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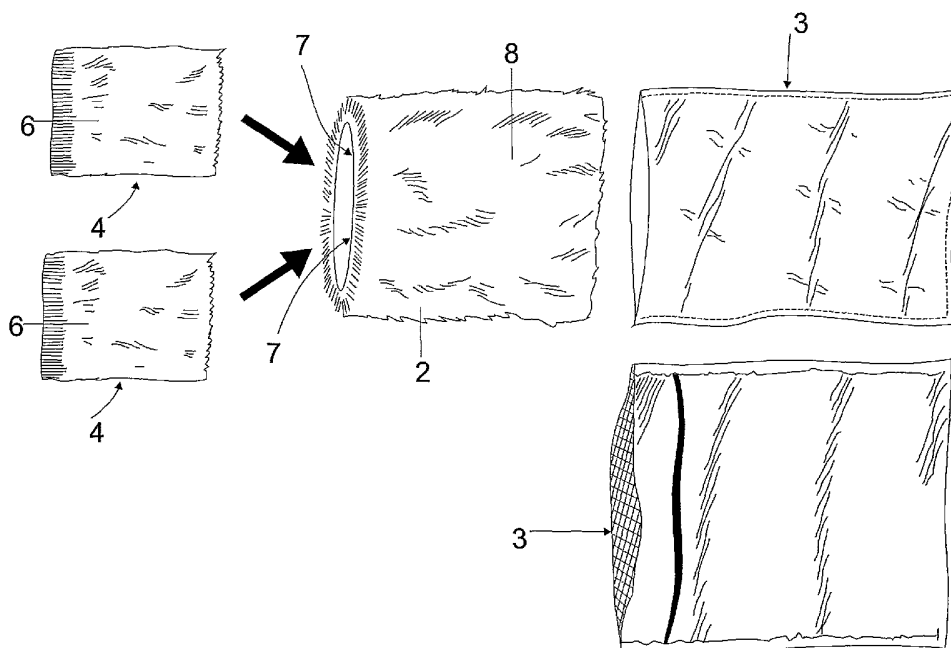
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- (54) Title: ARTICLE USED TO REST THE HEAD AND SUPPORT THE BODY



- (57) Abstract: This invention refers to an article used to rest the head and/or support the body of the user, comprising of a body (2) that contains a stuffing material with at least one refill (4). The said refill and body are composed of a first and a second base (5,7) associated, respectively, to a first and a second plurality of fibers (6,8), which are attached to the mentioned bases (5,7). This article may be used in pillows, cushions, upholstered stools and similar objects.

## ARTICLE USED TO REST THE HEAD AND SUPPORT THE BODY

### Scope of the Invention

The present invention refers to an article like pillows, cushions,  
5 upholstered stools and similar, used particularly to rest the head and/or support the body.

### Description of the Prior Art

A main body with the shape of a wrapping element filled with a stuffing material, and a pillowcase involving the said main body, composes of  
10 a basic model of pillow or cushion. The stuffing material of a pillow can be manufactured with many materials, such as feathers, foams, fabrics, fibers, etc.

These basic pillows have poor hygienization means, taking into account that the stuffing material absorbs and retains the fluids produced by  
15 the user's body, such as saliva and sweat, among others. Therefore, once the pillow stuffing material is not easily removable and, when washed it may render useless, its hygienization becomes really difficult, what causes the reduction of its use life and the constant replacement for new pillows.

Additionally, a pillow with its non-removable and/or non-washable  
20 stuffing material also presents as a disadvantage the fact that the stuffing material is subject to deformation due to the weight of the user's head when resting on the pillow. Therefore, the user's neck assumes an uncomfortable position that may yield spine aches and even a terrible night's sleep.

A way of solving such problems is found in the US 6.230.349  
25 Prior Art document, which describes a U-shaped pillow for traveling that is used around the user's neck. A wrapping fabric composes of this pillow with an opening through where the user can remove or insert the stuffing material in the pillow with the purpose of adjusting its softness.

