

(19)



(11)

**EP 3 248 513 A1**

(12)

## EUROPEAN PATENT APPLICATION

(43) Date of publication:  
**29.11.2017 Bulletin 2017/48**

(51) Int Cl.:  
**A47D 11/00 (2006.01) A47D 9/00 (2006.01)**

(21) Application number: **17172124.4**

(22) Date of filing: **22.05.2017**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO  
PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**  
Designated Validation States:  
**MA MD**

(71) Applicant: **GP S.r.l. unipersonale**  
**37138 Verona (VR) (IT)**

(72) Inventor: **Poffe, Giuseppe**  
**37138 Verona (VR) (IT)**

(74) Representative: **Münchow, Vera Ute Barbara**  
**C/o Adexe Srl**  
**Corso Porta Nuova, 131**  
**37122 Verona (VR) (IT)**

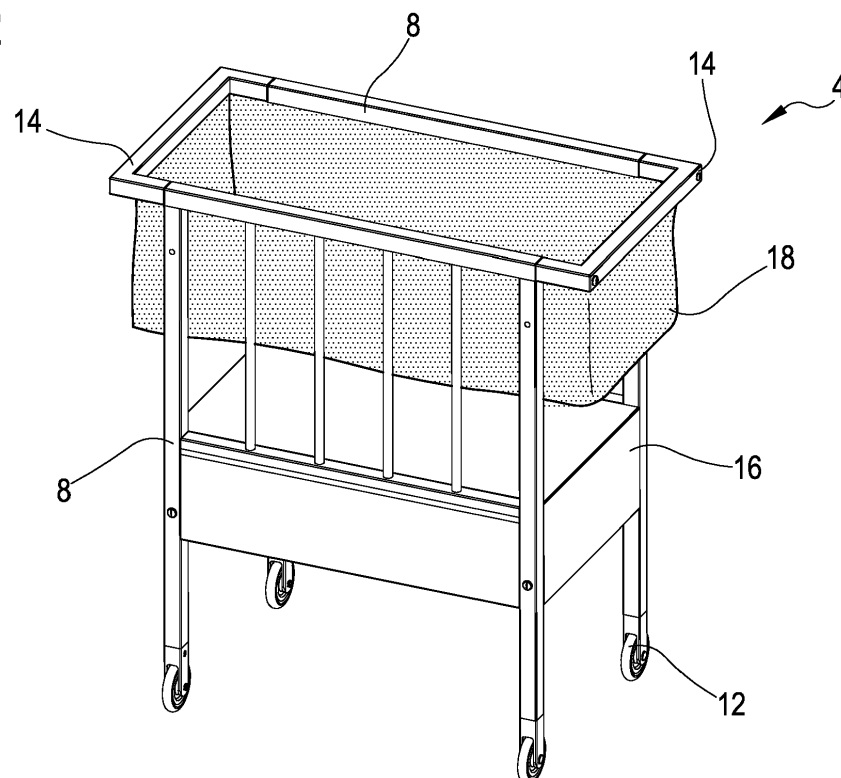
(30) Priority: **23.05.2016 IT UA20163682**

### (54) TRANSFORMABLE FURNITURE SYSTEM

(57) The invention relates to a transformable furniture system adapted to be transformed from crib (2) or bed into cradle (4) and vice versa which comprises two front walls (8); a bottom (10); a basin-shaped container (18); a support structure (11; 14) which comprises a first and a second connection element (14) or a ring-shaped frame (11); connecting means and optionally two side

walls (6) and/or at least a spacer element (16). The two front walls (8) of the crib version (2) or bed version represent in the cradle version (4) the side walls of the cradle between which the container is insertable or inserted. Said two front walls (8), at least one of said side walls (6), if present, and said bottom (10) are connectable or connected to each other to form a crib (2).

**FIG.2**



**EP 3 248 513 A1**

**Description**TECHNICAL FIELD

**[0001]** The invention relates to a transformable furniture system adapted to be transformed from crib or bed into cradle and vice versa. In this regard, the transformable furniture system includes components which are used both in the cradle and in the crib or bed.

STATE OF THE ART

**[0002]** The market of children's furniture offers a wide range of furniture, such as cradles, cribs, beds, wardrobes, dressers and desks, to name but a few. In the case of the cradle, the problem is that the baby can only use it for a few months, after that he/she has grown too much and needs to sleep in a crib or a bed. To avoid the need to buy more separate pieces of furniture, a cradle and a crib or a bed, the furniture industry has long offered beds which are variable in length to fit the bed to the child's growth, as described for example in DE 724087. There are also known furniture systems allowing the transformation of the crib into a cradle and vice versa, such as the system described in the German utility model DE 92 00 592 U1, wherein the side walls of the crib are replaced by parts of the bottom of the crib to form the bedrails and the bottom of the cradle. Another principle is described in documents DE10200902776 1 A1 or DE 29706835 where a hammock cradle is hung inside the walls of the crib.

**[0003]** Document AU 2015218449 A1 illustrates how a cradle insert can be combined with the front walls of a crib to form a cradle.

DISCLOSURE OF THE INVENTION

**[0004]** The purpose of the invention is to propose an additional transformable furniture system from crib or bed into cradle, and vice versa, which allows some components to be used both in the crib/bed and in the cradle, and which is versatile and simple in the transformation of the piece of furniture.

