

[54] SLEEPING PILLOW

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[58] Field of Search..... 5/327, 327 B, 337, 5/338, 345, 361

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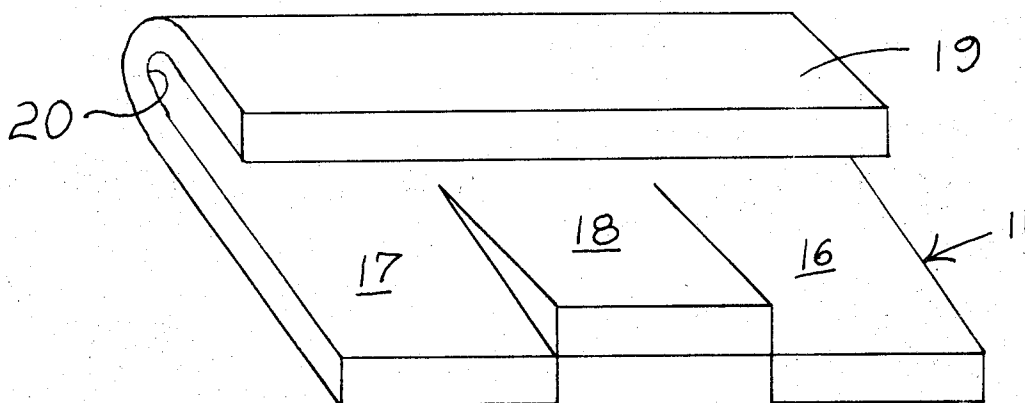
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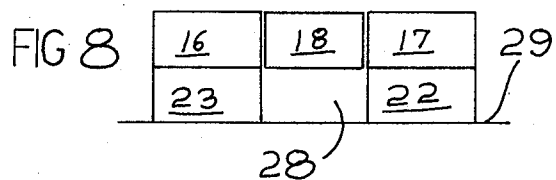
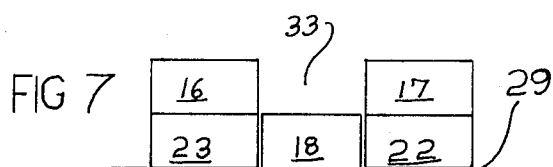
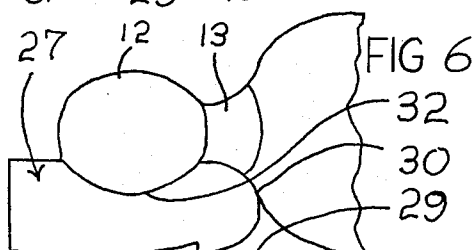
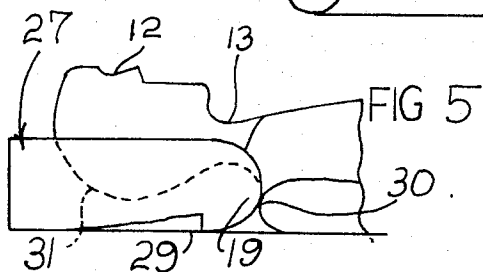
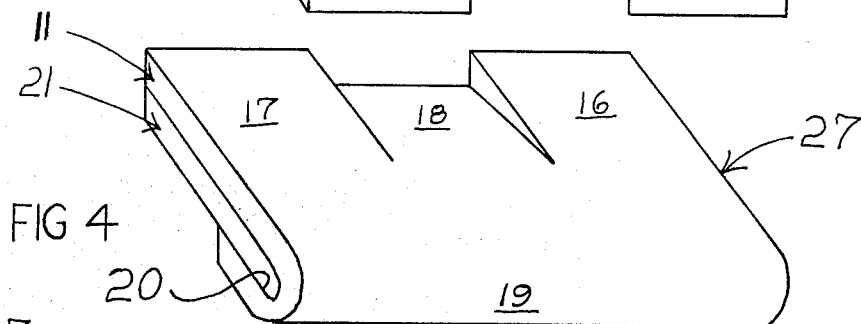
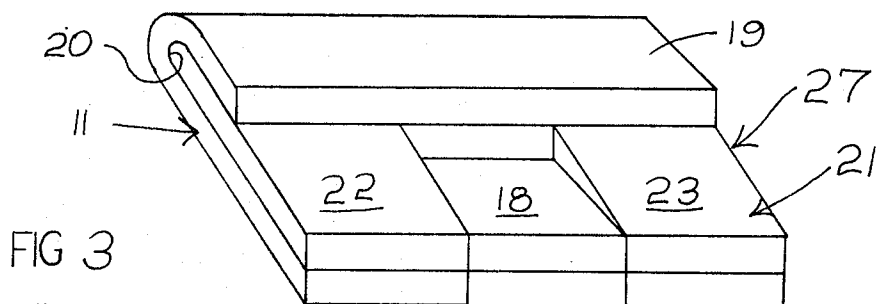
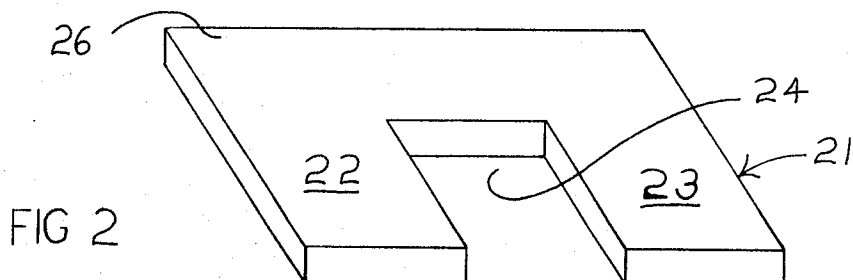
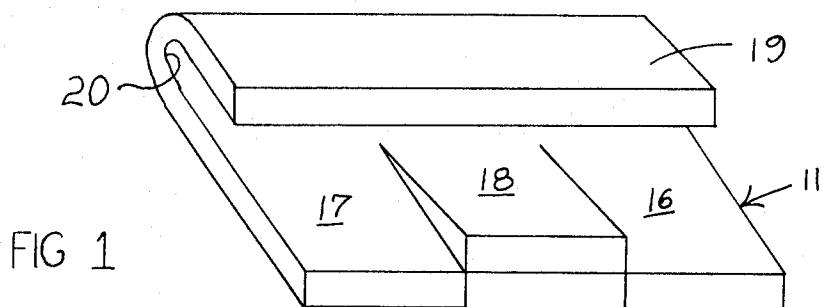
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ABSTRACT

