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(54) Baby rest area

(57) This invention consists of a baby rest area that allows quick assembly, is very compact when dismantled, is extremely light, and maintains a very high level of safety for the baby. The invention is characterised by the use of bars (2) with means of connection (2.1;2.2) on their smaller edges and on one of the larger sides. The first means (2.1) of connection allow the concatenation of the bars and the second (2.2) allow their securing to a cloth base (1). The cloth base (1) is designed to be supported on a soft element such as the mattress of a bed and has at the same time elements (3) to secure it to this bed.

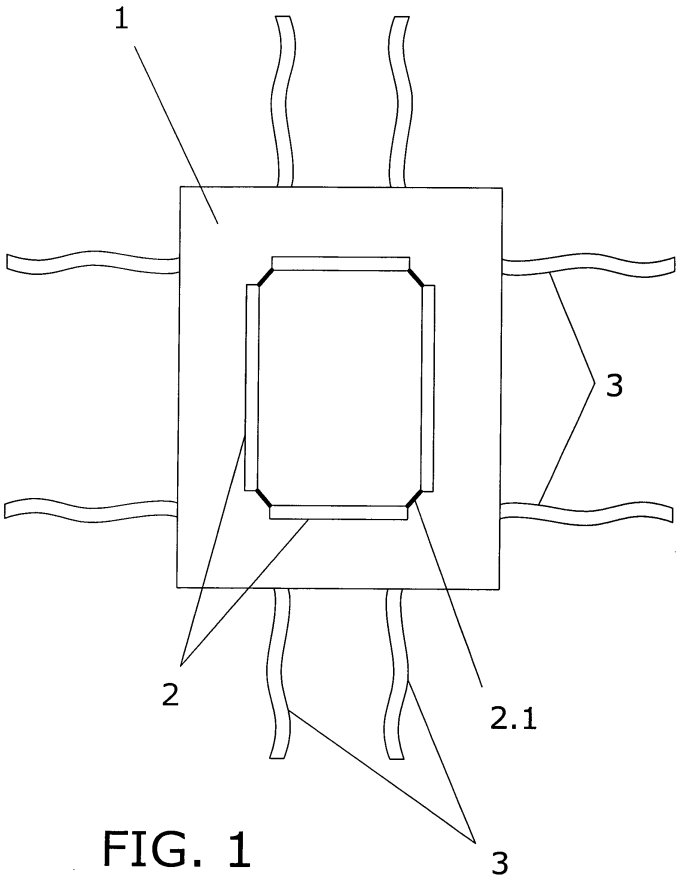

FIG. 1

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Description

OBJECT OF THE INVENTION

[0001] This invention consists of a baby rest area that allows quick assembly, is very compact when dismantled, is extremely light, and maintains a very high level of safety for the baby.

[0002] The invention is characterised by the use of bars with means of connection on their smaller edges and on one of the larger sides. The first means of connection allow the concatenation of the bars and the second allow their securing to a cloth base.

[0003] The cloth base is designed to be supported on a soft element such as the mattress of a bed and has at the same time elements to secure it to this bed.

FORERUNNERS OF THE INVENTION

[0004] Babies need a piece of furniture adapted to their needs, in this case rest, without running any risk of falling from the piece of furniture produced to this end.

[0005] This piece of furniture can also have the advantage of being transportable, which has been achieved by means of the so-called carrycots and sleeping bags.

[0006] So-called carrycots are made up of a rigid structure that greatly increases their weight; as they are complete pieces of furniture they have the disadvantage of still being rather bulky when they are folded for transportation.

[0007] So-called sleeping bags constitute a solution that makes use of a pre-existing piece of furniture, an adult bed. In effect it is secured to the latter, and is extremely easy to transport as it consists of cloths of textile material. However, in contrast to the carrycot, it limits the mobility of the baby, who cannot move about freely inside.

[0008] Bars are known that are designed to limit the movements of the baby over a surface. An example is the device that can be incorporated to the cushion of a sofa that is described in the patent with publication number US5528785. This device is thick enough to remain stable on a surface on its own. The protective bar is extended by means of a surface, for example a cloth, and also has securing tapes that pass below the cushion on which they rest.

