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(54) A mattress for a bed and the like.

(57) The invention relates to a mattress for a bed or the like which comprises a covering (2) in stitched textile material, shaped in a mattress conformation and constituted by an upper surface (3) and a lower surface (4) and a perimetral band (5) joined at edges thereof to the upper surface (3) and the lower surface (4). An inflatable air chamber made in an elastic and airproof material is placed internally of said covering (2) and at least two levels of padding (7a and 7b) are interpositioned one thereof between the air chamber and the upper surface (3) and another thereof between the air chamber and the lower surface (4).

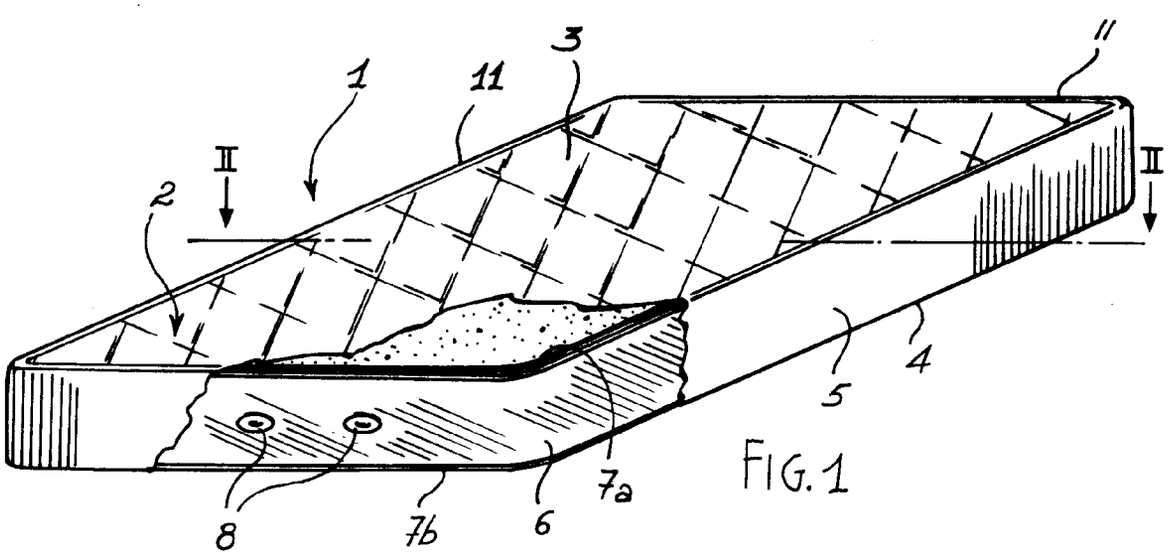

FIG. 1

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The invention relates to a mattress for beds, bedsettees and the like. In particular, the patent concerns a manually inflatable and deflatable air mattress, presenting structural and aesthetic characteristics very similar to those of traditional mattresses made in foam rubber or sprung.

The market already offers mattresses of small depth in order that despatch of pluralities of same is rendered more advantageous. These mattresses, once freed from their packing, which keeps them compressed, take on the normal size of a traditional mattress.

One of of the problems solved by the above-mentioned traditional mattresses, in consideration of their standard dimensions, is to enable a multiplicity thereof to be transported with a minimum resultant overall mass, leading, obviously to a containment of costs of transport, and facilitating the delivery of such mattresses to a customer's home. These mattresses are packed by being rolled and at the same time compressed to result in a reduction of mass. According to the processes in use, the packing of the mattress is carried out by initially reducing the depth thereof using means for pressing, and subsequently, before rolling the mattress, covering it with a sheath which conserves said mattress in its compressed state. The mattresses are unpacked, unrolled and allowed to expand to normal size at their destination.

While the above-described type of mattress represents a step forward with respect to traditional mattresses, it presents some drawbacks and limitations which concern especially the fact that it can only be re-expanded once. Indeed, once this operation has been carried out, say in a shop, it is not possible easily to perform the same compression operation so that said mattress can be subsequently transported in that state to a customer's home.

Further, though all traditional ranges of mattresses exhibit differing characteristics of firmness and rigidity, gauged according to various anatomic needs, no single mattress can be adjusted to a particular user's own needs.

The aim of the present invention is thus to obviate the above-mentioned drawbacks by providing a mattress for beds and the like which can be easily transported at any time and which, even after first use, can be returned to its initial small dimensions, for example so that it can be stored in a closet.

A further aim of the present invention is to obtain a mattress which can be adjusted to suit the degree of firmness required by a user.

The invention, as it is characterised in the claims that follow, solves the problem by providing a mattress for a bed or the like, which from a general point of view is characterized in that it comprises:

- a covering in stitched textile material, constituted by an upper surface and a lower surface and a perimetral band joined at edges thereof to said upper surface and said lower surface;
- an inflatable air chamber made in an elastic and airproof material and which is placed internally of said covering and which almost completely occupies the internal volume of the covering;
- at least two levels of padding, whereof one is interpositioned between the air chamber and said upper surface and another is interpositioned between the air chamber and said lower surface.

