



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
25.06.2014 Bulletin 2014/26

(51) Int Cl.:
A47G 9/10 (2006.01) A61H 39/04 (2006.01)

(21) Application number: **13425159.4**

(22) Date of filing: **16.12.2013**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(71) Applicant: **Longhin, Mario**
35010 Vigonza (PD) (IT)

(72) Inventor: **Longhin, Mario**
35010 Vigonza (PD) (IT)

(74) Representative: **Iannone, Carlo Luigi et al**
Barzanò & Zanardo Roma S.p.A.
Via Piemonte 26
00187 Roma (IT)

(30) Priority: **20.12.2012 IT VI20120095**

(54) **Pillow for relaxation**

(57) The present invention relates to a pillow (1) for the relaxation comprising a body (9) and two pressure stimulators (5, 6), the body being mainly developed on a plane and provided with two faces (3, 4) and two housings

(7, 8) positioned in correspondence of one face (3), and the two pressure stimulators (5, 6) being housed within the two housings (7, 8).

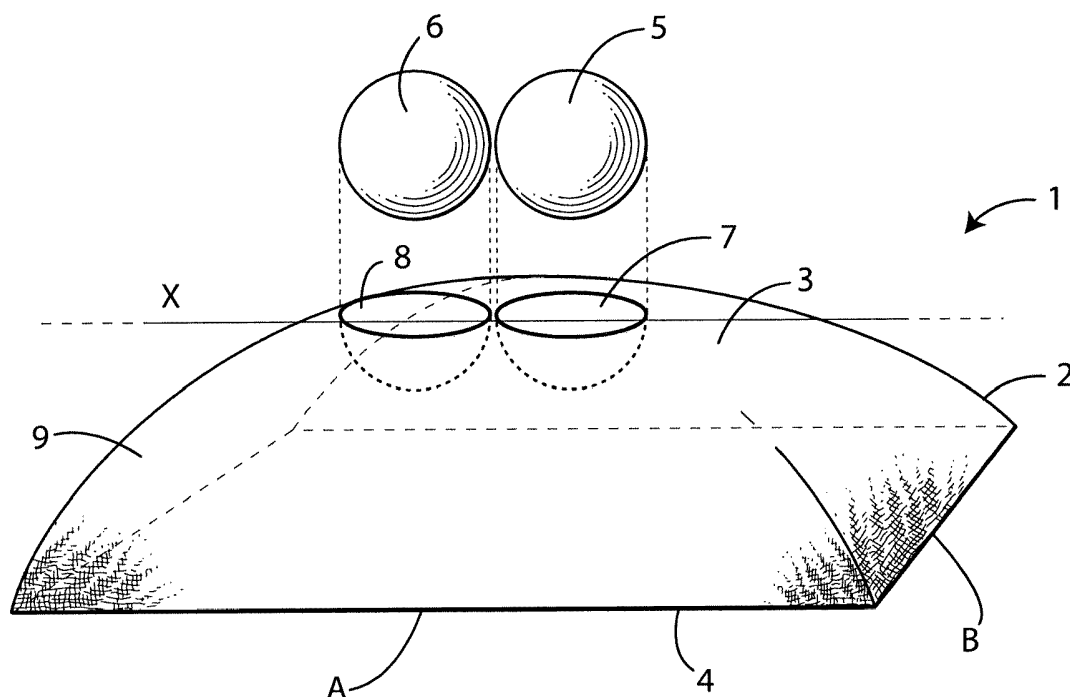


Fig. 1

Description

[0001] The present invention relates to a pillow for relaxation. More in particular, the invention relates to a pillow for relaxation that is used for supporting the cervical area of a person.

[0002] There are pillows on trade that massage in order to stimulate the user's cervical and obtain a relaxation of the treated area.

[0003] These pillows have vibrating balls, with the aim of stimulating the treated area mechanically. However, this vibration has the drawback of irritating sometimes the nerves and the muscles in case of inflammatory states. Furthermore, such pillows have the limit to obtain an effect only in the treated area, not being able to provide a general wellness on the user. The main purpose of the present invention is therefore to overcome the drawbacks mentioned above, realizing a pillow for the relaxation that can provide a general wellness on the user.

[0004] Furthermore, an object of the present invention is to provide a pillow for the relaxation having a simple and compact design, which is able to provide a beneficial effect against stressing states in the body, without the need to take medication.

[0005] These and other objects, according to the present invention, are achieved by a pillow for the relaxation, according to the appended claims.