**[0005]** The object is achieved through a transformable furniture system adapted to be transformed from crib (2) or bed into cradle (4) and vice versa comprising

- (a) two front walls (8);
- (b) a bottom (10);
- (c) a basin-shaped container (18);
- (d) a support structure (11; 14) which
  - (d1) comprises a first and a second connection element (14); or
  - (d2) comprises a ring-shaped frame (11);
- (e) optionally at least one spacer element (16);
- (f) optionally one or two side walls (6); and

(g) connecting means (20, 22, 24, 26, 30, 32, 34) adapted to connect components selected from said front walls (8), said bottom (10), said container (18), said support structure (11, 14) and optionally said spacer element (16) and/or said one or two side walls (6) to form a cradle (4) or, in alternative, a crib (2) or a bed; wherein

(i) at least one of said two side walls (6), if present, said two front walls (8) and said bottom (10) are connectable or connected among each other to form a crib (2) the sides of which are formed by said one or two side walls (6), if present, and by said front walls (8);

(ii) said two front walls (8), said support structure (11; 14), said container, and optionally said spacer element (16) are connectable or connected among each other to form said cradle (4) where

(ii-1) in the case wherein the support structure (11; 14) comprises a first and a second connection element (14), said two front walls (8) form the side walls of the cradle (4) and the first and second connection element (14) form the head sides of the cradle (4), and said container (18) is suspendable or suspended along said two front walls (8) and said first and second connection element (14) in their assembled state;

(ii-2) in the case wherein the support structure (11; 14) comprises a ring-shaped frame (11), said two front walls (8) form the side walls of the cradle (4) and the ring-shaped frame (11) is fixable or fixed between said two front walls (8), and said container (18) is suspendable or suspended along said ring-shaped frame (11);

(iii) at least in the case of absence of the side walls (6), said two front walls (8) and said bottom (10) are connectable or connected among each other in such a way that said front walls (8) are fixed at two opposite edges of said bottom (10) to form said bed.

**[0006]** The system is made up of very few essential elements, as listed in the first claim. The two front walls are both part of the crib or bed and of the cradle: in the crib or bed they are actually the headboard and the footboard, while in the cradle they function as side walls or, in other words, bedrails. All unused parts for one of the versions of the transformable furniture system, crib, bed or cradle, take little space and can be stored easily. To transform the crib or bed into a cradle, and vice versa, or the bed into crib and vice versa, few steps are needed and no expert in the field is needed to perform the assembly and disassembly.

**[0007]** In the case of the cradle, side and front walls are, in the case of two side walls, four walls or two pairs of walls in which a pair of walls generally, but not necessarily, has a lower length than the length of the walls of the other pair. The walls can have different shapes, such as, for example, slabs or parallel-slat frames. They can form a flat surface, or they can be curved. The bottom, for example, can be a frame or a slab.

**[0008]** In the case of the construction of a crib, advantageously, the bottom can be secured inside the structure of the crib to at least one of the four walls, preferably to at least two opposing walls, or it can simply rest on protrusions applied to the walls.

**[0009]** In the case of the construction of a bed, as described in the first claim, the bottom is secured with two edges opposed to the front walls. If the transformable furniture system does not contain the side walls, the two front walls are necessarily fixed on two opposite edges of the bottom and have to be provided with respective connecting means.

**[0010]** In the case of the construction of a crib, the bottom can, for example, simply rest on protrusions applied to at least two opposing sides of the crib without the need for connection means.

**[0011]** In a very preferred embodiment of the invention, the transformable furniture system comprises the two side walls. Preferably, in this case, the possibility of transforming the crib into a bed is also provided by the detachment of the two side walls. In order to realize this transformation, the two front walls must be fixable or fixed on two opposite edges of the bottom with respective connection means provided on the bottom and on the front walls.

**[0012]** The connecting means may be of different type. The furniture sector, for example, offers to the person skilled in the art many known connecting systems that can be used in an equivalent way to connect the various components of the transformable furniture system. By way of example, it is possible to mention pin-hole systems, screw-hole systems, joint connections, connecting plates (angular-type), inserting two elements to be connected into a joining element, etc.

**[0013]** In an embodiment of the invention, the transformable furniture system has said two side walls, which are connected to said bottom by means of hinges, allowing the walls to be folded on the bottom in order to avoid the need to dismantle them for storing in case of non-use.

**[0014]** The container is advantageously made of a soft material, but stiffer materials are also conceivable. Fabrics, meshes, films in natural or synthetic fibres will be mentioned as exemplary forms of soft materials. A rigid material could be wood, metal, plastic material, as well as wicker. Mixed shapes are also conceivable: the container can be made, for example, of fabric including areas made of transparent plastic material or with a mosquito net-type fabric to allow visual contact of the newborn with the outside.

**[0015]** In general, the preferred material for the con-

struction of the side and front walls, the bottom, the spacer element, the connection elements and the frame is wood, but also metal, plastic material or mixed forms thereof are conceivable.

**[0016]** In the assembled state, the walls can be arranged vertically in relation to the support surface of the piece of furniture as well as tilted with respect to this.

**[0017]** The frame can be of several shapes, such as a rectangular ring. Single sectors of the frame can be curved.

**[0018]** Both the frame and the connection elements can essentially extend on a flat surface or they can extend in a three-dimensional form.

**[0019]** Advantageously, in the transformable furniture system according to the invention, said connecting means comprise different types of connecting means to realize the different versions of the transformable furniture system: cradle, crib or bed.

**[0020]** Advantageously, in order to realize, in case of side walls, the case (i), i.e. the crib, the connecting means include

(I-1) first connecting means adapted to connect said one or two side walls and said two front walls to each other to form the sides of the crib; and

(I-2) second connecting means adapted to support said bottom between said sides of the crib.

**[0021]** Said first connecting means can be formed, for example, by holes applied to the walls and screws compatible with said holes for connecting the walls to each other, or they can be formed, for example, by shaped grooves and shaped longitudinal protrusions that are applied, following the height of the walls, along the edges of these to allow the insertion of the protrusions into the grooves. The shapes of the protrusions and of the grooves are complementary to each other. A mutual connection of the side and front walls therefore requires the groove on a wall and the protrusion on the part of the other wall to be connected. Such a connection allows the easy insertion and the easy removal of the side walls between the front walls, for example to allow the construction of a three-sided bed from which the child is able to go out on his/her own or turn the crib into bed and vice versa. Advantageously, the cross section of the protrusions and grooves is "T"-shaped to ensure a safe and reliable connection. However, other forms of sections are also conceivable.

**[0022]** Said second connecting means can be means that connect the bottom to the walls in a fixed way, such as protrusions applied on the walls in order to simply rest the bottom, as explained above.