A two level dual firmness pillow construction which intrinsically affords effective support for maintaining optimum head and neck posture while sleeping on the back or either side of the body and which reduces to a minimum the likelihood of muscle spasms, stiffness or pain about the head, neck and shoulders, or decreased blood circulation as a result of sleeping or reclining.

5 Claims, 8 Drawing Figures





SLEEPING PILLOW

The conventional pillow available in the market is, generally, of uniform shape, thickness and firmness as an entirety and does not conform to the natural physiological head and neck curve of the average person. Substantially all of the prior art pillow raise the head higher than the neck causing, while sleeping, resting or reclining, prolonged flexion of the neck, or aggravation of pain, as well as muscle spasms and other cervical syndrome symptoms. Sleeping or reclining without a pillow places the head in a position lower than the neck and furnishes no support at all for the neck which can aggravate the foregoing symptoms. While there has been some attention devoted to avoiding or overcoming the disadvantages of the conventional pillow presently being marketed and used, the problems have only partially been solved. For example, in U.S. Pat., No. 3,243,823, there is disclosed a pillow construction providing different height levels to accommodate for sleeping on the back and side of the body, but such disclosed pillow does not provide the necessary head and neck curve support. It is necessary, moreover, to change the exact design or custom build such pillow for each individual which, of course, is impractical and prohibitively expensive to most persons. In U. S. Pat., No. 3,521,310, a pillow construction is disclosed which gives firmer support to the neck of a person when sleeping or reclining on the back, but does not provide for a different head and neck curve or raised height level for sleeping or reclining on the side. The present invention is directed to the obviation of all the disadvantages of prior art pillow construction and to provide a sleeping pillow for both ordinary well persons but also for hospital patients which avoids the likelihood of receiving pain, stiffness or muscle spasms and like discomfort while resting in a lying down position or during various sleeping postures.

