Dec. 20, 1932. W. I. CLEMENTS 1,891,747

BODY SUPPORT

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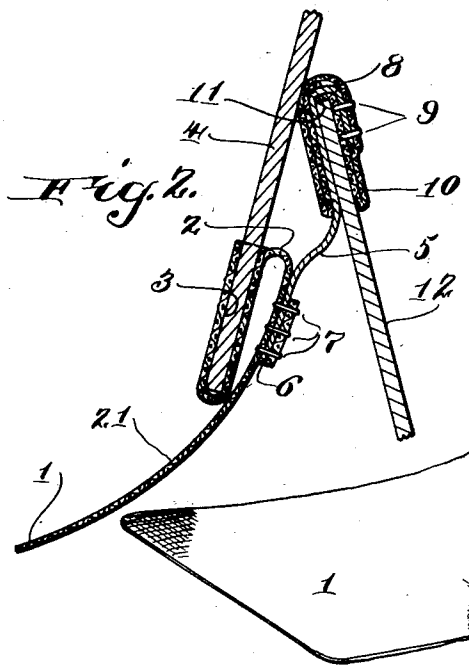


Fig. 2.

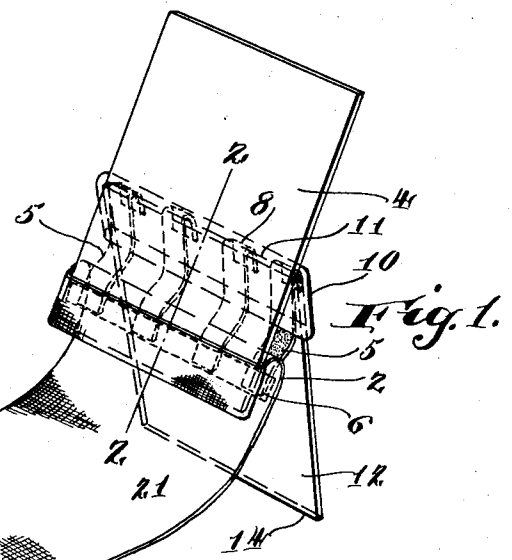


Fig. 1.

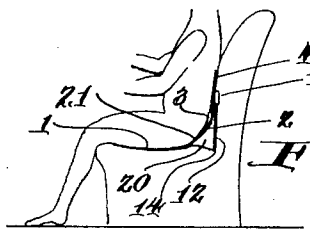


Fig. 3.

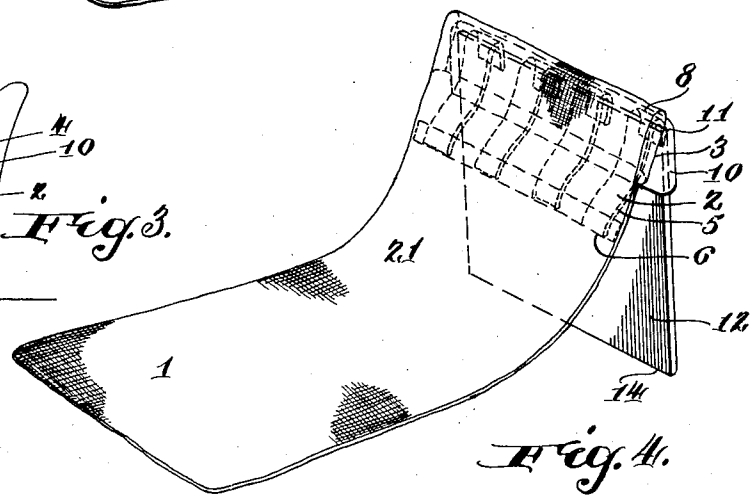


Fig. 4.

