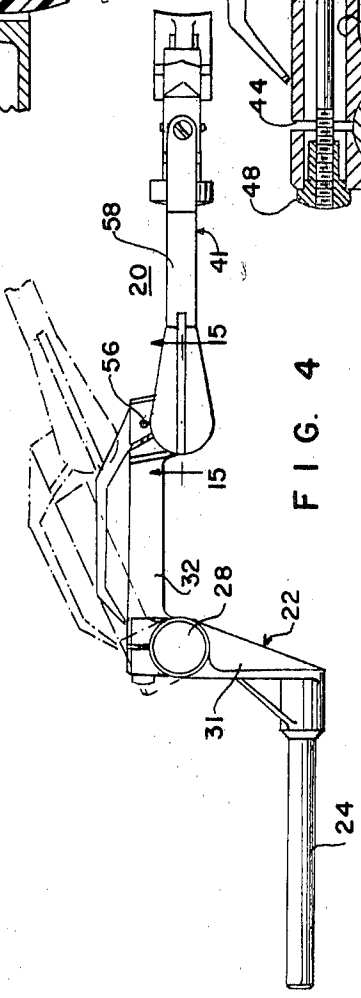

FIG. 4

FIG. 6

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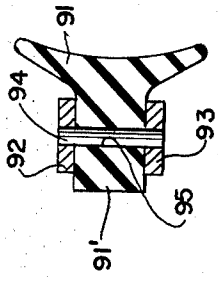

FIG. 8

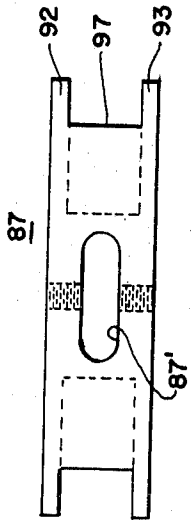

FIG. 9

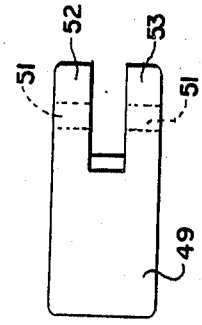

FIG. 10

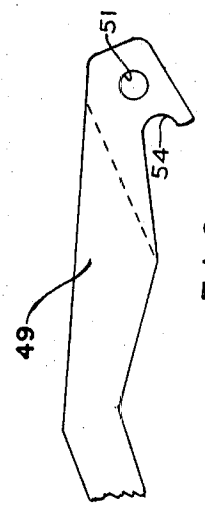

FIG. 11

FIG. 7

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SURGICAL HEAD REST

This invention relates to surgical appliances. More particularly, this invention relates to a head support or the like for a surgical bed.

An object of this invention is to provide a body support for a surgical bed which can give firm support for a patient's head or other body part at a selected position under or to one side thereof.

Briefly, this invention provides a support for a body part including an arc-shaped base portion, supports for the base portion for holding the base portion in adjustable position for underlying a body part of the patent such as his head, an arcuate slide mounted on the base portion and slideable in a circumferential direction to selected positions, rocker members pivotally mounted on the slide, and resilient cuplike members swingably mounted on the rocker members and engageable with the body part for supporting the body part.

The above and other objects and features of the invention will be apparent to those skilled in the art to which this invention pertains from the following detailed description and the drawings, in which:

FIG. 1 is a view in side elevation of a head support constructed in accordance with an embodiment of this invention, a fragmentary portion of a surgical bed and of a patient being shown in dot-dash lines in association therewith;

FIG. 2 is a plan view of the head support shown in FIG. 1, the head support being shown in extended position, alternate positions of the head support being shown in dot-dash lines;

FIG. 3 is a view in end elevation of the head support shown in FIGS. 1 and 2;

FIG. 4 is a view in side elevation of the head support in extended position, an alternate position thereof being shown in dot-dash lines;

FIG. 5 is a view in section taken on an enlarged scale on the line 5–5 in FIG. 2, an alternate position of an operating handle being shown in dot-dash lines;

FIG. 6 is a view in section taken on the line 6–6 in FIG. 2 on an enlarged scale;

