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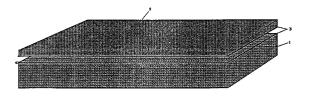
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- 64) Method for transforming a mattress with different yielding degree.
- (b) Mattress, characterized in that it is substantially composed of;
 - a base mattress forming an actual mattress body (1), which is provided on the perimeter of its upper surface with detachable coupling means (3) for:
 - an overlying mattress (2),
 - said overlying mattress (2) being interchangeable with another one (2) with different characteristics by said coupling means (3).



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The present invention relates to a method for transforming a mattress with different yielding degree, and to a mattress obtained with said method.

From the present state of the art mattress are known, which have a type of undercovering at one side thereof and a different type of undercovering at the opposite side thereof, i.e. for providing the user with a fresh surface namely a conductive surface on the summer (i.e. foam rubber at the one side thereof) and an opposite hot surface, namely a thermal insulated surface on the winter (i.e. a wool layer at the other side, thereof).

However, this solution isn't able to satisfy all the different user's needs, in particular as far as is concerned besides the conductivity (fresh, hot) also the point of view of the various yielding degrees (more or less hard mattress), which are desired in an appropriate manner by the user.

Therefore, in order to obviate the customers' needs, the manufactures are constrained to supply different types of mattress with different comfort degrees, namely different yielding degree, insulation degree etc.

In particular, the more difficult problem to be solved lies in the case in which the bed is devoted to receive continually different persons, as i.e. in the hotels, hospitals, clinics, boarding-schools etc.

In such a case in order to satisfy the user, the hotel-keeper should supply different beds and rooms with mattresses with different characteristic, namely with different confort degrees, from both the point of view of yielding (more or less stiff or yieldable) and the different insulation degrees and consequent different covering system (woll, foam rubber, haircloth etc.).

Therefore, the hotels wishing to satisfy fully the needs of their own clients, should have available a great lot of beds with mattresses with different characteristics, with the inconvenience that in such a case the most part thereof would be not utilizable or could not satisfy the client' need.

On the contrary if it is wanted to exploit at the utmost the available beeds, it should need to have available a considerable variety of different mattresses to be replaced on the various beds depending on the users' needs.

However, this would involve considerable spaces encumbrance and remarkable difficulty for sidplacement of the mattresses in the rooms, so as this solution would have a fully opposite effect for the chaos caused therewith.

Also the storage of more mattresses into each store room would be inconceivable for the encumbrance involved therewith.

This encumbrance together with the difficulties in the displacement would be caused also if the solution provides a warehouse room for the first aid for each floor, so as to satisfy the clients' needs for

each floor.

The scope of the present invention is to obviate the above mentioned inconveniences, by means of a mattress which is able to satisfy any confort need required by the client, without to change it with another one, more or less hard, more or less hot.

To accomplish this scope mattresses with openable covering are known, into which a generally thin sheet made of more or less stiff material, more or less insulated or also waterproof material as i.e. for the hospitals, may be applied.

However, this solution isn't able to satisfy fully the user's need, precisely due to the fact that the use of an undercovering between the mattress pillow-case and the same mattress isn't able to provide a suitable degree of variability of characteristics, as required for the degree of yelding insulation, perspiration etc.

This and other scopes are obtained as claimed by a mattress characterized in that it is substantially composed of;

- a mattress base forming the actual mattress body, which is provided on the perimeter of its upper surface with detachable coupling means for:
- an overlying mattress,
- said overlying mattress being interchangeable with another one with different characteristics by said coupling means.

In such a way, by this unthought and original creative contribution whose effect constitutes an immediate and notable technical progress, there are provided the following general advantages with respect to the prior art. thereof:

- simplification of the structural and constructive system;
- improvement of the constructive and structural characteristics;
- improvement of the operative effectiveness;
- higher reliability;
- longer operative duration;
- costs reduction;
- reduction of maintenance interventions.

More particulary, with this solution it is possible to satisfy any user's need due to the reduced encumbrance, taking into account that the mattress base will be always equal and that solely the type of the overlying mattress will vary, which mattress obviously will be manufactured with a suitable set of different characteristics thereof.

