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**(54) BED LINEN COMPRISING A SECURING DEVICE**

(57) The invention relates to bed linen (12) comprising a securing device including an elastic strap (10) joined to securing bands (1 and 2) that can be adjusted to the width of the bed. The strap and bands are joined using a quick, click-type, female (5) and male (11) buckle securing system. The bands (1 and 2) include numbered perforations (13) joined using rivets or screws (8), with matching numbering, in order to facilitate adjusting the

same to the width of the mattress support or mattress. The elastic strap (10) and the bands are joined to flexible straps (4) comprising a sliding buckle (6) for added tightening. The elastic strap (10) is concealed in one end of the bed linen by means of a fold or hem (14), the two faces (15) of which are closed by means of a heat-fix tape or seam.

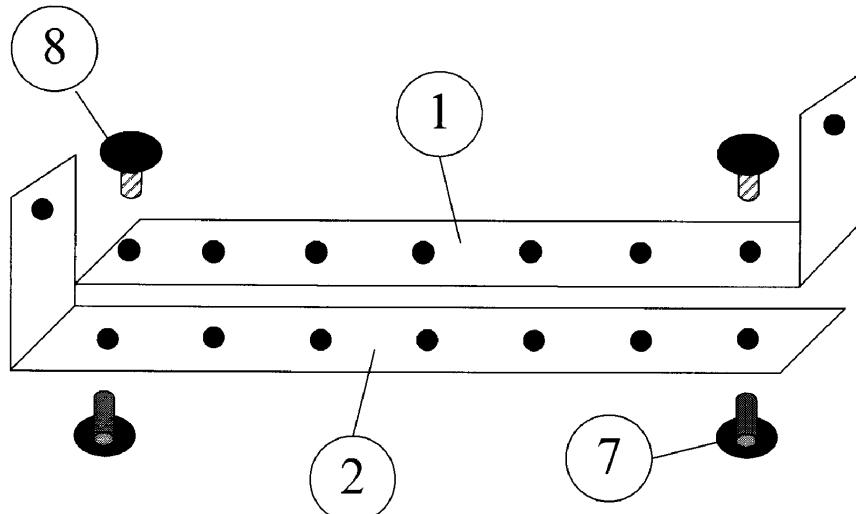


FIGURE 14

## Description

### Scope and field of the invention

**[0001]** The object of the present application invention patent, as its title indicates, refers to a bedding such as blanket, blanket, quilt, Nordic, sheet, etc., incorporating a device adaptable attachment to a bed frame or mattress and it allows, once installed in bed or resting place, rest easy without having to be aware of whether the linen is moved by the movement of people, avoid leaving the body exposed with the consequent body cooling.

**[0002]** This device can be used by people of any age, although it is primarily intended for use with children because, by their nature restless, moving continuously, uncovering when they sleep. Taking the body covered with the usual clothes for rest as cover, blanket, quilt, Nordic, sheet, etc., and this system ensures sleep clothed, ensures a comfortable and carefree rest on the ambient temperature.

**[0003]** The invention fits in the sector of the current needs of daily life as an accessory to sleep comfortably.

### State of the prior art

**[0004]** There are numerous fastening systems bedding as described in US2007240262 (A1), but the existence of records involved in an elastic band with straps and some that resemble in their configuration as described herein is unknown. The precedent cited describes a blanket a boxed adapted to be secured in the foot of the bed panel. While trying to solve the same problem addressed, the device is not adaptable to different widths as that of the invention described herein.

### Detailed description of the invention

**[0005]** The invention is a simplification of existing restraint systems bedding thanks to the arrangement of an elastic tape in said clothes, either cover, blanket, quilt, Nordic, sheet, etc., and which binds to a strapping adjustable clamping width of the mattress or bed mattress. The union or coupling may be by a rapid rate system click fastening, Velcro®, magnetic, pin, hook, ring or other attachment which may well be equally located on the mattress, the mattress, the couch, bed or any frame that serves binding. Adjusting the width of the bedspring or mattress it is made by fixing the strips, which may be telescopic, by incorporating perforations matching. To facilitate the adjustment procedure, the holes are numbered, making them match according to the width of mattress or cushion, commonly 80, 90, 105, 120, 135, 150, 160, 180 and 200 cm, can be adapted to any other measure. For large widths can incorporate a third strip or more intermediate strips. The bonding between strips is performed through rivets or nuts with threaded pipe. The voltage adjustment bedding is made using a sliding buckle arranged on the tape.

**[0006]** Further details and features of the present patent application will be put clear in the course of the description that is given below, in which schematically a preferred embodiment. These details are given by way of example, with reference to an implementation, but is not limited to the details there are exposed; therefore this description must be considered from an illustrative point of view and without any type of limitations on the scope of the present invention patent.

### Description of the drawings:

#### [0007]

Figures No.1 to 3 show the left and right strips (1)(2) and core (3).

Figure No.4 shows the flexible band (4).

Figures No.5 and 11 represent the female (5) and male (11) click buckles.

Figure No.6 depicts the sliding buckle (6).

Figures No.7 and No.8 show no tube nut (7) and screw (8).

Figure No.9 shows a rivet (9) or connection between tube and screw nut.