**[0023]** Advantageously, to realize the case (ii), the connecting means comprise

(II-1) third connecting means adapted to connect said two front walls to said support structure; and

(II-2) fourth connecting means adapted to connect

said container to said first and said second connection element and/or to said front walls or adapted to connect said container to said ring-shaped frame.

**[0024]** The third connecting means may be of different kinds, as all the connecting means useful for the invention. Preferably, they are holes applied to the side walls and the support structure and screws compatible with these holes. In a preferred embodiment of the invention, and in particular in case (ii-2), said first connecting means correspond at least partially to said third connecting means. Examples of fourth connecting means will be illustrated below.

**[0025]** Advantageously, at least in the case of absence of the side walls to realize case (iii), the connecting means comprise

(III-1) fifth connecting means to connect said two front walls to two opposed edges of said bottom. Here, hole and screw systems are particularly suitable. Preferably, the fifth connecting means may also be used to connect a possible spacer element between the front walls.

**[0026]** Advantageously, the second and fifth connecting means may coincide.

**[0027]** Such a choice of connecting means (screw-hole or groove-protrusion systems) has several advantages: they are simple means which allow a secure and reliable connection and, at the same time, are quickly unlockable and re-fixable. In addition, no tools (groove-projection system) are needed, or just one tool, a screwdriver, is enough to perform the assembly and disassembly.

**[0028]** Preferably, said support structure comprises a first and a second connection element which preferably is a "C"- or "U"-shaped curved bar. These bar elements are inexpensive, easy to manufacture, take up little space and are a simple and reliable support to close the front walls and support the container. The "C"- or "U"-shape already incorporates an extension of the cradle length.

**[0029]** A support structure comprising a first and a second connection element forming the cradle heads provides a more versatile system with respect to the ring-shaped version when it is necessary to adjust the length and/or width of the cradle.

**[0030]** In different embodiments of the invention, the first and second connection element or the frame can be made as a single piece or can be made up of multiple pieces. The multi-piece construction also allows the width and length variation of the connection elements to easily adapt the cradle to the different sizes of the newborn. This ability of "extending" or "widening" the system can also be applied to the front walls and the side walls themselves, to the bottom and to the spacer element, which can, for example, be made of multiple pieces in order to be able to insert further extension or enlargement pieces, or can be extended at the ends. This ability of "extending" or "widening" of the system not only takes the growing

length of the child into account, but also allows for adapting the system to the number of children to be put in the crib, bed or cradle, which might be interesting for twin births.

**[0031]** In this regard, in a preferred embodiment of the invention, the transformable furniture system according to the invention further includes extension elements for extending or widening the side walls, the front walls, the first connection element, the second connection element, the bottom, the spacer element and/or the ring-shaped frame.

**[0032]** Advantageously, said spacer element is fixable or fixed between said front walls in the cradle version of the transformable furniture system and is selected between a shelf, a slat or a bar. Multiple spacer elements, such as two shelves, can also be inserted. A shelf, advantageously, can be used to support diapers, creams or other baby care accessories. The system may also contain several spacer elements or spacer elements that can be split into multiple pieces or spacer elements that can be inserted between the front walls in different directions to accommodate the variation in the cradle width applied to the support structure.

**[0033]** In a preferred embodiment of the invention, the container comprises a reinforcing plate in its bottom part. This plate supports the body of the child and avoids the "hammock effect". Advantageously, the reinforcement is inserted between two layers of fabric.

**[0034]** Preferably, said fourth connecting means are seams into which said first and said second connection element (14) or said ring-shaped frame can be or are inserted; and/or loops fixable or fixed at the upper edge of said front walls, on the first connection element, on the second connection element and/or on the ring-shaped frame. These are connecting means already embeddable in the container, very practical and cheap. The loops can, for example, be closed and opened by using Velcro, zippers, or automatic buttons. Connecting means of this kind allow fast assembly and disassembly and do not require the use of auxiliary tools. This also facilitates the preparation of the container for washing. To fix the container, for example, it is possible to use other fasteners belonging to the field of curtains and draperies and known for some time.

**[0035]** In a very preferred embodiment of the invention, said front walls are adapted to be connected to other components of said transformable furniture system in two directions, namely in the direction which defines the length of the crib or of the bed, and in the direction which defines the length of the cradle.

**[0036]** Advantageously, the front walls include connecting means for the connection into the front wall plane and connecting means for the perpendicular connection to the front wall plane. The connection into the front wall plane is preferably made with the connection elements, and the perpendicular connection to the front wall plane with the side walls of the crib.

**[0037]** A system providing the use of the ring-shaped

frame does not require the possibility of a two-way connection, as both the frame and any side walls are connected in the same direction with respect to the front walls. Advantageously, the same connecting means provided in the front walls can be used both to connect the frame and to connect any side walls, such as for example hole-screw systems.

**[0038]** Front walls with connecting means that can be used in both versions of the transformable furniture system provide a very simple system for making the front walls usable both in the crib and in the cradle without having to integrate or modify them with additional actions to allow the transformation of the furniture system from crib into cradle and vice versa.

**[0039]** This arrangement of connecting means allowing the connection in two directions, and precisely along the length of the crib and along the length of the cradle, allows a simple insertion of extensions either to extend the cradle (connection in the direction of the length of the cradle) and to extend the crib (connection in the direction of the length of the crib).

**[0040]** Advantageously, the connecting means used to connect the side walls and the front walls and/or the bottom of the crib can be used, at least partially, also to connect the side walls of the cradle with the spacer element and/or the support structure.

**[0041]** In an embodiment of the invention, the front walls can be provided with rollers to move the crib/bed or cradle.

**[0042]** In an advantageous embodiment of the invention, the bottom of the bed is composed of multiple pieces of which at least one can form the spacer element in the cradle.

**[0043]** Said objects and advantages will be better highlighted during the description of preferred embodiment examples of the invention, given by way of example and not of limitation.

