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2,743,975

LATERAL SURGICAL POSITION ATTACHMENT

Filed June 25, 1954

2 Sheets-Sheet 1

Fig. 1

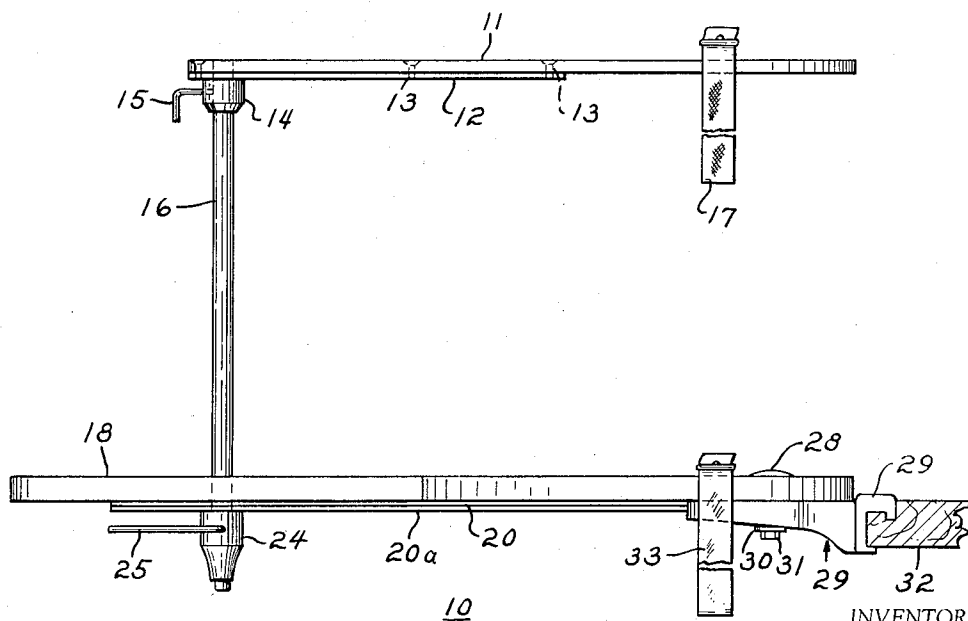
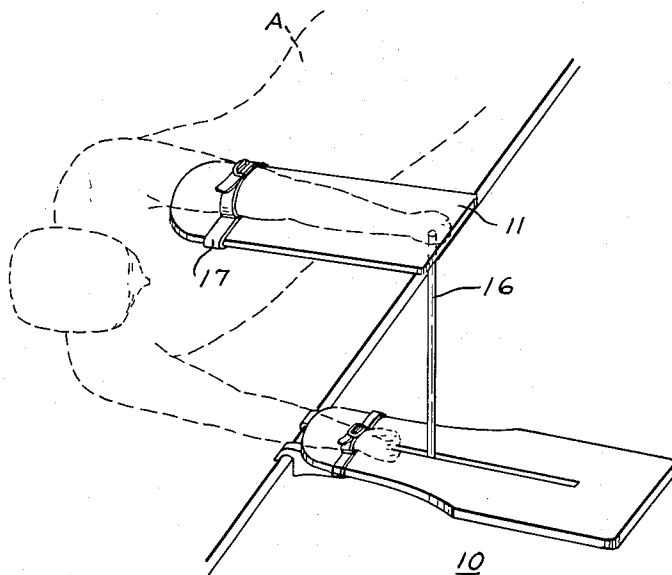