Figure No.10 figure represents the elastic band (10).

Figure No. 12 shows the bedding (12) with the fold or hem (15) and sewing or two-sided thermal adhesive tape (14).

Figure No. 13 shows a general view of the device when the elements of the preferred embodiment described configuration involved.

Figure No.14 depicts a form of union between strips (1) and (2) by rivets or screws (7) and (8).

Figure No.15 shows a form of bonding when three strips (1) involved, (2) and (3).

Figures No.16 and 17 show a way of attaching the strips (1) and (2) to the tapes (4) at its end by rivet or torque screw-nut tube (9) and the female buckle click (6).

Figure No.18 shows a way to hide the elastic band (10) in the bedding by bending one end and placing two-sided thermal adhesive tape (14).

### Representation of numerical references:

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#### [0008]

(1) Strapping left.

(2) Strapping right.

(3) Central strip.

(4) Flexible ribbon.

(5) Female buckle.

(6) Sliding buckle.

(7) Tube nut.

(8) Screw.

(9) Rivet.

(10) Elastic tape.

(11) Buckle male.

- (12) Bedding.
- (13) Drilling.
- (14) Sewing or two-sided thermal adhesive tape.
- (15) Fold or hem.
- (16) Central strip.

#### Preferred embodiment

**[0009]** In a preferred embodiment of the invention, the elastic band (10) is arranged concealed in one end of the bedding (12), preferably the blanket, to be performed in this a fold or hem (15) and closed by seam or two-sided thermal adhesive tape (14). In this preferred embodiment the elastic band (10) is attached to the straps (1) and (2) by flexible belts (4), preferably polypropylene, on which a rapid system is arranged at its ends in this case fixing is click type, consisting of a buckle female (5) and one male (11). In the execution chosen the slide buckle (6) is made of plastic and are available in flexible belt (4) to adjust tension of the bedding (12).

**[0010]** Adjusting the width of the bedspring or mattress is made by fixing the left strip (1) to the right (2), in this case overlapped, by matching the perforations (13) incorporating. The bonding between strips (1) and (2) is via one or more nuts tube (7) and screws (8), placing them once mounted under the mattress. To facilitate the adjustment procedure, the holes are numbered, making them match according to the width of the mattress or cushion, commonly 80, 90, 105, 120, 135, 150, 160, 180 and 200 cm, can be adapted to any other measure. In this embodiment a third intermediate strip (3) is disposed. The strips can be made of plastic, PVC, aluminium, etc. with thicknesses between 2 and 5 mm, a width of 40 mm and a length of 600 mm. The perforations in this case are 8 mm in diameter, distributed from left to right at the distances of 32, 68, 80, 130, 168, 268, 330, 430, 518, 530 and 568 mm.

**[0011]** It is not considered necessary to extend this description for any expert in the art to understand the scope of the invention and the advantages derived therefrom.

**[0012]** Stated for all effects, the object that constitutes the present application for patent of invention may be made all such variations and modifications of detail the circumstances and practice might call, as long as the variants to be introduced is not alter or modify the essence that is summarized in the following claims.

#### Claims

1. Bed linen (12) with fixing device characterized box spring or mattress because it has an elastic band (10) that binds to a fastening strip (1) and (2) adjustable width of the mattress or mattress bed.
2. Bed linen with fixing device mattress or mattress according to claim **characterized in that** the bond between the elastic band (10) and the straps (1) and

(2) is through a quick fastening system.

3. Bed linen with fixing device mattress or mattress according to claim **characterized in that** the rapid fixing system type is click.
4. Bed linen with fixing device mattress or mattress according to claim **characterized in that** the rapid fixing system click type consists of a female (5) and one male (11) buckle.
5. Bedding with attachment device mattress or mattress according to claim one because the adjustment of the straps (1) and (2) the width of the box spring or mattress is performed by matching perforations (13) made in the strips (1 and 2).
6. Bed linen with fixing device mattress or cushion according to the first claim characterized fifth because the strips (1) and (2) incorporate markings or enumerations to facilitate adjustment to the width of box spring or mattress by matching the numberings marks or both strips (1) and (2).
7. Bed linen with attachment device mattress or cushion according to claim fifth **characterized in that** the connection between strips (1,2) is performed by at least one rivet (9).
8. Bedding with attachment device mattress or mattress according to claim fifth **characterized in that** the connection between strips (1) and (2) is via one or more nuts tube (7) and screws (8).
9. Bedding with attachment device mattress or mattress according to any of the first and second claims **characterized in that** the elastic belt (10) is attached to a flexible belt.
10. Bedding with attachment device mattress or mattress of any of the first and ninth claims, **characterized in that** the elastic belt (10) or the flexible band (4) incorporates a sliding buckle (6) to adjust the tension of bedding strapping (1) and (2).
11. Bedding with fixing device mattress or cushion according to the first claim **characterized in that** the elastic belt (10) is disposed at one end of the bedding.
12. Bedding with fixing device mattress or mattress according to claim or eleventh characterized that the elastic belt (10) is hidden or integrated into the bedding.
13. Bedding with fixing device mattress or cushion according to claim twelfth **characterized in that** the elastic belt (10) is hidden or integrated into the bed

through a fold or hem (15).

