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(54) Pillow with differently supporting segments

Kopfkissen mit unterschiedlich stützenden Segmenten

Oreiller à segments de support différent

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EP 1 125 530 B1

Description

[0001] The invention relates to a pillow with a substantially rectangular form, which pillow is provided with segments with different supporting properties i.e. firmness and/or height, wherein a first segment adjacent to at least the middle of one of the longitudinal sides of the pillow provides great support.

[0002] Pillows are used to support the head of a prone person. The conventional pillows consist of a single compartment in which a filling material is arranged. Since the conventional pillows support only the head, improved pillows have been developed with which the neck is also supported. A neck-cushion is arranged for this purpose close to at least one of the longitudinal sides such that the neck-cushion lies between the head and the body of a prone person when this latter rests his head on a part of the pillow which can be compared with a conventional pillow. Such a pillow is described in the German Gebrauchsmuster DE 91 08 786. The pillow described in this publication is constructed from two main compartments with differing supporting properties separated by a textile partition running substantially parallel to the longitudinal sides of the pillow. These pillows function well as long as the supported person remains lying on his back. Since a person usually turns over many times during a normal night's sleep, the existing pillow with neck-cushion offers too little comfort; a restless sleeper will sleep less well with such a pillow.

[0003] The not pre-published international patent application WO 01/24668 discloses a pillow with a substantially rectangular form, provided with segments with different supporting properties, wherein a first segment adjacent to at least the middle of one of the longitudinal sides of the pillow provides great support, wherein a distance from the adjacent longitudinal side of the first segment second segments are situated which provide a greater support than at least one third segment located between the second segments.

[0004] The object of the present invention is to provide a pillow of the type stated in the preamble of claim 1 with which the neck can also be supported in addition to the head but which, while retaining the advantages of the prior art, does not have the above described drawbacks.

[0005] The invention provides for this purpose a pillow according to claim 1. At a distance from the adjacent longitudinal side of the first segment are situated second segments which provide a greater support than at least one third segment located between the second segments. The first segment will thus be able to support the neck of a person when he is lying on his back, while the head is supported by a conventional part of the pillow. When the person turns over and rests partially on a shoulder, the head moves further from the lying surface. An improved comfort is obtained due to the second segments situated at a distance from the adjacent longitudinal side of the first segment. When the head is turned, the person will rest more on the shoulder, whereby for a

pleasant recumbent posture the support of the head will have to be higher. In the supine position the head will after all support on the third segment of the pillow with a relatively limited degree of support (compared to the second segments). Conversely, when lying on the side the head will be displaced further sideward toward the edge of the pillow; the head is herein supported by one of the two second segments instead of by the third segment. The second segment supporting the head provides a greater degree of support and thus compensates (at least partly) the changed optimum distance of the head to the lying surface. This can result in a better sleep pattern and/or less muscular pain. For this purpose the second segments can for instance be given a thicker form than the third segment, they can be filled with a firmer material than the third segment, they can be filled with more material than the third segment, and so on.

[0006] The American patent US 5,016,303 describes a head and neck pillow which comprises a top compartment and a base compartment bearing the top compartment. The base compartment is provided with receiving means into which an element manufactured from foam is placed in order to adjust the height and hardness of the pillow. The top compartment can be folded round the base compartment and the pillow can be closed by a zip fastening. The pillow described in this patent also does not provide the functionality of the pillow according to the present invention.

[0007] The first segment parallel to the adjacent longitudinal side of the pillow preferably has a width in the order of magnitude of 15 to 37 centimetres. With this width it is possible to realize proper support of the neck of a person in supine position, while when the head turns the jaw remains clear of the first segment. A smaller width gives insufficient support of the neck and a greater width does not leave the jaw free.

[0008] The second segments can be coupled to the first segment. The second segments located some distance (preferably a distance of 4-15 centimetres) from the longitudinal side adjacent to the first segment provide the improved support sought when lying on the side. The jaw preferably undergoes as little resistance as possible from the second segments situated adjacently of the third segment and at a distance from the longitudinal side adjacent to the first segment. For simplified production and also to keep the pillow as far as possible in shape over a longer period, the first segment and the second segments can be coupled.

[0009] In yet another preferred embodiment the first segment has a greater height close to the adjacent longitudinal side of the pillow than at a distance from the adjacent longitudinal side of the pillow. The decreasing cross-sectional thickness at a greater distance from the longitudinal side adjacent to the first segment has the advantage that an even better fit with the neck can hereby be obtained and even greater comfort is thus provided.