**[0044]** Embodiments of the invention are the object of the dependent claims. The description of preferred embodiment examples of the invention is given, by way of example and not of limitation, with reference to the attached drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

##### **[0045]**

- Fig. 1 illustrates in a perspective view a transformable furniture system in its crib version.
- Fig. 2 illustrates in a perspective view the transformable furniture system of figure 1 in its cradle version.
- Fig. 3 illustrates the cradle version of the transformable furniture system of figure 2 in a side view.
- Fig. 4 illustrates some details of the cradle version of the transformable furniture

system of figures 2 and 3 in a top view.

Figs. 5a and 5b illustrate the two ways of fixing the container on the support structure of the cradle.

Figs. 6a and 6b illustrate a possible arrangement of possible connecting means, in particular of different fixing holes, at the top of the side walls of the cradle (= front walls of the crib).

Fig. 7 illustrates a top view of a variant of the cradle wherein the support structure is a ring-shaped frame.

#### DESCRIPTION OF PREFERRED EMBODIMENT EXAMPLES

**[0046]** Figures 1 and 2 show the two versions of a transformable furniture system according to the invention, namely in figure 1 the crib version **2** and in figure 2 the cradle version **4**. The crib **2** is essentially composed of two side walls **6**, two front walls **8** and a bottom **10** in a frame form. In other variants the bottom could be, for example, a slab. The mattress will then rest on the frame or the slab. The slab bottom can also be composed of several pieces, one of which may correspond to the spacer element which will be described below with reference to the cradle **4**. On the front walls **8**, rollers **12** are mounted to be able to move the crib **2** comfortably. The crib **2** can easily be transformed into a bed by removing at least one of the two side walls **6**.

**[0047]** The cradle **4** uses the two front walls **8** of the crib **2** as side walls or bedrails. The support heads of the cradle **4** are formed by two connection elements **14**, which in the exemplary embodiment are "C"-shaped, but they may of course also be of different shape, such as for example, a straight bar. The two connection elements **14** are fixed to the edges of the side walls **8** of the cradle (front walls of the crib) and form a rectangular ring with them. The connection elements **14** are already acting as spacers between the side walls **8** of the cradle **4**; however, to provide greater stability to the system, the cradle is provided with a shelf-shaped spacer element **16**. Also, note the rollers **12** mounted on the side walls **8** of the cradle **4**. Along the edges of the side walls **8** of the cradle and the connection elements **14** a basin-shaped container **18** able to accommodate a newborn is hanged. This container **18** can of course be fixed in many different ways. A fastening including a seam (not shown) in which the connecting element **14** is inserted is very practical, while the fastening along the side walls **8** is carried out with loops (not shown) provided with Velcro, zippers or automatic buttons, to be able to open and close them conveniently in order to enclose the edge of the wall.

**[0048]** Figure 3, the side view of the cradle **4** of figure 2, shows the side walls **8** of the cradle **4** corresponding to the front walls **8** of the crib **2** with the rollers **12**, the connection elements **14** and the container **18**. The side

wall 8 shows the screws 20 passing through holes (not visible) and fastening the spacer element (16, figure 2). They are the same screws and holes that can then be used to fasten the side walls 8 as front wall to the side walls 6 and/or to the bottom 10 of the crib 2. The connection elements 14 are fixed with other screws 22 in through holes 24 (in the connection element) and threaded holes 26 in the side wall 8 of the cradle 4. These threaded holes 26 are in the flat surface forming the wall 8 and allow the connection along an axis being the extension of the wall. The wall 8 also includes holes (not shown) at about the height of the upper edge of the wall 8 to fix the side walls 6 of the crib 2 in the crib-type assembly. These holes extend vertically with respect to the flat surface of the wall 8 and thus allow a fixing along an axis which is perpendicular to the wall 8.

[0049] Figure 4 shows a top view of the rectangular ring 28 formed by the upper edges of the side walls 8 of the cradle and by the connection elements 14. Between the connection elements 14 and the walls 8 protrusions (not shown) can be easily inserted.

[0050] Figure 5a shows the principle according to which the container 18 is fixed to the connection element 14. On the upper edge of the container 18, a seam 30 has been created, inside which the connection element 14 is inserted before fixing it to the side wall (not shown).

[0051] On the contrary, figure 5b shows how the container 18 is fixed with loops 32 on the upper edge of the side wall 8. On the one hand, the loops 32 are sewn on the container 18, on the other they can be fixed to the container by means of Velcro, zippers or automatic buttons. Obviously, other fixing methods are also conceivable, for example by means of hooks. Suitable fixing methods can be found, for example, in the field of curtains and draperies.

[0052] Figures 6a and 6b show a detail of the wall 8, figure 6a in a front view, figure 6b in a side view. Figures show the threaded holes 26 and 34 that serve respectively to connect the wall 8 to the connection elements (not shown) or to the side walls of the crib (not shown). The connection axes are orthogonal to each other.

[0053] Figure 7 shows in a schematic top view how other forms of support structure can be inserted between the two front walls 8. A ring structure 11 which represents a rectangular ring-shaped frame is to be noted.

[0054] During operation, further embodiment modifications or variants of the transformable furniture system object of the invention, not described herein, may be implemented. If such modifications or such variants should fall within the scope of the following claims, they should all be considered protected by the present patent.

## Claims

1. A transformable furniture system adapted to be transformed from crib (2) or bed into cradle (4) and vice versa comprising

- (a) two front walls (8);
- (b) a bottom (10);
- (c) a basin-shaped container (18);
- (d) a support structure (11; 14) which

(d1) comprises a first and a second connection element (14); or

(d2) comprises a ring-shaped frame (11);

- (e) optionally at least one spacer element (16);
  - (f) optionally one or two side walls (6); and
  - (g) connecting means (20, 22, 24, 26, 30, 32, 34) adapted to connect components selected from said front walls (8), said bottom (10), said container (18), said support structure (11, 14) and optionally said spacer element (16) and said one or two side walls (6) to form a cradle (4) or, in alternative, a crib (2) or a bed;
- wherein

(i) at least one of said two side walls (6), if present, said two front walls (8) and said bottom (10) are connectable or connected among each other to form a crib (2) the sides of which are formed by said one or two side walls (6), if present, and by said front walls (8);