14. Bedding with attachment device mattress or mattress according to the preceding claim **characterized in that** the fold or hem (15) is closed by sewing 5 or heat adhesive double sided tape (14).

15. Bedding with attachment device mattress or mattress according to claim **characterized by** the presence of one or more intermediate strips (3), in order 10 to adapt the device to larger widths mattress or mattress.

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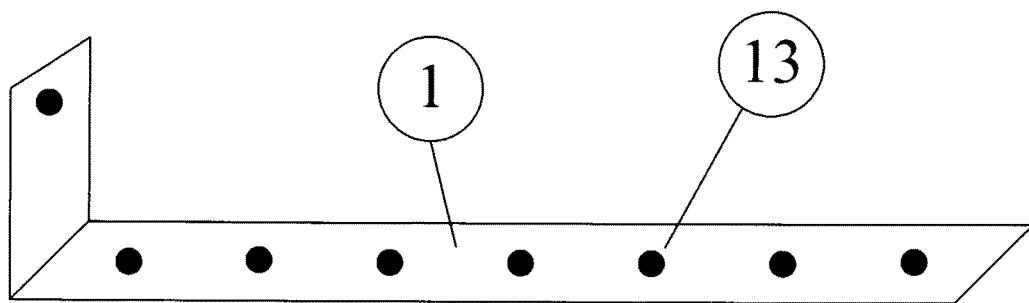