The mentioned document also discloses that the pillow stuffing  
30 material may be composed of any variety of fiber but it is preferably composed by biologically inert material, such as polystyrene, polyester, nylon, etc, intended to hinder the proliferation of microorganisms dangerous to health.

Additionally, the stuffing material is removable and may be washed separately from the rest of the pillow.

Finally, that document reveals that the stuffing material may be contained in bags or porous bags to make the process easier of its removal  
5 from and insertion into the pillow.

Another solution to adequate the pillow to the user's posture is revealed in the US Patent 3.849.810 that describes a pillow composed of: a external cover presenting an opening; and two kinds of stuffing material: one already contained inside the pillow and the other introduced by the user into  
10 the pillow through the said opening. As a result, the user, by inserting or removing the pillow stuffing material, adjusts its height in order to adequate it to his posture.

Similarly to the above mentioned documents, the US 4.959.880 document also describes a pillow featuring a removable stuffing material.  
15 More specifically, the stuffing material from this pillow is composed of a fabric located inside of it and also by one or more packages (containing the said fabric) that may be independently removed or inserted inside the pillow. Therefore, the user is able to adjust the ideal height of the pillow, for a comfortable sleep, through the insertion of packages inside the pillow.

20 However, the majority of the Prior Art pillows, even equipped with means to modify the quantity of stuffing material, are not capable of providing a homogeneous height of the stuffing material, this means, it causes discomfort to the user, besides other problems produced by the wrong posture assumed by his spine. And, pillows presenting homogeneous height, this means,  
25 pillows that contain whole foam pieces inside, don't accept the usual washing methods. Additionally, other kinds of stuffing materials of the Prior Art pillows are subject to specific washing conditions, rendering such process impracticable in the daily life of many users.

From the following description of the present invention, it is possible to conclude that no Prior Art knowledge proposes advantages in respect  
30 to the ease of washing of the stuffing material, the possibility of changing the quantity of stuffing material, providing an always homogeneous height ad-

justment and long use life, resulting in lower cost for the consumer.

#### Purposes of the Invention

The present invention intends to solve the above mentioned problems as:

- 5                   - inconvenience regarding the washing of articles such as pillows;
- height of the article;
- height homogeneity.

Therefore, it is one purpose of the present invention to produce a  
10 pillow with a stuffing material having a homogeneous height, thus increasing the user's comfort.

It is, therefore, another purpose of this invention to produce a pillow easily washable by any user, that will increase its use life.

#### Summary of the Invention

15               The invention refers to an article used to rest the head and/or support the body of the user, which comprises of a body that contains a stuffing material with at least one refill, where such refills and body are composed of a first and a second bases associated to a first and a second plurality of fibers, respectively, which are attached to the mentioned bases.

#### 20   Brief Description of the Drawings

The present invention will be described below in more details, based on an execution example shown in the drawings and photos. The figures and photos show:

Figure 1 - Represents a perspective view of a first variety of the  
25 article covered by the present invention, with details of its interior;

Figure 2 - Represents a perspective view of the parts that compose the object covered by the present invention;

Figure 3 - Represents a perspective view of a first variety of the article covered by the present invention with details of its interior;

30               Figure 4 - Represents a bottom view of the refill belonging to the article covered by the present invention;

Figure 5 - Illustrates the article covered by the present invention

involved by a pillowcase;

Figure 6 - Illustrates the article covered by the present invention with details of the refills contained inside it; and

Figure 7 - Illustrates the article covered by the present invention  
5 with more details of the refills contained inside it.

#### Detailed Description of the Invention

The present invention describes an article used to rest the head and/or support the body of the user, which comprises of a body that contains a stuffing material with at least one refill characterized by the fact that the  
10 said refill and body are composed of a first and a second base associated to a first and a second plurality of fibers, respectively, which are attached to the mentioned bases.

Examples of products that can compose the article covered by the present invention are:

- 15 ✓ Pillows;
- ✓ cushions;
- ✓ upholstered stools;
- ✓ cushioned products;
- ✓ mattresses;
- 20 ✓ sleeping bags;
- ✓ articles similar to the above mentioned.