FIG. 7 is an enlarged fragmentary plan view of the headrest with a slide thereof being shown in displaced position;

FIG. 8 is a view in section taken on the line 8–8 in FIG. 7;

FIG. 9 is a view in rear elevation of a rocker member which is a part of the head support;

FIG. 10 is a plan view of a clamp operating handle which is a part of the head support;

FIG. 11 is a fragmentary view in side elevation of an upper portion of the handle shown in FIG. 10;

FIG. 12 is a view in section taken on the line 12–12 in FIG. 7;

FIG. 13 is a fragmentary view in rear elevation of a slide which is a part of the head support;

FIG. 14 is a perspective view of a slide locking clamp which is a part of the head support; and

FIG. 15 is a view in section taken on the line 15–15 in FIG. 4 on an enlarged scale.

In the following detailed description and the drawings, like reference characters indicate like parts.

In FIGS. 1—4 inclusive is shown a body support assembly or headrest 20 constructed in accordance with an embodiment of this invention. The body support 20 includes a bracket 22 including parallel mounting rods 23 and 24 (FIG. 2) which can be received in a clamp block fitting 26 (FIG. 1) mounted on the underside of an end section 27 of a surgical bed. The bracket 22 also includes a cross rod 28 (FIG. 2) and connecting pieces 29 and 31 which are mounted on opposite ends of the cross rod 28 and carry the parallel rods 23 and 24, respectively.

A handle clamp 32 is mounted on the cross rod 28. As shown in FIG. 2, the handle clamp 32 can be slid lengthwise of the cross rod 28 to selected positions therealong, as indicated at 32′ and 32″.

The handle clamp 32 includes an elongated body 33 (FIG. 5) provided with a lengthwise bore 34. A boss 36 adjacent one end of the body 33 is bored at 37 transversely of the lengthwise bore 34 to receive the cross rod 28. A second boss 38 adjacent the other end of the body 33 is bored transversely at 39 to receive a generally cylindrical sidewise extending end portion 40 of a stem member 41. A thumb screw 42 mounted in the boss 38 extends into a circumferential slot 43 in the end portion 40 to hold the handle clamp 32 and the stem member 41 in assembled relation. The body 33 is slotted at 44 and 46 opposite the bosses 36 and 38 respectively so that the bored bosses 36 and 38 form split ring clamps surrounding the cross rod 28 and the end portion 40, respectively. A tension rod 47 runs lengthwise of the body 33 along the lengthwise bore 34. One end of the tension rod 47 is anchored by an end fastener 48. The other end of the tension rod is pivotally connected to an operating handle 49 by a pin 50 which extends through openings 51 (FIG. 11) in bifurcations 52 and 53 (FIG. 10) at a head end of the operating handle 49. Hook-shaped portions 54 (FIG. 11) of the bifurcations ride on pins 56 (FIGS. 4 and 5) mounted in the body 33 so that advance of the operating handle 49 counterclockwise from the position shown in FIG. 5 in dot-dash lines at 49′ to the position shown at 49 in full lines causes the tension rod 47 to draw the boss portions of the body tightly around the cross rod 28 and the end portion 40 to lock the handle clamp in position thereon.

The stem member 41 (FIG. 2) includes an elongated body 58 at one end of which the end portion 40 is mounted and at the other end of which is mounted an arc-shaped yoke 59 including outwardly extending arms 61 and 62. Between the arms 61 and 62 is mounted a slide base member 63 which includes an arcuate main portion 64 (FIG. 7), a central boss 65, and outwardly extending bosses 66 and 67. Trunnion bolts 68 and 69 mounted in the bosses 66 and 67 are received in bores 71 and 72, respectively, in the arms 61 and 62 of the yoke to pivotally support the slide base member 63 in the yoke arms 61 and 62. Friction washers 73 and 73′ are mounted on the trunnion bolts between the yoke arms and the outwardly extending bosses to resist free swinging of the slide base member so that it can be turned as desired but remains in any position to which it is turned.