Fig. 2

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Fig. 3

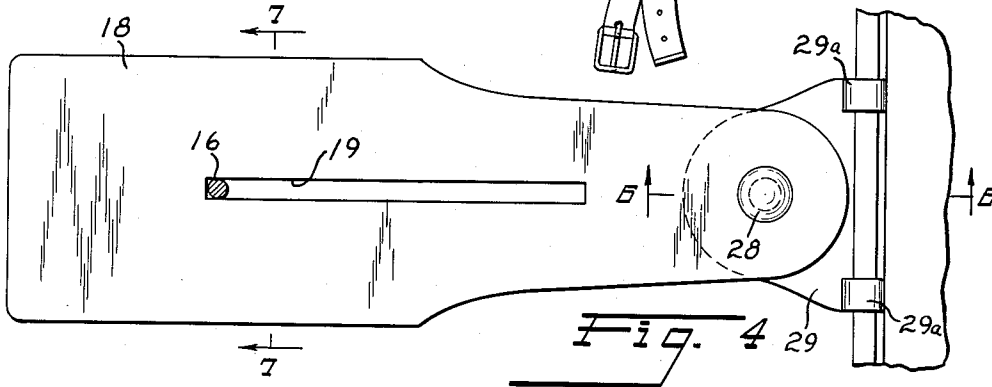
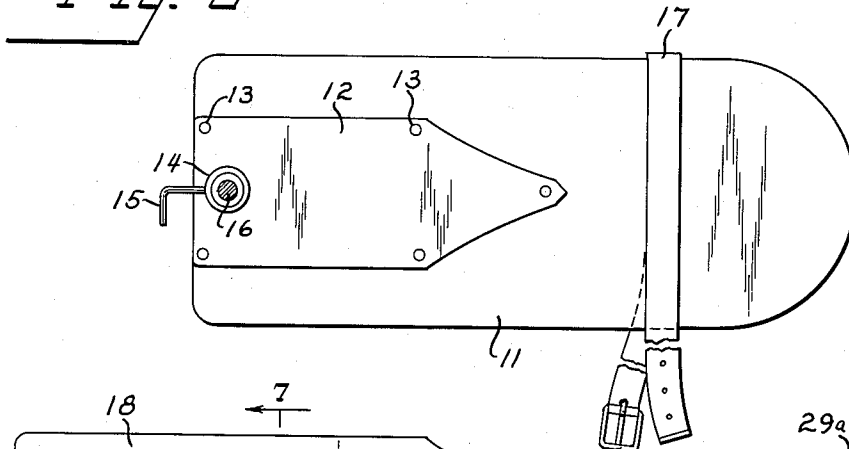


Fig. 4

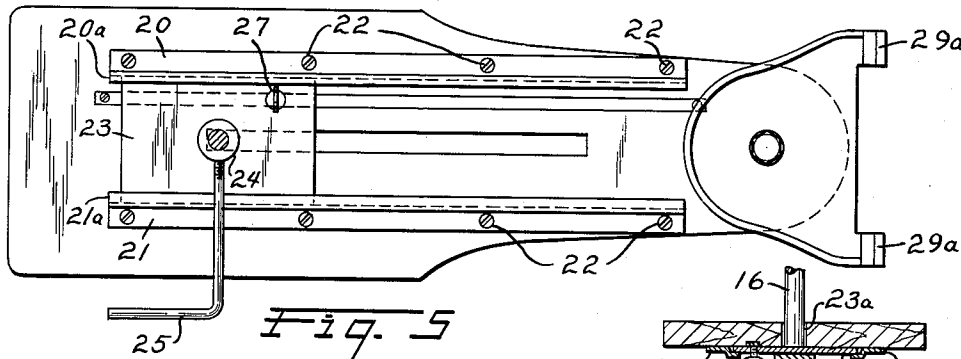


Fig. 5

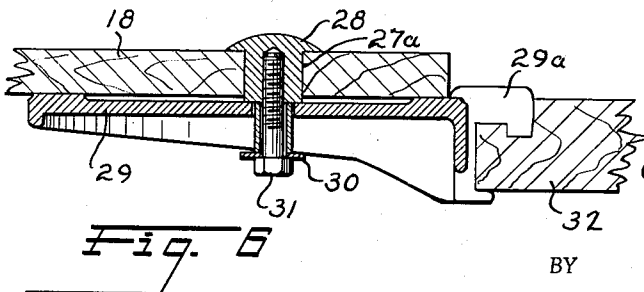


Fig. 6

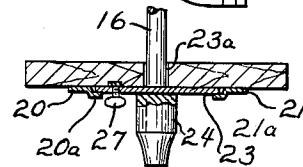


Fig. 7

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LATERAL SURGICAL POSITION ATTACHMENT

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2 Claims. (Cl. 311—10)

The present invention relates to a surgical table accessory, and more particularly a surgical table accessory for properly positioning the patient in a lateral position.

