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Fitted cot bumper

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(56) Related Art
US 5806112
US 5706534
US 5577276

ABSTRACT

A fitted cot bumper 10 for a cot 11; the cot of the type including a base portion 13 to receive and support a mattress 12; guard means 28 extending upwardly from the base portion 13 adapted in at least a first raised position to prevent an occupant of the cot 11, when lying on the mattress 12, from at least rolling off the mattress;

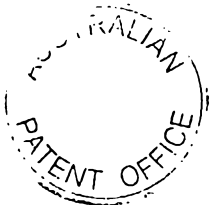
The bumper 10 includes a wall portion 17, 18, 19 adapted to internally line in padded fashion at least portions of the guard means 28 from a position adjacent to edges of the top surface of the mattress to a level a predetermined height above the top surface 27 of the mattress. The bumper 10 further comprises retention means 20, 21, 22 associated with the bumper whereby at least a lower region 26 of the wall portions 17, 18, 19 is restrained from rising above or moving away from the position adjacent to edges of the top surface of the mattress by a clasp action of at least portions of the retention means 20, 21, 22 around the mattress 12.

The wall portion 10 may include an upper region 29 of padded material and a lower region 26 of unpadded sheeting material.

The upper region 29 may be pivotably attached to the lower region 26 by a line of join 30 which is adapted, in use, to lie adjacent the top edges of the mattress 12.

The claims defining the invention are as follows:

1. A cot bumper for a cot; said cot of the type including a base portion to receive and support a mattress; guard means extending upwardly from said base portion adapted in at least a first raised position to prevent an occupant of said cot, when lying on said mattress, from at least rolling off said mattress; said bumper including wall portions adapted to internally line in padded fashion at least portions of said guard means from a position adjacent to edges of a top surface of said mattress to a position which is a predetermined height above said top surface of said mattress; said bumper further comprising retention means associated with said bumper whereby at least a lower region of said wall portions is restrained from rising above or moving away from said position adjacent to edges of said top surface of said mattress by a clamping action of at least portions of said retention means around said mattress and wherein said retention means includes at least a first strap extending between opposed walls of said bumper; said retention means further including skirt portions extending from lower edge portions of said wall portions in order to facilitate entrapment of said retention means between said mattress and said base portion of said cot; said at least a first strap and said skirt portions working together in use to



resiliently urge free edges of said skirt portions towards opposed edges thereof so as to create a resilient clasping action whereby said bumper is restrained relative to said mattress; said skirt portions including gathering; said retention means further including a second strap arranged to lie parallel to and spaced apart from said first strap; said wall portions including an upper region of padded material and a lower region of unpadded sheeting material; said upper region pivotably attached to said lower region by a line of join which is adapted, in use, to lie adjacent said top edges of said mattress.

2. A cot bumper for a cot as claimed in Claim 1 and as hereinbefore particularly described with reference to what is shown in the accompanying drawings.

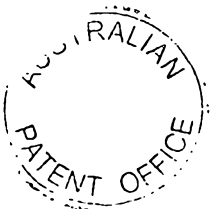
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By their Patent Attorneys

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Regulation 3.2

Original
Complete Specification
Petty Patent

Invention Title:

Fitted Cot Bumper

The following statement is a full description of this invention, including the best method of performing known to me:

FITTED COT BUMPER

The present invention relates to a fitted cot bumper and, more particularly, to a cot bumper particularly suited, but not exclusively, to prevent infants from making direct contact with guard rails and the like which form part of the cot whilst the infant is lying in the cot.

BACKGROUND

US3877090 discloses a bumper which is restrained primarily by attachment to the guard rails of a cot.

US3803646 discloses a mattress for use in a crib or cot and having a bumper which is integral with the mattress.

The former arrangement may present a danger to an infant in that lower edges of the bumper may ride up above the top level of the mattress and allow an infant's head to move underneath the bumper and thereby represent a risk of suffocation.

The latter arrangement requires that the mattress and the bumper be specially manufactured to work in conjunction with each other requiring, in practice, that the mattress and bumper be sold together. The possibility of retrofitting the bumper to another mattress not adapted for connection to the bumper is therefore not an option to the user.

It is an object of the present invention to overcome or substantially ameliorate one or more of the abovementioned disadvantages.