[0010] An further improved fit with the human body can also be obtained when the second segments have a

greater height than the first segment. Neck and head will after all preferably be situated at a greater distance from a mattress when a person rests on a shoulder than when he is in supine position.

[0011] At least one of the segments is preferably formed partially by a shaping element of resilient foam material. Such foam elements are advantageous and can furthermore be placed and held in position in a pillow relatively simply. The material to be used is largely determined by the desired specifications of use of a pillow. Examples are natural latex, polyether and so on.

[0012] The pillow according to the invention can be manufactured advantageously since a single shaping element determines the form of the first and third segment. This shaping element herein preferably comprises less material at the position of the third segment than at the position of the first segment. The combination of first and third segment in a single shaping element also results in the advantages already enumerated above. This shaping element can for instance be manufactured from an elongate resilient member, from which a part of the material is removed close to the ends.

[0013] The present invention will be further elucidated on the basis of the following figures. Herein:

- figure 1 shows a top view of a pillow not according to the invention with schematically designated first, second and third segments,
- figure 2 is a perspective view of the pillow shown in figure 1.

[0014] Figure 1 shows a pillow 11. A first segment 12 herein has a length which substantially corresponds with the length of pillow 11. First segment 12 is also provided with a projecting part 13 which is situated at about half the length. The projecting part 13 is situated on the side of the first segment 12 remote from longitudinal side 2. When a person is in supine position the neck can be firmly supported over a greater length than the neck of a person in side position; a greater length of support of the neck in side position results in a disagreeable engagement of the first segment 12 on the jaw of the prone person. Second segments 14 and third segment 15 can continue up to the longitudinal side 2 of pillow 11 located at a distance from first segment 12. While segments 14 and 15 can be formed by inserting support bodies into the pillow, they may also be formed by separate compartments of the pillow 11.

[0015] Figure 2 shows a partly cut-away view of a pillow 11 as shown in top view in figure 1. The first segment 12 with projecting part 13 is manufactured from a shaping body. The second segments 14 and third segment 15 are formed by compartments of pillow 11 which for this purpose are separated from each other by means of partitions 23. Pillow 11 is obtained by filling the second compartments 14 with more or firmer filling material than third segment 15.

[0016] An embodiment of a pillow according to the in-

vention comprises the pillow 11 wherein a single shaping element determines the form of the first and third segment 12, 15 which are thus embodied integrally.

[0017] Although the invention is described on the basis of only one embodiment, it will be apparent to all that the present invention is by no means limited to the described embodiment. On the contrary, many more variations are possible for a skilled person within the scope of the invention. Segments can thus transpose gradually into each other, the form of the shaping elements can be varied and it is possible to manufacture shaping elements from a plurality of materials with varying resilience characteristics, opposite longitudinal sides of a pillow can both also be provided with an adjacent first segment, whereby the pillow can be used on two sides.

Claims

1. Pillow (11) with a substantially rectangular form, which pillow (11) is provided with segments (12, 14, 15) with different firmness and/or height, wherein a first segment (12) adjacent to at least the middle of one of the longitudinal sides (2) of the pillow (11) provides great firmness and/or height, wherein a distance from the adjacent longitudinal side (2) of the first segment (12) are situated second segments (14) which provide a greater firmness and/or height than at least one third segment (15) located between the second segments (14) **characterised in that** a single shaping element determines the form of the first and third segment (12, 15).
2. Pillow (11) as claimed in claim 1, **characterized in that** the first segment (12) parallel to the adjacent longitudinal side (2) of the pillow (11) has a width in the order of magnitude of 15 to 37 centimetres.
3. Pillow (11) as claimed in either of the foregoing claims, **characterized in that** the second segments (14) are coupled to the first segment (12).
4. Pillow (11) as claimed in any of the foregoing claims, **characterized in that** the first segment (12) has a greater height close to the adjacent longitudinal side (2) of the pillow (11) than at a distance from the adjacent longitudinal side (2) of the pillow (11).
5. Pillow (11) as claimed in any of the foregoing claims, **characterized in that** the second segments (14) have a greater height than the first segment (12).
6. Pillow (11) as claimed in any of the foregoing claims, **characterized in that** at least one of the segments (12, 14, 15) is formed partially by a shaping element of resilient foam material.
7. Pillow (11) as claimed in any of the foregoing claims,

characterized in that the shaping element comprises less material at the position of the third segment (15) than at the position of the first segment (12).

