

July 7, 1964

A. J. KIEFER

3,139,631

PILLOW CONTOURING BASE

Filed June 8, 1961

2 Sheets-Sheet 1

Fig. 1

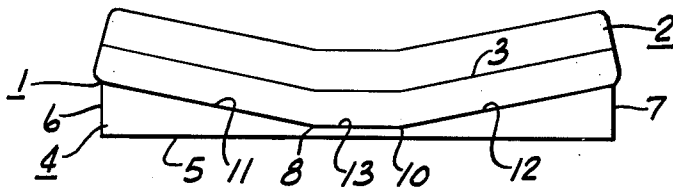


Fig. 2

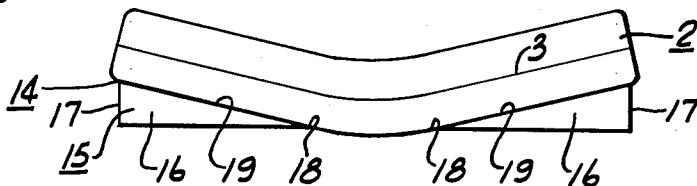


Fig. 3

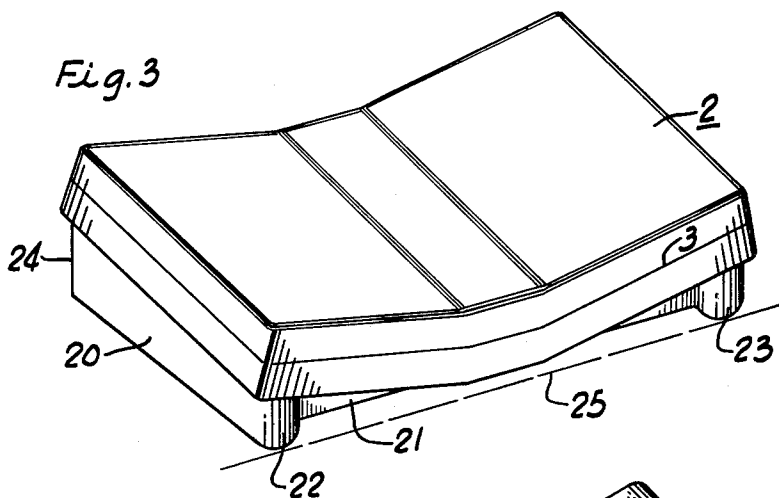
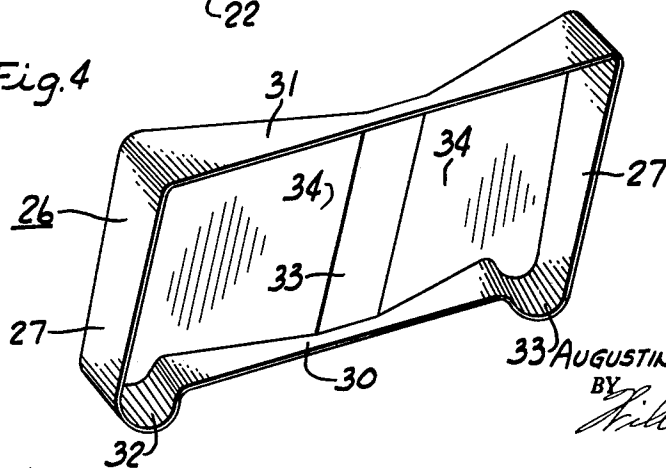


