



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 658 788 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
24.05.2006 Bulletin 2006/21

(51) Int Cl.:
A47C 27/00 (2006.01) A61H 1/00 (2006.01)

(21) Application number: **05109614.7**

(22) Date of filing: **17.10.2005**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**
Designated Extension States:
AL BA HR MK YU

• **Zambrano Morcillo, Francisco**
07420 Sa Pobla (ES)

(72) Inventors:
• **Ricci Voltas, Victor Guillermo**
07420 Sa Pobla (ES)
• **Zambrano Morcillo, Francisco**
07420 Sa Pobla (ES)

(30) Priority: **19.11.2004 ES 200402628 U**

(71) Applicants:
• **Ricci Voltas, Victor Guillermo**
07420 Sa Pobla (ES)

(74) Representative: **Ponti Sales, Adelaida et al**
Oficina Ponti, S.I.,
C. de Consell de Cent 322
08007 Barcelona (ES)

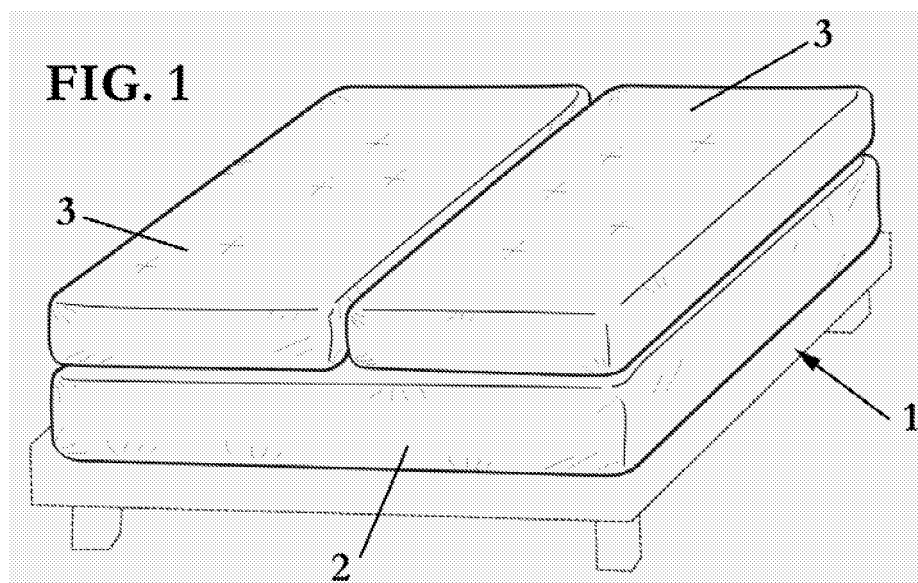
(54) **Mattress**

(57) The mattress of the present invention is characterised in that it is formed by a base piece (2) and at least an upper piece (3) placed on said base piece (2), and the thickness of the base piece (2) is greater than the thickness of the upper piece (3).

According to different alternative embodiments, the

upper piece can comprise a plurality of vibrating motors, corrugations, magnetic bands, a metallic net, or a layer of aromatic herbs.

With the mattress of the invention, the upper piece or pieces can be changed whenever it is desired by other pieces which have different features, without the necessity of changing the whole mattress.



EP 1 658 788 A1

Description

[0001] The present invention refers to a mattress which can be personalized without changing the whole mattress.

BACKGROUND OF THE INVENTION

[0002] There are now different types of mattresses with different features and materials.

[0003] Known mattresses are made from a single piece, so that if the user wants to change the features of the mattress it is necessary to change the whole mattress.

[0004] In the case of the mattresses for double beds, it is possible that the two person which sleep on the same mattress have different tastes or necessities. For example, it is possible that one of the users prefers a harder mattress than the other. Now the only possibility to personalize the mattress is to place one mattress beside the other, but it remains the necessity to change the whole mattress.

DESCRIPTION OF THE INVENTION

[0005] With the mattress of the invention the aforesaid drawbacks are solved, presenting other advantages that will be described.

[0006] The mattress of the present invention is characterised in that it is formed by a base piece and at least an upper piece placed on said base piece.

[0007] Thanks to this feature, the upper piece or pieces can be changed whenever it is desired by other pieces which have different features, without the necessity of changing the whole mattress.

[0008] Advantageously, the thickness of the base piece is greater than the thickness of the upper piece.

[0009] According to a preferred embodiment, the thickness of the base piece is comprised between 15 cm and 21 cm and the thickness of the upper piece is comprised between 7 cm and 10 cm.

