

[54] BODY SUPPORT DEVICE

[76] Inventor: **Delbert L. Burpo**, 113 E. Walnut St., Harrisburg, Ill. 62946

[22] Filed: **Sept. 18, 1972**

[21] Appl. No.: **289,766**

[52] U.S. Cl. 5/327 R, 5/338, 5/90

[51] Int. Cl. A61g 7/02, A47c 21/00

[58] Field of Search 5/60, 61, 71, 90, 91, 94, 5/118, 327, 327 B, 352, 357, 327 R, 338

[56] **References Cited**

UNITED STATES PATENTS

2,724,133	11/1955	Sorrell.....	5/327 R
1,673,433	6/1928	Wheeler et al.....	5/327 B
3,562,824	2/1971	White	5/61

Primary Examiner—Paul R. Gilliam
Assistant Examiner—Andrew M. Calvert
Attorney, Agent, or Firm—Hibben, Noyes & Bicknell

[57] **ABSTRACT**

A body support device for supporting a patient in bed while lying on his back which comprises two rigid elongated generally rectangular body support sections adapted to being supported lengthwise on the upper surface of a bed in oppositely disposed mirror-image relationship with the inner longitudinal edges of the support sections being spaced less than the width of the back of the patient being supported on the said sections and having the upper surface of each of the body support sections sloping downwardly and inwardly toward the spacing maintained between the support sections. In one embodiment of the invention the body support sections are interconnected by flexible straps which encircle the oppositely disposed ends of each of the body sections. In another disclosed embodiment the body support sections have rigid plates connecting the oppositely disposed ends of the body support sections.