[0009] A patent is also known with publication number US5379469 that describes an enclosure for babies that can be installed on a sofa, and which consists of plates, one front plate and two side plates. The front plate restricts the movement of the baby on the edge of the sofa and the side plates the side movement that joins one cushion to another.

[0010] These side plates have the function of stabilising the structure as they are extended between adjacent cushions, thus ensuring their verticality and the position of the front plate that is joined to the side ones.

[0011] The patent known by publication number US5233710 describes a device to form a collapsible play area for children. This area is constituted from a base of side walls belonging to a self-supporting unit of triangular section. By means of four self-supporting units connected at their edges, a structure is constituted that is sufficiently rigid to provide the security that the infant in its interior needs. It is the triangular structure which, by means of its oblique outside wall, provides the stability in view of the support of the infant on the inner vertical wall.

[0012] The device can be folded by dismantling each of the sections; in its turn, each section is dismantled by folding the vertical wall towards the interior of the resulting unit in triangular section.

[0013] Although it is true that it is rather different from the invention in question, the patent with publication number US6370715 is also mentioned, which consists of a padded base with three walls on the upper sides and a headboard for accommodating a baby and affording him/her sufficient comfort. These walls, vertical in their operating position, remain vertical when the device closes in order to be transported. The folding of the base is achieved by the use of a line of hinges that simply overcomes the resistance of the material, for example foam. Once constructed the device is not collapsible; it can simply be opened or closed by means of the line of hinges and by means of the side zips.

[0014] The present invention makes use of flat configuration bars that allow storage in a very reduced volume of space. The bars combined with a cloth, which have a special method of remaining linked, allow the obtaining of a stable and secure structure that would not be possible for each element separately and avoiding the incorporation of a base that occupies a given volume, as it takes advantage of the padded characteristics of the base on which the device is arranged.

DESCRIPTION OF THE INVENTION

[0015] The present invention consists of a baby rest area that includes an enclosure that is delimited on the sides by surfaces in a polygonal configuration, plus a textile base that is preferably spread out over a larger area than the enclosure.

[0016] This textile base has securing tapes that allow the unit to be fastened tightly to the rigid elements of the piece of furniture on which it is installed, although others are also valid such as its extension in the form of an adjustable sheet.

[0017] This piece of furniture will preferably be a bed, in such a way that as the rest area remains situated on the mattress, its soft surface is that allowing the baby's rest.

[0018] The side surfaces that make up a polygon surface area are bars with means of joining together on their smaller sides for connection between adjacent bars, and other means of joining together with the textile base. These means of joining may be temporary or permanent.

[0019] Depending on the number of bars used, the polygonal configuration will have more or fewer sides. The

preferred realisation is considered to be a square or rectangular configuration, according to whether the barriers are the same length or whether they are only the same two by two.

[0020] The bars can be constructed by means of rectangular plates, preferably semi-rigid ones lined by a cover. It is the cover that has the means of joining bars together and the means of joining with the cloth of the base.

[0021] It is called semi-rigid because it must have the consistency or structural resistance to keep vertical, and at the same time it must not be too rigid as this might harm the baby.

[0022] If this is a preferable way to elaborate the bars, the invention also considers the use of semi-rigid plates with the means of joining directly built-in and with the use of the cover not being required.

[0023] Essential elements of the invention can therefore be considered to be the fact that the baby rest area is made up of a number of bars constituted by means of plates linked among themselves, making up a polygonal surface area enclosure, which in its turn is joined to a lower textile base that includes means of fixing it to the element on which it is installed.

DESCRIPTION OF THE DRAWINGS

[0024] This descriptive account is complemented by a series of plans illustrating the preferential example that are never to be considered as limiting the invention.

[0025] Figure 1 represents an example of the surface area of the rest area according to the invention with the various means of joining.

[0026] Figure 2 represents the way of elaborating a bar.

[0027] Figure 3 is an example based on two simple geometric figures that clarify the concept of convexity used in the description.

[0028] Figure 4 is a schematic representation of a textile base such as that of the first figure.