[0006] Further detail characteristics are in the subsequent dependent claims.

[0007] Advantageously, the cushion of the invention comprises a body and two pressure stimulators, the body is mainly developed on a plane and is provided with two faces, and two housings positioned in correspondence of one face, and the two pressure stimulators are housed in the two housings.

[0008] This allows setting the pressure stimulators in a definite place, so as the stimulating of a definite area of the cervical spine is easier.

[0009] Further, the housings are at the center of the body, facing to a face, so as the pressure stimulators protrude from the housings, preferably for a third of their volume.

[0010] In this manner, the stimulators are correctly supported by the body of the pillow of the invention.

[0011] Equally advantageously, the body has a shape with an oval or rectangular base, presenting a substantially long dimension, and a short dimension transverse to the long dimension, where the long dimension is equal to about 40cm and the shorter dimension is approximately equal to 25cm. Also, the body includes a shaped base in a non-deformable, non-allergenic and non-toxic material, and a surface layer in a viscoelastic material; the shaped base is positioned inside the body, substantially centrally, while the surface layer is positioned around at least a portion of the shaped base.

[0012] This advantageously confers to the pillow of the invention a rigid support structure (the shaped base), which retains the pressure stimulators so that they can

be positioned in a precise manner in correspondence of certain points of the body.

[0013] A further advantage consists in having anyway a soft surface (the surface layer) on which the user's head can be laid, which makes comfortable the experience of using the pillow.

[0014] Again, the pillow of the invention presents a dome, semi-cylindrical or parallelepiped shape.

[0015] Moreover, an advantage of the invention is in that the surface layer is provided with protruding elements, so that some depressions are created between these elements, which depressions can be useful to the passage of air and consequently the dispersion of heat and possible humidity. Always according to the invention, channels for the aeration of the cushion itself may be present in the shaped base or in the surface layer, so as to disperse heat and reduce humidity.

[0016] Preferably, such channels for the aeration flow along a direction parallel to the face on which the pressure stimulators are facing, for the entire length of the same shaped base.

[0017] Preferably, the thickness of the pillow of the invention is about 10 cm. This allows obtaining a pillow of standard dimensions, adapted to receive - as a coating - a pillowcase of traditional dimensions, without requiring a tailored coating.

[0018] Always according to the invention, a wrap is included, said wrap is preferably made of a soft nylon or a double elastic fabric with silver yarn fabric or other hygienic and washable material.

[0019] Additionally, according to the invention, the wrap comprises an opening provided with a closure, with buttons, pressure buttons or a zipper. Preferably, according to the invention, the pressure stimulators have substantially a spherical shape and/or are made of rubber or other elastic material.

[0020] Furthermore, the pressure stimulators have a diameter approximately between 5 and 8 cm, preferably between 6 and 7 centimeters.

[0021] In a preferred embodiment of the invention, the internal pressure of the pressure stimulators is lower than the pressure which would be needed to make them bounce for a length of at least 120 cm when they are allowed to fall from a height of 254 cm onto a concrete surface.

[0022] Again, according to the invention, the body is made of a foam of a viscoelastic material or another elastic material suitable for making a known pillow, for example of foams of any origin and composition.

[0023] These features allow to exert a pressure on the nape that does not produces irritations on the user, but that at the same time support the head and provide the required stimulation.

[0024] Further objects and advantages of the present invention will become apparent from the following description, which refers to an example of a preferred but not limiting embodiment of the pillow for the relaxation in question, and from the attached drawings, likewise pro-

vided for an illustrative and preferred, but not limiting purpose, wherein:

- Figure 1 shows an exploded view of a first embodiment of the pillow of the invention;
- Figure 2 shows an exploded view of a second embodiment of the pillow of the invention
- Figure 3 shows in section the pillow of figure 2 along a plane passing through the axis B.

[0025] Referring to the attached figures, the therapeutic pillow 1 of the present invention comprises a first fixed wrap (not shown), preferably stretch cotton blend jersey, and a second wrap 2 preferably made of a soft nylon fabric or other suitable and washable material, for example, of a double-elastic fabric with anti-mite, anti-microbial, anti-static and anti-permanent-stress silver yarn, on trade with the brand Silverness ®, the second wrap 2 having opposing cover portions 3 and 4.

[0026] The wrap may comprise an opening (not shown) provided with a closure, with buttons, pressure buttons or a zipper.