Further characteristics and advantages of the present invention will better emerge from the detailed description that follows, of an embodiment of the invention, illustrated in the form of a non-limiting example in the accompanying drawings, in which:

figure 1 is a perspective and partially sectioned view of the invention;

figure 2 shows a detail of the invention;

figure 3 shows a transversal section of the invention according to line II-II of figure 1;

figure 4 is a schematic representation of the invention when it is packed and rolled.

In the figures of the drawings, 1 denotes in its entirety a mattress for a bed or bed-settee or the like.

In figure 1 it can be seen that the mattress 1 comprises a covering 2 made in a stitched textile material, shaped in a form of a mattress, which covering 2 is constituted by an upper surface 3 and a lower surface 4 and a perimetral band 5 which is connected at one edge thereof to the upper surface 3 and and another edge thereof to the lower surface 4, by means of usual relief stitching for edges.

6 denotes a bladder, as shown in particular both in figure 1 and in figure 3, which affords an inflatable air chamber. The bladder 6 is made of elastic material and is, obviously airproof, and is positioned internally of the covering 2 such as to occupy almost all of the internal volume thereof. At least a layer of padding 7a is positioned between the upper surface 3 of the covering 2 and the bladder 6, while at least a layer of padding 7b is positioned between the lower surface 4 of the covering 2 and the bladder 6. Advantageously each layer of padding comprises a plurality of strati of padding, each stratus exhibiting different chemical-physical characteristics.

In particular, each of the at least a layer of padding 7a is fixed to the bladder 6 by means of an odourless glue and to the upper surface 3 of the covering 2 by means of stitching 17; also, each of the at least a layer of padding 7b is fixed to said bladder by means of an odourless glue and to the lower surface 4 of the covering 2 by means of stitching 17.

Advantageously, as is shown in figure 3, each at least a layer of padding 7a and each at least a layer of padding 7b is constituted (starting from the contact surface with the bladder 6) by a first layer of cloth 12, a second layer of rubber or resin 14 and a third layer

of padding material 13. Figure 4 shows how the mattress 1 with the bladder 6 deflated exhibits a depth of small volume such as to permit said mattress 1 to be rolled and tied in that state by means of a strip 15, and thus to be easily transportable. When required for use, it is sufficient to locate the one or more valve 8 situated at the perimetral band 5 and inflate the bladder therethrough (the same one or more valve 8 is usable also for the purpose of deflation of the bladder 6). Said one or more valve 8 is accessible through an aperture 9 present at at least a portion of said perimetral band 5 of the covering 2, which aperture 9 is provided with means for closing, which in figure 2 are represented by a zip.

Advantageously the bladder 6 exhibits also internally a plurality of transversal compartments 16 arranged in such a way as to facilitate a uniform inflating of the mattress 1.

The one or more valve 8 can be addressed by means of a normal hand pump in order to increase or reduce the firmness of the mattress, by adjusting the degree of inflation thereof, in order to obtain a desired anatomical characteristic.

Claims

1. A mattress for a bed or the like, characterized in that it comprises:
   a covering (2) in stitched textile material, shaped in a mattress conformation and constituted by an upper surface (3) and a lower surface (4) and a perimetral band (5) joined at edges thereof to said upper surface and said lower surface;
   an inflatable air chamber, made in an elastic and airproof material, placed internally of said covering (2) and which almost completely occupies an internal volume of the covering (2);
   at least two levels of padding (7a, 7b) whereof at least one is interpositioned between the air chamber and said upper surface (4) and at least another is interpositioned between the air chamber and said lower surface (3).

2. A mattress for a bed or the like, as in claim 1, characterized in that each said at least two layers of padding (7a, 7b) is constituted by a plurality of strati, solidly connected one to another, each thereof being made of a different material and exhibiting different chemical and physical characteristics; each of said at least two layers of padding (7a, 7b) being fixed at one side thereof to the bladder (6) by means of an odourless glue and at another side thereof to the upper surface (3) or the lower surface (4) of the covering (2) by means of stitching to said covering (2).

3. A mattress for a bed or the like, as in claim 2, characterized in that said at least two layers of padding (7a, 7b) are constituted, in an order starting from said one side in contact with said bladder (6), by a first stratus made of cloth (12), a second stratus made of rubber (14) and a third stratus made of padded material (13).

4. A mattress for a bed or the like, as in claim 2, characterized in that said at least two layers of padding (7a, 7b) are constituted, in an order starting from said one side in contact with said bladder (6), by a first stratus made of cloth (12), a second stratus made of resin (14) and a third stratus made of padded material (13).

5. A mattress for a bed or the like, as in claim 1, characterized in that the bladder (6) exhibits, at a zone comprised within said perimetral band (5), one or more valve (8) for introduction or expulsion of air.

6. A mattress for a bed or the like, as in claim 1, characterized in that the bladder (6) internally exhibits a plurality of transversal compartments (16) for facilitating inflation of said bladder (6).

7. A mattress for a bed or the like, as in claim 1, characterized in that the covering (2) exhibits at at least a portion of said perimetral band (5) an aperture (9) provided with means for internally acceeding the covering (2).