DETAILED EXPOSITION OF THE INVENTION

[0029] Figure 1 shows the rest area carried out according to a example of elaboration that is considered to be of great interest. This rest area is made up of a textile base (1) on which are arranged four bars (2). In this case, given that two bars (2) are longer than the other two (2), the result is a rectangular surface area configuration enclosure.

[0030] In the description it has been indicated that it is possible to use a number of bars (2) other than four, giving rise to a polygonal enclosure.

[0031] These bars (2) are arranged vertically and joined among themselves (2.1) in which the vertices of the enclosure are located. However, one side of the enclosure may be made up of more than one bar (2) although it is considered to be of greater interest when the bars (2) shape a convex polygon, as this is structurally more stable.

[0032] As an example to show the concept of convexity used, a pentagon and a six-point star have been represented in Figure 3. Although mathematically it may be to a certain extent be complex to demonstrate if a geometric configuration is convex, from a graphic point of view the underlying concept is simple. In order to avoid ambiguities, this is explained briefly below.

[0033] A figure (in this case a bi-dimensional one) is said to be convex if when two points are chosen from anywhere on its periphery a straight line (L1) between them is completely contained within the said figure.

[0034] In the pentagon it is checked that for any two points (A, B), a straight line between them is completely contained within the same pentagon.

[0035] On the contrary, in the six-point star represented in the same Figure 3, although points may exist between which a straight line is completely contained within it, this is not always so as occurs with the points (A, B) represented and the straight line (L2), in such a way that this is not said to be a convex figure.

[0036] As has been indicated, although this is not an essential part of the invention, the use of bar configurations with a convex surface projection is preferred.

[0037] These bars (2), on the larger lower side, have in their turn means of joining (2.2) that allow the linking of the bars (2) with the textile base (1). This link finally stabilises the assembly because of the preferably convex configuration of the bars (2).

[0038] In this example of elaboration use has been made of some tapes (3) designed to secure the textile base (1) with fixed elements of the piece of furniture on which the cradle is installed: the bedhead, the endpiece, or the palliasse are some examples. As is logical the number of tapes (3) may vary according to needs, together with the form of tying or closing the same (joined among themselves below the mattress, side tying, etc.). The possibility is also considered of using different pieces of furniture as an alternative to help in this securing. This is the case, for example, of using chairs arranged on the sides of the bed so that the mediums (3) can be anchored.

[0039] Figure 2 is an example of the elaboration of the bar (2). In this example use is made of a semi-rigid plate (2.5) wrapped in a cover (2.3) that has upper closing flaps (2.4).

[0040] Once the flaps (2.4) have been closed, the internal rigidity plate (2.5) remains completely covered. On this cover (2.3) are incorporated means of joining (2.1) on the smaller sides for linking between consecutive bars (2).

[0041] Graphic representation uses zips as a means of union (2.1) on the smaller sides.

[0042] Equally, on the lower larger side there are other means of joining (2.2) with the textile base (1). These means of joining (2.2) avoid the presence of gaps allowing the passage of the baby below the bars (2), and at the same time stabilise the structure constituted by the perimeter that is made up of the concatenated bars (2).

[0043] Graphic representation shows on the lower side of the bar (2) a thicker line that may correspond for example with a join by means of hooked tapes generally known by the brand name of "Velcro".

[0044] Figure 4 is a schematic representation of only the textile base (1) of the example selected to explain the invention, with strips indicating the elements (1.1) that correspond to the means of joining (2.2) with the bars (2) and which are directly linked to the textile base (1). These elements (1.1) or equivalent mediums, depending on those situated on the part of the bar (2), are sewn, stuck, or fastened according to the nature of the said mediums.

[0045] Each of the joins present in this rest area, the vertical joins (2.1) between bars (2), and the lower horizontal joins (2.2) may be achieved by "Velcro" zips or for example by tied tapes.

[0046] For its part, the lower textile base (1) can be configured by the joining of two cloths, or also by making use of waterproof cloths so that the mattress located under the rest area is protected.