[0010] According to different alternative embodiments, the upper piece can comprise a plurality of vibrating motors, corrugations, magnetic bands, a metallic net, or a layer of aromatic herbs.

[0011] Furthermore, the material of said upper piece can be latex, high-density polyurethane, to obtain a mattress with a great hardness, or viscoelastic material, which adapts completely to the body.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] For a better understanding of that have been described, some drawings are attached in which, diagrammatically and only as a non-limitative example, some embodiments are shown.

[0013] Fig. 1 is a perspective view of the mattress of the present invention; and

[0014] Fig. 2-6 are diagrammatical plan views of possible embodiments of the upper piece of the mattress of the present invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

[0015] As can be seen in Fig. 1, the mattress of the present invention, identified generally by the numeral reference 1, comprises a base piece 2 and one or two upper pieces 3, depending if it is a single piece or a double piece, as in the case of the embodiment shown.

[0016] The thickness of the base piece 2 is greater than the thickness of the upper piece 3, usually twice. Specifically, the thickness of said base piece 2 is between 15 cm and 21 cm and the thickness of said upper piece 3 is between 7 cm and 10 cm.

[0017] Therefore, the mattress can be personalized, i.e., it can be adapted to the necessities or wishes of each person, without changing the whole mattress, only changing the upper piece 3. In double beds, each half of the mattress can have different features for the two users.

[0018] The material of the base piece 2 can be any suitable material now used, such as foam, polyurethane, latex, etc.

[0019] The upper piece 3 can be of different forms, among them can be shown the next embodiments.

[0020] The upper piece 3 can also be of any suitable material depending of the necessities or tastes of the user. For example, it can be of latex, of high density polyurethane, which permits the mattress to be very hard, or of a viscoelastic material, which adapts completely to the body.

[0021] As can be seen from Fig. 2, the upper piece 3 can comprise a plurality of vibrating motors 4 to provide massage to the user. The driving of the motors and its intensity can be regulated by a control 5.

[0022] According to the embodiment of Fig. 3, the upper piece 3 can be of polyurethane with a plurality of corrugations 6, which provide an static massage to the user.

[0023] In the embodiment of Fig. 4 it has been shown the upper piece 3 with a plurality of magnetic bands 7 to enhance the blood flow.

[0024] In the embodiment of Fig. 5 it has been shown the upper piece 3 with a metallic net 8, of copper, which connects to an earth connection 9, so that it is obtained an anti-static electricity mattress.

[0025] Placing a layer of aromatic herbs 10 in the upper piece 3 it is obtained an aromatic mattress, as is shown in Fig. 6.

[0026] It is apparent that the upper piece 3 can be personalized in any way and, therefore, the invention is not limited to the shown and described embodiments in the present description of the upper piece 3.

[0027] Even though it has been made reference to a embodiment of the invention, it is evident for a person skilled in the art that the described mattress is susceptible of numerous variations and modifications, and that all

the details mentioned can be substituted by others technically equivalents, without departing from the scope of protection defined by the attached claims.

5

Claims

1. Mattress (1), **characterised in that** it is formed by a base piece (2) and at least an upper piece (3) placed on said base piece (2). 10
2. Mattress according to claim 1, **characterised in that** the thickness of the base piece (2) is greater than the thickness of the upper piece (3). 15
3. Mattress according to claim 1 or 2, **characterised in that** the thickness of said base piece (2) is comprised between 15 cm and 21 cm.
4. Mattress according to claim 1 or 2, **characterised in that** the thickness of said upper piece (3) is comprised between 7 and 10 cm. 20
5. Mattress according to claim 1, **characterised in that** the upper piece (3) comprises a plurality of vibrating motors (4). 25
6. Mattress according to claim 1, **characterised in that** the upper piece (3) comprises a plurality of corrugations (6). 30
7. Mattress according to claim 1, **characterised in that** the upper piece (3) comprises a plurality of magnetic bands (7). 35
8. Mattress according to claim 1, **characterised in that** the upper piece (3) comprises a metallic net (8).
9. Mattress according to claim 1, **characterised in that** the upper piece (3) comprises a layer of aromatic herbs (10). 40
10. Mattress according to claim 1, **characterised in that** the material of said upper piece (3) is latex, high-density polyurethane or a viscoelastic material. 45