The article covered by the present invention presents multiple advantages and characteristics that are desired in products of this kind, some of which are listed below:

- 25 ➤ the article covered by the present invention presents a solution for the inconveniences related to the washing of articles such as pillows, present in the objects currently known. Due to its construction and the materials used, it is possible to wash and dry the whole article (body and stuffing material) in washing and drying machines. As a result, such articles will pre-  
30 sent a much better hygiene;

- the washing of the article covered by the present invention can be quickly, easily and efficiently performed;

➤ as a result of the characteristic described above, the article covered by the present invention will feature a longer use life, because it will not be necessary to dismantle the article due to the build up of dirt as, for example, fluids originated from sweating and saliva, as it happens with the products currently known;

➤ and, with the possibility of keeping the article covered by the present invention always clean, the proliferation, inside the stuffing material, of colonies of acarids, fungi, bacteria among other microorganisms that may cause illnesses as allergies, is avoided;

➤ also, the stuffing material composed of at least one refill is a whole piece. Therefore, when inserting the stuffing material into the body of the article covered by the present invention, a homogeneous height is obtained, thus avoiding a deformation due to the regular use of the object;

➤ additionally, due to the insertion of refills in the body of the article covered by the present invention, it is possible to adjust the height, the density and the volume of the object according to the user's preference;

➤ the material used in the manufacturing of the article covered by the present invention is non-toxic;

➤ the end result of this manufacturing pleases the consumers because it presents the ideal characteristics for this kind of product, as softness, comfort and hygiene, and

➤ the refills that compose the stuffing material contained in the object covered by the present invention are replaceable. Consequently, the final cost for the consumer is lower.

#### Article covered by the present invention

Article 1, the object covered by the present invention, comprises of a body 2 substantially shaped as a hollow wrapping element, as may be seen in photo 5, and comprising of a second base 7 associated to a second plurality of fibers 8, as may be seen in figures 1 through 3.

Body 2 presents, preferably, a longitudinal section with rectangular shape, as may be seen in figures 1 and 2. Alternatively, the longitudinal section of body 2 may present other shapes as circular, triangular and

asymmetric, among others.

A second base 7 presents a shape according to the ideal shape for the manufacturing of body 2. In this sense, if the shape of the longitudinal section of body 2 is rectangular, the second base 7 will also present a rectangular shape where its height is substantially smaller than the length of the longitudinal section of body 2.

The second base 7, is preferably manufactured from a textile material of natural or synthetic origin. However, it is possible to use other materials capable of attaching a second plurality of fibers 8 that will be detailed below. An example of alternative material for the manufacturing of the second base 7, is a polymeric material as latex.

The second base 7, is preferably made of flexible material to attend to the consumer's preference.

From the second base 7, body 2 is prepared. The second base 7 shall be folded in half and its perimeter shall be attached, with exception of one of the sides, so the refills 4 may be inserted inside it. Preferably, the side that is not attached will correspond to one of the smaller sides of body 2. The attachment means of these sides may be, for example, sewing or gluing.

A plurality of fibers 8 shall be attached to the second base 7. These fibers 8 may also be manufactured from textile material of natural or synthetic origin. Also, as described for the second base 7, other materials may be used, as polymers such as polypropylene. This second plurality of fibers 8 presents a length substantially longer than its width. A preferred example of fiber 8 to be used in the manufacturing of article 1 is lamb's wool.

By using these materials, both in the preparation of the second base 7 and in the second plurality of fibers 8, the possibility of washing and drying article 1, and its components as body 2, in an efficient and easy way is accomplished. Therefore, the build-up of human fluids and consequently, the proliferation of microorganisms that may cause illnesses are avoided.

#### Stuffing material of article 1

Article 1 comprises of, besides body 2, a stuffing material equipped with at least one refill 4, as may be seen in photo 4.

Refill 4, preferably, comprises of a first base 5 associated to a first plurality of fibers 6, as may be seen in figures 2, 4, 6 and 7. Preferably, the refills 4 feature shapes that can be handled, and may be folded.

5 In a preferred embodiment, the materials chosen for the production of the first base 5 and the plurality of fibers 6 are the same used in the preparation of the second base 7 and the second plurality of fibers 8, respectively.