4 Claims, 7 Drawing Figures

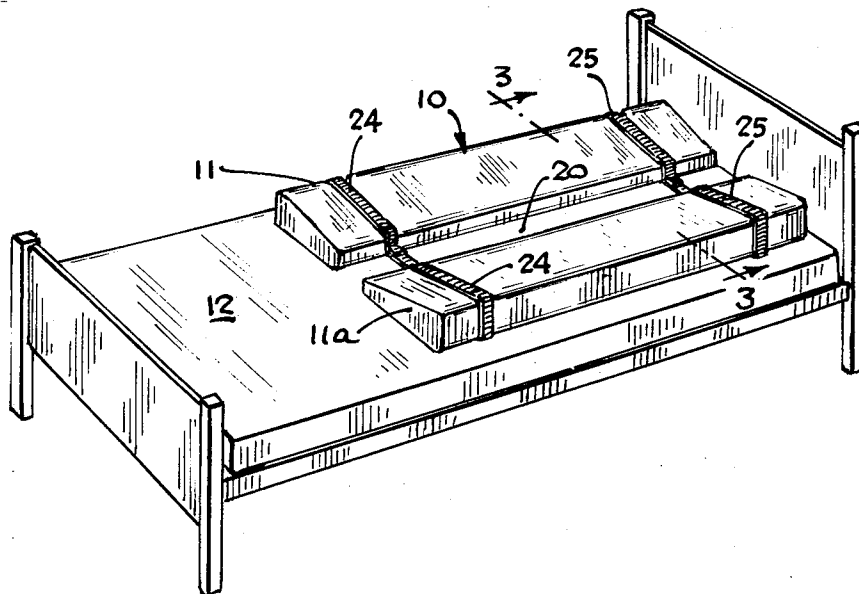


FIG. 1

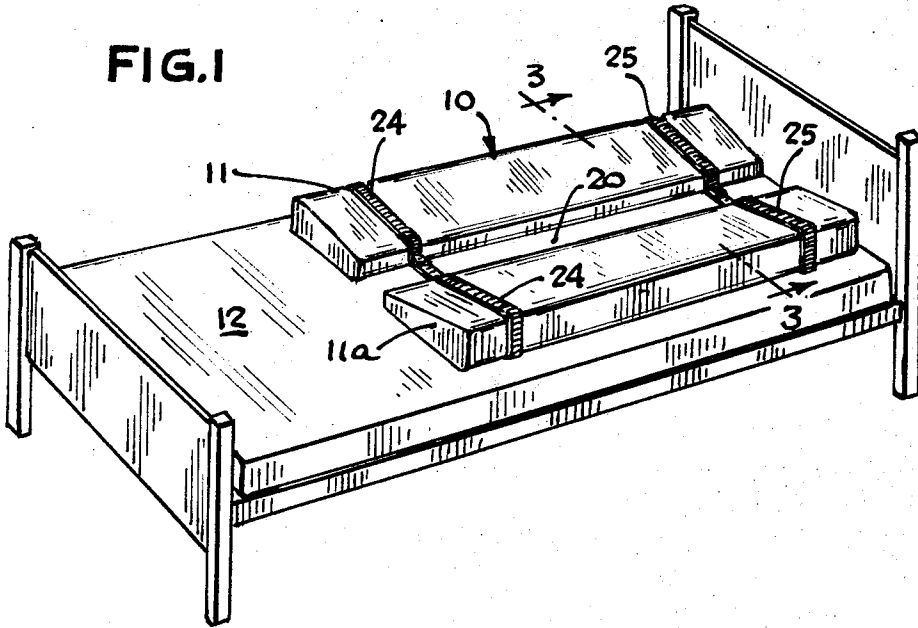


FIG. 2

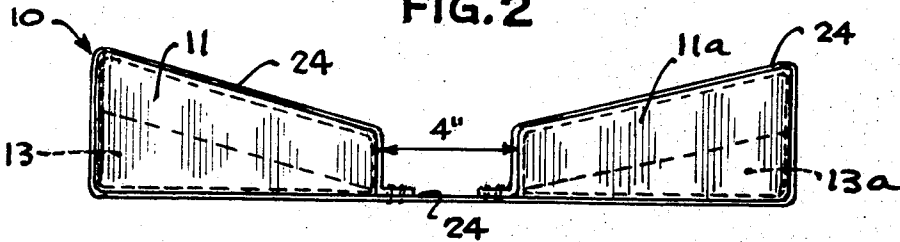


FIG. 3

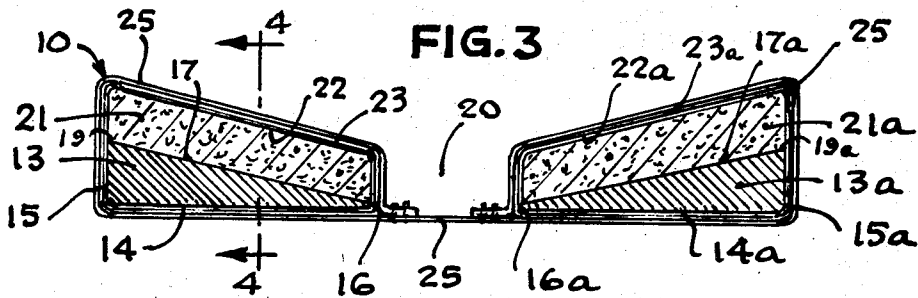


FIG. 4

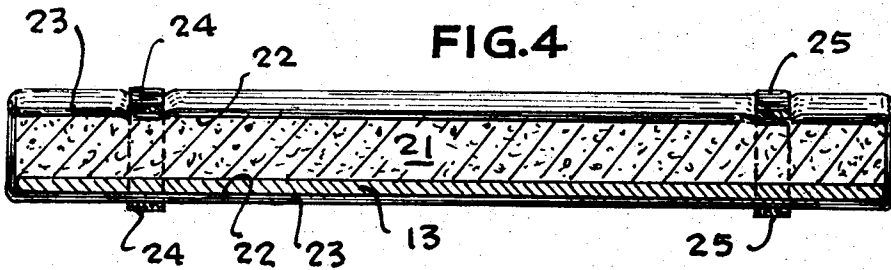


FIG. 5

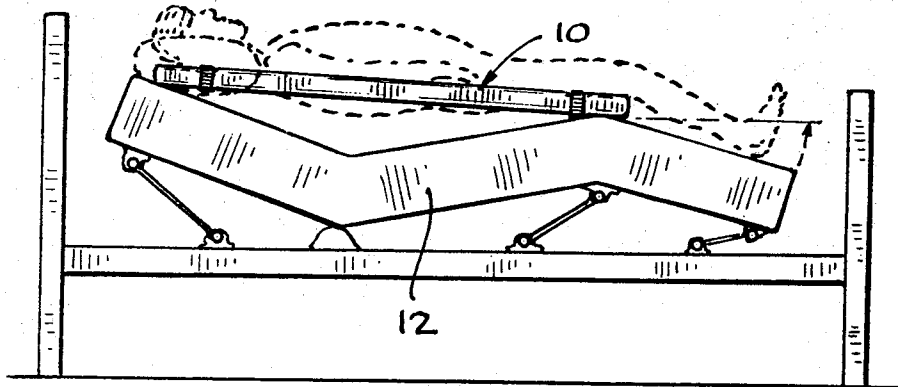


FIG. 6

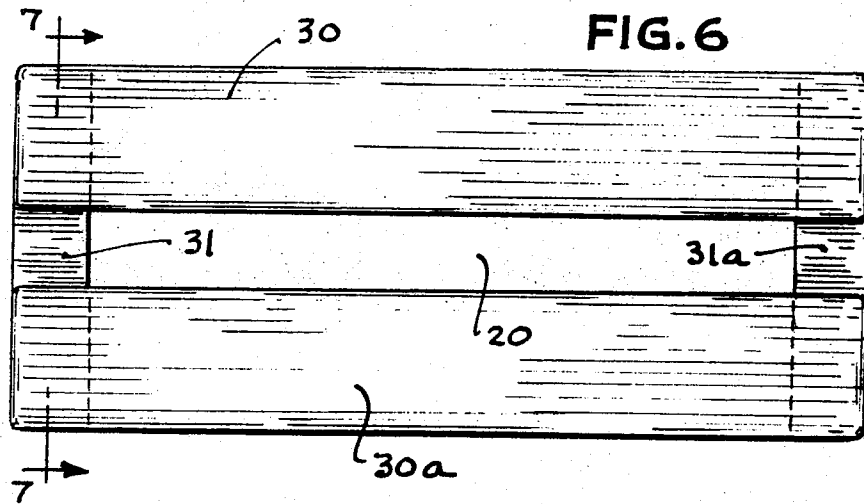
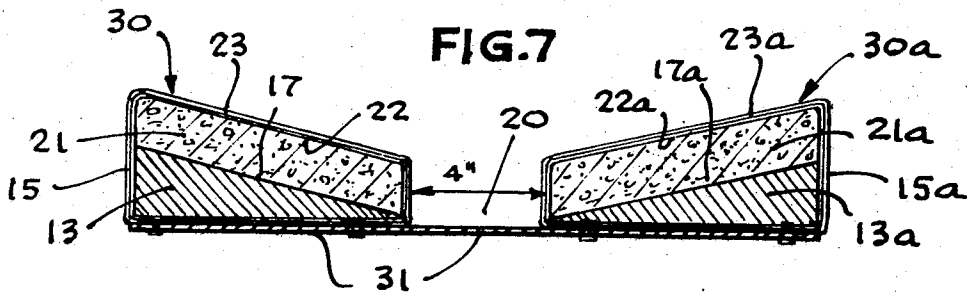


FIG. 7



BODY SUPPORT DEVICE

The present invention relates to an improved means for supporting a patient's body in a bed.

When a patient is required to remain in bed for a prolonged period, is immobilized in bed, or is an orthopedic patient whose body must remain in proper alignment prior to surgery, various problems are encountered. For example, the pressure which is exerted on the spinal column of a patient lying in bed for a prolonged period often causes decubitus ulcers (bed sores) to form on the coccyx areas and other areas of the vertebrae, particularly when the patient is immobilized for prolonged periods. It is also difficult for an attendant to place a bed pan beneath the patient immobilized in bed, and it is difficult for the immobilized patient to use the bed pan while in bed. And, the body of an orthopedic patient does not always remain in proper alignment prior to surgery when lying in bed.