50

55

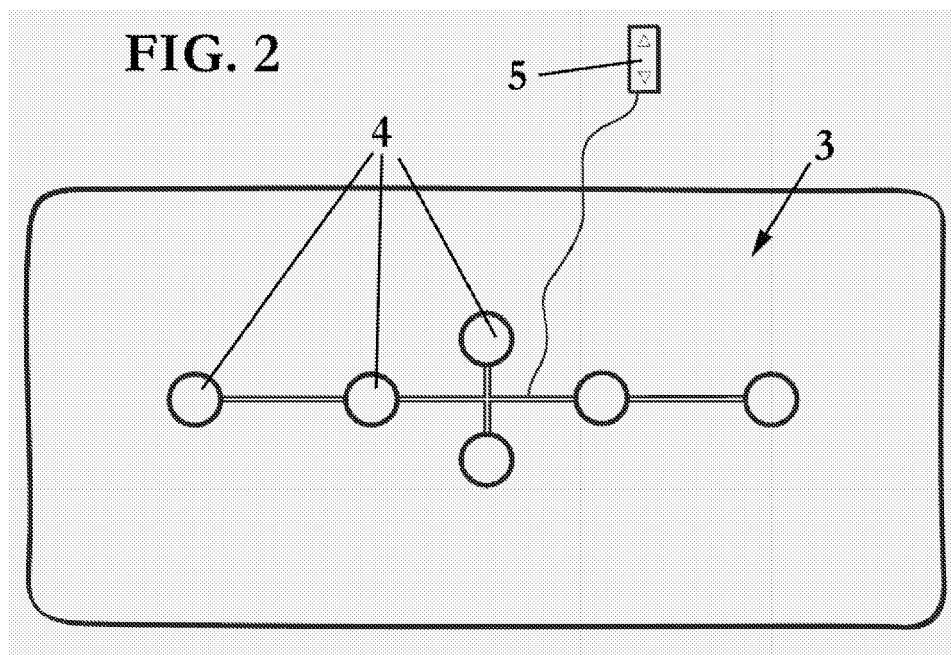
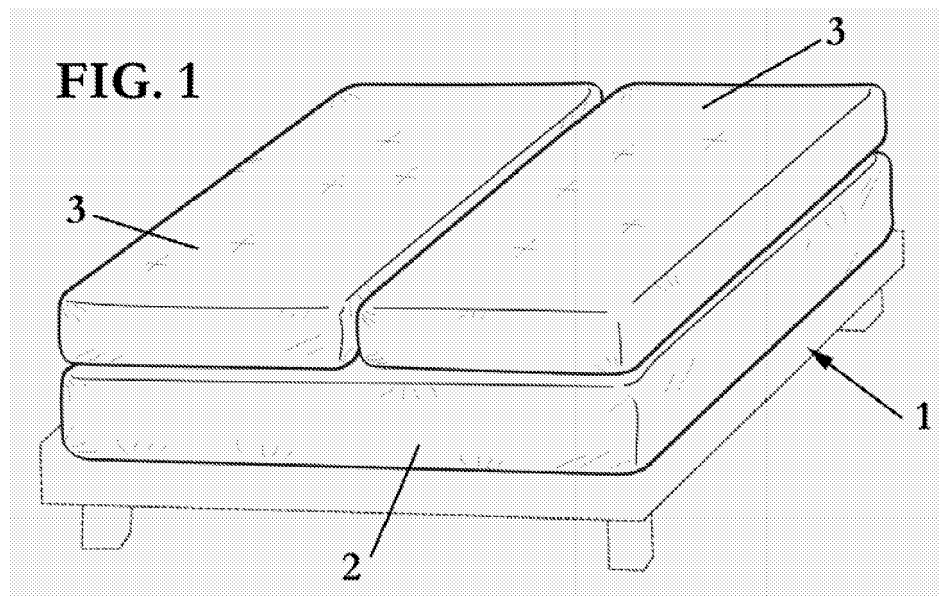