Advantageously, said overlying mattress is substantially thinner than said mattress base and pliable or rollable up, in order to reduce the encumbrance thereof at a minimum and to be able to put it also within a very limited encumbrance space.

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This and other advantages will appear from the following description of preferred embodiments with the aid of the accompanying drawings, whose items aren't intended to be limitative but rather by way of example only.

Fig. 1 shows a front view of the mattress assembled according to the invention;

Fig. 2 shows a perspective view of the mattress of Fig. 1 at a disassembled condition thereof.

With reference to the Figures, it is noted that the invention consists of a mattress characterized in that it is substantially constituted by;

- a mattress base forming the actual mattress body (1), provided on the perimeter of its upper surface with detachable coupling means (3) for
- an overlying mattress (2),
- said overlying mattress (2) being interchangeable with another one (2) with different characteristics by said coupling means (3).

Claims

- Mattress characterized in that it is substantially composed of:
 - a base mattress forming the actual mattress (1), which is provided on the perimeter of its upper surface with detachable coupling means (3) for;
 - an overlying mattress (2),
 - said overlying mattress (2) being interchangeable with another one (2) with different characteristics by said coupling means (3).
- 2. Mattress according to claim 1, characterized in that said mattress (2) is substantially made of a height lower than the height of said mattress base (1).
- 3. Mattress according to claim 1, characterized in that said mattress (2) is substantially flexible and/or pliable or rollable up.

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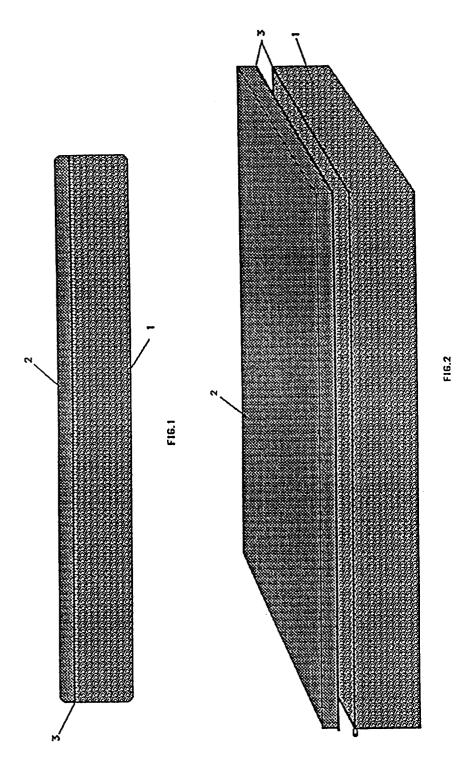
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EUROPEAN SEARCH REPORT

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ategory	Citation of document with inc of relevant pass		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
1	FR-A-754 879 (HAESEL * the whole document	.I)	1,2	A47C27/00 A47C31/12
′	CH-A-678 390 (ARDO) * column 2. line 14	 - line 35; figures *	1,2	
4	2, , , , , , , , , , , , , , , , , , ,		3	
:	DE-U-8 908 352 (PARA * page 3, last parag *	DIES) raph - page 4; figures	1-3	
\	CH-A-596 803 (SPROLL * the whole document		1	
	EP-A-0 032 805 (ASSO ENGINEERS)	CIATED SURGICAL	1,2	
	* page 8, line 1 - p figures *	age 9, line 10;		
				TECHNICAL FIELDS
				SEARCHED (Int. Cl.5)
				A47C
	The present search report has be	en drawn up for all claims		
		Date of completion of the search 26 MARCH 1993		Examiner VANDEVONDELE J.
X : par Y : par doc	CATEGORY OF CITED DOCUMEN ticularly relevant if taken alone ticularly relevant if combined with anot ument of the same category	E : earliér patent do after the filing d her D : document cited i L : document cited f	cument, but pub ate n the applicatio or other reasons	olished on, or n :
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