It is therefore an object of the present invention to provide a body support device for use in conjunction with a bed for supporting a reclining patient which relieves the pressure on the spinal column of the patient so that the formation of decubitus ulcers is avoided and permits convenient treatment of any such ulcers previously formed.

A further object of the present invention to provide a body support device on which an immobilized orthopedic patient's body will remain properly aligned prior to surgery.

Another object of the present invention to provide a body support device which when used in conjunction with a hospital-type bed enables a bed pan to be readily inserted beneath the body of an immobilized patient.

Still another object of the present invention to provide an improved body support device which provides a more convenient means for applying auxiliary support to portions of an immobilized patient's body.

A still further object of the present invention is to provide an improved body support device which enables an immobilized patient to rest more comfortably while in a reclining position.

Other objects of the present invention will be apparent to those skilled in the art from the detailed description and claims which follow when read in conjunction with the accompanying drawing, wherein:

FIG. 1 is a perspective view of the body support device of the present invention in one operative position on a bed;

FIG. 2 is an end elevational view of the body support device shown in FIG. 1;

FIG. 3 is a fragmentary vertical sectional view along the line 3-3 of FIG. 1;

FIG. 4 is a vertical sectional view taken along the line 4-4 of FIG. 3;

FIG. 5 is a schematic side elevational view of the body support device of the present invention in another operative position supported on a hospital bed;

FIG. 6 is a top plan view of a modified form of the present invention; and

FIG. 7 is a vertical sectional view taken along the line 7-7 of FIG. 6.

The body support device 10 of the present invention shown in FIGS. 1-4 is comprised of two rigid elongated generally rectangular body support sections 11, 11a, each constructed identically and adapted to be supported on the upper surface of any bed 12 with the

inner longitudinal sides of the device 10 in spaced, mirror-image relationship having the oppositely disposed longitudinal inner edges preferably spaced about 4 inches. Each of the body support sections 11, 11a is formed of a base 13, 13a which can be formed of wood, metal, plastic or any suitable material of construction. Each base has a plane lower surface 14, 14a adapted to be supported on the upper surface of a bed which in the preferred form is about 8 to 12 inches wide and at least 4 feet long. The outer longitudinal sides 15, 15a of each base 13, 13a preferably extend perpendicularly above the lower surfaces 14, 14a and preferably has a height of about 2 inches. The inner longitudinal sides 16, 16a of the base 13, 13a, respectively, extend above the lower surfaces 14, 14a preferably only about one-fourth inch. The upper support surfaces 17, 17a of each base 13, 13a, respectively, are preferably plane surfaces and slope inwardly and downwardly from the outer edges 19, 19a, respectively, toward the space or void 20 formed between the two body support sections 11, 11a.

Each of the bases 13, 13a has secured to the upper surface 17, 17a thereof a thick layer of padding, such as a 2 inch foam rubber pad 21, 21a, extending the entire length of the upper surface 17, 17a. Each base 13, 13a with its rubber pad 21, 21a is completely enclosed by a water proof covering 22, 22a, such as a sheet of plastic, and thereafter is fitted within a readily removable cotton or other cloth outer cover 23, 23a.

The two body support sections 11, 11a are interconnected in any manner such that the longitudinal recess or void 20 is formed extending between the spaced body support sections 11, 11a along most of the length thereof, and in the embodiment shown in FIGS. 1-4 two flexible belts 24, 25 are snugly fitted over the opposite ends of each of the sections 11, 11a and held thereon by forming loops in the ends of the belts 24, 25 by applying stitching or like fastener means adjacent the inner longitudinal edges of each section, allowing a short length of each belt 24, 25, preferably about 4 inches long, to extend between the two body support sections 11, 11a.

In the modified form of the invention shown in FIGS. 6 and 7 each of the two spaced body support sections 30, 30a has the same construction as the body support sections 11, 11a shown in FIGS. 1-4, but the sections 30, 30a are rigidly held in spaced mirror-image relationship by means of thin rigid plate members 31, 31a mounted preferably on the lower surface of the sections 30, 30a which connect the oppositely disposed ends of the support sections 30, 30a.