8. Pillow (11) as claimed in any of the foregoing claims, **characterized in that** the second segments (14) are located at a distance of 4 to 15 centimetres from the longitudinal side (2) of the pillow (11) adjacent to the first segment (12).
9. Pillow (11) as claimed in any of the foregoing claims, **characterized in that** the pillow (11) is provided with two first segments which adjoin respectively the opposite longitudinal sides (2) of the pillow (11).

Patentansprüche

1. Kopfkissen (11) mit einer im Wesentlichen rechteckigen Form, welches Kopfkissen (11) mit Segmenten (12, 14, 15) mit unterschiedlicher Festigkeit und/oder Höhe ausgestattet ist, worin ein erstes Segment (12), das zumindest an die Mitte einer der Längsseiten (2) des Kopfkissens (11) angrenzt, große Festigkeit und/oder Höhe besitzt, worin in einem Abstand von der angrenzenden Längsseite (2) des ersten Segments (12) sich sekundäre Segmente (14) befinden, die eine größere Festigkeit und/oder Höhe haben als ein zumindest drittes Segment (15), das sich zwischen den zweiten Segmenten (14) befindet, **dadurch gekennzeichnet, dass** ein einzelnes formgebendes Element die Form des ersten und dritten Segments (12, 15) bestimmt.
2. Kopfkissen (11) nach Anspruch 1, **dadurch gekennzeichnet, dass** das erste Segment (12), das parallel zu der angrenzenden Längsachse (2) des Kopfkissens (11) liegt, eine Breite in der Größenordnung von 15 bis 37 Zentimetern hat.
3. Kopfkissen (11) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die zweiten Segmente (14) mit dem ersten Segment (12) gekoppelt sind.
4. Kopfkissen (11) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das erste Segment (12) nahe der angrenzenden Längsachse (2) des Kopfkissens (11) eine größere Höhe hat als in einem Abstand von der angrenzenden Längsseite (2) des Kopfkissens (11).
5. Kopfkissen (11) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die zweiten Segmente (14) eine größere Höhe als das erste Segment (12) haben.
6. Kopfkissen (11) nach einem der vorhergehenden

Ansprüche, **dadurch gekennzeichnet, dass** zumindest eines der Segmente (12, 14, 15) teilweise von einem formgebenden Element aus einem elastischen Material gebildet wird.

7. Kopfkissen (11) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das formgebende Element in der Position des dritten Segments (15) weniger Material umfasst als in der Position des ersten Segments (12).
8. Kopfkissen (11) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die zweiten Segmente (14) sich in einem Abstand von 4 bis 15 Zentimetern von der Längsseite (2) des Kopfkissens (11) anschließend an das erste Segment (12) befinden.
9. Kopfkissen (11) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** das Kopfkissen (11) mit zwei ersten Segmenten versehen ist, die jeweils an die gegenüberliegenden Längsseiten (2) des Kopfkissens (11) angrenzen.

Revendications

1. Oreiller (11) de forme sensiblement rectangulaire, lequel oreiller (11) est pourvu de segments (12, 14, 15) de fermeté et/ou de hauteur différente, étant entendu qu'un premier segment (12) adjacent au moins au milieu de l'un des côtés longitudinaux (2) de l'oreiller (11) procure une grande fermeté et/ou hauteur, étant entendu qu'à une certaine distance du côté longitudinal adjacent (2) du premier segment (12) sont situés des deuxièmes segments (14) qui procurent une plus grande fermeté et/ou hauteur qu'au moins un troisième segment (15) situé entre les deuxièmes segments (14), **caractérisé en ce qu'un seul élément de conformation détermine la forme des premier et troisième segments (12, 15).**
2. Oreiller (11) selon la revendication 1, **caractérisé en ce que** le premier segment (12) parallèle au côté longitudinal adjacent (2) de l'oreiller (11) a une largeur située dans une fourchette de 15 à 37 centimètres.
3. Oreiller (11) selon l'une quelconque des deux revendications précédentes, **caractérisé en ce que** les deuxièmes segments (14) sont couplés au premier segment (12).
4. Oreiller (11) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** le premier segment (12) a une plus grande hauteur près du côté longitudinal adjacent (2) de l'oreiller (11) qu'à une certaine distance du côté longitudinal adjacent (2)

de l'oreiller (11).