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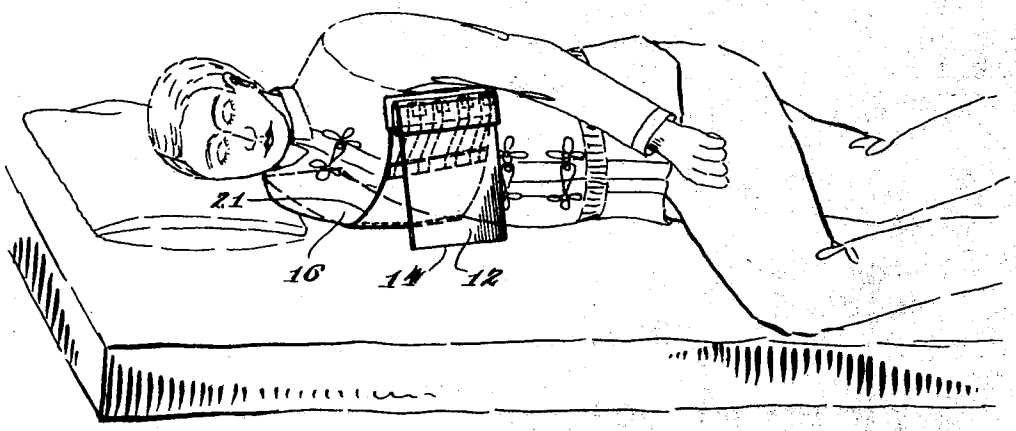
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BODY SUPPORT

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Fig. 5.



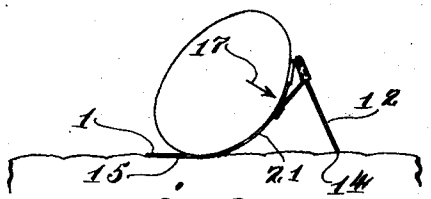


Fig. 6.

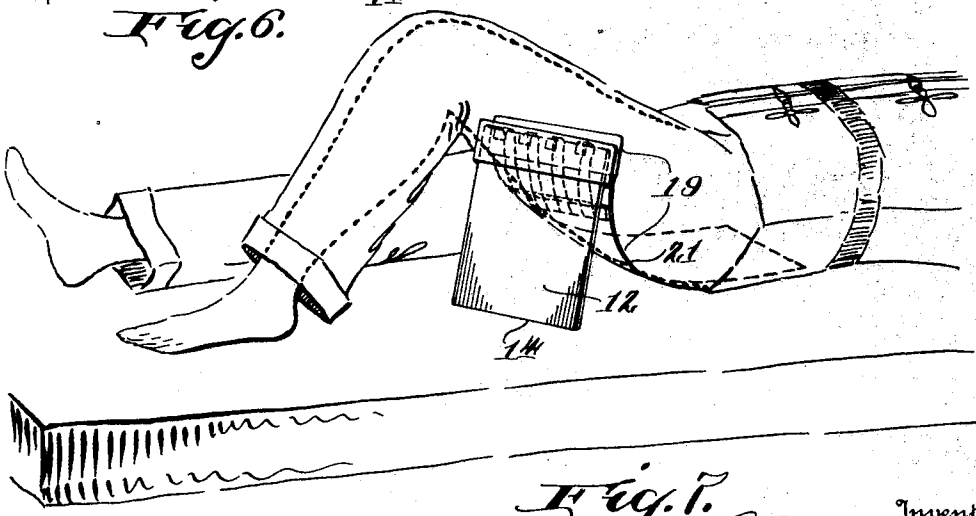


Fig. 7.

