

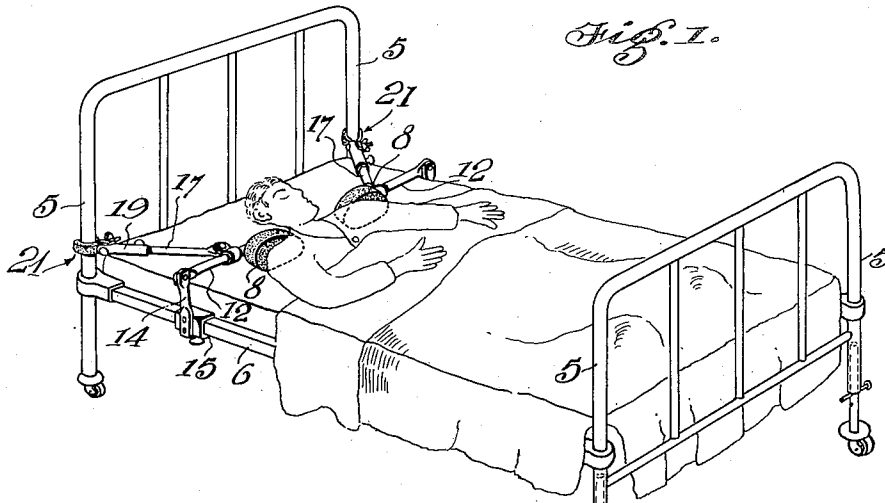
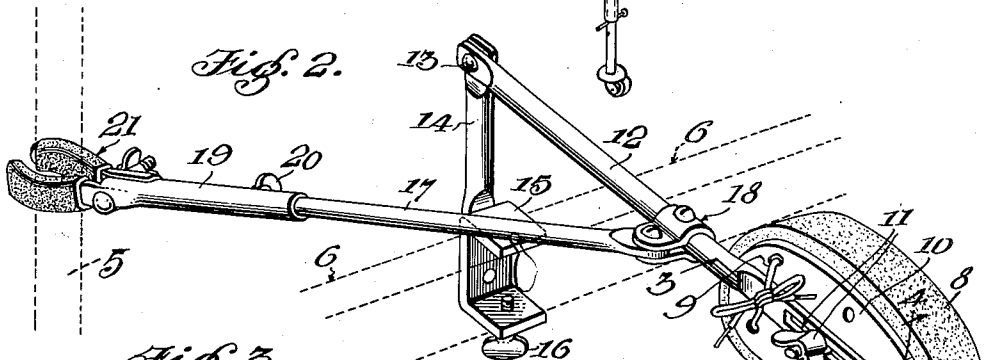
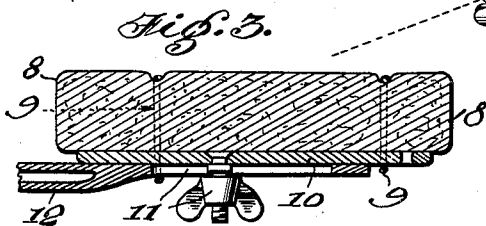
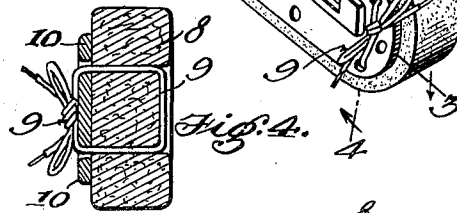
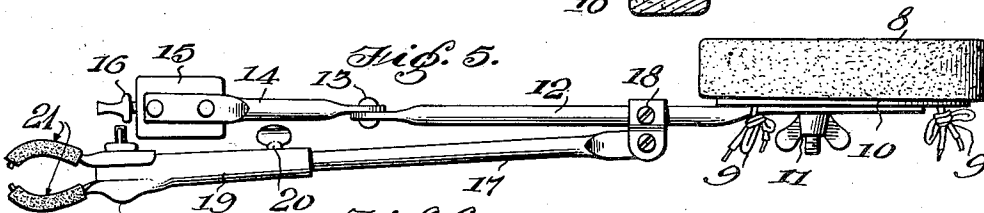
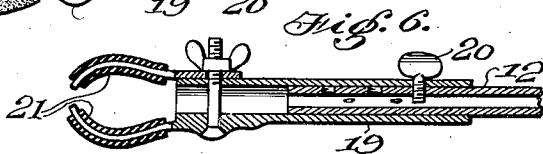
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PATIENT POSITION SUPPORTING ATTACHMENT FOR HOSPITAL BEDS