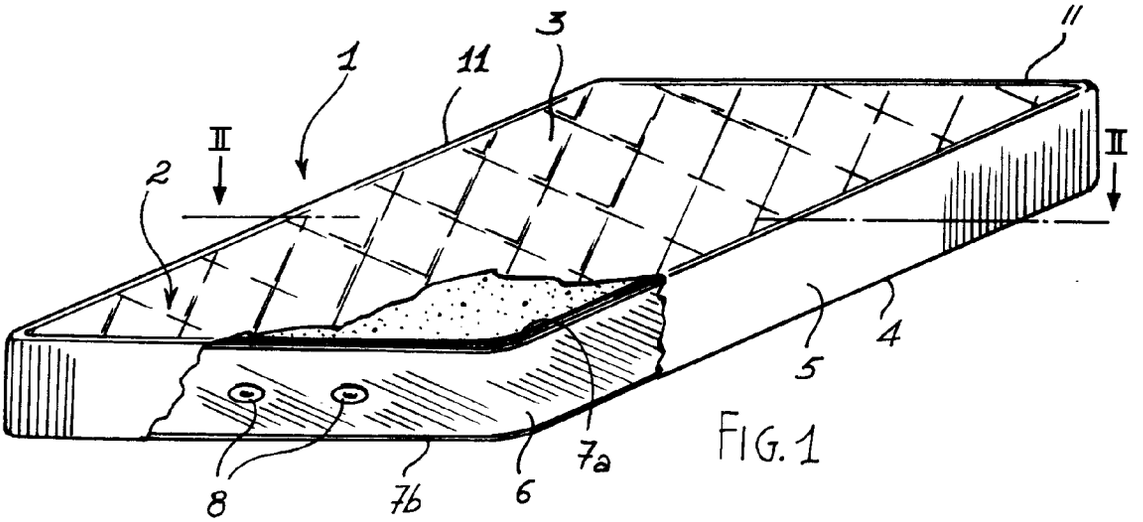

FIG. 1

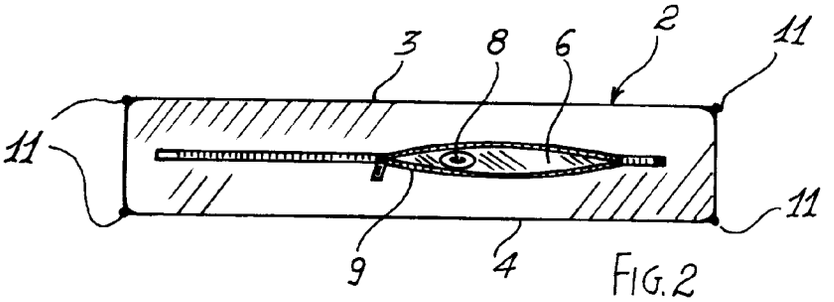

FIG. 2

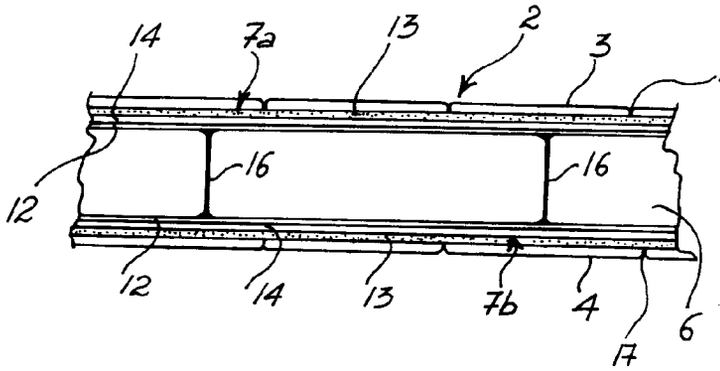

FIG. 3

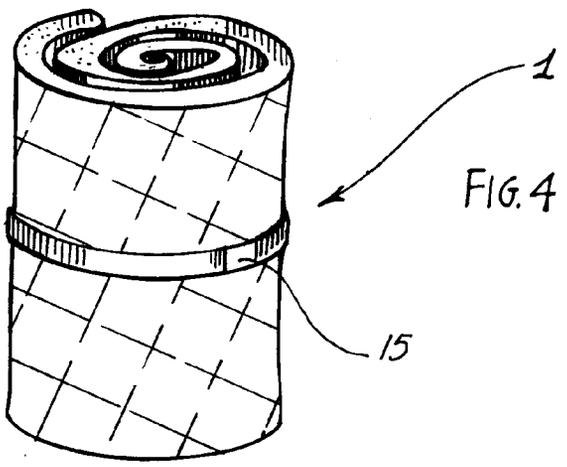

FIG. 4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 95 83 0102

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US-A-2 823 394 (SMITH) * column 1, line 45 - column 2, line 54; figures 1-4 *	1	A47C27/08 A47C27/04
A	US-A-4 463 466 (MAY ET AL.) * column 2, line 21 - column 3, line 49; figures 1,3 *	1,2	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

A47C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	7 July 1995	Mysliwetz, W

CATEGORY OF CITED DOCUMENTS

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