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BODY SUPPORT

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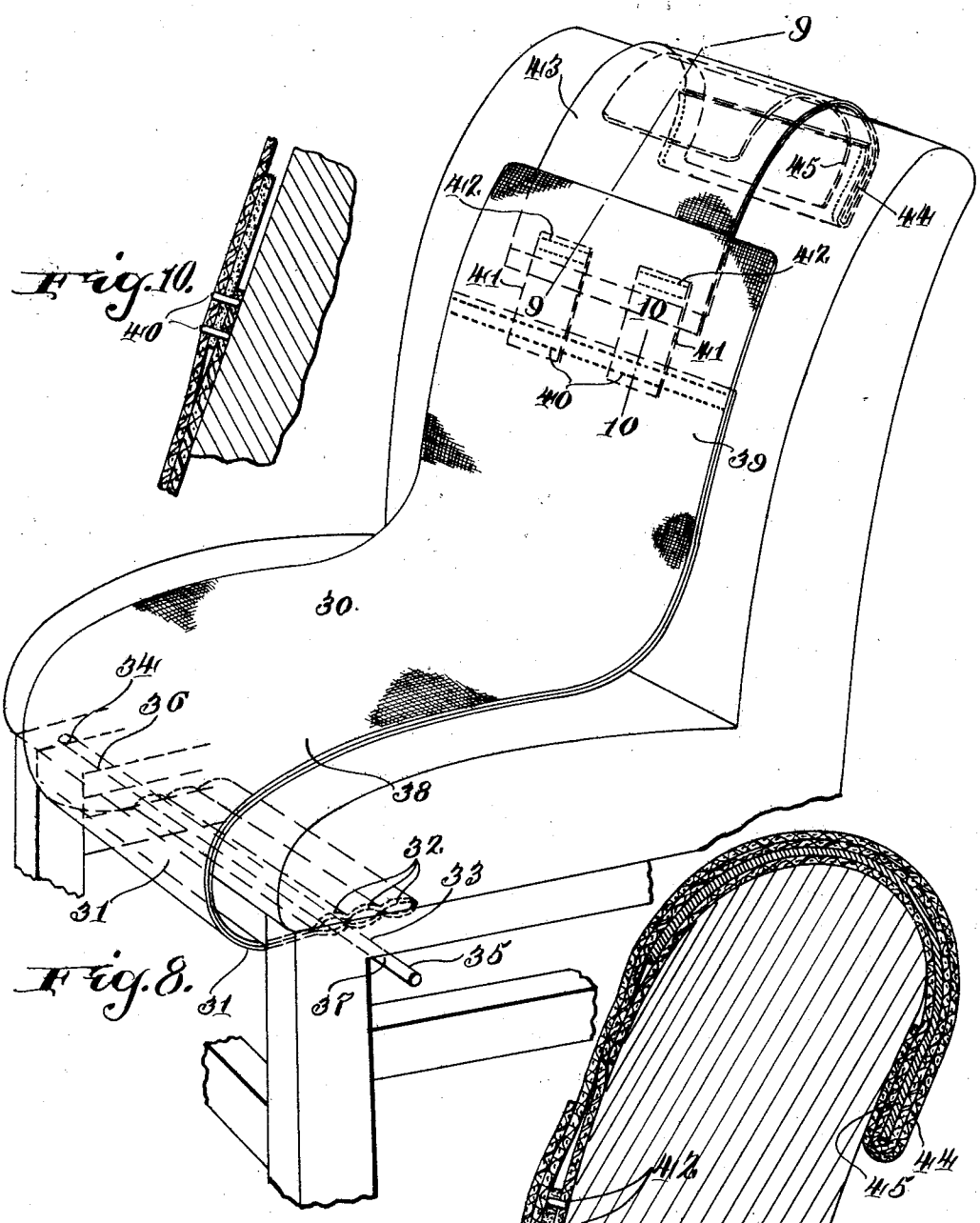


Fig. 8.

Fig. 10.

Fig. 9.

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Patented Dec. 20, 1932 1,891,747

UNITED STATES PATENT OFFICE

WELLINGTON I. CLEMENTS, OF NORFOLK, VIRGINIA

BODY SUPPORT

Application filed March 21, 1931. Serial No. 524,259.

The present invention relates to an improvement in a body support, that is particularly adaptable to be used to support various portions of the body while in either a sitting or lying posture.

Bedridden patients, particularly those in a weakened condition, are constantly in need of some type of support for various portions of their body, either for purposes of relieving pain by properly supporting the affected part, or for purposes of supporting the patient at various points of the body in a yielding manner, principally to increase their comfort. It is the object of the present invention to provide such a yielding support that is portable, compact in size, practical in its uses and commercially valuable in that the same is very cheap to manufacture, in view of the scope of its usefulness.