(ii) said two front walls (8), said support structure (11; 14), said container, and optionally said spacer element (16) are connectable or connected among each other to form said cradle (4) where

(ii-1) in the case wherein the support structure (11; 14) comprises a first and a second connection element (14), said two front walls (8) form the side walls of the cradle (4) and the first and second connection element (14) form the head sides of the cradle (4), and said container (18) is suspendable or suspended along said two front walls (8) and said first and second connection element (14) in their assembled state;

(ii-2) in the case wherein the support structure (11; 14) comprises a ring-shaped frame (11), said two front walls (8) form the side walls of the cradle (4) and the ring-shaped frame (11) is fixable or fixed between said two front walls (8), and said container (18) is suspendable or suspended along said ring-shaped frame (11);

(iii) at least in the case of absence of the side walls (6), said two front walls (8) and said bottom (10) are connectable or connected among each other in such a way that said front walls (8) are

fixed at two opposite edges of said bottom (10) to form said bed.

2. Transformable furniture system according to claim 1 **characterized in that** said connecting means (20, 22, 24, 26, 30, 32, 34)

(I) to realize, in the case of the presence of the side walls (6), case (i), comprise

(I-1) first connecting means (34) adapted to connect said one or two side walls (6), if present, and said two front walls (8) among each other to form the sides of the crib (2); and

(I-2) second connecting means (20) adapted to support said bottom (10) between the sides of the crib (2);

(II) to realize case (ii) comprise

(II-1) third connecting means (22, 24, 26; 34) adapted to connect said two front walls (8) to said support structure (11; 14); and

(II-2) fourth connecting means (30, 32) adapted to connect said container (18) to said first and said second connection element (14) and/or to said front walls (8) or adapted to connect said container (18) to said ring-shaped frame (11);

(III) at least in the case of absence of the side walls (6) to realize case (iii), comprise

(III-1) fifth connecting means (20) to connect said two front walls (8) to two opposed edges of said bottom (10).

3. Transformable furniture system according to claim 1 or 2 **characterized in that** said support structure comprises a first and a second connection element (14).

4. Transformable furniture system according to claim 3 **characterized in that** said first and said second connection element are a "C"- or "U"-shaped curved bar.

5. Transformable furniture system according to claim 1 or 2 **characterized in that** said support structure comprises a ring-shaped frame (11).

6. Transformable furniture system according to anyone of the preceding claims **characterized in that** said first and second connection element (14) or said ring-shaped frame (11) are a single piece or composed of multiple pieces.

7. Transformable furniture system according to anyone of the preceding claims **characterized in that** it further comprises

(h) extension elements adapted to extend said side walls (6), if present, said front walls (8), said first connection element (14), said second connection element (14), said bottom (10), and/or said ring-shaped frame (11).

8. Transformable furniture system according to anyone of the preceding claims **characterized in that** said spacer element (16) is fixable or fixed between said front walls (8) in the cradle version (4) of the transformable furniture system and **in that** said spacer element (16) is selected from a shelf, a slat or a bar.

9. Transformable furniture system according to anyone of the preceding claims **characterized in that** said container (18) comprises in its bottom part a reinforcing plate.

10. Transformable furniture system according to claim 2 and anyone of the claims from 3 to 9 **characterized in that** said fourth connecting means (30, 32) are seams (30), into which said first and said second connection element (14) or said ring-shaped frame (11) can be or are inserted, and/or loops (32) fixable at an edge of said front walls (8), on the first connection element (14), on the second connection element (14) and/or on the ring-shaped frame (11).

11. Transformable furniture system according to anyone of the claims from 2 to 10 **characterized in that** said front walls (8) are adapted to be connected to other components of said transformable furniture system in two directions, namely in the direction which defines the length of the crib (2) or of the bed, and in the direction which defines the length of the cradle (4).

12. Transformable furniture system according to anyone of the preceding claims **characterized in that** said bottom (10) is composed of multiple pieces at least one of which is adapted to form the spacer element (16) of the cradle (4).