FIG. 3

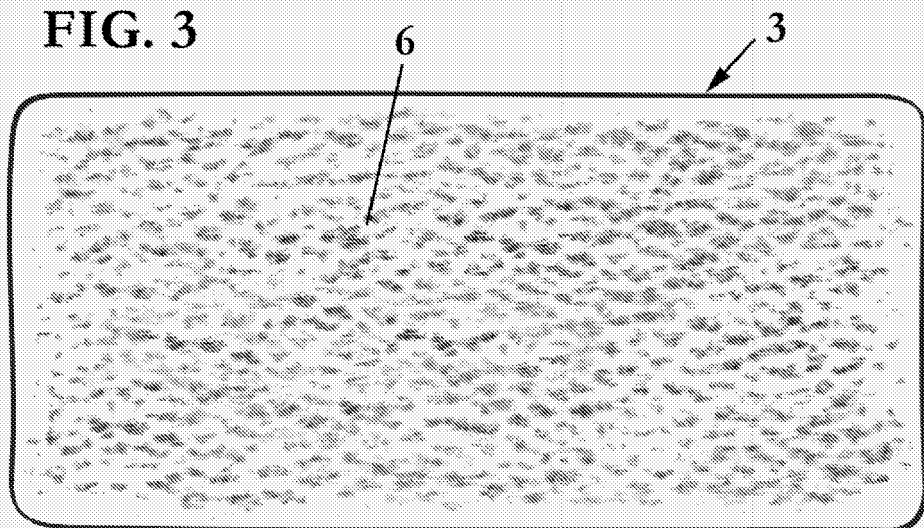


FIG. 4

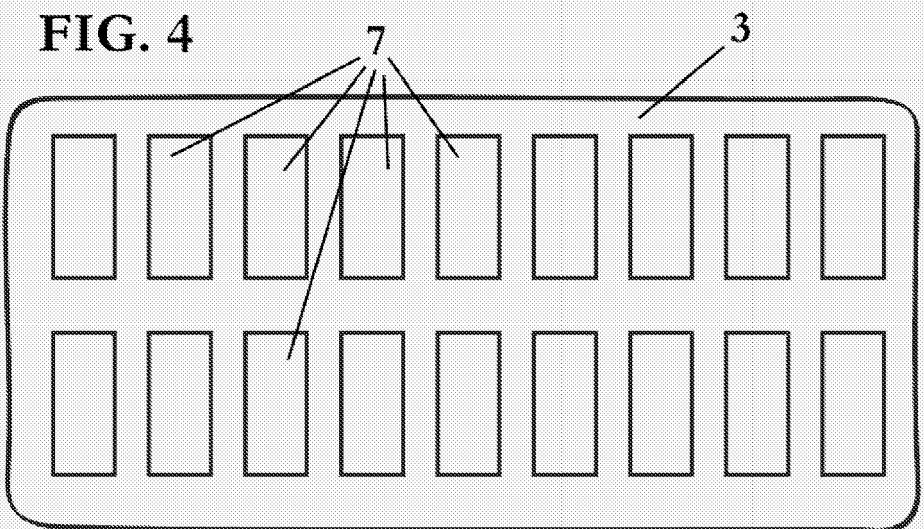


FIG. 5

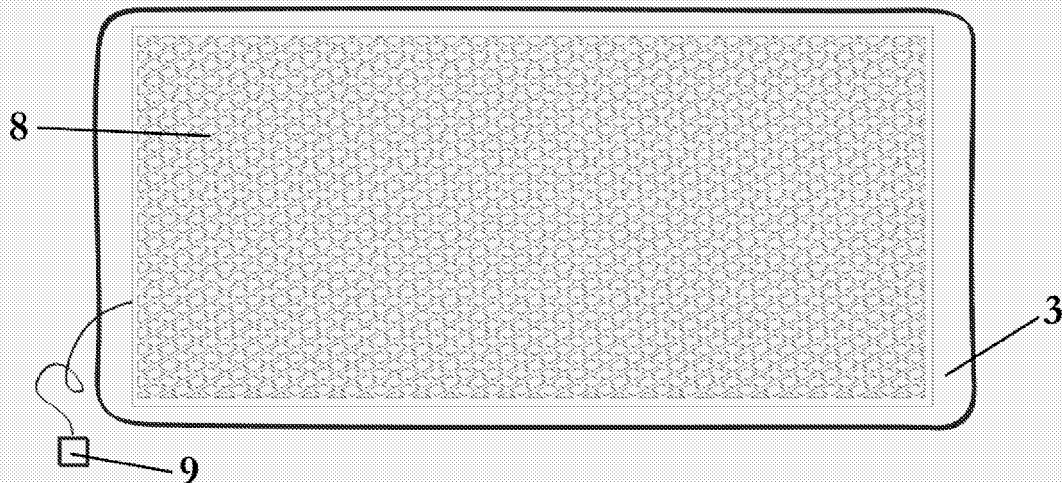
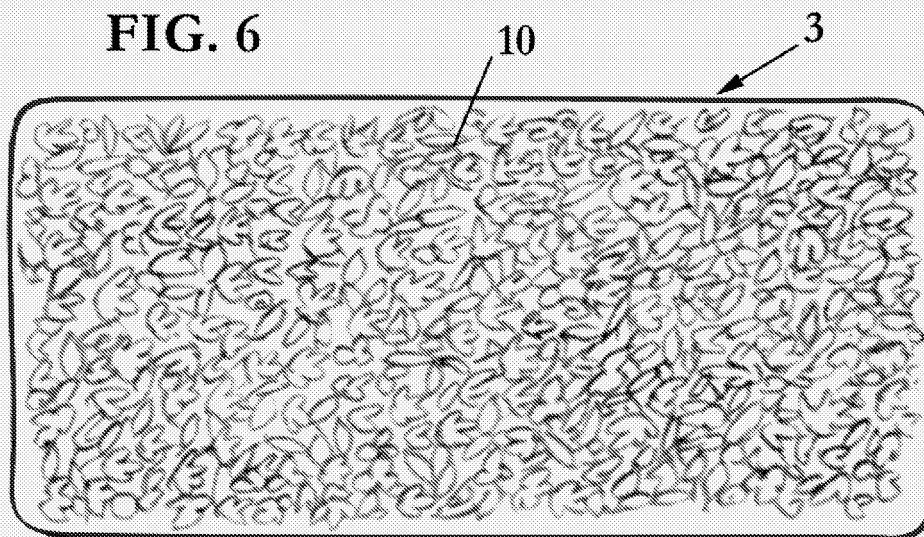