At the present time a patient undergoing an operation requiring his placement in a lateral position often encounters collateral complications during the operation as the result of this position. For example, full chest expansion is not possible oftentimes resulting in obstructed breathing and dangerous suppression of heart action. Further, it is quite difficult to retain the patient in a fixed lateral position throughout most operations, which is obviously disadvantageous to the operating surgeon. Similarly, the patient does not have maximum comfort when placed in a lateral position and required to remain thus for any period of time.

There have been some prior attempts to provide operating table accessories that seek to eliminate one or more of these foregoing disadvantages. However, all of these prior devices have been limited in their use in one or more ways, since they have not possessed enough universal applicability to permit their general use. For example, there have been some prior devices that seek to aid the patient to maintain a lateral position by supporting an arm in a raised position. However, this particular type of prior support is capable only of limited use due to the fact that it has not possessed universal adjustability to accommodate all patients in all types of operations.

In the elimination of the foregoing and related disadvantages, it is therefore a principal object of the present invention to provide an accessory that can be clamped to an operating table and will maintain the patient in a fixed lateral position throughout the operation.

Another object of the present invention is to provide an operating table accessory that possesses virtually universal movement for positioning the patient properly in almost any lateral or semi-lateral position.

Still another object of the present invention is to provide an operating table accessory of extremely simple construction that can be assembled and disassembled easily, and that can be attached or detached to an operating table almost instantly.

Yet another object of the present invention is the provision of an operating table accessory whose component parts are adjustable vertically, horizontally, and planar.

A further object of the present invention is to provide an operating table accessory that will maintain a patient in a fixed lateral position in a comfortable state, and will eliminate the possibility of any collateral complications that may result from the patient being maintained in a lateral position for any length of time.

A still further object of the present invention is to provide an operating table accessory that will position the arms of the patient such that complete accessibility to them is possible for the administration of intravenous fluids, taking of blood pressures, anesthetic administration, and the like.

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Yet another object of the present invention is the provision of an operating table accessory that will maintain the patient in a fixed lateral position at all times, thus enabling the operating surgeon to complete the operation more quickly and easily, and with less danger to the patient.

Other and additional objects of the present invention will become apparent from the following description taken in conjunction with the accompanying drawings.

To the accomplishment of the foregoing and related ends, the present invention then consists of the means hereinafter fully described and particularly pointed out in the claims, the annexed drawings and the following description setting forth in detail certain means in the carrying out of the invention, such disclosed means illustrating, however, but one of various ways in which the principle of the invention may be employed.

Broadly stated, the present invention consists of an operating table accessory comprising a first arm support member, a second arm support member positioned below and spaced from said first arm support member, means connecting said first arm support member and said second arm support member, said first arm support member being adjustable both horizontally and vertically with respect to said second arm support member, and mounting means carried by said second arm support member for detachably securing same to a body supporting member.

The present invention is illustrated, by way of example, in the accompanying drawings in which:

Figure 1 is a perspective view of an operating table accessory made in accordance with the present invention illustrating its association with an operating table to maintain a patient in a lateral position.

Fig. 2 is a side elevation of an operating table accessory made in accordance with the present invention illustrating its attachment to an operating table.

Fig. 3 is a plan view of the bottom face of the top arm supporting member shown in Fig. 2.

Fig. 4 is a top plan view of the upper face of the bottom arm supporting member shown in Fig. 2.

Fig. 5 is a plan view of the bottom face of the bottom arm supporting member shown in Fig. 4.

Fig. 6 is an exploded fragmentary cross section taken on the line 6—6 of Fig. 4 illustrating one form of attachment of the accessory to an operating table.

Fig. 7 is an exploded fragmentary cross section taken on the line 7—7 of Fig. 4.