[0027] A couple of pressure stimulators 5 and 6 are housed within the wrap 2. The stimulators 5 and 6 have preferably a spherical shape and are made of rubber or other elastic material, and may have a diameter approximately between 5 and 8 cm, preferably between 6 and 7 centimeters. Furthermore, in a favorite embodiment of the invention, the stimulators 5 and 6 are made of natural rubber and felt-covered.

[0028] Preferably, the stimulators 5 and 6 have an internal pressure which is lower than the pressure which would be needed for a ball that meets the regulatory requirements of a game that requires the controlled bounce of the same ball, such as tennis; in particular, the stimulators 5 and 6 have an internal pressure which is lower than 2 atmospheres; in this way the stimulators 5 and 6 exert a pressure not annoying the user in defined points on the cranial and cervical region.

[0029] In detail, stimulators 5 and 6 have an internal pressure suitable for providing a balance between deformation and elastic response, so as to accommodate and support the weight of the user's head, and at the same time stimulate the precise points of the cervical spine.

[0030] The stimulators 5 and 6 are housed in two respective housings 7 and 8 formed in the body 9 of the pillow 1.

[0031] The body 9 is made of preferably a foam of a viscoelastic material or another elastic material suitable for making a known pillow, for example of foams of any origin and composition.

[0032] In a favorite embodiment, shown in figure 3, the body 9 comprises at least one of the following elements:

- a shaped base 91 made of a non deformable, hypoallergenic and non-toxic polyurethane foam (foam);
- channels 92 crossing the shaped base 91 for its

whole length, advantageously ensuring the maximum degree of breathability, and facilitating the dispersion of humidity and heat in excess;

- a surface layer 93 made of viscoelastic polyurethane foam (memory foam type) with protruding contact points 94 that allow good air circulation and the consequent elimination of the humidity.

[0033] Of course, in alternative embodiments, the channels 92 may cross the length of the surface layer 93 instead of the length of the shaped base 91, or may be at the same time on both the elements of the body 9.

[0034] In reference to the embodiment shown in figure 3, the surface layer 93 is positioned in correspondence of the face the housings face to, but of course it is possible that such surface layer 93 completely surrounds the shaped base 91, or that the surface layer 93 is located exclusively in the area around the housings.

[0035] In fact, such area is the one on which the user puts his own head and the neck, so as to put the pressure stimulators 5 and 6 in correspondence of the vertebrae to be stimulated.

[0036] The housings 7 and 8 are centrally in the body 9, facing to a cover portion 3, so as the stimulators 5 and 6 protrude from the same housings 7 and 8, preferably for about a third of their volume.

[0037] So, the body 9 can give to the head of the user a correct support in order to get the required comfort for a correct posture of the cervical spine, and in particular of the first vertebrae attached to the nape.

[0038] Furthermore, the stimulators 5 and 6 protrude from the body 9, exerting pressure on certain specific points in the cervical and cranial region of the user, which has the effect of relaxing the superficial and deep muscular tensions, and the tensions of the ligaments of the cervical and suboccipital intravertebral joints.

[0039] This is allowed by the coupling of the elastic properties of rubber (or of a material having a similar elastic response) to those of the foam (or of a material having a similar elastic response), because the foam is able to support the neck and the head of the user so as the stimulators are in contact with the abovementioned anatomical region exerting a pressure which is light enough in order to not generate irritation on the user, but it is at the same time able to facilitate the recovery of the physiological cervical curve, essential condition to maintain the optimal biomechanical function of the neck and allow a better posture.

[0040] The body 9, as shown in the figures, may have a rectangular or oval shaped base, presenting a substantially long dimension A, parallel to the X axis passing through the housings 7 and 8, and a short dimension B transverse to the dimension A.

[0041] As the size of the pillow 1 of the invention can be chosen so as to provide a compact product in the volume, in the examples shown in the attached figures the size of A is equal to approximately 40cm and the size of B is equal to about 25cm. However, it is possible to

make the pillow of the invention forming the base with other dimensions, such as 25x25 cm or 40x40 cm.

[0042] In the attached figures the pillow 1 is shown having a dome shape, however, it is possible to realize a pillow having the same properties, with a substantially parallelepiped or semi-cylindrical shape.

[0043] The maximum height, in any case, of the pillow of the invention, is about 10 cm and may vary according to the type of the material used.

[0044] The inhibitory action produced by the pillow of the invention produces a significant relaxation and decongesting for the nerves which are compressed by the muscle and joints tensions, giving a sense of general well-being, whereas not only the cranial nerves - related to sense organs - are in the cervical area, but also the phrenic nerve - connected with the diaphragm and then with breathing and blood circulation - and the vagus nerve - innervating the whole body with its parasympathetic re-balancing function - are in the same cervical area.