The arcuate main portion 64 of the slide base member 63 supports an arcuate slide member 74 which is slideable therealong between a centered position shown in FIG. 2 and sidewise displaced positions, one of which is shown in FIG. 7. A ridge 76 (FIG. 12) of angle shape in section on the slide base is received in a complementary groove 77 of the slide member 74 to keep the slide base and the slide member in aligned relation. A slide locking clamp 78 locks the slide in selected position. The clamp 78 (FIG. 14) includes a threaded shank 79 and a channel-shaped head 81. The shank 79 extends through a circumferentially extending slot 82 (FIG. 13) in the slide and along a bore 83 (FIG. 7) in the central boss 65 of the slide base member. A hand-operated nut 84 threaded on the shank of the clamp 78 draws the head 81 thereof firmly against the slide 74 to lock the slide 74 in selected position. The slot 82 terminates at end walls 85, one of which is shown in FIG. 13, which can engage the clamp 78 to limit circumferential swinging of the slide 74.

The slide member 74 is provided with radially extending tongues 86 on which rocker arms 87 are swingably mounted, the tongue extending into a slot 87′ (FIG. 9) in the rocker arm. Each rocker arm 87 carries a threaded pin 88 (FIG. 12) which extends through an upright bore 89 in one of the tongues 86 so that the rocker arm pivots freely on the axis of the pin 88 except as pivoting is limited by engagement with the main portion of the slide member 74, the swinging being substantially in the plane of the slide member 74 and of the main portion of the slide base member. Each rocker arm 87 supports a pair of generally cup-shaped members 91 each of which has a rearwardly projecting boss 91′ which is pivotally mounted between bifurcations 92 and 93 (FIG. 8) at an end of the rocker arm on a pin 94 which is held in a bore 95 in the boss 91′. The cup-shaped members are formed of rubber or other resilient rubberlike material. A shoulder 96 (FIG. 7) on the cup is engageable with a shoulder 97 on the rocker arm to

limit outward swinging of the cup. Engagement of the cup with the rocker arm limits inward swinging. The rocker arms and the cups swing sufficiently to permit firm engagement of the cups with a patient's head **98** as shown in FIG. **1** or with another part of the patient's body. Furthermore, the assembly of slide **74**, rocker arms **87**, and cup-shaped members **91** can be slid or swung as to the position shown in FIG. **7** to position the cups to be behind and backup a selected portion of the patient's head or the like. Articulation between the bracket **22**, the handle clamp **32**, the stem member **41**, and the slide base member **63** make it possible quickly and easily to locate the headrest assembly for proper support of the patient's head so that work can be done on a selected portion of the head which may require substantial pressure.

The rest assembly has been described with particular reference to use in supporting a head but can be used to support other body parts if desired and the rest assembly illustrated in the drawings and described above is subject to structural modification without departing from the spirit and scope of the appended claims.

We claim:

1. A body support assembly which comprises a slide base having an arc-shaped main portion, means for supporting the slide base in selected position, an arcuate slide complementary to and mounted on the main portion of the slide base in face-to-face relation thereto, the slide being slideable circumferentially of the arc-shaped main portion, a rocker arm pivotally mounted on the slide, and resilient cup members mounted on the rocker arm and engageable with a patient's body part to support the body part.

2. A body support assembly as in claim **1** wherein the rocker arm swings in substantially the plane of the slide and of the main portion of the slide base.

3. A body support assembly as in claim **1** wherein there is a second rocker arm pivotally mounted on the slide spaced from the first mentioned rocker arm, each rocker arm supporting a pair of spaced resilient cup members, and the rocker arms both swing in substantially the plane of the slide and of the main portion of the slide base.

4. A body support assembly as in claim **1** wherein the means for supporting the slide base in selected position includes a stem member pivotally connected to the slide base, a bracket attachable to a surgical bed, and a handle clamp linking the bracket and the stem member, the handle clamp being releasably engageable with the bracket and the stem member.

5. A body support which comprises a base member, means for supporting the base member in selected position, a rocker arm pivotally mounted on the base member, and resilient body engaging members mounted on the rocker arm and engageable with a patient's body part to support the body part.

6. A body support as in claim **5** wherein the body engaging members are pivotally mounted on the rocker arm adjacent opposite ends thereof.