Referring now to the drawings, and with particular reference to Figs. 2 through 7, an illustrative embodiment of an operating table accessory generally designated by reference numeral 10 is illustrated therein. The operating table accessory 10 comprises a top arm support member 11 which may be made from any suitable material, such as, for example, wood, metal, plastic, or the like, and may be of any desired configuration. It is preferred however, that one end be rounded in order to fit same near or in the armpit of a patient. The under surface of the upper arm supporting member 11 is provided with a mounting plate 12 preferably at the end opposite from that which will be close to the patient. The mounting plate 12 may be secured to the upper arm support member 11 by any desired means, such as, for example, screws 13. A mounting bushing 14 is secured to one end of the mounting plate 12 to receive one end of a mounting rod 16 therein. The mounting bushing 14 is provided with a lock wrench 15 threadable therein for locking the mounting rod 16 therein. In order to position and retain the patient's arm in fixed position, one or more straps 17 may be positioned on the upper arm support member 11 at any suitable point and in any desired manner.

The bottom arm support 18 may be made from the

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same material as the upper arm support 11, and is preferably somewhat longer than the top arm support member 11. Similarly, one end is preferably rounded to facilitate its mounting at the rounded end to an operating table, and to also permit planar adjustment therewith. The bottom arm support member 18 is provided with an elongated centrally positioned slot 19 parallel with respect to the longitudinal axis of bottom member 18, which functions to permit the horizontal adjustment as well as assist in providing the vertical adjustability of the top arm support member 11 with respect to the bottom arm support member 18.

On the under side or bottom face of the bottom arm support member 18 a pair of spaced metal guide strips 20 and 21 are positioned on either side of the longitudinal slot 19 and running parallel with respect thereto. The guide strips 20 and 21 are secured to the under surface of the bottom arm support member 18 by any suitable means, such as, for example, screws 22. Each of the guide strip members 20 and 21 are provided with a raised free edge 20a and 21a adjacent the longitudinal opening 19 to form a U-shaped channel guide on either side of the longitudinal slot 19. A sliding block 23 is positioned between each of the free edges 20a and 21a of the guide strip members 20 and 21 for longitudinal movement therebetween.

The sliding block 23 is provided with an opening 23a which is in alignment with the longitudinal slot 19 of the bottom arm support member 18. A cylindrical collar 24 is integrally connected to the bottom face of the sliding block 23 and in vertical alignment with the opening 23a of the block 23. The collar 24 will receive the opposite end of the mounting rod 16 and permit its vertical movement therein.

The mounting collar 24 is provided with a locking screw 25 so as to position the mounting rod 16 to any desired vertical position. It should be noted that it will be found extremely advantageous to provide an impregnated bushing mounted therein to lubricate the mounting rod 16, thus eliminating friction between the parts and facilitating any desired vertical movement. This construction just described permits the top arm support member 11 carried by the mounting rod 16 to be adjusted both horizontally as well as vertically with respect to the bottom arm support member 18. In order to lock the sliding block 23 in any desired position within the guideway strips 20, 21, a locking strip 26 may be secured to the under surface of the bottom arm support member 18 in spaced parallel relationship to one of the guide strips 20 and 21. The mounting block 23 is provided with a threaded opening in vertical alignment with the locking strip 26 and threadably retains a set screw 27 therein to permit the sliding block 23 to be locked in any desired position by a tightening of the set screw 27 against the locking strip 26.

To illustrate one form of attaching means for securing the operating table accessory 10 to an operating table, reference is now to be had to Fig. 6. Adjacent the rounded end of the bottom arm support member 23 is a centrally positioned opening 27a into which a capped nut 28 is positioned. An angled support plate 29 is positioned beneath the rounded end of the bottom arm support member 23 and is adapted to be secured thereto by means of a flanged mounting collar 30 and a mounting bolt 31, which will be threadably received and retained by the capped nut 28. It will be found oftentimes desirable to permit a rotation of the bottom support member 23 in a horizontal plane with respect to the operating table. Accordingly, this may be accomplished by cutting out a portion of the top bearing surface of the angled support plate 29, thus materially reducing the bearing surface between the bottom arm support member 18 and the angled support plate 29. The forward, free end of the angled support plate 29 is provided with a

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modified U-shaped clamp 29a on either end thereof for securing same to the outer perimetral edge of an operating table 32 by a hooking of the clamp 29a to the top of the operating table 32, with a shoe portion of the clamp resting against the under surface of the table 32. The bottom support member 29 may also have arm or rest straps 33 to secure the arm of the patient in a fixed position.