FIGURE 1

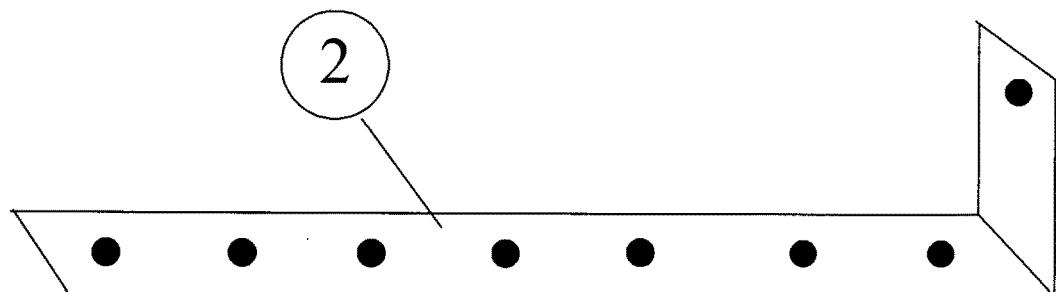


FIGURE 2

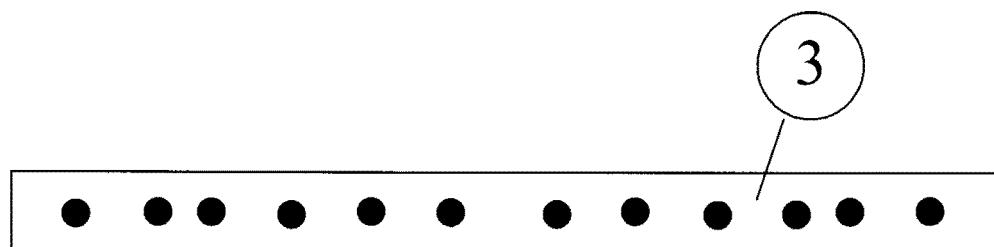


FIGURE 3



FIGURE 4

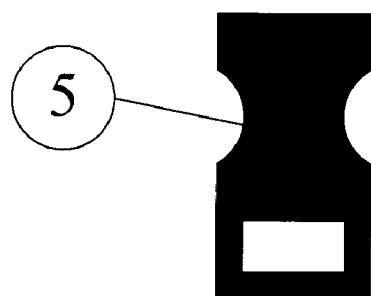


FIGURE 5

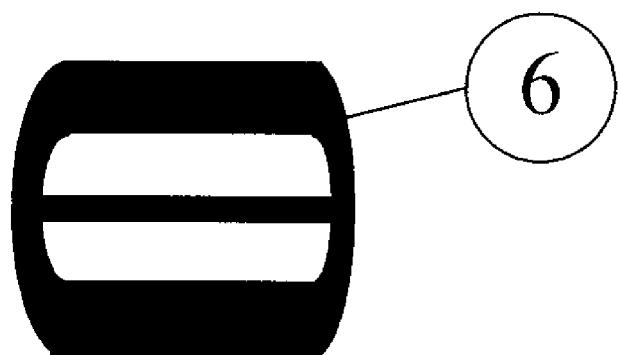


FIGURE 6

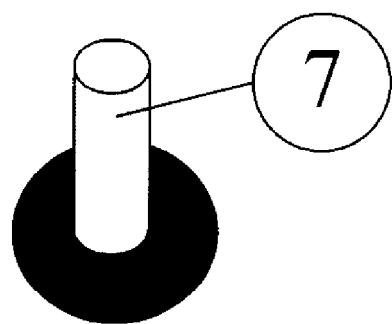


FIGURE 7

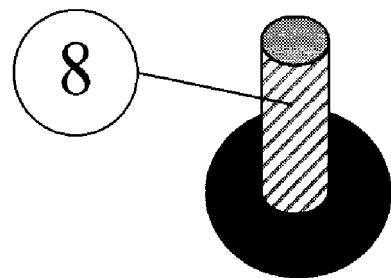


FIGURE 8

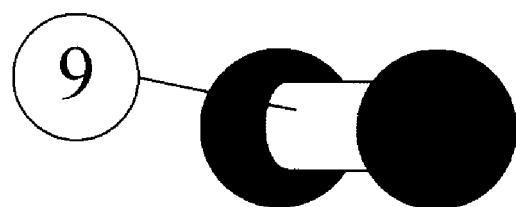


FIGURE 9



FIGURE 10

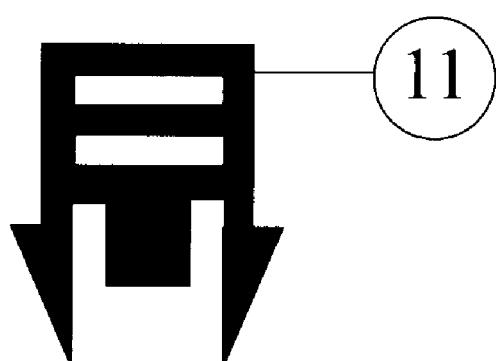


FIGURE 11

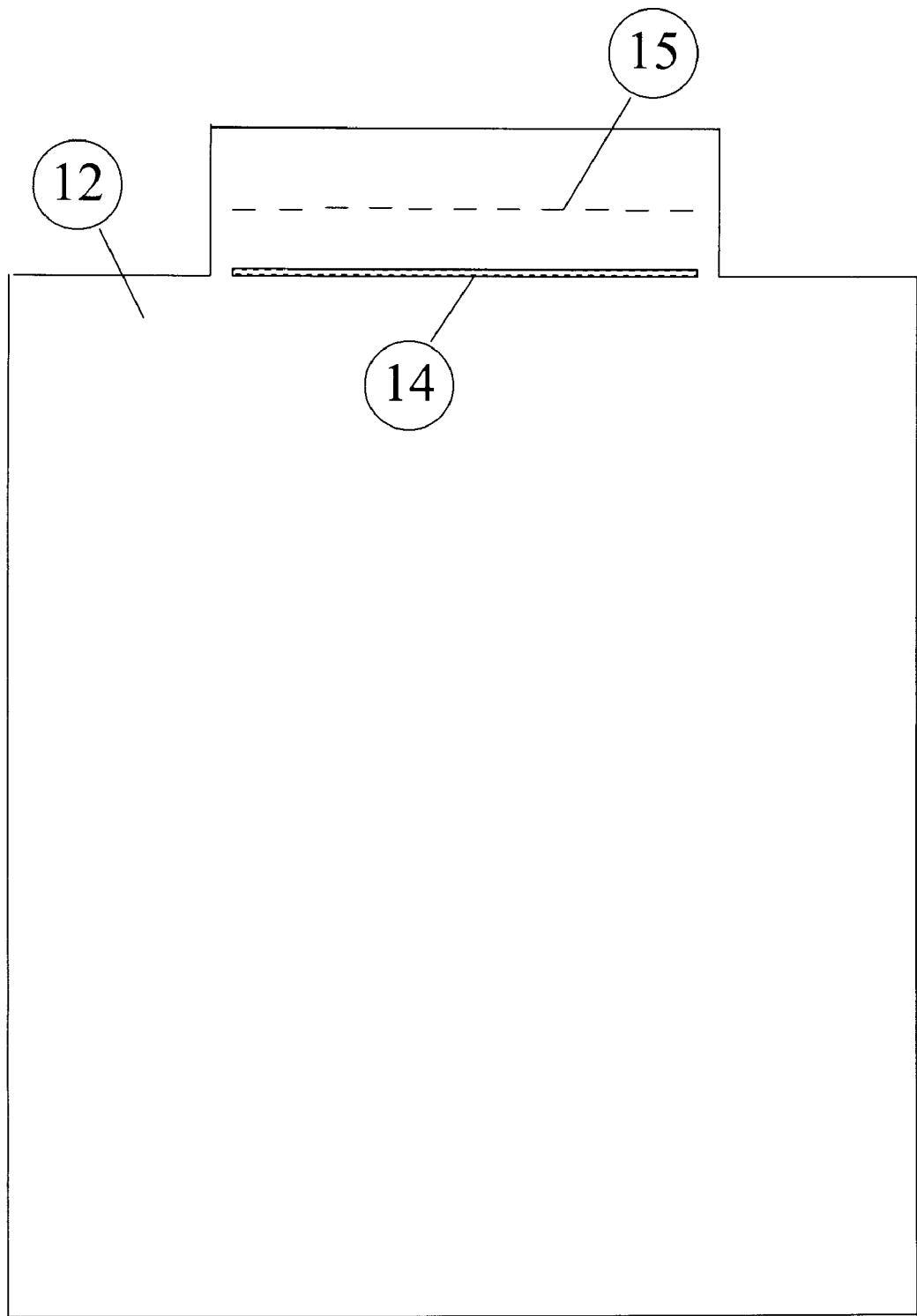


FIGURE 12

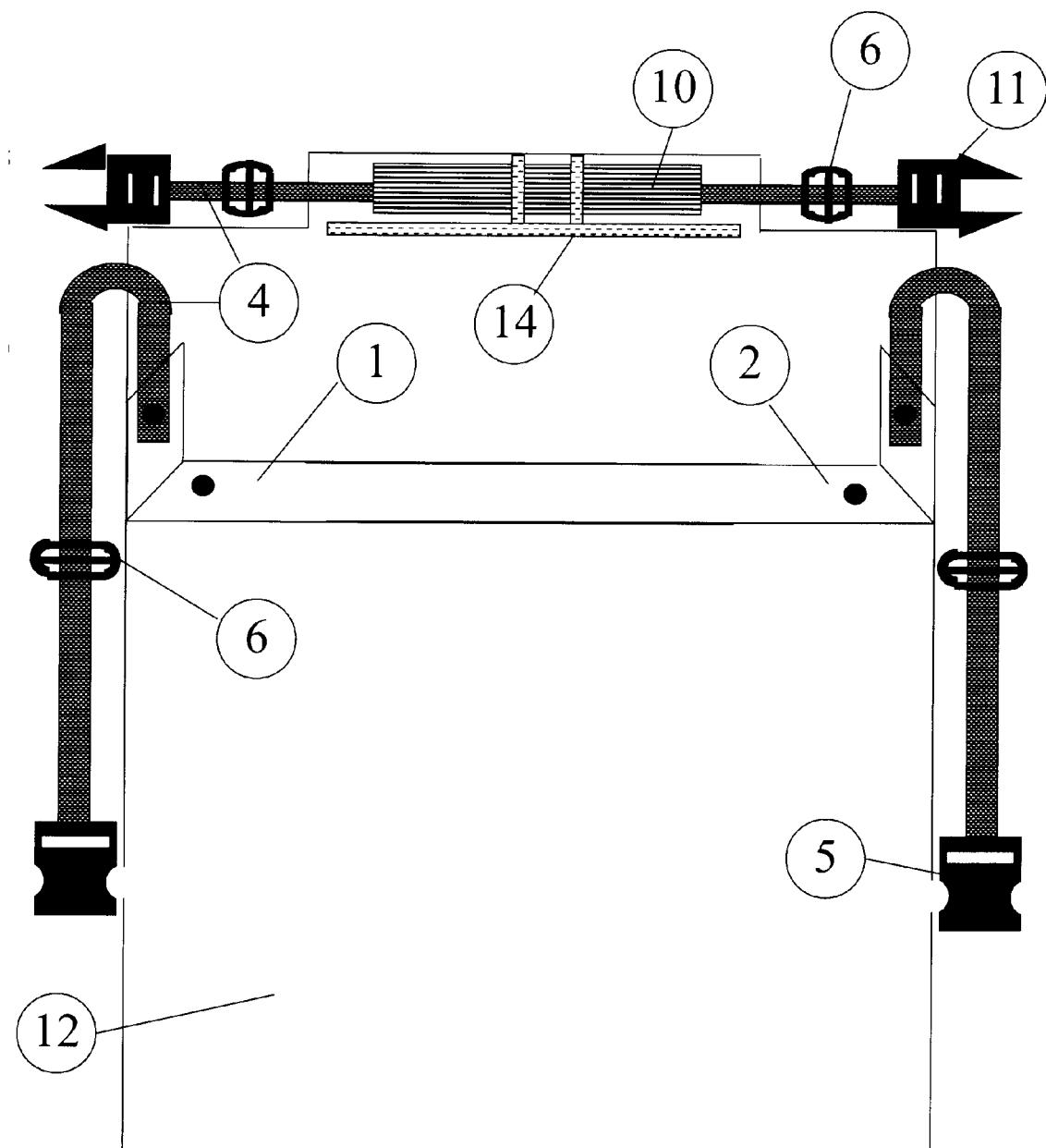


FIGURE 13

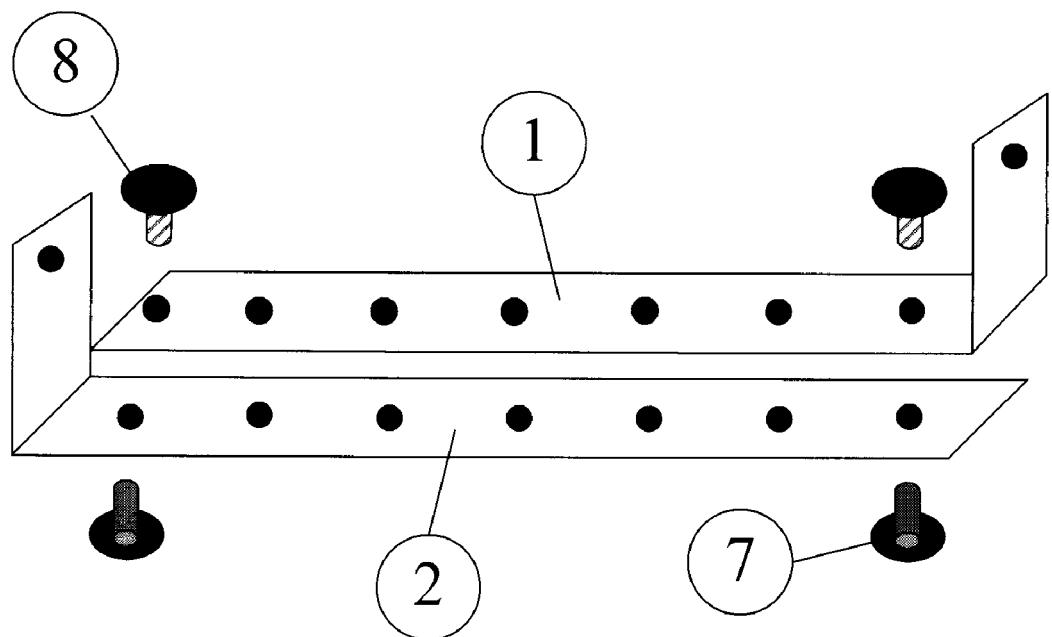


FIGURE 14

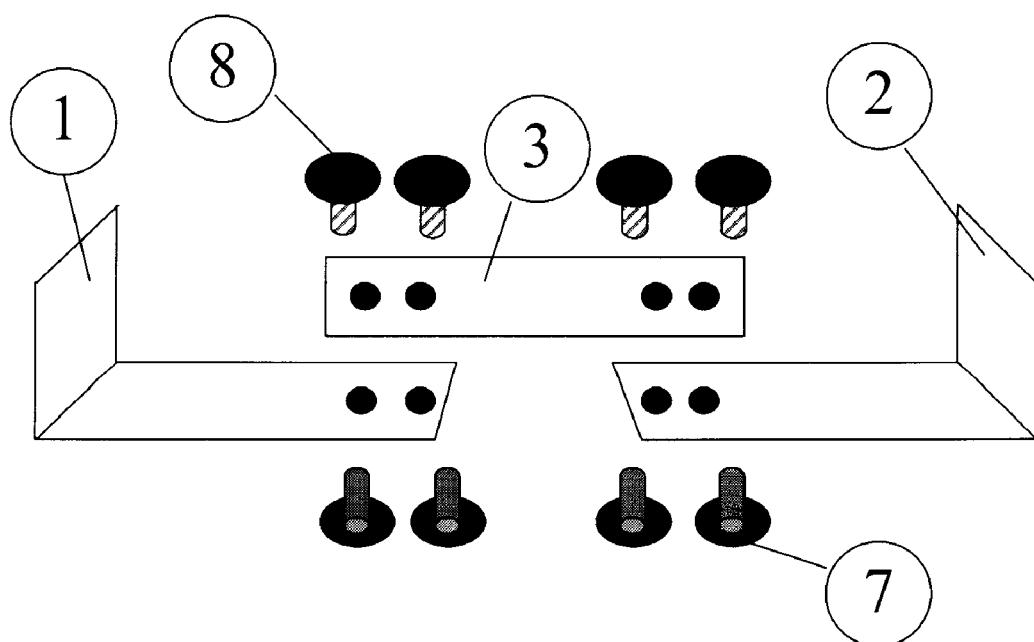


FIGURE 15

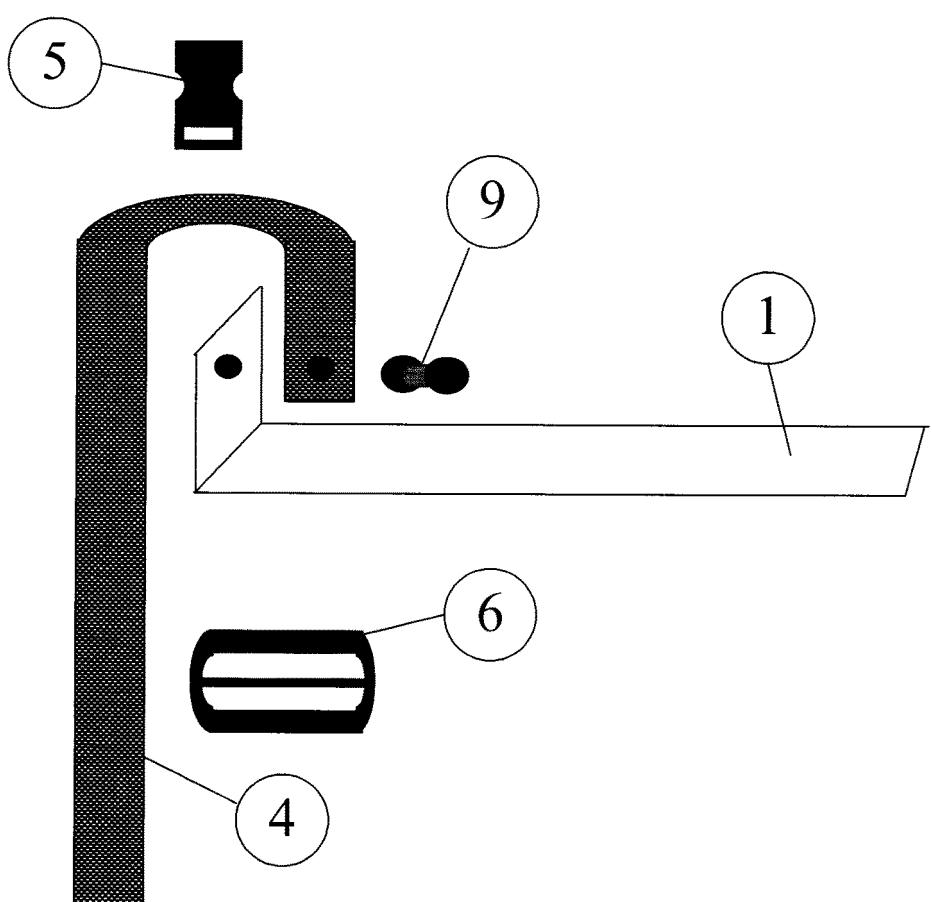


FIGURE 16

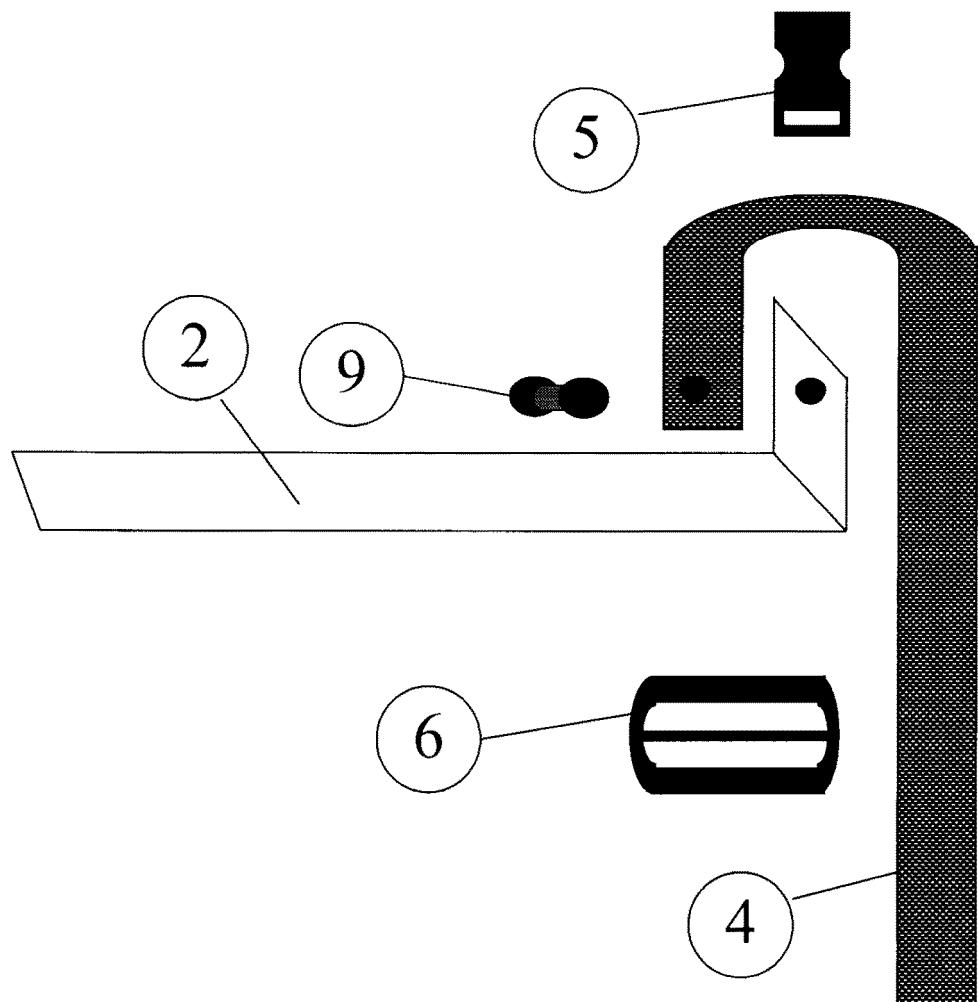


FIGURE 17

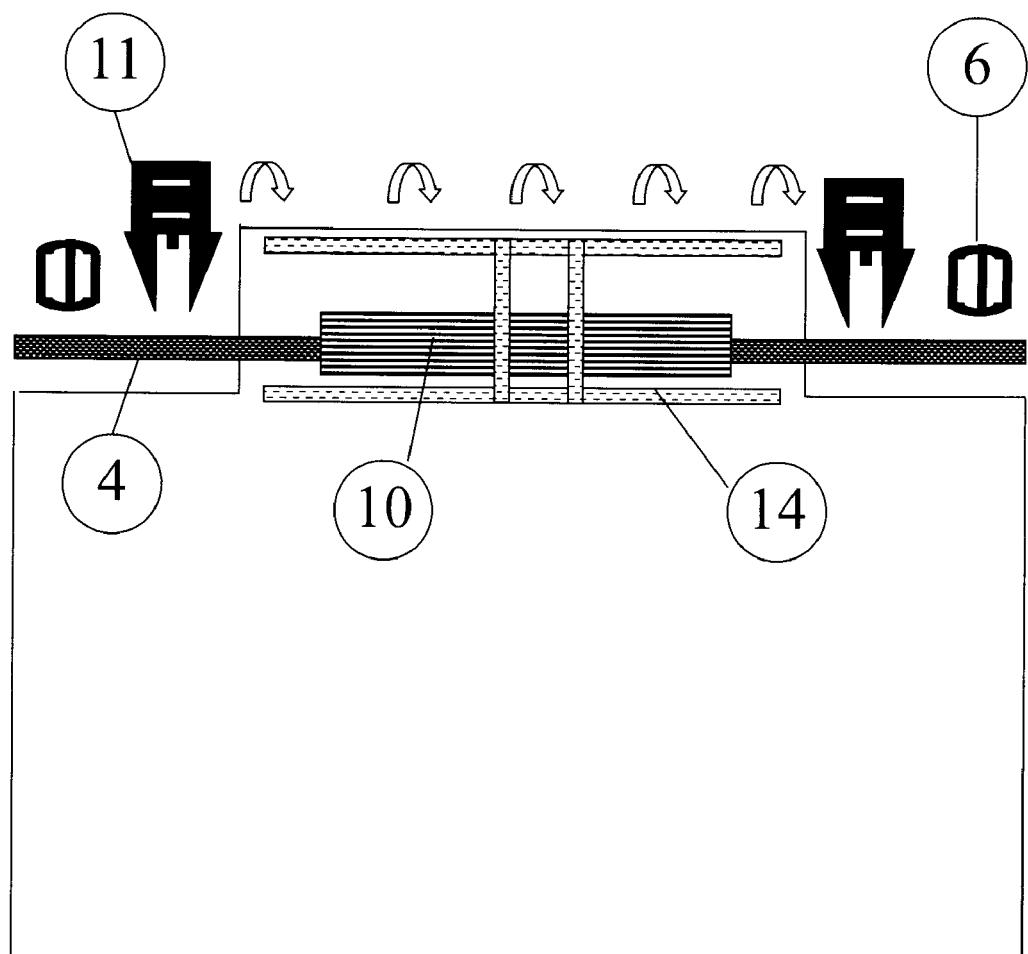


FIGURE 18