FIG.1

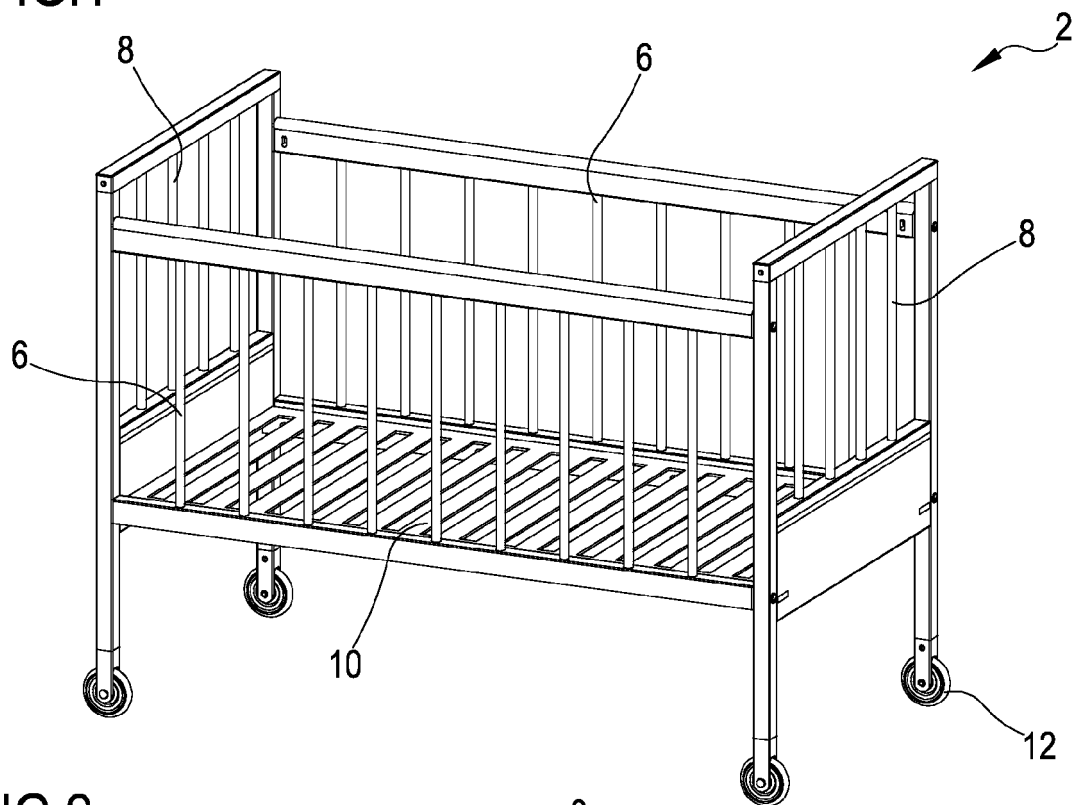


FIG.2

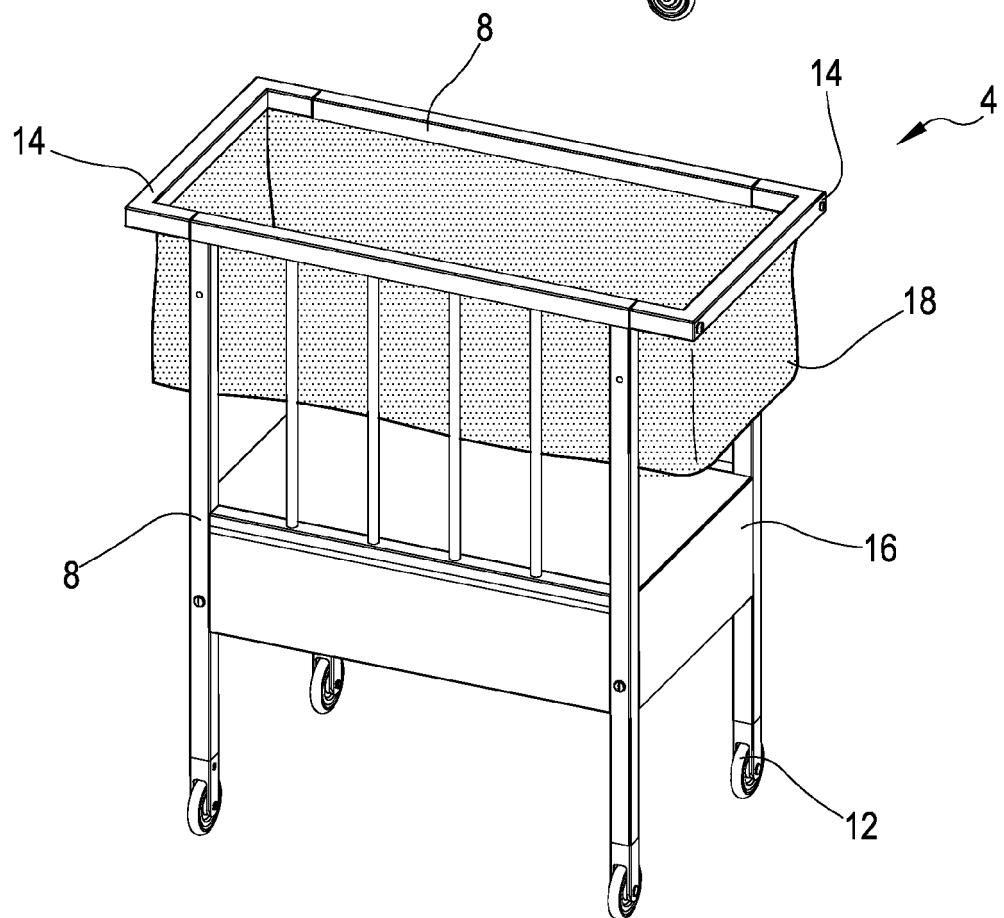


FIG.3

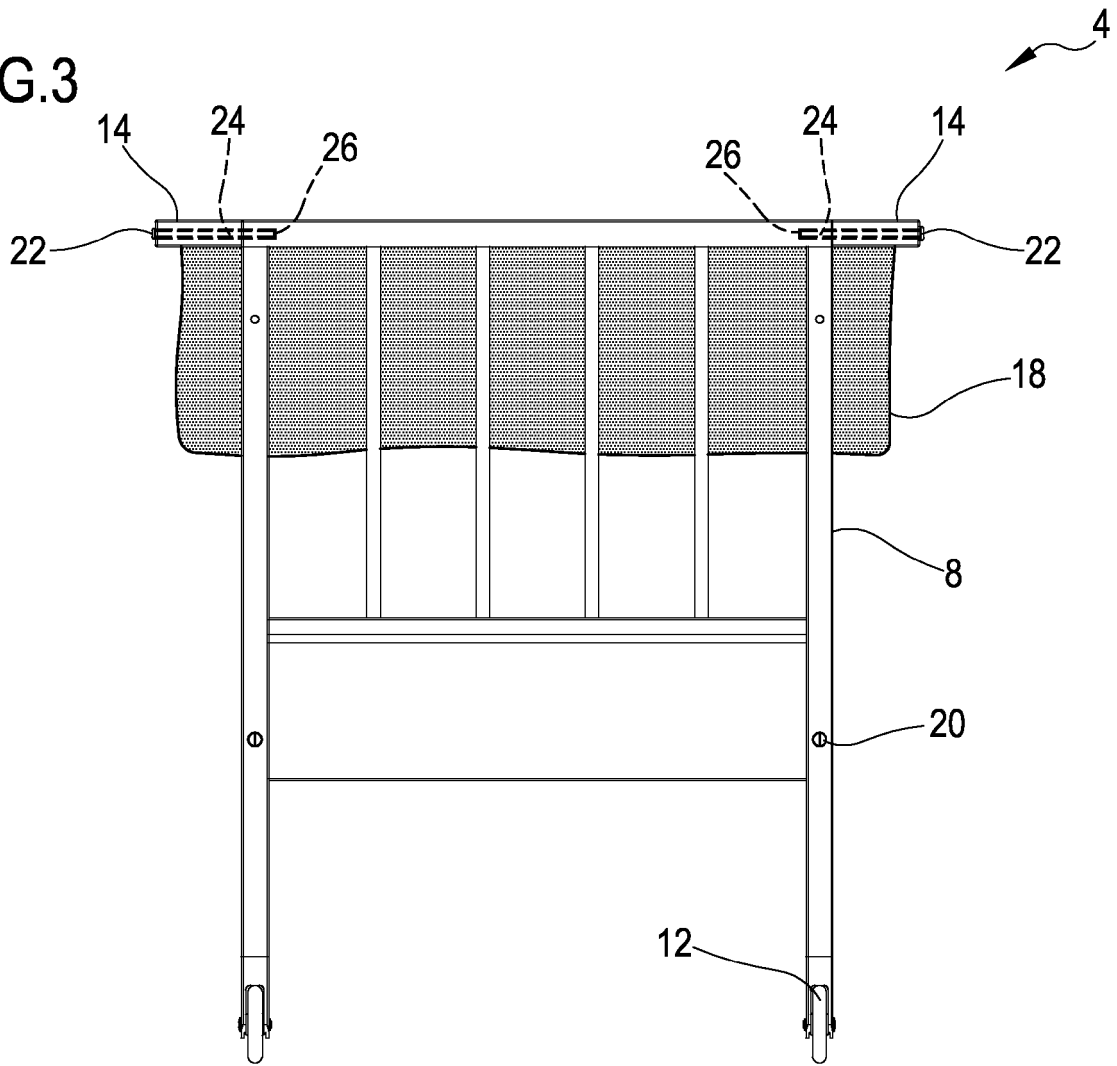
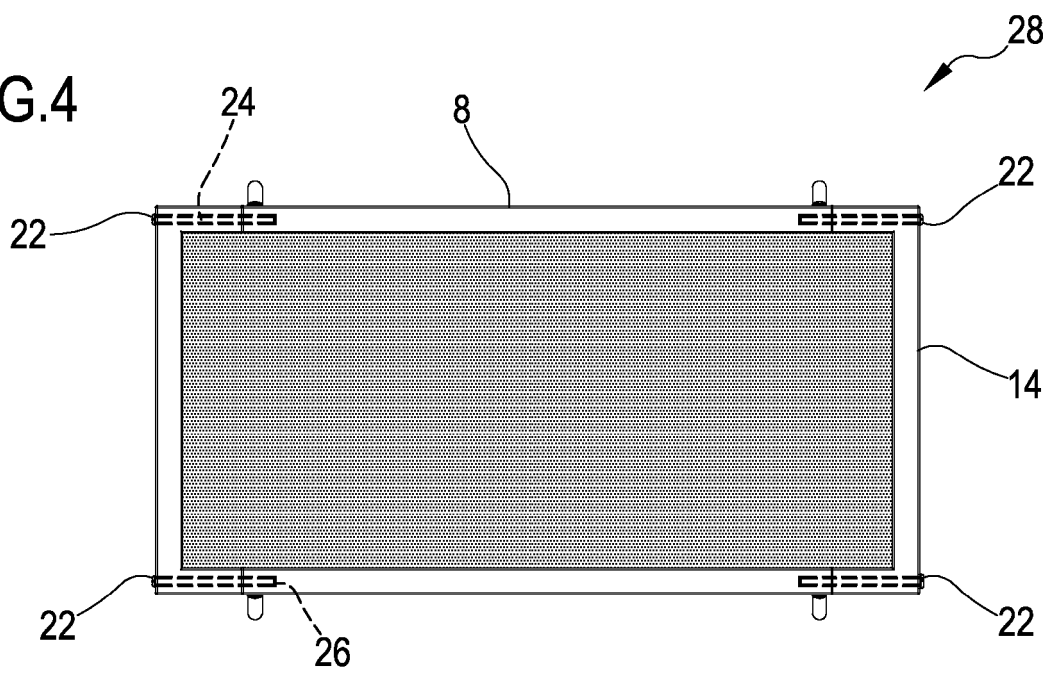