It is to be understood that this mounting arrangement just described for securing the operating table accessory 10 to the operating table 32 is illustrative in character only, since there are a great many ways that the attachment could be made. For example, a universal joint could be employed which would provide the operating table accessory with universal movement with respect to the operating table 32. If such means are employed, it should be understood that means should be provided to lock the universal joint at any point throughout its arc of movement.

In illustrating the use of the illustrative operating table accessory 10 made in accordance with the present invention, reference is now to be had to Fig. 1. The operating table accessory 10 will be positioned to the operating table 32 by the angled support plate 29, and the patient A placed on the operating table 32 in the desired lateral position. After the patient has been positioned on the table, the bottom arm will be fitted properly on the bottom support member 18 and tied thereto by means of a strap 33. The locking wrench 15 locking the upper portion of the mounting rod 16 in the bushing 14 is loosened slightly if it is necessary to move the top arm support member 11 in planar relationship. Otherwise, the mounting rod 16 will remain in locked position with respect to the top arm support member 11. The locking wrench 25 locking the bottom end of the mounting rod 16 in the collar 24 of the sliding block 23 is loosened as is the sliding block set screw 27. If it will be necessary to have the operating table accessory 11 in angular position with respect to the operating table, the mounting bolt 31 may be adjusted. To achieve this adjustment it is preferred that the mounting bolt 31 be provided with a push spring which will retain the bolt in locked position at all times. However, this arrangement is such that a slight pressure will permit the desired adjustment. The top arm support member 11 is then fitted well under the arm of the patient by sliding the top arm support member 11 inwardly by means of the mounting rod 16 in the guideway slot 19 of the bottom arm support member 18. The top arm support member 11 may be raised or lowered by sliding the mounting rod 16 up or down in the collar 24 to give the desired height. After the patient has been fitted properly to the top arm support member 11, the locking wrench 25 and set screw 27 are tightened. The upper arm is then secured to the top member 11 by strap 17.

With the operating table accessory 10, it is quite apparent that the patient will be held in a locked comfortable position, and none of the collateral complications heretofore encountered in operations of this type will be possible.

It is also possible to use the present invention merely as an arm support by the simple expediency of loosening the locking wrench and withdrawing the mounting rod 16 from the collar 24 of the sliding block 23. This will result in only the bottom arm support member 18 in locked position to the operating table.

Another important advantage of the present invention is its knockdown characteristics so that the accessory may be stored compactly when not in use. This is accomplished by merely unlocking the lock wrench 15 and the lock wrench 25 resulting in a removal of the mounting rod 16. The mounting rod 16 and the bottom arm support member 18 and top arm support member 11 may then be tied together forming a small compact bundle which may be stored in this position. When the accessory is to be used, it can be assembled almost instantly.

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While the description heretofore has been given relative to the use of the present invention in conjunction with an operating table, it is to be understood that the invention can be employed equally as well with a surgical bed to properly position a person in a lateral position when maintenance of the patient in this position is necessary after the operation.

I claim:

1. An operating table surgical accessory comprising a first arm support member to receive and support one arm, 10
socket receiving means carried on the underface of said first arm support member, a second arm support member to receive and support one arm positioned below and in a plane parallel to and spaced from that of said first arm support member, longitudinal slot means centrally positioned on said second arm support member, retaining means positioned on the underface of said second arm support member in vertical alignment with said longitudinal slot means, connecting means secured at one end to the socket means carried by said first arm support member and the opposite end secured to said retaining means 20

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for vertical movement with respect thereto, and horizontal movement in the longitudinal slot means, and mounting means carried by said second arm support member for detachably securing same to a body supporting member.

2. An accessory in accordance with claim 1 wherein the retaining means on the bottom face of the second arm support member comprise a collar carried by sliding means slidable in parallel relationship with respect to the longitudinal slot means of the second arm support member.

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