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(54) System for coupling a topper to a mattress

(57) A system for fastening a topper to a mattress is described, which comprises: one or more clips (7) connected to respective tapes (6), in turn secured to the edge of the topper (1); each clip comprises at least two parts: an engagement part (9) connected to a respective tape, and a housing part (10) to be connected to the side band of the mattress, into which the engagement part is inserted.

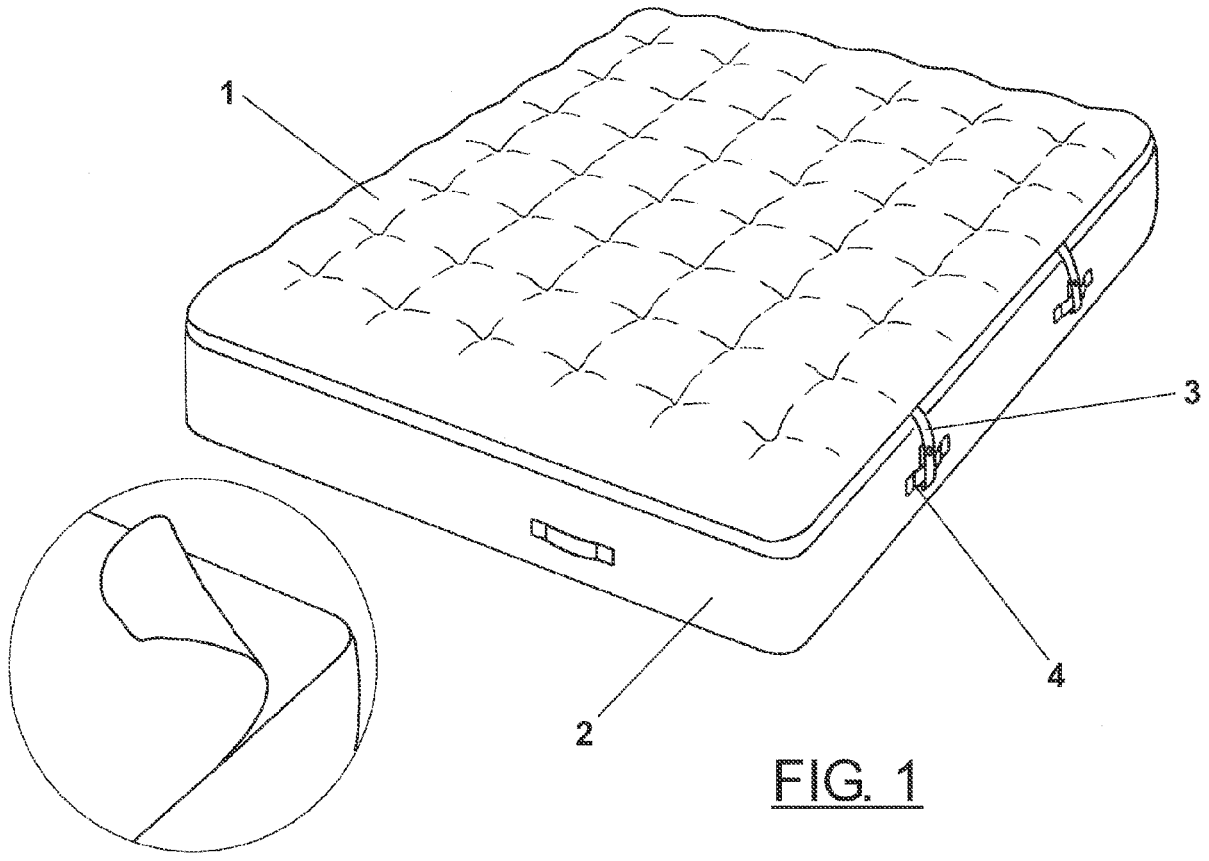

FIG. 1

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Description

Field of the invention.

[0001] The present invention relates to a system for fastening a topper to a mattress.

State of the art.

[0002] It is known that a topper can be placed over a mattress. As shown in Fig. 1, a topper 1 is an additional padding element to be laid on the mattress 2, and it may be either fixed, i.e. firmly connected to the upper side of the mattress, e.g. by stitching, or removable (see detail in the drawing), i.e. secured to the mattress by means of various systems. The example of Fig. 1 uses tapes 3 which are wound around the handles 4 at the sides of the mattress and buttoned up by means of a fastening button.

[0003] The fastening systems known in the art suffer from a number of drawbacks, in that they are difficult to operate and to adapt to mattresses of different types.