In actual practice this invention has proven to be extremely helpful in increasing the comfort of a normally healthy person when being used by them for either a support while in a lying posture or for supporting the back while in a sitting posture.

Another object of the present invention is to provide a yielding support that is adaptable to be engaged to the upper back portion of chairs of various types, seats in railroad cars or automobiles and the like, thus increasing the sitting and riding comforts of the seats to which this invention may be applied. In actual practice the invention has proven to absorb substantially all the minute shocks and vibrations commonly found in vehicles used for travel.

Still another object of the present invention is to provide a yielding body support of the type described having both its upper and lower portions adaptable to be engaged to a seat structure, with the object in mind of fastening the same to the seat structure in a somewhat permanent manner, and yet of such a character as to be readily removable. Particularly when the same may be used when traveling for great distances on railroads or busses. Being portable, light and made principally of an interwoven material, it may be readily disengaged from the seat, rolled up and packed in the traveler's grip.

Another important object of the present invention is to provide the same with seat fastening means adaptable to be engaged to seats of various sizes.

In the accompanying drawings I have illustrated a body support embodying the various features of my invention in their preferred form.

Figure 1 is a perspective view of my invention in elevation, illustrating the various parts of the same in their proper relative positions when the same is used as an auxiliary back support either in a seat or on a flat ground surface.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a side elevation of a chair with my yielding body support applied thereto.

Figure 4 is a view of my invention similar to Figure 1 with the exception that the stiff board member has been removed, and illustrating the pocket for the same as having been turned upward.

Figure 5 is a view of the invention in perspective illustrating the use of the same when used to support the chest portion of the body.

Figure 6 is a diagrammatic view illustrating the direction of the load or thrust of the weight upon the invention while being used in a manner similar to that as shown in Figure 5.

Figure 7 is a view in perspective illustrating the use of my invention as a leg support.

Figure 8 is a fragmentary view of a car seat illustrating my invention as applied thereto in a slightly modified form, disclosing the seat engaging means.

Figure 9 is a sectional view on the line 9—9 of Figure 8, disclosing the inverted U shaped metal hook for fastening the upper portion of the yielding body to the car seat.

Figure 10 is another sectional view taken on the line 10—10 of Figure 8 illustrating the manner in which the elastic members are sewed or engaged to the lower portion of the yielding body support.

Referring to the drawings by numerals, each of which refers to similar parts throughout the various views, the invention as disclosed consists of a lower bib or body portion

1, which is preferably made of an interwoven material, because of its lightness, ready adaptability to various shapes and portability. The upper portion 2, of the bib member 1, terminates, and is made into the form of a pocket 3, see particularly Figures 1 and 2, this pocket in turn acts as a positioning means for the board member 4, which is used as a back support as disclosed in Figure 3.

For purposes of producing a yielding effect to the body support the same is provided with elastic members 5, preferably made of rubber strips, the same being fastened at their lower ends 6, by stitching 7, and at their upper ends 8, by means of stitching 9, to the inverted pocket-shaped member 10.

The inverted pocket-shaped member 10, is made up of several thicknesses of interwoven material, in which the elastic strips 5, are fastened, see particularly Figure 2, this inverted pocket 10, is passed down over the upper edge 11, of the weight supporting board member 12. By placing this member 12, on a slight angle, as may be readily seen from the various views in the drawings, the yielding body support is held in an upright operative position.

Referring to Figures 5, 6 and 7, by allowing for a firm purchase of the lower edge 14, to the surface on which the body support is to be used, the board member 12, together with the elastic strips 5, will resist in a yielding manner a load or thrust that may be placed upon the bib member 1, when the lower portion 1 of the same is held in fixed relation to and between its resting surface 15, and the weight of the body 16, see the diagrammatic illustration in Figure 6. The thrust or direction of the load in this instance is indicated by the arrow 17.

Thus in Figure 7 it will be noted that the lower end of the bib member 1, is held in a fixed position, due to its being held down by the weight of the hip 18, and thus allowing for the yielding effect to the thigh and leg portions 19, of the body.