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/ES2014/000221

5	A. CLASSIFICATION OF SUBJECT MATTER		
	<p><b>A47G9/02</b> (2006.01)  <b>A47C21/02</b> (2006.01)</p> <p>According to International Patent Classification (IPC) or to both national classification and IPC</p>		
10	<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols)</p> <p>A47G, A47C</p>		
15	<p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p>		
	<p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)</p> <p><b>EPODOC, INVENES</b></p>		
20	C. DOCUMENTS CONSIDERED TO BE RELEVANT		
	Category*	Citation of document, with indication, where appropriate, of the relevant passages	
25	A	US 6233764 B1 (ORR CATHY K) 22/05/2001, column 2, lines 1 - 9; column 2, lines 28 - 38; column 2, line 65 - column 3, line 7; abstract; figures.	1-15
30	A	US 4975997 A (MISIURA THERESA R ET AL.) 11/12/1990, column 1, lines 41 - 48; column 2, lines 20 - 24; column 2, lines 59 - 66; abstract; figures.	1-15
35	A	GB 558402 A (JACOB SCHWARZ) 04/01/1944, page 3, lines 29 - 58; page 3, lines 80 - 101; figures.	1-15
	A	US 5377391 A (FOSTER WILBUR A) 03/01/1995, column 1, line 52 - column 2, line 5; abstract; figures.	1-15
40	<p><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.</p>		
	<p>* Special categories of cited documents:      "A" document defining the general state of the art which is not considered to be of particular relevance.      "E" earlier document but published on or after the international filing date      "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)      "O" document referring to an oral disclosure use, exhibition, or other means.      "P" document published prior to the international filing date but later than the priority date claimed</p>		