FIG. 6





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 10 9614

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 6 088 858 A (JUSTER ET AL) 18 July 2000 (2000-07-18) * column 4, line 16 - line 25; figures 1-6 *	1,2,6,7	A47C27/00 A61H1/00
X	----- US 6 256 821 B1 (BOYD DENNIS) 10 July 2001 (2001-07-10) * column 2, line 27 - column 3, line 44; figures 1-3B *	1,2,6,10	
X	----- DE 203 16 263 U1 (KAUFMANN, WALTER) 26 February 2004 (2004-02-26) * paragraphs [0003], [0004], [0006]; figures 1,2 *	1,2,7,8	
X	----- NL 1 012 932 C2 (HENDRIK ANKO SCHURINGA) 1 March 2001 (2001-03-01) * page 1, line 29 - page 4, line 23; figures 1,2 *	1,2,4,9	
X	----- DE 100 42 219 A1 (WOLTER, SIGRID; CONRADY, BURKHARD) 4 April 2002 (2002-04-04) * paragraphs [0021], [0022]; figure 1 *	1,7,8	TECHNICAL FIELDS SEARCHED (IPC)
X	----- EP 0 925 747 A (WENATEX EDELTEXTIL ERZEUGUNGSGESELLSCHAFT MNH; WENATEX EDELTEXTIL ERZE) 30 June 1999 (1999-06-30) * paragraphs [0003] - [0012]; figure 1 *	1,2,9	A47C A61H A47G
X	----- US 2002/111572 A1 (WATERS ABBY) 15 August 2002 (2002-08-15) * paragraphs [0011], [0012]; figure 2 *	1,5	
X	----- GB 2 256 147 A (STANLEY * CUTLER) 2 December 1992 (1992-12-02) * figures 1-3 *	1,5	
	----- -/--		
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 March 2006	Examiner Kus, S
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	

5

EPO FORM 1503 03.02 (P04C01)



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 10 9614

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	DE 23 38 167 A1 (BARG,AUGUST; BARG, AUGUST, 3071 SCHINNA) 6 February 1975 (1975-02-06) * the whole document *	1,9	
X	US 5 127 115 A (WILLIAMS ET AL) 7 July 1992 (1992-07-07) * column 3, line 30 - line 33; figures 1,2A,2B *	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 March 2006	Examiner Kus, S
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			

5

EPO FORM 1503 03/92 (P04C01)

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

EP 05 10 9614

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.

24-03-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6088858	A	18-07-2000	NONE	
US 6256821	B1	10-07-2001	US 5960496 A	05-10-1999
DE 20316263	U1	26-02-2004	NONE	
NL 1012932	C2	01-03-2001	NONE	
DE 10042219	A1	04-04-2002	DE 20018551 U1	29-03-2001
EP 0925747	A	30-06-1999	AT 1996 U1	25-03-1998
			DE 29722303 U1	19-02-1998
			DE 59807381 D1	10-04-2003
			DK 925747 T3	23-06-2003
			ES 2197452 T3	01-01-2004
US 2002111572	A1	15-08-2002	NONE	
GB 2256147	A	02-12-1992	CA 2067289 A1	04-11-1992
			DE 9207240 U1	20-08-1992
			FR 2675994 A1	06-11-1992
			FR 2715836 A1	11-08-1995
			FR 2715837 A1	11-08-1995
			HK 88695 A	09-06-1995
DE 2338167	A1	06-02-1975	NONE	
US 5127115	A	07-07-1992	CA 2074756 A1	14-03-1993