Also, preferably, refill 4 presents a shape according to the longitudinal section of body 2. Therefore, the height homogeneity is achieved in  
10 the whole article 1.

Alternatively, refill 4 may present an area substantially smaller than the area of the longitudinal section of body 2. As a result, several profiles of the stuffing material of body 2 shall be combined, according to the user's preference.

15 Also, even with refill 4 having an area substantially equal to the area of the longitudinal section of body 2, it is possible to stack some refills 4, at least 2 of them, to adjust the height, density and volume of article 1.

#### Plurality of fibers 6 and 8

20 The first and second bases 5 and 7 comprise of a first and a second plurality of fibers 6 and 8, respectively, implanted in them.

Bases 5 and 7 are textiles, as previously mentioned, and they receive the first and second plurality of fibers 6 and 8, so they will keep associated.

25 The distribution of fibers 6 and 8 may happen in a homogeneous way over the entire fabric base or in a non-homogeneous way, as desired. The length of fibers 6 and 8 may also be homogeneous for all fibers 6 and 8 implanted as non-homogeneous.

30 A preferred implantation process of the first and second plurality of fibers 6 and 8 on the first and second bases 5 and 7, comprise the following phases:

#### I. Preparation of the first and second bases 5 and 7:

1. raw material as polymers, such as, polyester, or natural fibers



as wool and cotton may be used;

2. the fibers can be woven or knitted, to obtain the fabric, resulting in the first and second bases 5 and 7.

II. Preparation of the first and second plurality of fibers 6 and 8:

5                   3. the fibers are prepared from knitwear or, optionally, from loom bases.

4. the first and second plurality of fibers 6 and 8 are prepared.

III. Implantation of the first and second plurality of fibers 6 and 8 in the first and second bases 5 and 7:

10                   1. the first and second plurality of fibers 6 and 8 are sewn or braided in the first and second bases 5 and 7, similarly to the manufacturing of plush.

Mounting of article 1

15                   To mount article 1 and obtain the result illustrated in figures 3 and 5, the following phases shall be performed:

- preparation of body 2;
  - optionally,
  - insertion of at least one refill 4 inside body 2, adjusting its volume, thus obtaining article 1; and
- 20                   - insertion of article 1 into a pillowcase 3, as illustrated in photo 6.

Height adjustment in article 1

In order to adjust the height of article 1, as many refills 4 as necessary shall be inserted inside body 2, in order to achieve the desired height. Also, article 1 will present height homogeneity even without having refills

25                   4 inside it.

Washing of article 1

The washing of article 1, preferably, shall observe the following phases:

- article 1, in the case of a pillow, shall be removed from pillow-
- 30                   case 3;
- refills 4 placed inside body 2 shall be removed;
  - both refills 4 and body 2 shall be placed inside a conventional

washing machine;

- these components of article 1 are then submitted to the washing cycle;

- after the washing is finished, the components of article 1 shall  
5 be transferred, preferably, to a drying machine. Alternatively, the components may be dried in open air;

- with their components dry, refills 4 shall be inserted inside body 2.

As an example of a preferred embodiment was described, it shall  
be understood that the scope of the present invention covers other possible  
10 variations and is solely limited by the contents of the attached claims, where possible equivalents are included.

## CLAIMS

1. Article used to rest the head and/or support the body of the user, which comprises of a body (2) that contains a stuffing material (3) with at least one refill (4), characterized by the fact that such refill (4) and the body  
5 (2) are composed of a first and a second base (5, 7) associated, respectively, to a first and a second plurality of fibers (6, 8) which are attached to the mentioned bases (5, 7).

2. Article according to claim 1, characterized by the fact that the first plurality of fibers (6) and the second plurality of fibers (8) are composed  
10 of natural or synthetic fibers.

3. Article according to claim 1 or 2, characterized by the fact that the natural or synthetic fibers that compose of the first and second plurality of fibers (6, 8) are manufactured from natural lamb's wool.

4. Article according to any one of claims 1 through 3, characteri-  
15 zed by the fact that refill (4) has a shape substantially rectangular.