[0047] This textile plate (1) can equally be spread out like adjustable sheets in such a way that the tapes represented in figure 1 can be dispensed with. A specific additional case is when this textile base (1) is the mattress case itself.

[0048] If the joins are permanent then the textile base (1) is folded between the bars (2) when the device is withdrawn.

[0049] Finally, the possibility is also considered of using bars (2) that are composed in turn of two or more elemental bars in such a way that the joins between these elementary bars will be permanent and will permit folding so as to give way to smaller dimensions on the overall folding of the whole device.

[0050] It is also possible that a side face of the polygonal enclosure is made up of more than one bar (2); this situation is the result of the fact that these barriers (2) are aligned. In this case the joins between the bars are not permanent, because of which they are separable when the device is dismantled.

Claims

1. A baby rest area **characterised by** being composed of a number of bars (2) constituted by means of plates linked together to make a polygonal surface enclosure, which in its turn is joined to a lower textile base (1) incorporating means of fastening itself onto the element on which it is installed.

2. A baby rest area according to claim 1 **characterised** because the polygonal configuration is convex.

3. A baby rest area according to claim 1 **characterised** because at least one of the side faces of the polygonal enclosure is made up of more than one bar (2).

4. A baby rest area according to claim 1 **characterised** because at least some of the bars (2) are made up in turn of two or more elementary bars.

5. A baby rest area according to claim 1 **characterised** because the bars (2) are made up of a plate (2.5) arranged inside a cover (2.3).

6. A baby rest area according to claim 5 **characterised** because the cover (2.3) has zips or flaps (2.4) for closing.

7. A baby rest area according to claim 5 **characterised** because it is the cover that has the means of joining (2.1) between bars (2) on the smaller sides and the means of joining (2.2) with the textile base (1) on its larger side.

8. A baby rest area according to claim 5 **characterised** because any of the means of joining (2.1, 2.2) are temporary.

9. Baby rest area according to claim 8 **characterised** because any of the means of joining (2.1, 2.2) are of the zip or "Velcro" type.

10. Baby rest area according to claim 5 **characterised** because none of the means of joining (2.1, 2.2) are permanent.

11. Baby rest area according to claim 1 **characterised** because the textile base (1) is waterproof.

12. Baby rest area according to claim 1 **characterised** because the textile base (1) has tapes (3) as means of fastening itself onto the piece of furniture or mattress on which it is located.

13. Baby rest area according to claim 12 **characterised** because the tapes (3) are fastened to a piece of furniture other than that supporting the textile base (1).

14. Baby rest area according to claim 1 **characterised** because the textile base (1) spreads over a greater area than the enclosure.

15. Baby rest area according to claim 1 **characterised** because the textile base (1) is configured in the from of an adjustable sheet as a means of fastening itself onto the piece of furniture or mattress on which it is situated.

16. Baby rest area according to claim 1 characteristic because the textile base (1) is configured in the form of a mattress cover.

17. Baby rest area according to claim 1 characteristic because the plates that make up the bars (2) are

semi-rigid.