[0004] Other systems for fastening a topper to a mattress are also known, like those using velcro, which however gets noisy as the user moves in the bed, or those using rubber bands, which however must be hooked under every corner of the mattress.

Summary of the invention.

[0005] The present invention therefore aims at overcoming all the above-mentioned drawbacks by providing a system for fastening a topper to a mattress which is easy to use and to adapt to mattresses of different kinds.

[0006] The object of the present invention is a system for fastening a topper to a mattress, which comprises: one or more clips connected to respective tapes, in turn secured to the topper edge; each clip comprises at least two parts: an engagement part connected to a respective tape, and a housing part to be connected to the side band of the mattress, into which the engagement part is inserted.

[0007] In particular, the present invention relates to a system for fastening a topper to a mattress as described in detail in the claims appended to the present description.

Brief description of the drawings.

[0008] Further objects and advantages of the present invention will become apparent from the following detailed description of a preferred embodiment (and variants) thereof and from the annexed drawings, which are only supplied by way of non-limiting example, wherein:

Fig. 1 shows a mattress with a topper fastened thereto by means of a known system;
Figs. 2 and 3 show a clip with the respective tape in accordance with the invention;
Figs. 4 and 5 show the clip components;
Figs. 6 to 9 show the system for fastening the clip to the mattress.

[0009] In the drawings, the same reference numerals and letters identify the same items or components.

Detailed description of embodiments of the invention.

[0010] As shown in Figs. 2 to 5, according to the present invention the fastening system employs a number of clips 7 connected to respective tapes 6, which in turn are secured to the edge of the topper 1.

[0011] Each clip is preferably made up of two main parts: an engagement part 9 connected to a respective tape, and a housing part 10 to be connected to the mattress, into which the engagement part is inserted.

[0012] The engagement part 9 has an edge 9', to an inner side of which a flexible inner plate 9" is secured which is adapted to removably engage into the housing part 10. There is also a first slot 8 into which the tape 6 is inserted.

[0013] The housing part 10 features a second slot 13 in one edge to allow for the insertion of the engagement part 9. At the rear there is also an additional lip-type connector 14, at the centre of which there is an aeration hole 11.

[0014] The manner in which the topper is fastened to the mattress will now be described with reference to Figs. 6 to 9. Typically, the mattress is already provided with aeration holes 18 on its side band 2' (Fig. 6), which holes are delimited by rigid reinforcements. The lip-type clip 14 on the back of the housing part 10 is inserted into the aeration hole so as to connect it firmly to the hole 18 (Fig. 7). Aeration is thus still ensured through the hole 11.

[0015] The engagement part 9 is then inserted into the slot 13 of the housing part: during the insertion step, the flexible inner plate 9" flexes as it goes through into the slot 13 (Fig. 8), and then returns to a stable, slightly flexed position in which it stays hooked up to the housing 10 (Fig. 9). The presence of the engagement part in front of the hole 18 does not prevent aeration, thanks to the play between the two parts of the clip.

[0016] Through the tape 6 (not shown in the drawings) secured to the slot 8, the topper remains removably fastened to the mattress. In fact, it can be removed by simply unhooking the engagement part 9 from its housing 10.

[0017] The fastening system can be adapted to mattresses having different thickness, i.e. different distances between the aeration holes 18 and the upper edge, without having to change the fastening system itself, with the tapes left secured to the topper edge. It will be sufficient to employ elastic tapes, or non-elastic tapes adjustable in length, e.g. by means of a series of buttons.

[0018] The housing part 10 has a second slot 13 on one side only, and can rotate about its central axis because it is plugged into the hole 18. This makes the fas-

tening system suitable for fastening the topper to either side of the mattress, independently of the mattress side in use.

[0019] The mattress may be supplied and used without a topper. In this case, it can be fitted with dummy cover clips plugged into the holes 18, which can then be removed and replaced with real clips for fastening a topper at a later time. The dummy clip may consist of a real clip without the tape and the slot 8, or any other equivalent item.

[0020] Just like the real tape-equipped clip, the dummy clip does not prevent air from circulating; therefore, when the mattress is used without a fastened topper, the dummy clip and the housing part 10 will act together as a mattress aerator.

[0021] The above-described embodiment example may be subject to variations without departing from the protection scope of the present invention, including all equivalent designs known to a man skilled in the art.

[0022] For example, it would be possible to adopt other fastening systems providing the same function as the clip, e.g. with a snap-on buckle, a ring pair, frogs, a button to be inserted into the hole in the mattress, or magnet-type systems.

