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C. F. BENSON
MATTRESS WITH FOOT HOLD

2,767,410

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FIG. 5.

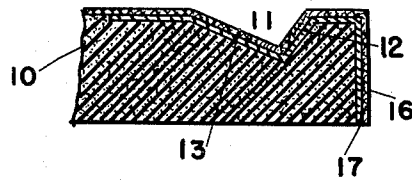


FIG. 1.

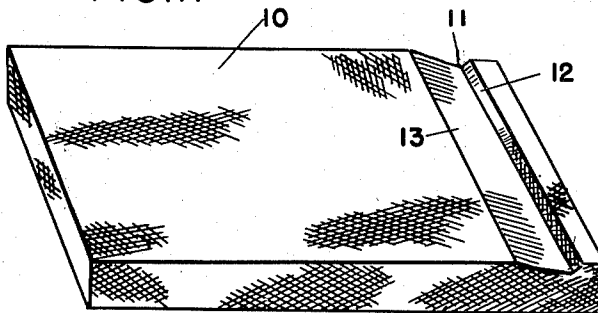


FIG. 2.

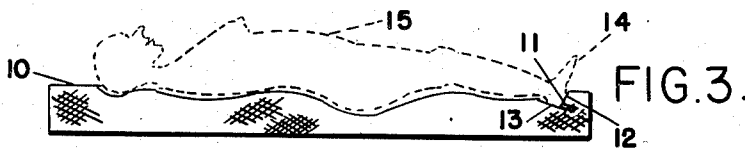
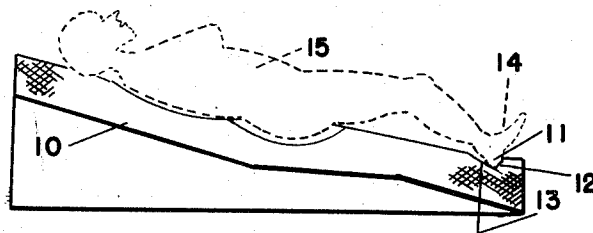


FIG. 3.

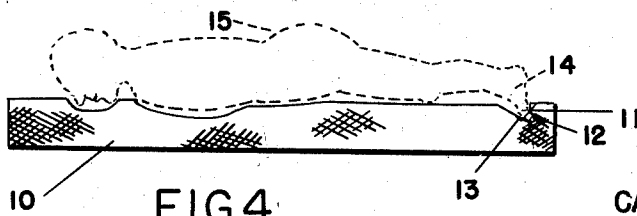


FIG. 4.

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2,767,410

MATTRESS WITH FOOT HOLD

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1 Claim. (Cl. 5—91)

This invention relates to beds and more particularly to those using a mattress for comfort and health. It has among its objects the provision of a mattress for placement on a bed structure that will permit its adjustment to various angles without causing unnecessary sliding down of the user, if he arranges himself in accordance with the structural facilities provided thereon.

Another object of this invention is to provide a mattress of simple form and design that will have suitable depressions in it, adapted for the feet of the user to brace himself therein when the bed is tilted to different positions, as is done with hospital beds.

Other objects will become evident as the invention is further disclosed.

The conventional type of bed mattress is flat and smooth on its top surface. This is suitable and comfortable for persons lying flat thereon. However, when the bed is tilted to various angles, as is daily done with hospital beds in an institution, the individual has no way of preventing his body from slipping down towards the bottom of the bed, and leaving him in a crouched position. By stiffening his leg and body muscles he can to a certain extent resist this movement, but the tension is obnoxious and induces a severe physical tiring in him. To overcome this, some other particular developments in the past, have featured in their construction the drastic termination of the mattress at a suitable length, and the use of loose sections to fit at the end of it to lengthen, shorten or provide an artificial depression, such as is shown in the United States patent of Milam, 1,548,728 and others. Unfortunately this arrangement requires special attention and arrangement, further the sections are apt to become displaced and sometimes lost. The form of the sections are rectangular which is objectional as it does not fit in with the contour of any part of the body of the user. To avoid these difficulties this invention employs a simple integral mattress, with an angular depression included in its upper surface to fit the feet of a user when stretched out full length, on the mattress. In this position the heels of the user fit in the depression and enable him to hold himself extended even when the bed is tilted, if he is lying on his back. If he is lying on his stomach, the toes and part of the soles of the feet will engage in the depression with similar effect.