5. Article according to any one of claims 1 through 4, characteri-  
zed by the fact that the first and second plurality of fibers (6, 8) are implanted in the first and second textile bases (5, 7).

6. Article according to any one of claims 1 through 5, characteri-  
20 zed by the fact that refill (4) has an area substantially smaller than the area of the longitudinal section of body (2).

7. Article according to any one of claims 1 through 6, characteri-  
zed by the fact that stuffing material (3) may comprise of a plurality of refills (4).

8. Article according to any one of claims 1 through 7, characteri-  
25 zed by the fact that refills (4) have changeable shapes and can be folded.

9. Article according to any one of claims 1 through 8, characteri-  
zed by the fact that refills (4) are free to be arranged inside body (2).

10. Article according to any one of claims 1 through 9, characteri-  
30 zed by the fact that the arrangement of refills (4), inside body (2), has a homogeneous height.

11. Article according to any one of the claims 1 through 10, characteri-  
zed by the fact that body (2) has a homogeneous height.

12. Article according to any one of claims 1 through 11, characterized by the fact that body (2) and o stuffing material (3) can be washed and dried in washing and drying machines.

13. Article according to any one of claims 1 through 12, characterized by the  
5 fact that a pillowcase (3) covers the body (2).

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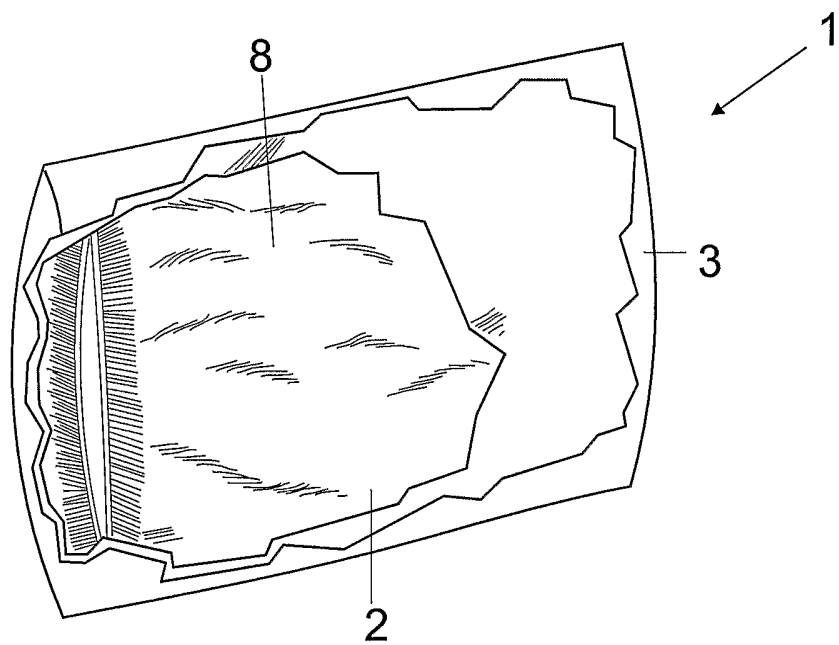
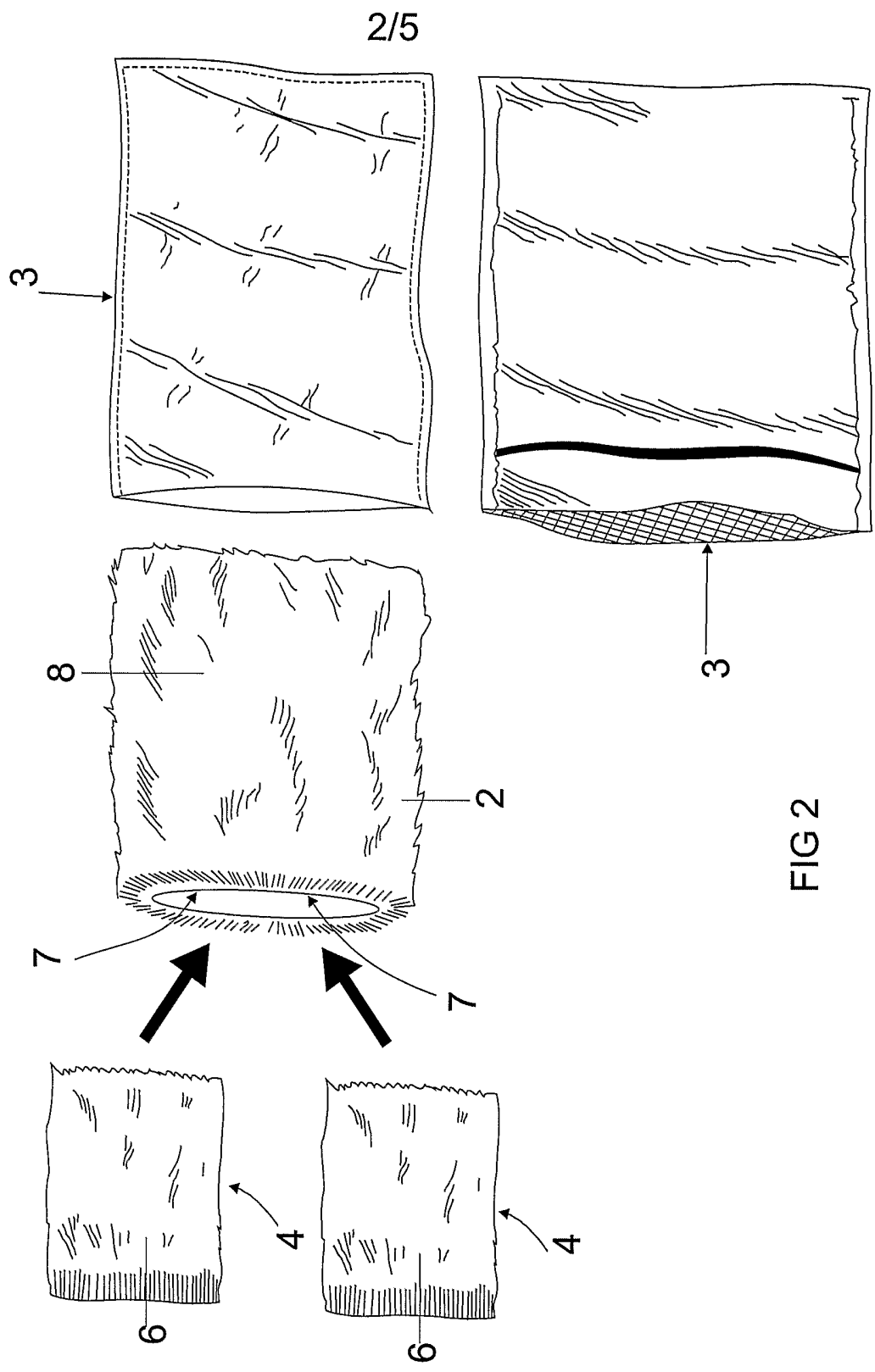


FIG 1



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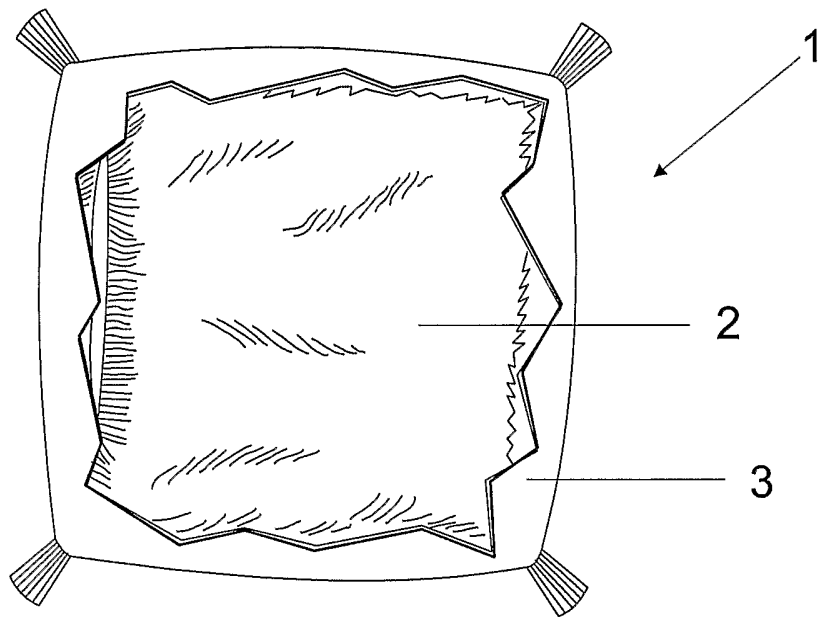