A primary object of my invention is to provide an improved sleeping pillow which is capable by virtue of its intrinsic construction of molding out therein the exact curve corresponding to the physiological head-neck curve of any person lying thereon.

Another important object of the present invention is to provide an improved sleeping pillow of the indicated nature which is additionally characterized by its capability of affording the requisite firmness for supporting the weight of the head and neck portions of the body yet also affording the necessary softness to cushion the surface areas of the head and neck.

A still further object of my present invention is to provide an improved sleeping pillow of the aforementioned character which has universal utility for accommodating all types and builds of different persons with respect to their individual physiological head and neck areas, thereby promoting proper sleeping or reclining postures for all.

Another object of the invention is to provide an improved sleeping pillow of the foregoing nature which is of relatively simple construction and relatively inexpensive to manufacture.

Other objects of the invention, together with some of the advantageous features thereof, will appear from the following description of the embodiment of my invention which is illustrated in the accompanying drawings which constitutes an exemplification of the best mode of construction thereof as well as the manner of using the invention. It is to be understood that I am not to be

limited to the precise components and arrangement thereof as depicted in the embodiment shown, as the appended claims are intended to cover not only such embodiment but also variations thereof within the scope and purview of the invention.

Referring to the drawings:

FIG. 1 is a rear inverted perspective view of the top component of a preferred embodiment of the invention.

FIG. 2 is a rear inverted perspective view of the bottom component thereof.

FIG. 3 is a rear inverted perspective view of both components in assembled relation and constituting the best mode of construction thereof.

FIG. 4 is a front perspective view of the preferred embodiment of my invention illustrating the best mode of construction thereof and manner of using the same.

FIG. 5 is a reduced side elevational view of my invention illustrated in FIG. 4; this view illustrating, by partial dotted line and partial full line showing, the head and neck portions of the body of a person reclining on his back in relation to the pillow disposed on an underlying mattress.

FIG. 6 is a view similar to the view of FIG. 5 but with a fragmentary showing of a person lying on his side and the relative portions of the head and neck of the person with respect to the pillow.

FIG. 7 is a reduced rear elevational view of the embodiment of my invention shown in FIG. 4, as disposed on an underlying mattress and showing the normal position of the intermediate section thereof.

FIG. 8 is a view similar to the view of FIG. 7 but with the intermediate section pushed up and illustrating the groove through which an arm of a person reclining on his stomach may be extended without unduly bulging the intermediate section of the pillow.

In its preferred and best mode of construction, my improved sleeping pillow preferably comprises a unitary structure consisting of a top component so formed as to provide a pair of raised side sections partially bounding an intermediate inclined section, as well as a front roll section spanning said side sections and defining a transverse channel, together with a base component secured to or integral with said top component and so formed as to provide a generally u-shaped member defining a pair of sides partially bounding an opening for passing said intermediate section of said top component, as well as a joiner element closing the front of said opening and joining said sides together; said joiner element fitting said transverse channel of said component.