5. Oreiller (11) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les deuxièmes segments (14) ont une plus grande hauteur que le premier segment (12). 5
6. Oreiller (11) selon l'une quelconque des revendications précédentes, **caractérisé en ce qu'**au moins l'un des segments (12, 14, 15) est formé partiellement par un élément de conformation en matière cellulaire résiliente. 10
7. Oreiller (11) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** l'élément de conformation comprend moins de matière à l'emplacement du troisième segment (15) qu'à l'emplacement du premier segment (12). 15
8. Oreiller (11) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les deuxièmes segments (14) sont situés à une distance de 4 à 15 centimètres du côté longitudinal (2) de l'oreiller (11) adjacent au premier segment (12). 20
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9. Oreiller (11) selon l'une quelconque des revendications précédentes, **caractérisé en ce que** l'oreiller (11) est pourvu de deux premiers segments qui sont respectivement contigus aux côtés longitudinaux opposés (2) de l'oreiller (11). 30

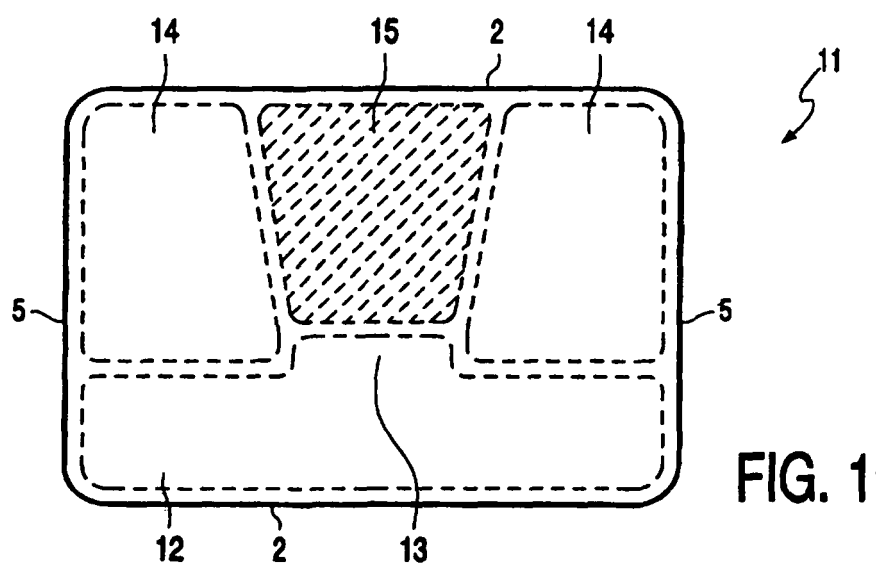
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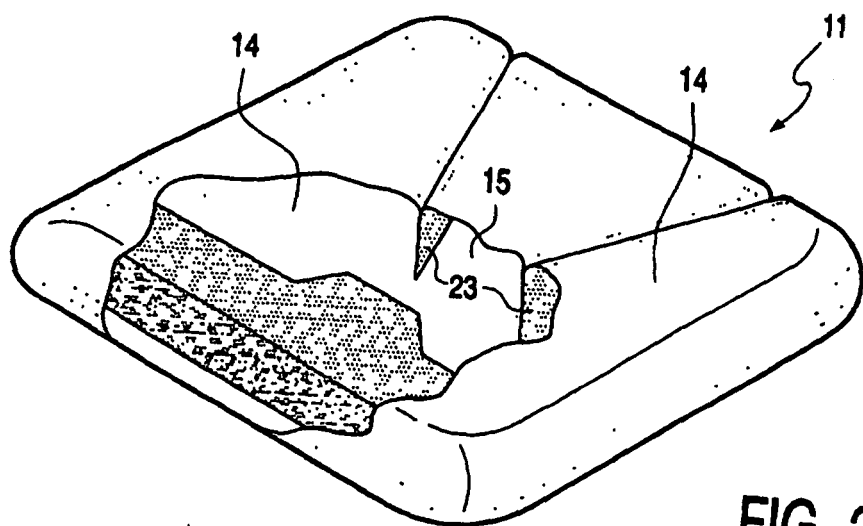


FIG. 2

REFERENCES CITED IN THE DESCRIPTION

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