[0023] The advantages deriving from the application of the present invention are apparent, which are essentially due to the simplicity, practicality and effectiveness of the clips. Being inexpensive, the clip can be used on any mattress as an aerator and then be transformed, if necessary, into a topper fastening clip.

[0024] Since the clip can rotate, the topper can be secured to either side of the mattress.

[0025] From the above description, those skilled in the art can produce the object of the invention without introducing any further construction details.

Claims

1. A system for fastening a topper to a mattress, comprising:

- one or more clips (7) adapted to be connected to respective tapes (6), in turn adapted to be secured to the edge of the topper (1);
- each clip comprising at least two parts, an engagement part (9) adapted to be connected to a respective tape, and a housing part (10) adapted to be connected to the side band (2') of the mattress, the engagement part being inserted into said housing part.

2. A system for fastening a topper to a mattress according to claim 1, wherein said engagement part (9) comprises:

- an edge (9'), to an inner side of which a flexible inner plate (9") is secured which is adapted to removably engage into said housing part (10).

3. A system for fastening a topper to a mattress according to claim 1, wherein said engagement part (9) further comprises a first slot (8) adapted to receive the tape (6):

4. A system for fastening a topper to a mattress according to any one of the preceding claims, wherein said housing part (10) comprises:

- a second slot (13) in one edge to allow for the insertion of said engagement part (9);
- an additional lip-type connector (14) on its back, at the centre of which there is an aeration hole (11), said additional lip-type connector (14) being adapted to be plugged into an aeration hole (18) provided in the side band of the mattress.

5. A system for fastening a topper to a mattress according to any one of the preceding claims, wherein said tapes (6) are of the elastic or non-elastic type with or without length adjustability, so that the fastening system can be adapted to mattresses having different thickness.

6. A system for fastening a topper to a mattress according to claim 4, wherein said clip can rotate in said aeration hole (11) and is adapted to fasten the topper on either side of the mattress.

7. A topper adapted to be fastened to a mattress and comprising a fastening system according to any one of the preceding claims.