Fig. 4



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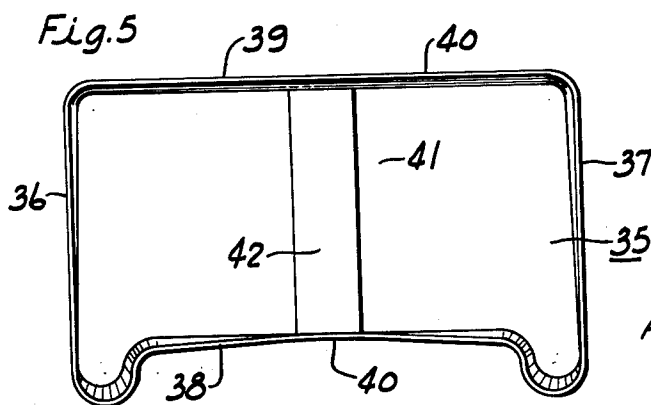
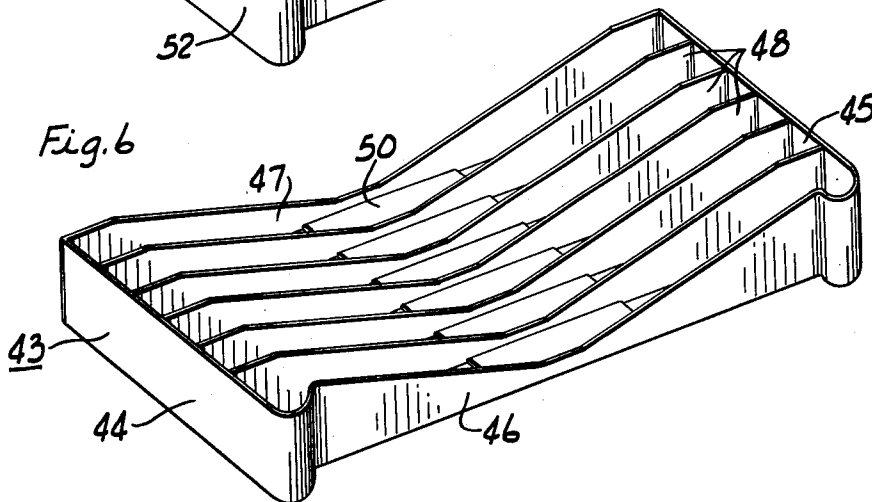
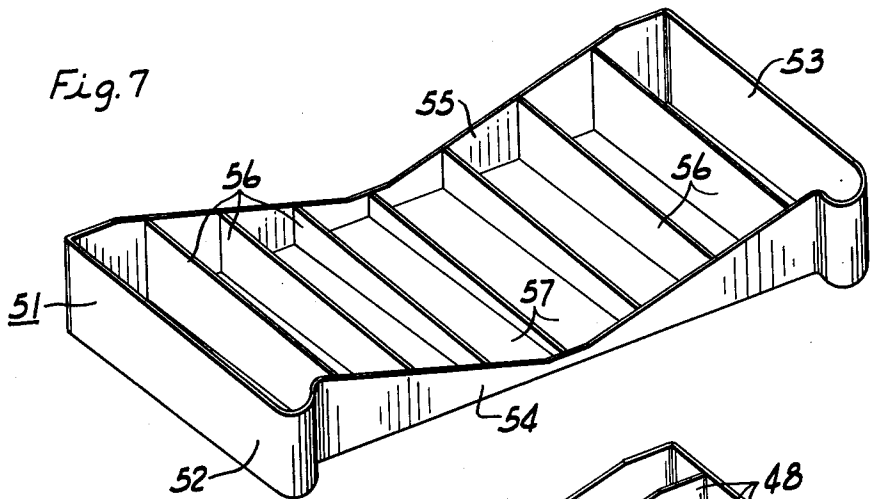
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2 Sheets-Sheet 2



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3,139,631

PILLOW CONTOURING BASE
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1 Claim. (Cl. 5—337)

This invention relates generally to pillows and more particularly to a pillow contouring base that imparts to an ordinary rectangularly shaped pillow.

This invention is an improvement over my U.S. Patent 2,940,087 issued June 14, 1960 for Pillow. The principal object of this invention is the provision of a sleeping pillow contouring base which is either an integral portion of the pillow itself or a separate member on which the encased ordinary sleeping pillow is placed. Both structures function to produce the same result yet each has advantages not obtained by the other.

The integral pillow contouring base is constructed of a sponge or foam rubber that has a fine uniform foam structure where the small spherical pockets or chambers are substantially of uniform size with substantially uniform wall thickness which produces a firm resistance to compressive forces. The upper pillow member is that soft dough-like foam rubber pillow that is usually made in half molds and then cemented or otherwise joined together. This softer pillow may have different grades of softness and thickness but they are all more readily compressible than that of the sponge like foam rubber base. These products may be made from natural or synthetic rubber of their combination and their particular structure of method of manufacture does not form a part of this invention as such parts may be purchased in open market.

The contouring base that is separate from the pillow allows a sleeping pillow of any desired make to be used such as the present popular pillow known on the market under the tradename "Dacron" or other equivalent synthetic resin products made by different companies. A rubber foam pillow or a feather or down pillow may also be used with this phase of this invention. Thus one's own pillow preference is capable of being used with this structure to provide the same contour effect which is of material advantage. This contour base member is placed on the bed sheet and the encased selected pillow is placed thereon. It is preferable for the pillow to be larger than the contouring base so that it will adequately cover the same and allow the contour of the base to function through the pillow. This form of the invention has a perimetral rim that may or may not be flanged and when rested upon impresses itself into the bottom sheet mattress cover and mattress to anchor itself in position which steadies the restless sleeper and prevents those who roll from falling out of bed.