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PATIENT POSITION SUPPORTING ATTACHMENT FOR HOSPITAL BEDS

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19 Claims. (Cl. 5—327)

The invention relates generally to hospital beds and primarily has for an object to provide means in the nature of a simple, conveniently mountable and removable attachment by employment of which the body of a patient may be supported against tendencies to slide toward the head of the bed.

In modern surgery the practise of administering the anesthesia through the spine is becoming more and more popular, and it is not unreasonable to assume that this spinal anesthetic will, in a large measure, supplant the present common practise of administering ether and thus enable patients to avoid the undesirable after effects known to result from the use of ether.

The spinal anesthetic is injected into the lower portion, or near the base of the spine. The specific gravity of his serum being lower than that of human blood, the serum naturally seeks a higher level in the blood and usually passes out of the system at the highest point attainable. For this reason a patient is caused to lie upon a head down incline for a period of at least 24 hours following an operation for which a spinal anesthetic has been administered so as to avoid the possibility of the serum working its way to the brain and causing complete paralysis or death. The average patient, after such an operation, will slide down until his head comes in contact with the head of the bed and supports his weight in this manner, or at least a part of it. Naturally, this is a very uncomfortable position and has a tendency to worry and fret the patient.

Therefore, in its more detailed nature, the invention seeks to provide a novel hospital bed attachment embodying right and left shoulder engaging support equipments each comprising a shoulder pad, a pad carrying arm having provision for being removably clamped to a side rail of the bed, and a brace arm capable of being removably clamped to a corner post of the bed to suitably brace the pad carrying arm in body supporting position upon the bed.

Another object of the invention is to so construct and correlate the parts of the attachments that they may be easily dismantled for cleansing and replacement purposes, adjusted to satisfy various conditions of use, and compacted for convenient shipment or storage.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, the invention still further resides in the novel details of construction, combination and arrangement of parts, all of which will be first

fully described in the following detailed description, then be particularly pointed out in the appended claims, references being had to the accompanying drawing, in which:—

Figure 1 is a perspective view illustrating the invention in use.

Figure 2 is a detail perspective view of one of the shoulder supporting units, the "left" unit being shown.

Figure 3 is a detail longitudinal section taken on the line 3—3 on Figure 2.

Figure 4 is a detail cross section taken on the line 4—4 on Figure 2.

Figure 5 is a plan view of the unit shown in Figure 2 compacted for storage or shipment.

Figure 6 is a detail longitudinal section of the bed post clamping end of the brace arm of a unit.

The body supporting units embodying the principles of our invention are constructed in "right" and "left" units, one for engaging each shoulder of a patient, and are removably attached to a hospital bed in the position and manner illustrated in Figure 1 of the drawing.

After an operation for which a spinal anesthetic has been administered, the patient is caused to lie upon a head down incline for a period of at least twenty-four hours in order to avoid the danger of the anesthetic serum finding its way to the brain and the disastrous reactions which might result therefrom. The invention is designed for use as an attachment on any conventional form of bed adaptable to the uses mentioned and which include the usual head and foot sections and their corner posts 5 and connecting side rails 6. The customary bedding, including the usual mattress, is generally designated at 7 in Figure 1 of the drawing.

Each attachment unit comprises a shoulder engaging pad 8 formed of sponge rubber or any other suitable soft material which may be encased in a covering or not according to the tastes of the user. The pad is removably secured, by lacings 9 or other suitable securing means, to a rigid backing plate 10 which is in turn laterally-adjustably secured by slot and bolt equipments 11 to the flattened end of a tubular carrier arm 12.