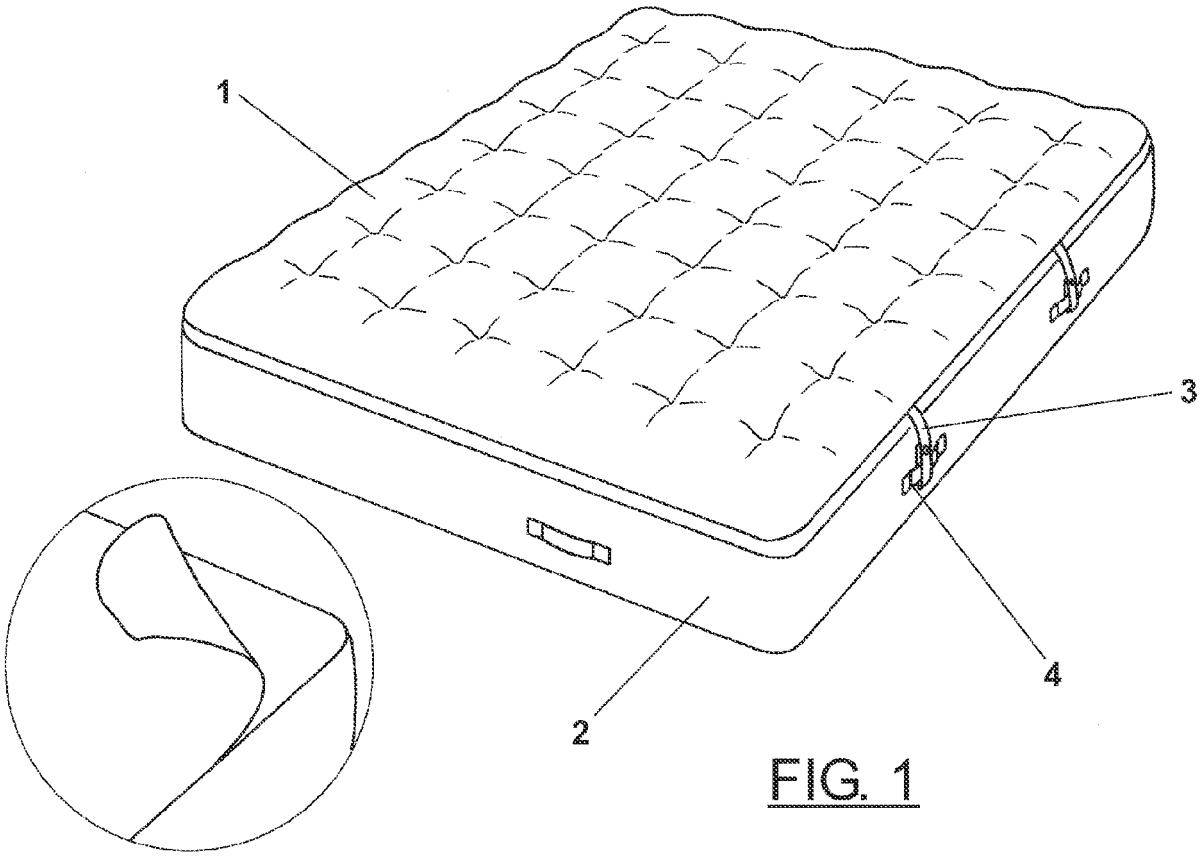


FIG. 1

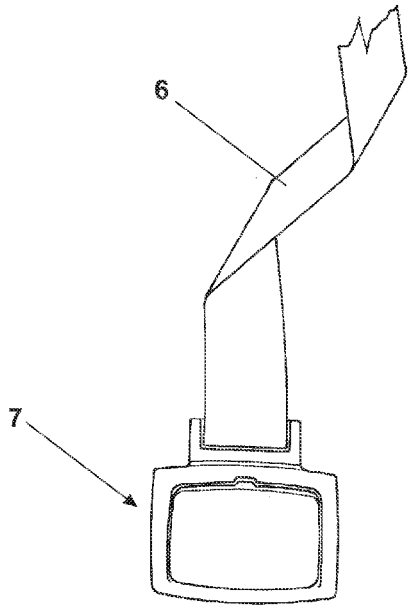


FIG. 2

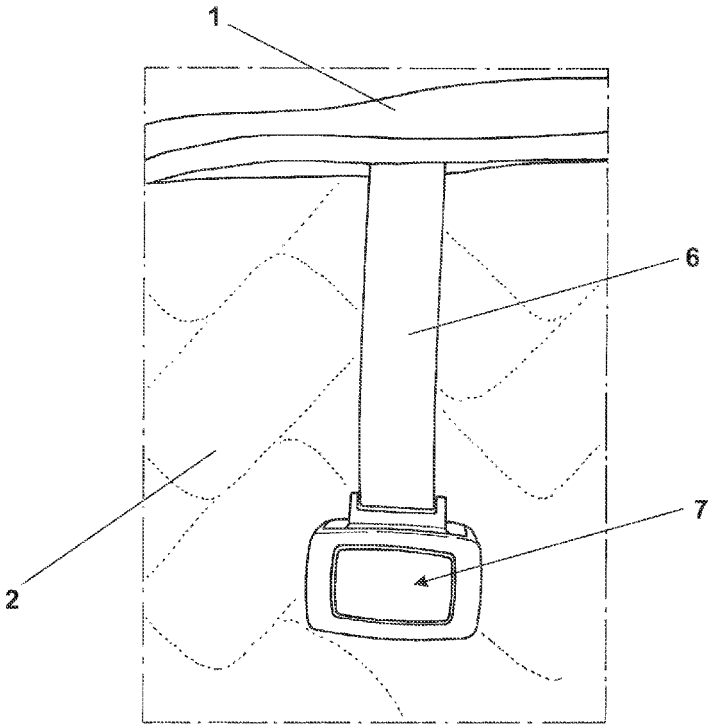
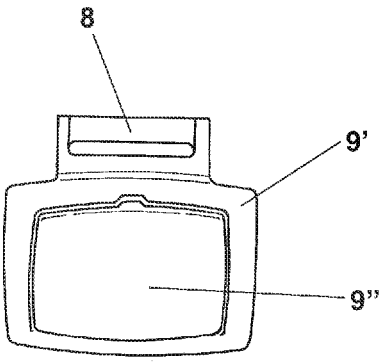