As particularly illustrated in FIG. 1 of the annexed drawings, I provide a top component for my improved sleeping pillow which is generally designated by the reference numeral 11 and which is conveniently molded or otherwise fashioned from a relatively soft substance, such as soft polyurethane or other soft plastic material, or from foam rubber or the like having relatively low density so as to present a surface softness necessary to cushion the surface area of the head 12 and neck 13 of a person, see FIGS. 5 and 6. Other suitable material than polyurethane can, of course, be employed for top component 11 as long as the substance meets the qualifications of relatively low density polyurethane and having the characteristic or property of being adapted to mold itself over the base or bottom component, hereinafter described to afford intrinsically a natural

smooth curving support which matches the physiological head-neck curve of the person lying thereon. As shown, the top component 11 is formed so as to provide therein a pair of raised side sections 16 and 17 disposed at opposed sides of an inclined intermediate section 18 which is relatively lower than the side sections, as clearly shown both in the front perspective view of FIG. 4, which shows the obverse of the top component 11, and the reduced view of FIG. 7 which shows the rear of the pillow. In addition to the side sections and intermediate section, the shaped top component 11 includes a turned-under or roll section 19 which extends across the entire component, merging with the side sections 16 and 17, at the front thereof and defining therewith a transverse channel 20, as clearly shown in the inverted view of component 11 in FIG. 1 of the annexed drawings.

The improved sleeping pillow of my present invention also includes a bottom or base component which is generally designated by the reference numeral 21, and which conveniently is molded or otherwise fashioned from a firm substance, such as a polyurethane of high density or from a like substance such as foam rubber having such properties, to the shape illustrated in FIG. 2 so as to provide a generally u-shaped member consisting of a pair of sides 22 and 23 which partially bound an intermediate opening 24 of substantially the same dimensions as the intermediate section 18 of top component 11 and through which such section 18 is passed when the two components are assembled and bonded together. The base component 21 also includes a joiner element 26 which closes or bounds the opening 24 at its inner front end and which joins or merges with the two sides 22 and 23; it being observed that the outer edges of the two sides 22 and 23 as well as the joiner element 26 are straight. It should also be noted that the width of each side 22 and 23 of the base component 21 is the same as the width of each side section 16 and 17 of the top component 11, and also that the opening 24 in base component 21 is of just sufficient width and length to pass the inclined intermediate section 18 of top component 11. Thus, when the top component and base component are fitted together and bonded or otherwise secured together, such as by a suitable adhesive, the assembled two components, see FIGS. 3 and 4 is a unitary structure with the front edge of the joiner element 26 extending into the transverse channel 20 of the top component 11 and abutting the inner surface of the roll section 19 thereof, presenting a two level structure 27 of dual firmness, with the outer edges of the side sections of both components 11 and 21 flush with one another.

In accordance with my present invention, the assembled and fitted components comprising my unitary structure which is shown in operative position in FIG. 4 and generally designated by the reference numeral 27, provides an extended groove 28 between an underlying sheet-covered mattress 29 and the underside of the intermediate inclined section 18 of top component 11, see FIG. 8, through which an arm of a person laying on his stomach can be extended, as indicated by the full line showing in FIG. 8, which has the advantage of giving comfort to a person lying or reclining in such position on mattress 29 without bulging the improved sleeping pillow of the present invention.

The groove 28 is formed by a pushing up of the intermediate section 18 when a person lying on his back ex-

tends an arm underneath the intermediate section and raises it. This groove 28 will not be present, of course, when the person is lying on his back inasmuch as the intermediate section 18 is then pushed or pressed down to accommodate the head, as shown in FIG. 7 of the annexed drawings.

As illustrated in FIGS. 5 and 6, it is to be noted that when using my improved sleeping pillow the roll section 19 of the unitary structure 27 is engaged by the shoulder 30 of the reclining person, whether the person assumes a resting or sleeping position on the back or on either side.