For a better understanding of the invention and the objects thereof reference is made to the accompanying drawings, which outline a particular form of the invention by way of example and are explained in the following description to illustrate all its functions, while the claims emphasize the scope of the invention.

In the drawings:

Figure 1 is a perspective view of a mattress embodying this invention;

Figure 2 is a side elevation in diagrammatic form to illustrate the use of the mattress in a tilted position;

Figure 3 is a side elevation of the mattress lying flat and used by an individual resting on his back;

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Figure 4 is a similar view with the individual lying on his stomach; and

Figure 5 is an enlarged sectional view taken through the depression to show its construction.

Similar reference numerals pertain to similar parts throughout the drawings.

In the drawings, a mattress 10 is made structurally to adapt itself to be used flat or to various contours incurred when the bed framework, on which it is used, is tilted to various positions. To do this the internal material of the mattress is preferably of foam or sponge rubber, although it could be made of cotton and other suitable materials, as well as combined with springs. It is covered with a fabric casing or covering 16 to take up the wear and present an attractive and serviceable appearance. Near the foot of the mattress, a depression 11 is formed of an angular contour as indicated. The lower side 12 of the depression is preferably angular and is termed the shelf and has an angular side 13 meeting it and running backwardly at an angle of about 30° towards the head of the bed. The depression 11 is about six or eight inches in width and extends the width of the mattress and forms a saddle in which to rest the feet of an individual. The Figures 2, 3 and 4 indicate the manner in which the feet 14 are placed in this depression. The outlines 15 shown in dotted lines represent the general position of the body of an individual using the mattress. The depression 11 is kept in shape by installing a plate 17 of stiffening material between the cover 16 and mattress material 10. The stiffener may be of metal, wood, plastic, etc. as long as it is made comfortable to the feet, especially insulating to heat and reasonably flexible.

It can be noted that the person using the bed naturally introduces his feet 14 in the depression 11 without any noticeable stress on the calf muscles. This allows the head of the user to fall into position on its natural lines. Lying on the back, front or side, permits the user to naturally adapt the curvature of the body 15 to the mattress 10 and assume a comfortable posture. The placing of bedding under the individual or the requirement of raising him about the middle to accommodate a pan or other hospital utensil can be done readily, since the feet in the depression affords the necessary sustaining of the body to permit the adjustment. In this manner the person on the bed can assist the nurse or assistant in arranging items for his comfort and health.

While but one general form of the invention is shown in the drawings and described in the specification, it is not desired to limit this application for patent to this particular form, as it is appreciated that other forms of construction could be made that would use the same principles and come within the scope of the appended claims.

Having thus described the invention, what is claimed is:

A one-piece bed mattress having a head end and a foot end, said mattress being formed of flexible material to take on the natural contour of the body of the user thereof, a fabric casing for covering said mattress, said mattress having an angular depression near the foot end thereof and spaced from said foot end of said mattress, said depression extending across the entire width of said mattress, said depression having a first portion sloping from its bottom ridge towards said head end of said mattress, said depression also having a second portion sloping from said bottom ridge towards said foot end of said mattress, said second sloping portion of said depression being of greater slope than said first sloping portion, the terminal portion of said mattress between said depression and said foot end of said mattress being substantially level with the remainder of said mattress so that feet of said user are free to extend beyond said depression and above said terminal portion of said mattress, and a substantially rigid plate attached to said mattress below said fabric casing at

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said foot end thereof and of the same size as said foot end to prevent deformation of said depression under pressure of said feet of said user, whereby the feet of said user including the heels as well as the toes thereof can be positioned in said depression naturally without any noticeable stress on the calf muscles of the user and the body of said user can fall into a position along its natural lines in either a horizontal as well as an inclined position.

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