FIG. 3



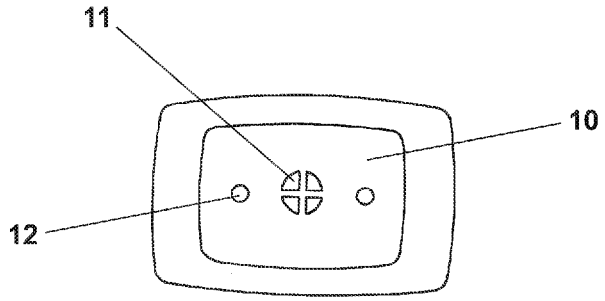


FIG. 4

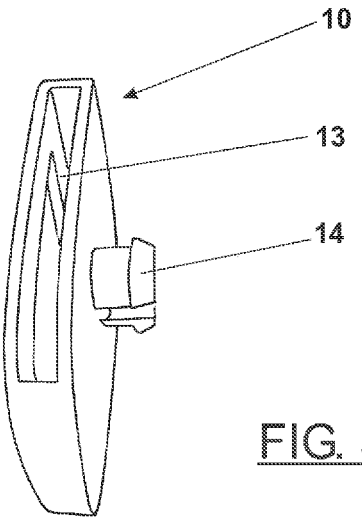
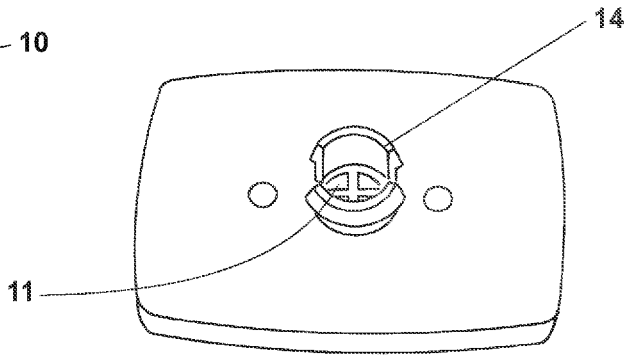


FIG. 5



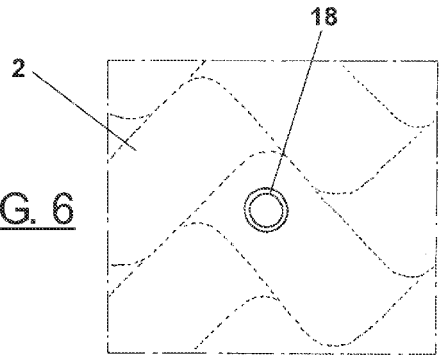


FIG. 6

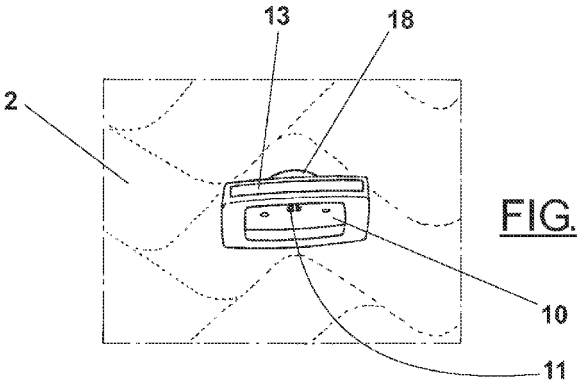


FIG. 7

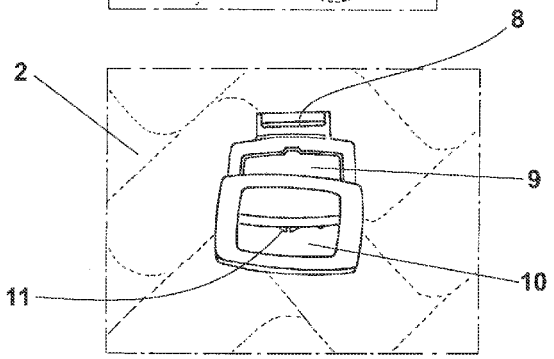


FIG. 8

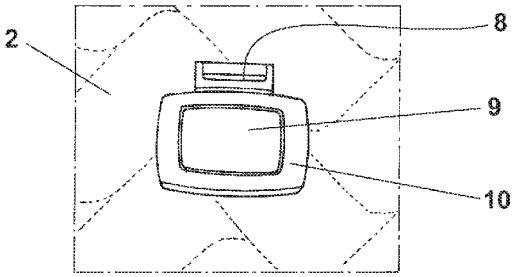


FIG. 9

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EUROPEAN SEARCH REPORT

Application Number
EP 11 16 2120

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 5 428 852 A (TENUTA DAVID [US] ET AL) 4 July 1995 (1995-07-04) * column 3 - column 4 * * figures 1-6 *	1,5,7	INV. A47C27/00
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	11 July 2011	MacCormick, Duncan

CATEGORY OF CITED DOCUMENTS

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11-07-2011

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