FIG. 3

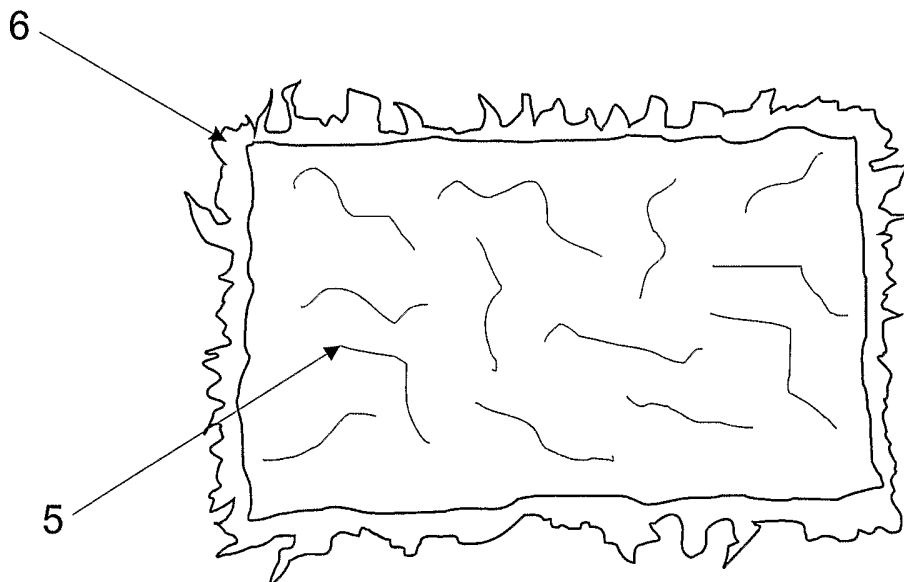


FIG. 4

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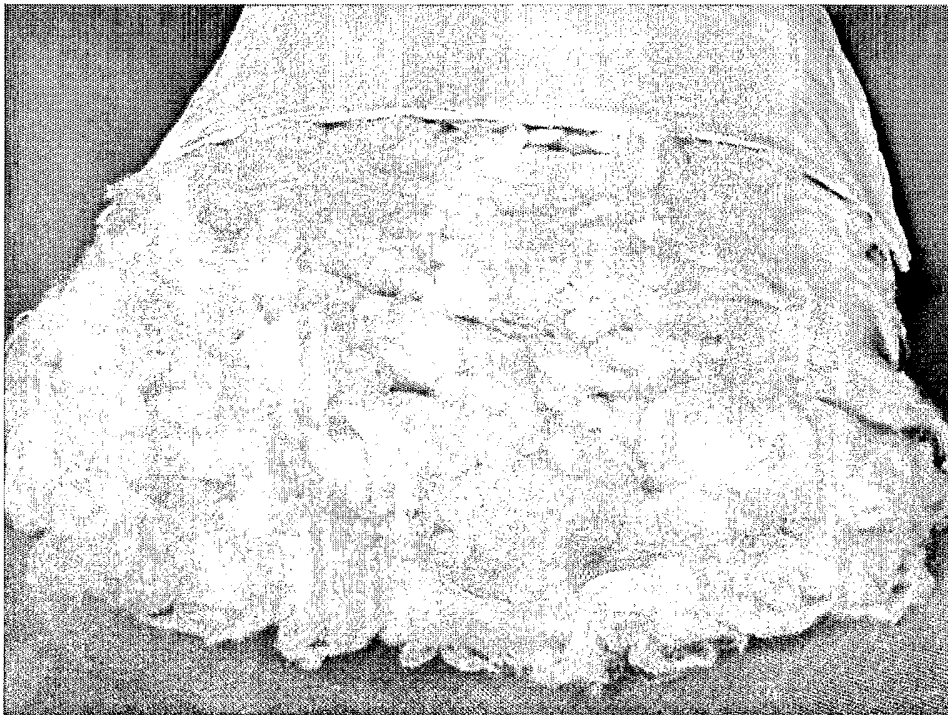