In Figure 5, the invention is being used to support in a yielding manner the chest and shoulder portions of the body, and in this instance the lower bib portion 1, is held in a fixed position by the weight of the chest as shown in Figure 6.

In each instance as shown in Figures 5, 6 and 7, the back supporting board 4, has been removed and the pocket member 3, has been turned upwards, which acts as a pad against the upper corner of the inverted U shaped pocket 10, and as may be readily seen the board member 4, is not necessary when the body support is used in this manner, but used principally when the same is used and needed as a back rest, as shown in Figure 3. It will be noted in this figure that the space formed at 20, by the hips and the back and seat surfaces of the chair cause the average seat to become very uncomfortable when used for any length of time. With my present structure this is overcome by giving the hips and the base of the spine a yielding support, as the upper portions of the elastic strips are held in a fixed position by means of the inverted pocket 10, and the board member 12, so that any thrust or load placed upon the bib structure 1, at 21, will be carried in a yielding manner through the elastic strips 5.

In Figure 4, I have illustrated my invention in a position as might be used for a comfortable body support when in a sitting posture, such as that assumed by sailors on the flat deck of a ship, thus allowing when the same is sat upon for a comfortable support for the hips and the base of the spine.

In Figures 8, 9 and 10, I have illustrated a slightly modified form of my invention in that the same has been made adaptable to be fixed to a seat such as that used on railroad passengers cars, automobiles, busses and the like, for purposes of giving greater riding qualities to these vehicles.

In this instance the yielding body support 30, has at its lower end 31, a plurality of tubular shaped openings 32, through which the rod 33, may be run, the outer free ends 34 and 35, of which may be held in the corners 36 and 37, formed by the structure of the seat, thus allowing for the positive fastening of the lower end 31, of the bib portion 38, of the body support 30. The plurality of tubular shaped openings 32, allows for adjusting the lower end 31, of the bib 38, to various sized seats. It is understood that any type of adjustable fastening means may be used.

Near the upper end 39, of the bib 38, is fastened by means of stitching 40, two elastic rubber strips 41, which in turn, at their upper ends, are fastened by means of stitching 42, to the upper fixed portion 43 of the body support 30. The extreme upper end of this fixed portion 43 is formed into a pocket 44, which in turn, for purposes of giving the interwoven material at this point a substantially rigid hook shape, to anchor the same to the back of the seat, the pocket 44, has held therein an inverted U shaped piece of sheet metal 45, which in turn is placed entirely between the interwoven material, as shown in section in Figure 9, that makes up this upper end of the body supporting structure 30. Thus there is no possibility of the metal injuring the covering of the seats to which the invention may be applied.

The bib portion 38, which covers the seat proper and on which one may sit, is wholly separated from the upper hook shaped portion of the structure except for the engagement of the elastic rubber strips 41. Thus any weight placed on the bib structure 38, and any up and down movements of the body while carried on the bib structure will be

transmitted through the elastic rubber strips 41, and produce an extremely comfortable and pleasant riding sensation, doing away with all of the usual jars and vibrations encountered on the average bus or railroad car.

I have thus described my invention specifically and in detail in order that its nature and operation may be fully understood; however, the specific terms herein are used descriptively rather than in their limiting sense and the scope of the invention is defined in the claims.

What I claim and desire to secure by Letters Patent is:

1. A body support comprising a flat piece of fabric material, one end of which is adapted to be held by the weight of the body, the other end being held by a vertical flat rigid supporting member, a pocket member fitted snugly over the upper end of the vertical member and curved elastic bands extending forwardly from the pocket member and secured to the fabric.

2. A body support comprising a flat piece of fabric material, one end of which is adapted to be held by the weight of the body, the other end being held by a vertical flat rigid supporting member, a pocket member fitted snugly over the upper end of the vertical member and curved elastic bands extending forwardly from the pocket member and secured to the fabric, the upper end of the fabric curved downwardly and having also a pocket formed about its top edge, a rigid back rest to fit into said pocket and bearing against the upper edge of said vertical supporting member.

Signed by me at Norfolk, Virginia, this 12th day of March, 1931.

WELLINGTON I. CLEMENTS.