[0045] With the relaxed tissues, blood circulation and lymphatic circulation improves and therefore improvement of the inflammations and recurring pains, which are caused by musculoskeletal tensions with postural origin, is promoted.

[0046] The most interesting and peculiar action of the pillow of the invention is the one which is derived from the pressure that it is possible to get on the nape region thus producing a stimulation of the fourth ventricle (CV4) of the cerebellum, with relaxing effects on the entire musculoskeletal system and central and peripheral nervous system, with beneficial effects on all vegetative functions and with improvement in the circulation of fluids.

[0047] The relaxation of the central nervous system promotes the production of alpha brain waves with a resulting state of psychological well-being.

[0048] The invention thus conceived therefore achieves the proposed task and allows obtaining a pillow for the psychophysical relaxation, which allows inducing in the patient a relaxation which was never reached by the known technique.

[0049] This invention is susceptible of numerous modifications and variations, all falling within the scope of protection of the appended claims. Furthermore, all the details may further be replaced with other technically equivalent elements.

[0050] In practice, the used materials, as well as the contingent shapes and dimensions, may vary depending on the contingent needs and of the state of the art.

Claims

1. Pillow (1) for the relaxation comprising a body (9) and two pressure stimulators (5, 6), the body being mainly developed on a plane and provided with two faces, (3, 4) opposed to each other, and two housings, (7, 8) positioned in correspondence of one face (3), the two pressure stimulators (5, 6) being housed

within the two housings (7, 8), the pillow (1) being **characterized in that** the housings (7, 8) are at the center of the body (9), facing to a face (3), so as the pressure stimulators (5, 6) protrude from the housings (7, 8) for about a third of their volume.

2. Pillow (1) according to claim 1, **characterized in that** the body (9) comprises a shaped base (91) in a non-deformable, non-allergenic and non-toxic material, and a surface layer (93) in a viscoelastic material, the shaped base (91) being within the body (9) and the surface layer (93) being around at least a portion of the shaped base (91).

3. Pillow (1) according to claim 2, **characterized in that** the surface layer (93) is provided with protruding elements (94).

4. Pillow (1) according to claim 2 or 3, **characterized in that** the shaped base (91) comprises through channels (92) for the aeration, crossing the shaped base (91) for its entire length.

5. Pillow (1) according to one of the claims 1-4, **characterized in** having a dome, semi-cylindrical or parallelepiped shape.

6. Pillow (1) according to one of the claims 1-5, **characterized in that** the thickness of the pillow (1) is about 10 cm.

7. Pillow (1) according to one of the claims 1-6, **characterized in that** a wrap (2) is included, said wrap (2) is preferably made of a soft nylon or a double elastic fabric with silver yarn fabric.

8. Pillow (1) according to claim 7, **characterized in** comprising an opening provided with a closure, with buttons, pressure buttons or a zipper.

9. Pillow (1) according to one of the claims 1-8, **characterized in that** the pressure stimulators (5, 6) have substantially a spherical shape and/or are made of rubber or other elastic material.

10. Pillow (1) according to one of the claims 1-9, **characterized in that** the pressure stimulators (5, 6) are felt-covered.

11. Pillow (1) according to claim 9 or 10, **characterized in that** the pressure stimulators (5, 6) have a diameter approximately between 5 and 8 cm, preferably between 6 and 7 centimeters.

12. Pillow (1) according to one of the claims 1-11, **characterized in that** the pressure stimulators (5, 6) have an internal pressure which is not suitable for making the pressure stimulators (5, 6) bounce.

13. Pillow (1) according to one of the claims 1-12, **characterized in that** the body (9) is realized in a foam of a viscoelastic material or another elastic material suitable for making a known pillow, for example of foams of any origin and composition.