In use the body support devices shown in FIGS. 1-4 and in FIGS. 6-7 are placed on the surface of a conventional bed or preferably on a hospital-type bed with the body support sections in spaced mirror-image relationship so that the longitudinal edges extend lengthwise of the bed between the longitudinal sides of the bed and with the upper end thereof adjacent the upper end of the bed, as best shown in FIG. 1 of the drawing. The patient is placed on the body support device with the patient's back contacting the body supporting upper surfaces and the patient's spinal column disposed over the space or void between the two spaced body support sections. The weight of the patient's body on the oppositely disposed inwardly sloping upper surfaces of the body support device urges the body support sections outwardly to the full extent permitted by the connect-

ing straps (FIGS. 1-4). Thus, while the patient lies immobilized on the body support device the spinal column of the patient does not support any portion of the patient's weight. It is recommended that the patient be allowed to remain on the support device for periods of from 4 to 6 hours each day, so that there will be no tendency to form decubitus ulcers. In the event decubitus ulcers have formed before the patient is placed on the body support device, however, the ulcers can be treated readily, because the affected area is exposed and out of contact with any supporting surface.

When the patient is supported on the support device and the head of the bed, such as a hospital-type bed, is elevated the body support device pivots about the lower end thereof, effecting pivotally moving the entire body of the patient and giving the patient a feeling of increased support and comfort not provided when only the upper portion of the patient's body is elevated.

When the patient's body is supported in a hospital-type bed on the body support device of the present invention with the upper end adjacent the head of the bed and the lower end at the point spaced from the lower end where the bed is hinged (at the patient's knees) to permit raising the bed above the normal horizontal surface position, and both the head of the bed and the portions of a hospital-type bed adjacent the patient's knees are elevated, the mid section of the patient's body is raised several inches above the upper surface of the hospital-type bed, as best shown in FIG. 5 of the drawing. With the patient and the bed disposed as shown in FIG. 5, a bed pan can be conveniently inserted by the attendant below the patient's body and used comfortably by the patient.

It should be evident that the body support sections of the present invention can be effectively used to manipulate as well as support the body of a patient confined in bed, particularly in a hospital-type bed, with very little physical exertion required on the part of either the patient or the attendant. Thus, the body support sections as above described can be used to move the body of a patient into a semi-side position by removing one of the body support sections or turning the patient onto his side by raising the body support section remaining beneath the patient. The separate body support sections can also be secured to the longitudinal side rails of a hospital-type bed in an on-edge position so that the

sections serve as cushions which prevent a patient injuring himself by striking the sides of the bed.

It should also be evident that the body support device of the present invention can be made in varying dimensions (i.e. in selected lengths and widths while maintaining the spacing between the body support sections less than the width of the body of the patient to be supported thereon) to accommodate patients of different height and weight and provide optimum support for either a child or an adult, without departing from the scope of the present invention.

I claim:

1. A device for supporting the body of a patient while in a reclining position which comprises; two elongated generally rectangular rigid body support sections disposed in interconnected spaced mirror-image relationship which are adapted to support the body of a said patient in a reclining position, said sections having a length sufficient to extend from the head to about the knees of the said patient, each of said sections having an upper body support surface which slopes inwardly and downwardly toward a longitudinal spacing maintained between the inner edges of said sections between the opposite longitudinal ends thereof, and said sections being connected only adjacent said opposite longitudinal ends thereof by means which are adapted to maintain the said spacing between said sections less than the width of the body of the said patient supported by said sections.

2. A device for supporting the body of a patient as in claim 1, wherein said body support sections are connected by a flexible strap encircling each said body sections adjacent the said ends thereof.

3. A device for supporting the body of a patient as in claim 1, wherein said body support sections are connected by a rigid plate member secured to the oppositely disposed body support sections adjacent the said ends of said body support sections.

4. A device for supporting the body of a patient as in claim 1, wherein each of said body support sections has a length which extends at least from a point adjacent the head of a hospital-type bed to a point spaced from the lower end of said bed where the said bed is hinged to permit elevating adjacent portions of said bed above a normal horizontal position.

* * * * *

50

55

60

65