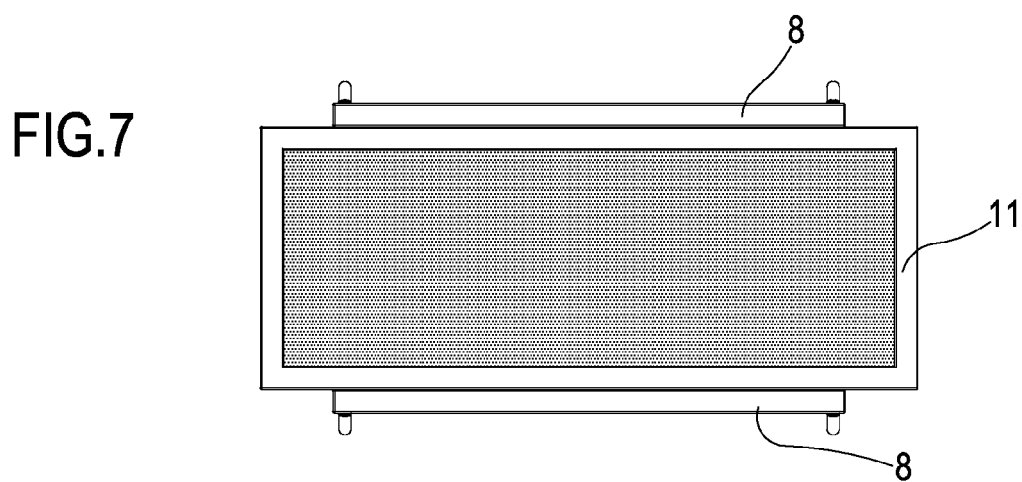
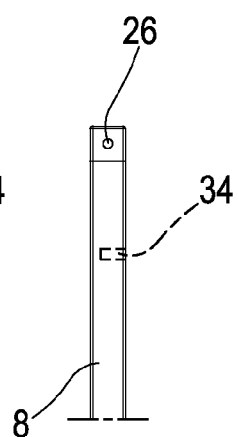
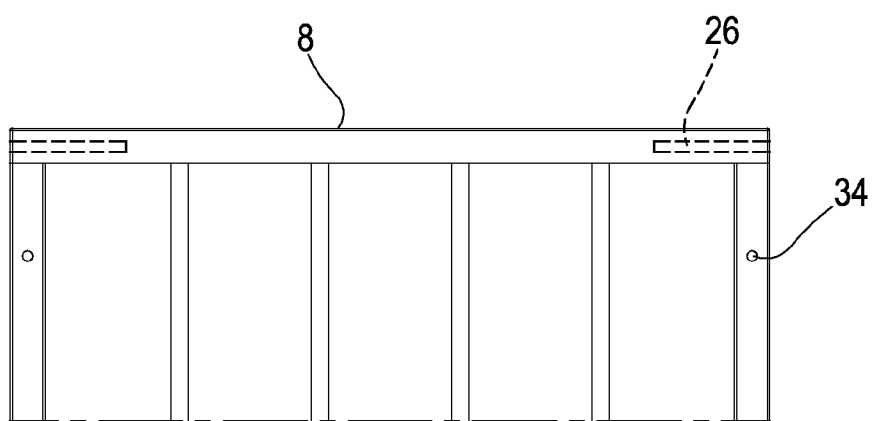
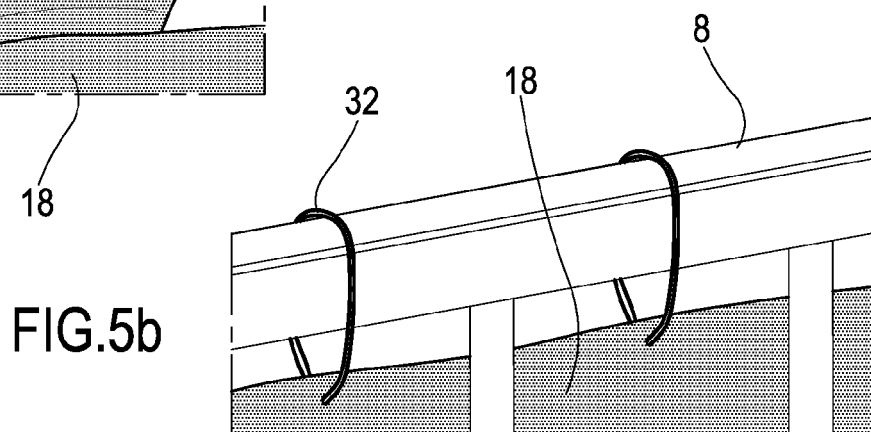
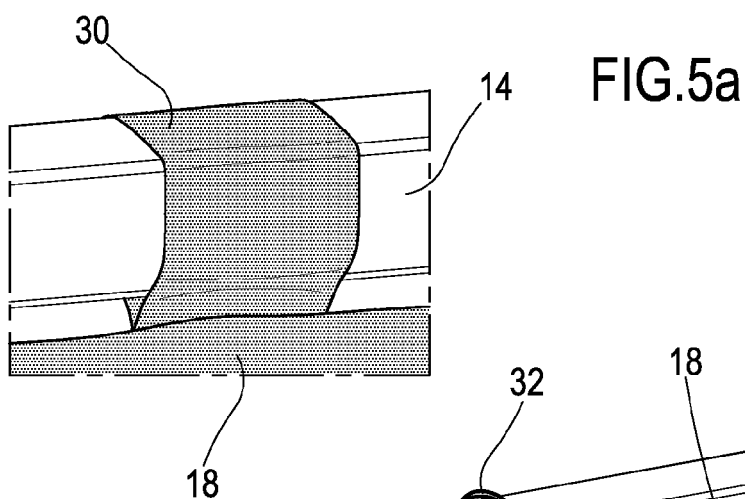