My improved sleeping pillow has a number of advantages over conventional prior art pillow construction not only from a therapeutic standpoint but also from the economic viewpoint by reason of its simplicity of components and ease of assembly. The embodiment of my invention illustrated in the accompanying drawings has a minimum of six advantageous features which contribute to its efficacy and comfort, namely, it is constructed and assembled with (1) two different height levels to compensate for reclining on the back or lying on either side. The lower level is in the middle or intermediate section 18 while the higher level is in the side sections 16 and 17, thus accommodating the person lying on his back who thus needs very little elevation of the head to bring it in line with the rest of his body and to accommodate the person while lying on a side; the person, in which situation, needs a great deal more elevation of the head to bring it in line with the rest of the body. Moreover, (2) the sections of the pillow hereinabove described are not level but have high and low portions within themselves. It will be observed that when the head is disposed in the intermediate section 18, the neck portion of the body is raised about three times higher than the head portion to accommodate the person lying on his back. In the side sections 16 and 17, the neck portion is raised only slightly more than the head of the person to accommodate for lying on his side. Thus, a natural and gradual smooth transition from the high portions to the low portions is inherent in the structure which extends over the entire top thereof. And, when the head of a person is lying in the middle or intermediate section and in the side sections, the weight and shape of his head and neck area will mold out the exact curve that corresponds to his physiological head/neck curve, as indicated by the dotted line 31 in FIG. 5 and the full line 32 in FIG. 6. It is further advantageous in that (3) the intermediate section 18 is bounded by the two side sections 16 and 17 of higher elevation affording a cradle 33, see FIG. 7, for the head and inhibiting undue rotating or lateral bending of the head while a person is sleeping or reclining on his back.

My improved pillow is the only pillow which (4) contains the feature of soft-firm support in that two different densities of material are used and bonded together on top of one another. The bottom or base layer 21 is of high density firm material, such as high density of polyurethane, and the top component 11 is of a low density soft material, such as a low density polyurethane or equivalent substance. Thus the top component 11 provides the surface softness necessary to cushion the surface area of the head and neck while the base layer or component 21 provides the firmness necessary for proper support. The combination of the two layers of my improved pillow, with the top component bend-

ing over the bottom component when the person's weight is applied to it, adds another feature by further adapting itself in being molded to the shape of the individual physiological head/neck curve of any person lying upon the dual textured pillow of my present improvement having the proper combination of different material densities. Moreover, as indicated in the accompanying drawings my improved pillow has the added feature (5) of providing a roll section 19 at the front thereof affording a smooth blending into the reclining person's shoulders and neck. And (6) as indicated in FIG. 8, the improved pillow of my present invention provides a groove 28 on the underneath side of the pillow for receiving an arm of a person sleeping or reclining on his stomach or with an arm extended over the head, which enhances the comfort of the person and yet does not bulge the pillow with the arm extended through such groove. This feature not only eliminates the bulge normally occurring when an arm of a person is extended beneath the pillow but also keeps the head of the person from being elevated too high.

The appended claims are intended to cover the embodiment illustrated as well as variations therefrom within the scope and purview of the invention.

I claim:

1. A sleeping pillow comprising a unitary structure consisting of a soft-textured two-level top component, and a relatively hard-textured one level base component bonded to said top component; said top component comprising a pair of raised side sections partially bounding an inclined intermediate section, and a roll

section spanning said side sections and merging therewith at the front of the structure; said roll section defining a transverse channel, and said base component comprising a u-shaped member providing a pair of sides matching said raised side sections of said top component and partially bounding an opening for passing said inclined intermediate section of said top component.

2. A sleeping pillow as set forth in claim 1, wherein said base component includes a joiner element spanning said pair of sides of said u-shaped member, and wherein said joiner element is fitted within the channel of said roll section of said top component in the assembled unitary structure.

3. A sleeping pillow as set forth in claim 2, wherein a groove is defined between the lower surface of said inclined intermediate section of said top component and an underlying mattress.

4. A sleeping pillow as set forth in claim 1 wherein the connection of said intermediate section to side sections of said top component is such as to present said intermediate section at a lower level than said side sections and downwardly inclined from said roll section to provide in relation to said sections a cradle for the head of a person reclining thereon.

5. A sleeping pillow as set forth in claim 3 wherein the inclined intermediate section is extendable slightly upwardly without any undue bulge whenever an arm of a person reclining on an underlying mattress is extended through said groove.

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