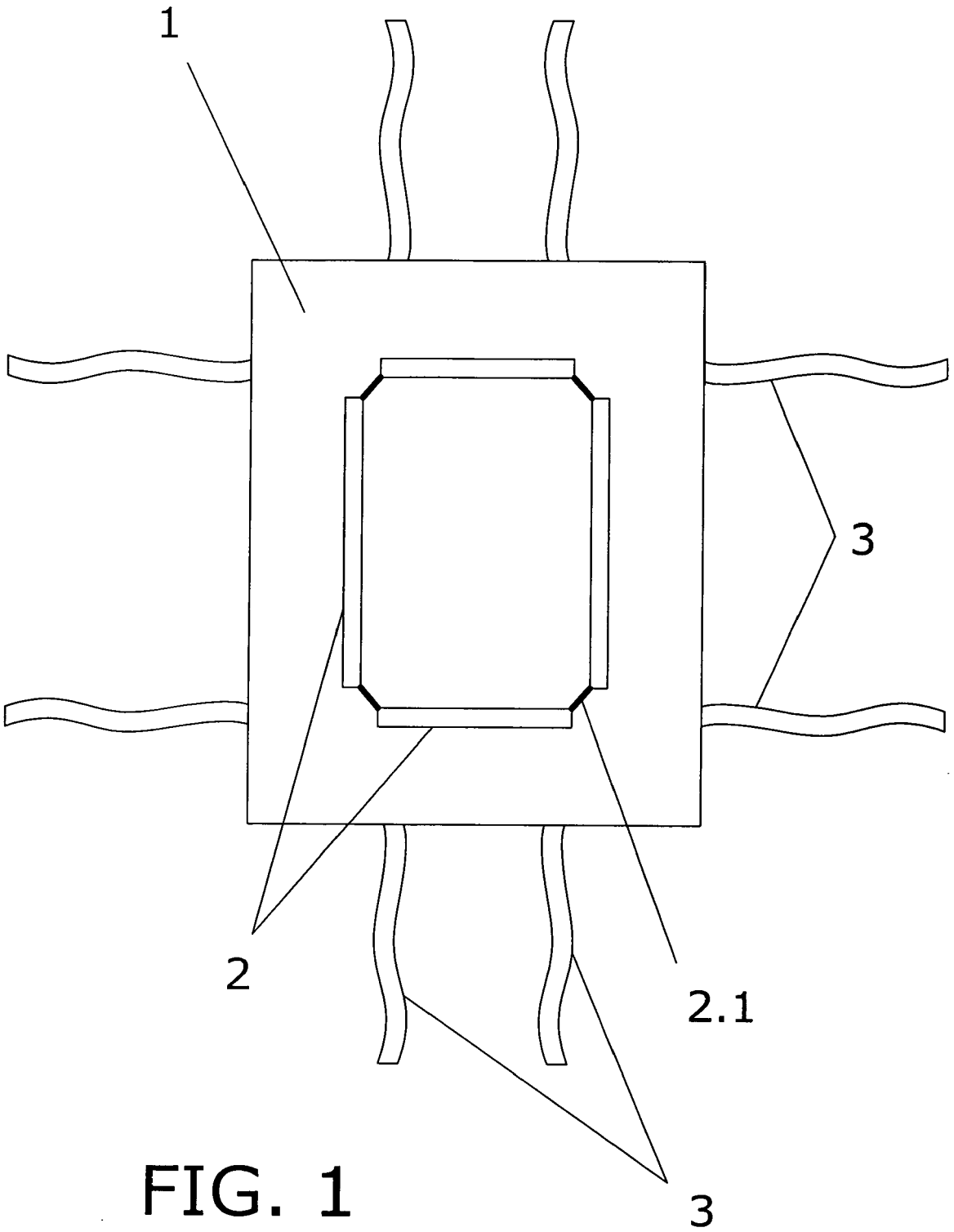


FIG. 1

FIG. 2

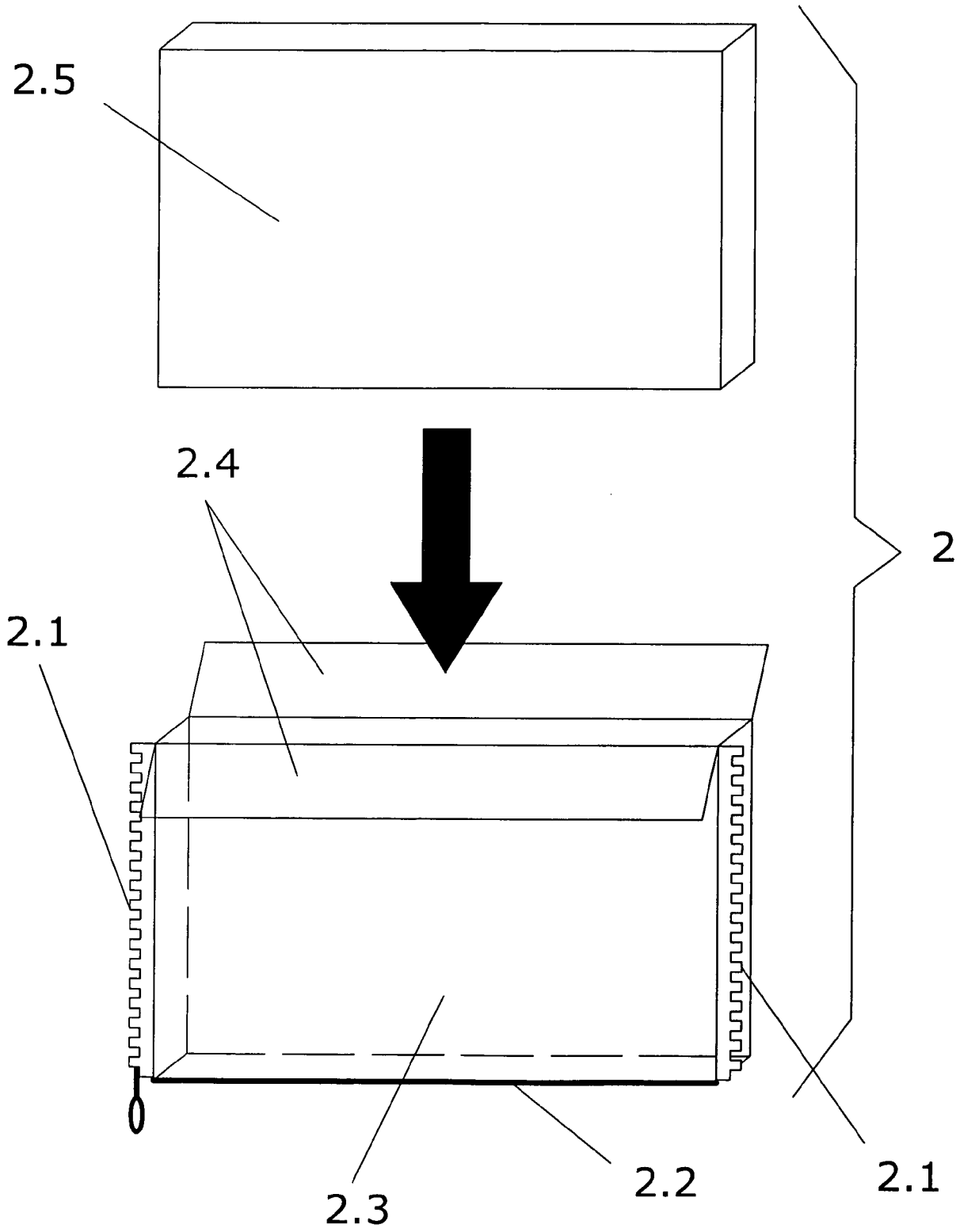


FIG. 3

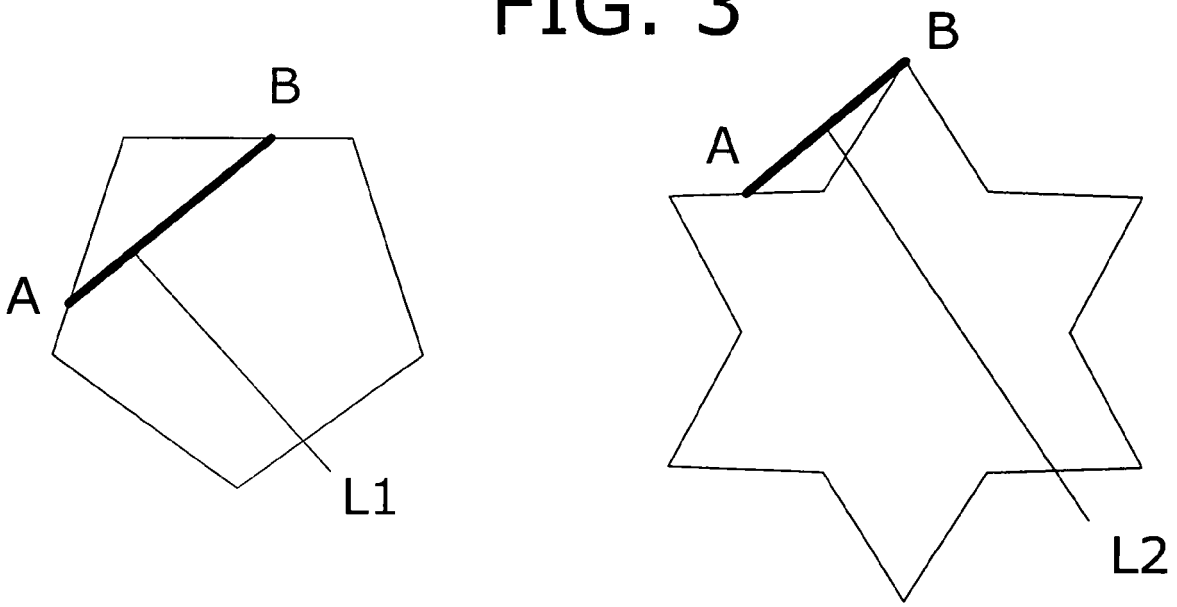
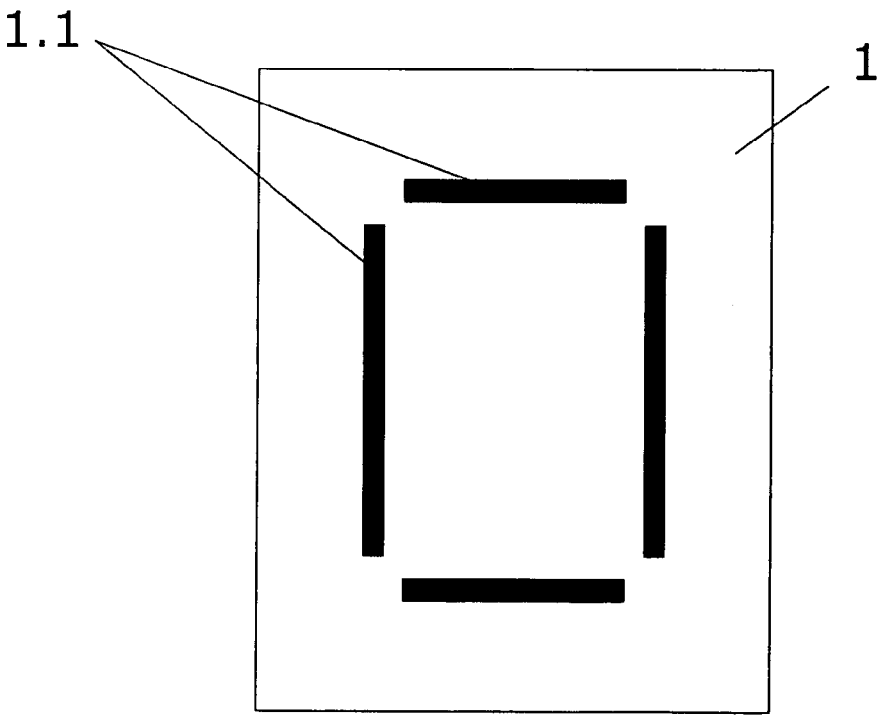


FIG. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 06 01 3791

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 6 408 463 B1 (PALACIO ANDREA [US]) 25 June 2002 (2002-06-25) * column 3, line 37 - column 7, line 61; figures 1-5 *	1-5, 7-11,17	INV. A47D7/00 A47D7/04 A47D15/00
X	US 4 890 346 A (RIST JUDITH [US]) 2 January 1990 (1990-01-02) * column 2, line 45 - column 4, line 42; figures 1-3,5 *	1-3,5, 7-10, 12-17	
X	US 5 473 785 A (LAGER BENGT G [US] ET AL) 12 December 1995 (1995-12-12) * column 3, line 63 - column 5, line 44; figures 1-3 *	1-12,17	
X	US 4 873 734 A (POLLARD DIANNE J [US]) 17 October 1989 (1989-10-17) * column 2, line 21 - column 4, line 61; figures 1-5 *	1-3,5, 8-10,12, 14-17	

TECHNICAL FIELDS SEARCHED (IPC)

A47D
A47C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	16 May 2007	Kus, Slawomir

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 06 01 3791

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16-05-2007

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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