FIG.4







## EUROPEAN SEARCH REPORT

 Application Number  
 EP 17 17 2124

5

10

15

20

25

30

35

40

45

50

55

3

EPO FORM 1503 03.82 (P04C01)

| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AU 2015 218 449 A1 (GROYEARS INVEST PTY LTD) 17 March 2016 (2016-03-17)<br>* paragraphs [0023] - [0026]; figures *<br>----- | 1,3-6, 8-11                                               | INV.<br>A47D11/00<br>A47D9/00           |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FR 2 913 576 A1 (DOREL FRANCE SA SA [FR]) 19 September 2008 (2008-09-19)<br>* figures 4A, 4B, 5 *<br>-----                  | 1-12                                                      |                                         |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FR 2 049 474 A5 (SAUTHON CLAUDE) 26 March 1971 (1971-03-26)<br>* figures *<br>-----                                         | 1-12                                                      |                                         |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FR 1 234 065 A (DUTRILLAUX; BIGNON) 14 October 1960 (1960-10-14)<br>* figures *<br>-----                                    | 1-12                                                      |                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                             |                                                           | TECHNICAL FIELDS SEARCHED (IPC)         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                             |                                                           | A47D                                    |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                             |                                                           |                                         |
| Place of search<br><b>The Hague</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                             | Date of completion of the search<br><b>6 October 2017</b> | Examiner<br><b>Kis, Pál</b>             |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                                                                                             |                                                           |                                         |

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 17 2124

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-10-2017

10

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| AU 2015218449 A1                          | 17-03-2016          | NONE                       |                     |
| FR 2913576 A1                             | 19-09-2008          | NONE                       |                     |
| FR 2049474 A5                             | 26-03-1971          | NONE                       |                     |
| FR 1234065 A                              | 14-10-1960          | NONE                       |                     |

15

20

25

30

35

40

45

50

55

EPO FORM P0459

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

**REFERENCES CITED IN THE DESCRIPTION**

*This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.*

**Patent documents cited in the description**

- DE 724087 [0002]
- DE 9200592 U1 [0002]
- DE 102009027761 A1 [0002]
- DE 29706835 [0002]
- AU 2015218449 A1 [0003]