45		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
50		"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other documents, such combination being obvious to a person skilled in the art	
		"&" document member of the same patent family	
55	Date of the actual completion of the international search 31/03/2015	Date of mailing of the international search report <b>(01/04/2015)</b>	
	Name and mailing address of the ISA/  OFICINA ESPAÑOLA DE PATENTES Y MARCAS Paseo de la Castellana, 75 - 28071 Madrid (España) Facsimile No.: 91 349 53 04	<p>Authorized officer E. Balsera Porris</p> <p>Telephone No. 91 3493260</p>	

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## INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2014/000221

5	C (continuation).	
	DOCUMENTS CONSIDERED TO BE RELEVANT	
10	Category *	Citation of documents, with indication, where appropriate, of the relevant passages
	A	US 2002062522 A1 (DECKERT APRIL K) 30/05/2002, abstract; figures.
15	A	GB 314254 A (EDWARD RANYELL) 27/06/1929, the whole document.
20	A	WO 0182754 A1 (SCHIEBERL DANIEL L) 08/11/2001, abstract; figures.
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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES2014/000221

## Information on patent family members

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	Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
	US6233764 B1	22.05.2001	NONE	
10	US4975997 A	11.12.1990	NONE	
	GB558402 A	04.01.1944	NONE	
15	US5377391 A	03.01.1995	NONE	
	WO0182754 A1	08.11.2001	US6295670 B1 AU5949701 A	02.10.2001 12.11.2001
20	US2002062522 A1	30.05.2002	NONE	
	GB314254 A	27.06.1929	NONE	
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**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- US 2007240262 A [0004]