The integral pillow has the same effect but being encased in a pillow slip will shift more readily when one raises his head to change the position of the pillow.

Both of these pillow contouring bases have projections which may be varied in length, and which may or may not extend beyond the pillow proper, and will stop the shoulder of the person attempting to roll regardless of whether that person is initially lying on his back, his face or either side.

All of these pillow contouring base structures are given a disk in the center with the sides becoming thicker in both directions to the ends of the pillow. This general shape is shown in the structure of my previous patent but not with the advantages of the present structures. The shoulder projections are adapted on each general type of construction comprising this invention and are equally advantageous to both structures. The pillow con-

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touring base of both the integral and separate structure may be made higher along the side beyond the head to produce a gentle slope to the shoulders which not only adds to the comfort when both bases are rectangular without shoulder projections but add materially in co-operating with the projections or extensions that stop the shoulders.

Other objects and advantages of this invention appear hereinafter in the following description and claims.

The accompanying drawings show for the purpose of exemplification without limiting this invention or the claims thereto, certain practical embodiments illustrating the principles of this invention, wherein;

FIG. 1 is a view in front elevation of the pillow contouring base in one piece and made integral with the pillow.

FIG. 2 is a view in front elevation of the pillow contouring base in two pieces and made integral with the pillow.

FIG. 3 is a view in perspective of the pillow contouring base in one piece with projections and made integral with the pillow.

FIG. 4 is a perspective view showing the under side of the separate pillow contouring base.

FIG. 5 is a top plan view showing another form of the separate pillow contouring base.

FIG. 6 is a perspective view showing the separate and open pillow contouring base with longitudinally extending partition walls.

FIG. 7 is a perspective view showing the separate and open pillow contouring base with transversely extending partition walls.

Referring to FIG. 1 the pillow 1 comprises the soft rubber foam sleeping pillow 2. These pillows are generally made in half molds and cemented together along the line 3 to form the whole pillow 2. This soft rubber foam pillow is cemented to the pillow contouring base 4 which is a single foam rubber or synthetic rubber member having uniform spherical bubbles or chambers enclosed and separated walls of uniform thickness. This material may be more like some sponges made of synthetic rubber or a resinous material. Although this material is readily compressed it is not as soft nor does it have that doughy consistency of the rubber foam pillow. The pillow contour base 4 is preferably slightly smaller than the pillow 2 which permits the pillow to roll over the top perimetral edge of the base. The base 4 has a generally flat bottom 5 and its height varies from the end walls 6 and 7 to the intermediate transverse lines 8 and 9 respectively to define the sloping top surfaces 11 and 12 and the flat horizontal surface 13 between the lines 8 and 9. The underside of the pillow 2 being larger is centered over the contouring base 4 and is cemented to the surfaces 11, 12 and 13 to make one integral structure. When pressure is applied to the pillow by laying the head or the head and a portion of the shoulders thereon the firmer base 4 will compress somewhat but not to the extent of the rubber foam pillow 4. Thus the shape of the contouring base is retained generally but with much ease and softness not experienced by my former structure. The pillow 1 is a very light one in weight and is just as easily handled as the pillow of only the structure 2.

If this pillow 1 is turned upside down it has the same effect yet the surface being the base becomes the head engaging portion and presents a firm surface but the shape and effect is the same. Some prefer a firmer surface whereas others prefer the softer rubber foam pillow surface 2.

The pillow structure 14 of FIG. 2 has the soft rubber foam pillow 2 on the base 15, made up of two trihedral sections 16 that are actually duplicates having the end

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walls 17 and the apex 18 that extend for the full width of their contour base members. Here again the contour base 15 is preferably made of a foam or sponge type rubber that has more resistance to compression or squeezing than that of the pillow 2. The top surfaces 19 are cemented to the underside of the pillow 2, the latter being somewhat larger and centered a substantial distance between the lines 18 of the apices allows the pillow 2 to be normal for that horizontal distance between the two pie sections of the contour base. The function of this structure is the same as that shown in FIG. 1 and it is merely softer in the central horizontal position. This pillow like the structure of FIG. 1 may also be used upside down to present a firmer surface to the head but it assumes the same general contour and effect to prevent one from rolling off the bed.