5

10

15

20

25

30

35

40

45

50

55

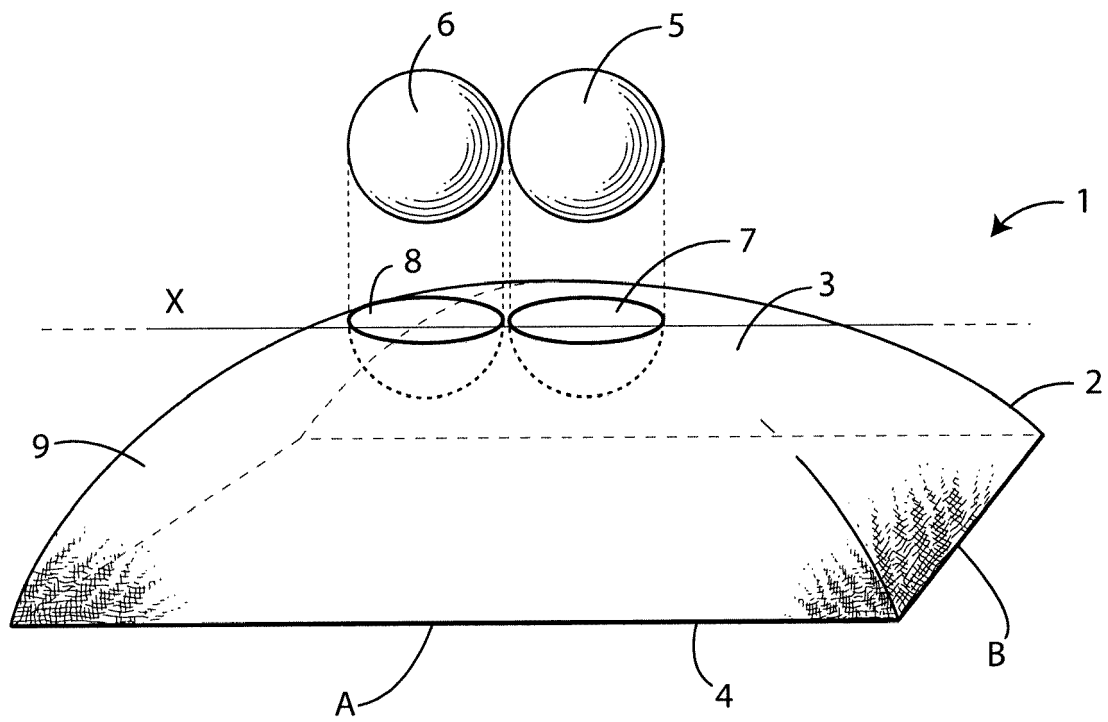


Fig. 1

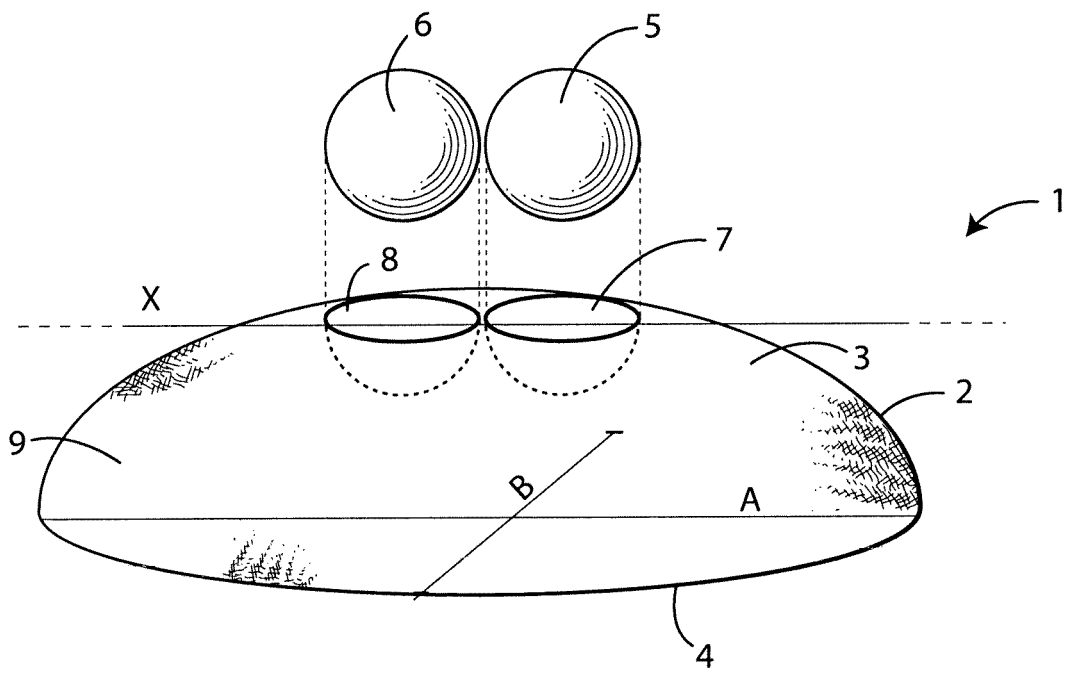


Fig. 2

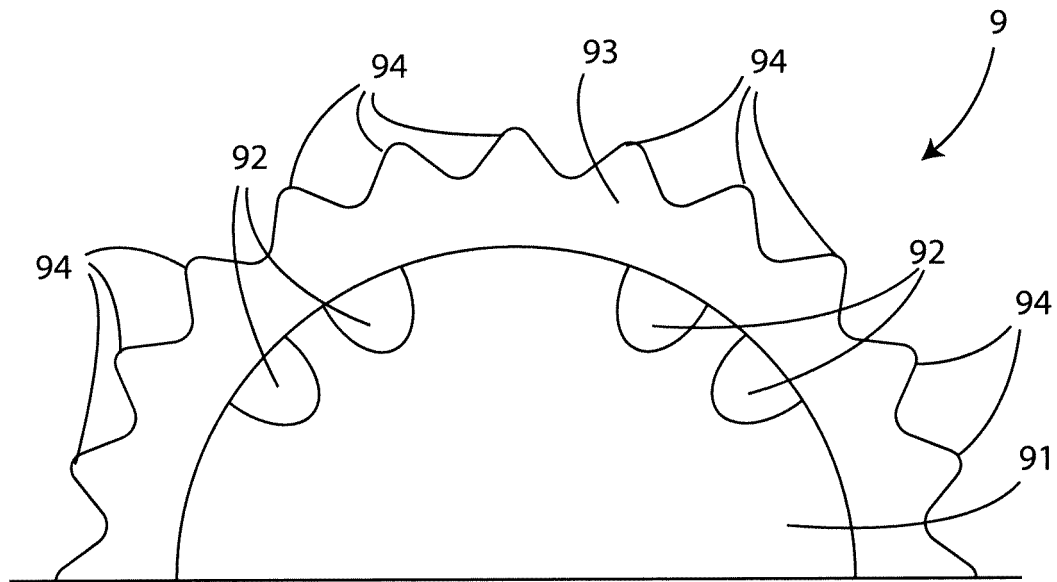


Fig. 3



EUROPEAN SEARCH REPORT

 Application Number
EP 13 42 5159

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 305 040 B1 (MYLER SCOTT G [US]) 23 October 2001 (2001-10-23)	1,2,5-7, 9-13	INV. A47G9/10 A61H39/04
Y	* abstract; figures 1-10 * * column 2, lines 36-40,59 - column 4, lines 9,14 * * column 5, lines 14-26 - column 6, lines 4-6 * * column 7, lines 7-20,45-55 - column 8, lines 34-43 *	3,4	
X	US 5 481 771 A (BURK IV JOHN L [US]) 9 January 1996 (1996-01-09) * abstract; figures 3-8 * * column 4, lines 24-40,62-66 - column 5, lines 1-30 *	1,5-9, 11-13	
X	JP 2000 005014 A (SANWA KK) 11 January 2000 (2000-01-11) * figures 6,8,17 *	1,5-9, 12,13	
X	EP 0 811 365 A2 (MORGER OTTO [CH] MORGER OTTO) 10 December 1997 (1997-12-10) * abstract; figures 1-4 * * column 2, lines 13-22,56-58 - column 3, lines 23-48 * * column 4, lines 14-26 *	2,5,6,9, 11,13	TECHNICAL FIELDS SEARCHED (IPC) A47G
Y	US 4 916 765 A (CASTRONOVO JR JOSEPH A [US]) 17 April 1990 (1990-04-17) * figures 1-2,3,4 *	3	
Y	TW M 244 033 U (JIANN FONG POLYURETHANE FOAM C [TW]) 21 September 2004 (2004-09-21) * figures 3,4,5,6 *	4	
A	US 6 024 762 A (GRAY J TODD [US]) 15 February 2000 (2000-02-15) * abstract; figures 1-7 *	1	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 6 May 2014	Examiner Longo dit Operti, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 13 42 5159

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-05-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6305040	B1	23-10-2001	NONE
US 5481771	A	09-01-1996	NONE
JP 2000005014	A	11-01-2000	NONE
EP 0811365	A2	10-12-1997	CH 691346 A5 13-07-2001 EP 0811365 A2 10-12-1997
US 4916765	A	17-04-1990	NONE
TW M244033	U	21-09-2004	NONE
US 6024762	A	15-02-2000	NONE

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82