The arm 12 is friction-hinge-connected as at 13 to a standard section 14 equipped at its lower end with a U-bracket or stirrup 15 adapted to straddle a side rail 6 of the bed and be securely clamped thereto, through the medium of a clamp screw 16.

A brace arm 17 is hinge-secured to the carrier arm 12 adjacent the flattened end thereof

as indicated at 18 and at its free end is equipped with a telescopic extension 19 which is adjustably secured thereon by aperture and screw or other suitable equipment as indicated at 20 in Figures 5 and 6 and terminates at its end in a clamp head 21 for removably engaging the adjacent bed post 5.

In use, the attachments are mounted as shown in Figures 1 and 2 of the drawing with the carrier arms 12 extending transversely of the bed, one at each side thereof so as to present the pad 8 in position for engaging the shoulders of a patient and effectively preventing sliding toward the head of the bed. The standard sections 14 are of sufficient length to allow the arms 12 to lie substantially parallel the upper face of the mattress, and the friction hinge 13 will permit enough hinging movement to assure proper positioning of the pads 8.

The brace arms or rods 17, 19, being clamped at 21 to the bed posts, distribute the body supporting thrusts directly to said posts and thereby relieve the standards 14 of the torsional strains to which they would otherwise be subjected.

By reference to Figures 2, 3, 5 and 6 of the drawing it will be seen that our equipment is universally adjustable. The hinge connections 13 enable varying the angular relation of the sections 12 and 14, the hinge connections 18 enable varying the angular relation of the sections 12 and 17, and these hinge connections collectively enable the extension of the sections 12 and 14 in substantially axial alinement and the compacting of the units as a whole as shown in Figure 5. The pads 8 may be moved closer to or farther from each other by employment of the slot and bolt equipments 11, and the length of the brace arms 17 may be varied by use of the telescopic piece 19, 20. Thus it will be seen that the attachments are adaptable to varying conditions of use.

It may be said that the arms 12 and 17, 19 form with the adjacent bed side rail 6 a triangle, and by reason of the connections 16, 20, 18, 21 and 11 the angular relation and relative lengths of the triangle legs may be varied to properly position the pads 8 for all conditions of use.

The advantages of the adjustments above mentioned should be apparent when it is remembered that each human has individual shoulder proportions. Without such adjustments, proper comfort of the patient could not be provided for.

The simple device herein disclosed is light in weight, strong and durable, sanitary, adjustable so as to be adaptable to various conditions of use, and capable of being quickly and conveniently mounted upon or removed from standard forms of beds and compacted for storage or shipment.

The structure herein disclosed is but an example of embodiment of the principles of our invention which comprehends all such variants of the specific means disclosed as might properly be deemed to be embraced within the scope of the appended claims.

From the foregoing description, taken in connection with the accompanying drawing, it is thought that the novel details of construction, the manner of use and the advantages of our invention will readily be apparent to those skilled in the art to which the invention relates.

What we claim is:—

1. A hospital bed body supporting attachment comprising a shoulder supporting pad, and pad

mounting means removably engageable with a side rail and a corner post of a bed for securing said pad upon the bed.

2. A hospital bed body supporting attachment comprising a shoulder supporting pad, and pad mounting means removably engageable with a side rail and a corner post of a bed for securing said pad upon the bed, and including devices for varying the angular relation of said pad and mounting means and the distance of the pad from the bed rail.

3. A hospital bed body supporting attachment comprising, a pair of connected diverging arms capable when mounted of forming with a side rail of a bed on which the attachment is mounted a triangle, means to removably secure the free end of one arm to the side rail of said bed, means to removably secure the other arm to a corner post of said bed, and a shoulder engaging member carried by one of the arms.

4. A hospital bed body supporting attachment comprising, a pair of connected diverging arms capable when mounted of forming with a side rail of a bed on which the attachment is mounted a triangle, means to removably secure the free end of one arm to the side rail of said bed, means to removably secure the other arm to a corner post of said bed, a shoulder engaging member carried by one of the arms, and means for varying the angular relation of said arms.