FIG. 5



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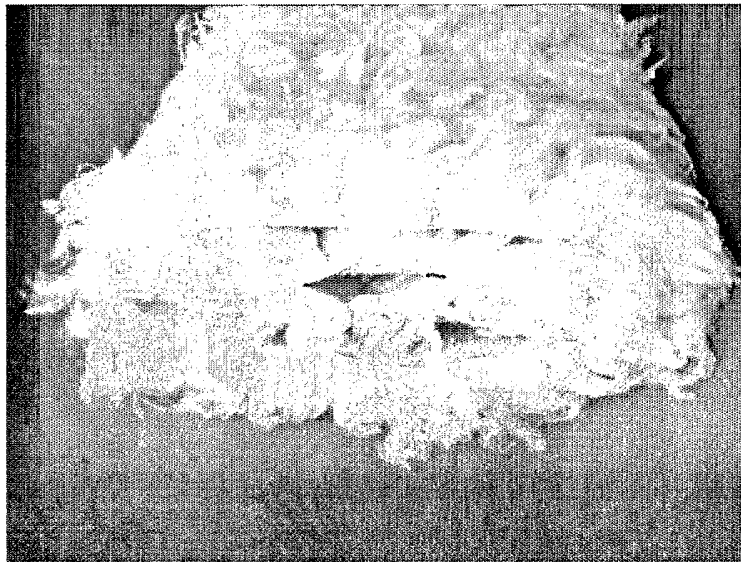


FIG. 6



FIG. 7

# INTERNATIONAL SEARCH REPORT

International application No  
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**A. CLASSIFICATION OF SUBJECT MATTER**  
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According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
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Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/019972 A1 (SCHECTER DANIEL B ET AL) 5 February 2004 (2004-02-05) figure 12 paragraphs [0057], [0058] -----	1,2,4,8, 9,12,13
Y	CH 668 171 A (MEDISANA, MEDIZINALBEDARFS GMBH) 15 December 1988 (1988-12-15) figure 2 page 2, column 2, line 25 - line 35 page 2, column 2, line 61 - line 63 -----	1-13
Y	BE 904 695 A2 (TOG.O.FILL N.V) 29 October 1986 (1986-10-29) figures 2,3 page 1, paragraph 1 page 3, paragraph 6 - page 4, paragraph 3 claim 11 ----- -/--	1-13

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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# INTERNATIONAL SEARCH REPORT

International application No

PCT/BR2006/000046

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>FLEECIES: "SnugFleece Woolens? Mattress Pads"[Online]  7 February 2005 (2005-02-07), XP002390323  Retrieved from the Internet:  URL:http://web.archive.org/web/20050207002541/http://www.fleecies.com/snugfleece.htm  &gt; [retrieved on 2006-07-13]  the whole document</p> <p>-----</p>	1-13
Y	<p>SHEEPSKINS &amp; MEDI-WOOL, DOWN-UNDER WOOL:  "Wool- Pile Pillow Cover with Zipper Closure- \$44"[Online]  3 March 2005 (2005-03-03), XP002390324  Retrieved from the Internet:  URL:http://web.archive.org/web/20050303220240/http://www.medicalsheepskins.com/Merchant2/merchant.mv?Screen=PROD&amp;Store_Code=DW  TBPS&amp;Product_Code=M129D&amp;Category_Code=&gt;  [retrieved on 2006-07-13]  the whole document</p> <p>-----</p>	1-13

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2004019972	A1	05-02-2004	NONE	
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BE 904695	A2	29-10-1986	NONE	