The structure of FIG. 3 is similar to that of FIG. 1 in that the contour base 20 is one piece and is made integral with the pillow 2. The base 20 is substantially the same overall size as the base 4 but it is cut back on the front as indicated at 21 to form the projections or extensions 22 and 23, that are preferably rounded somewhat to form shoulder stops. The contour base 20 is made of the firmer foam rubber such as sponge rubber as in the other structures. These extensions 22 and 23 of firmer material which is recessed but otherwise the same wedge shape as shown in FIG. 1 lend the same support regardless of whether turned topside as shown or inverted. The extensions engage the person of the user and further aid in preventing them from rolling over or out of bed whether face up or down. Again the whole of the contour base 20 gets higher at the back as indicated at 24 than the front where the extensions 22 and 23 are located. This small but gradual increase in height also increases the comfort of the user and the effectiveness of the shoulder stop extensions are not deterred. The soft pillow 2 permits the shoulders to rest thereon and between the stop projections 22 and 23 but if one rolls these stops are engaged and deter further movement of the person. The construction line 25 indicates where the pillow contouring base 4 would be if employed in FIG. 3. Thus the base is set back further than that shown in FIG. 1.

The pillow contour base 26 of FIG. 4 is preferably made of light plastic material such as fiber glass embedded in a synthetic resin which is strong and light and really washable. As shown this base 26 has the end walls 27 both of which are the same and the front and back walls 30 and 31. The end walls 27 become increasingly higher toward the back thus the back wall 31 is higher than the front wall which gives a slight slope for the head of the user. The central section 33 is flat from front to back to provide the same contour effect as provided in the structures of the previous figures. The extensions or shoulder stops 32 and 33 are rounded and are substantially cylindrical. This plastic base is somewhat flexible as a whole member but there is little deflection in the top surface 34 when used under a soft pillow such as at 2. This base is substantially a covering mold of the base 20 shown in FIG. 3 as the latter could be placed therein.

The pillow contour base structure 35 shown in FIG. 5 is very similar to that shown at 26 in FIG. 4 but its walls formed by the end walls 36 and 37 and its front and rear walls 38 and 39 are all of the same relative height transversely of its longitudinal and transverse planes, the back wall 39 is not any higher and the side walls 36 and 37 are of the same height along their length. However, they do have a batten and the lipped or flanged rim encompasses a greater area than the top 41. This being a top plan view shows the outwardly flowing flange

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40. The flat center section 42 appears to be somewhat shorter at the front and back walls because of the taper of these walls. Otherwise, this structure is quite similar to that of FIG. 4.

Referring to FIG. 6 the pillow contour base 43 is provided with the end and front and back walls 44, 45, 46 and 47. In this form the contouring base has a series of longitudinally extending partitions 48 that are parallel with the longitudinal axis of the base and are integrally connected to the end walls 44 and 45. The bottom is a narrow section indicated at 50 formed integral with the front and back walls 46 and 47 and central portions of the partitions. There the whole of the base is open. The contour formed by the front and back walls and the partitions will receive the pillow and lock it in place and at the same time the perimetral walls embed themselves in the mattress and lock the base from shifting. Here again the pillow 2 used on this contouring base is larger than the base as in every case and the rim of the perimetral wall functions as an anchor. The tops of the ribs or partitions 48 may allow some ease of movement of the pillow along the longitudinal axis when resting without load on the pillow. However, the contouring base has to be moved independently but will readily move on the bed when not supporting a load. The bedding will move up through the open bottom and prevent accidental dislodgement when supporting a load.

Referring now to FIG. 7 the contour base 51 has the same perimetral wall structure as that shown in FIG. 6. The end walls 52 and 53 become increasingly higher toward the back wall 55. The partitions or ribs 56 are disposed transversely parallel with the transverse axis and are all increasingly higher from front to back. To reinforce the three center ribs a bottom 57 is provided but between the other ribs the base is open from top to bottom. This open and ribbed base will make an impression into the base and thus hold the base from shifting on the bed. When the pillow lies free on this base it is readily shifted but there is more resistance to movement of the pillow longitudinally or along the major axis of the base than laterally or along the minor axis of the base.

I claim:

An external pillow contouring base to be covered by and support an ordinary rectangular bed pillow consisting of a lightweight hollow structure of generally rectangular shape having an upwardly extending pair of oppositely disposed front and back walls and an upwardly extending pair of oppositely disposed end walls forming continuous perimetral top and bottom edges, a flat intermediate section on the top of said front and rear walls, said end walls being of greater height than said flat intermediate front and back walls, support means connecting selected of said walls to carry a bed pillow, and a projection on each of said end walls extending beyond said front wall and then turn inwardly toward each other and then return to join said front wall in spaced relation to each other, the supported bed pillow overlying said front wall and said projections permitting said projections to function as a shoulder stop to prevent the user from turning over.

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