5. A hospital bed body supporting attachment comprising, a pair of connected diverging arms capable when mounted of forming with a side rail of a bed on which the attachment is mounted a triangle, means to removably secure the free end of one arm to the side rail of said bed, means to removably secure the other arm to a corner post of said bed, a shoulder engaging member carried by one of the arms, means for varying the angular relation of said arms, and means for varying the relative lengths of said arms.

6. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to the side rail of a bed, a brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to a head post of a bed, and a supporting pad carried by said arm.

7. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to the side rail of a bed, a brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to a head post of a bed, and a supporting pad carried by said arm, the connections of said standard section and said brace rod with the carrier arm being hinge connections to enable the standard section to be moved into axial alinement and the brace rod into close relation with the carrier rod for compacting purposes.

8. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to the side rail of a bed, a brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to a head post of a bed, a supporting pad, and means by which the pad is longitudinally-adjustably carried by the arm.

9. A hospital bed body supporting attachment

comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to the side rail of a bed, a longitudinally-adjustable brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to a head post of a bed, and a supporting pad carried by said arm.

10. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to the side rail of a bed, a longitudinally-adjustable brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to a head post of a bed, a supporting pad, and means by which the pad is longitudinally-adjustably carried by the arm, the connections of said standard section and said brace rod with the carrier arm being hinge connections to enable changing the position of the pad to suit varying conditions of use.

11. A hospital bed body supporting attachment comprising a pair of shoulder supporting pads, and means by which the positions of said pads may be adjusted to vary the spaced relation and the angularity of said pads to fit them to the peculiarities of spacing and slope of the shoulders of particular patients, said means including a carrier arm and a brace arm having attachment with each pad and adapted for spaced-point attachment with portions of a bed.

12. A hospital bed body supporting attachment comprising, a pair of connected diverging arms capable when mounted of horizontally overlying a bed with the free ends of said arms directed toward a side rail of the bed on which the attachment is mounted, means to removably secure the free end of each arm to a portion of said bed, and a shoulder engaging member carried by one of the arms.

13. A hospital bed body supporting attachment comprising, a pair of connected diverging arms capable when mounted of horizontally overlying a bed with the free ends of said arms directed toward a side rail of the bed on which the attachment is mounted, means to removably secure the free end of each arm to a portion of said bed, a shoulder engaging member carried by one of the arms, and means enabling the varying of the angular relation of said arms.

14. A hospital bed body supporting attachment comprising, a pair of connected diverging arms capable when mounted of horizontally overlying a bed with the free ends of said arms directed toward a side rail of the bed on which the attachment is mounted, means to removably secure the free end of each arm to a portion of said bed, a shoulder engaging member carried by one of the arms, and means enabling varying of the relative lengths of said arms.

15. A hospital bed body supporting attachment comprising a laterally-horizontally disposed carrier arm, a standard section depending from said arm, means for removably securing the standard section to a portion of a bed, a laterally-horizontally disposed brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to another portion of said bed, and a supporting pad carried by said arm.

16. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to a portion of a bed, a brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to another portion of said bed, and a supporting pad carried by said arm, the connections of said standard section and said brace rod with the carrier arm being hinge connections to enable the standard section to be moved into axial alinement and the brace rod into close relation with the carrier rod for compacting purposes.

17. A hospital bed body supporting attachment comprising a laterally-horizontally disposed carrier arm, a standard section depending from said arm, means for removably securing the standard section to a portion of a bed, a laterally-horizontally disposed brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to another portion of said bed, a supporting pad, and means by which the pad is longitudinally-adjustably carried by the arm.

18. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to a portion of a bed, a longitudinally-adjustable brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to another portion of said bed, and a supporting pad carried by said arm.

19. A hospital bed body supporting attachment comprising a carrier arm, a standard section depending from said arm, means for removably securing the standard section to a portion of a bed, a longitudinally-adjustable brace rod connected to and diverging from the carrier arm, means for removably securing the free end of the brace rod to another portion of said bed, a supporting pad, and means by which the pad is longitudinally-adjustably carried by the arm, the connections of said standard section and said brace rod with the carrier arm being hinge connections to enable changing the position of the pad to suit varying conditions of use.

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