BRIEF DESCRIPTION OF INVENTION

5 Accordingly, in one broad form of the invention there is provided a cot bumper for a cot; said cot of the type including a base portion to receive and support a mattress; guard means extending upwardly from said base portion adapted in at least a first raised position to prevent an occupant of
10 said cot, when lying on said mattress, from at least rolling off said mattress; said bumper including wall portions adapted to internally line in padded fashion at least portions of said guard means from a position adjacent to edges of a top surface of said mattress to a position which
15 is a predetermined height above said top surface of said mattress; said bumper further comprising retention means associated with said bumper whereby at least a lower region of said wall portions is restrained from rising above or moving away from said position adjacent to edges of said top
20 surface of said mattress by a clamping action of at least portions of said retention means around said mattress and wherein said retention means includes at least a first strap extending between opposed walls of said bumper; said retention means further including skirt portions extending from lower edge portions of said wall portions in order to



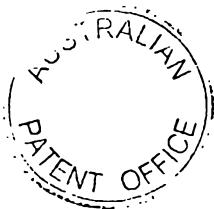
facilitate entrapment of said retention means between said mattress and said base portion of said cot; said at least a first strap and said skirt portions working together in use to resiliently urge free edges of said skirt portions towards
5 opposed edges thereof so as to create a resilient clasping action whereby said bumper is restrained relative to said mattress; said skirt portions including gathering; said retention means further including a second strap arranged to lie parallel to and spaced apart from said first strap; said
10 wall portions including an upper region of padded material and a lower region of unpadded sheeting material; said upper region pivotably attached to said lower region by a line of join which is adapted, in use, to lie adjacent said top edges of said mattress.

15 **BRIEF DESCRIPTION OF DRAWINGS**

One embodiment of the present invention will now be described with reference to the accompanying drawing wherein: Fig. 1 is a perspective view of a fitted cot bumper according to a first embodiment of the invention placed within a cot.

20 **DETAILED DESCRIPTION OF PREFERRED EMBODIMENT**

With reference to Fig. 1 there is illustrated a perspective, part cutaway view of a fitted cot bumper 10 located in working position within a cot 11 and ready for placement of a mattress 12 therein.



In this instance the cot 11 comprises a substantially flat base 13 adapted to support a mattress 12 when placed on a top surface 14 thereof.

Extending upwardly from the periphery of said base 13 are guard means in this instance in the form of a guard assembly 28 comprising side rails 15 supported on vertical rods 16. It is usually the case that at least a portion of the side rails 15 can be raised or lowered relative to the flat base 14 whereby, in a lowered position, access to an infant located within the cot 11 is facilitated whilst, in a raised position, egress of the infant from the cot 11 is rendered difficult and, as a minimum, prevents the infant from rolling out of the cot 11.

In accordance with a preferred embodiment of the invention a fitted cot bumper 10 comprises opposed first and second side walls 17, 18 connected by means of a head wall 19. All of the walls 17, 18, 19 incorporate padding in at least an upper region 29 for the primary purpose of minimising injury to an infant or other occupant by interposing the padding between the hard vertical rods 16 and the infant (not shown).

In this instance the walls 17, 18, 19 also incorporate a lower region 26 (shown hatched in Fig. 1) and pivotable about

the line of join 30 between the lower region 26 and the upper region 29.

In this instance the line of join 30 is arranged so that, in use, it is aligned at approximately the level of the top side 27 of mattress 12 when the mattress 12 is in position in the cot 11 with the fitted cot bumper 10 fitted to the mattress 12.

Additionally, in this instance, the lower region 26 is made from a thin, unpadded material such as, for example, cotton sheet or the like. This is to be contrasted with the upper region 29 which is made from padded materials such as twin walled sheeting with cotton wadding or other wadding interposed therebetween so as to provide a padded width of the order of 2-3cms before compression.

The upper region 29, optionally, can include at least one seam line 31 which joins adjacent sheeting of the opposed sheeting of the padded upper region 29.

The lower region 26 made, in this instance, of unpadded material will have a thickness of that of cotton sheeting and the like which is of the order of 1-2mm.

The walls 17, 18, 19 additionally include a lower skirt pivotally attached to lower edge 32 of the walls 17, 18, 19 and adapted, in use, to be folded substantially at right

angles about lower edge 32 to said walls 17, 18 and 19 generally in the manner illustrated in Fig. 1.

In this instance the skirt 20 is made from the same sheet material of which lower region 26 of the walls 17, 18,
5 19 is constructed.

The free edges 33 of the lower skirt 20 can include gathering 34 either along the entire free edge 33 or along selected portions thereof and including, for example, sewn elastic under tension whereby, in use, the gathering 34
10 causes free edges 33 to be urged inwardly towards the underside, centre portion of mattress 12 thereby to provide neat fitting of at least the lower skirt 20 and lower region 26 of walls 17, 18, 19 about mattress 12.

In addition, a first retaining means in the form of
15 elastic strap 21 can be connected to the skirt 20 between lower edges of opposed side walls 17, 18 at a point approximately midway along these opposed walls.

In addition, second retaining means in the form of a second elastic strap 22 can be connected to the skirt 20
20 between the opposed side walls 17, 18 at or near the free ends 23, 24 respectively thereof.

With this arrangement, when mattress 12 is lowered onto base 13 in the direction of the arrows shown in Fig. 1 the underside 25 of mattress 12 traps the lower skirt 20 and the

elastic straps 21, 22 between the mattress and the top surface 14 of cot base 13 thereby to assist lower region 26 (hatched in Fig. 1) of side walls 17, 18, 19 from riding up above top side 27 of mattress 12 when it is in position in
5 the cot as described above.

Also, the gathering 34 and/or the elastic straps 21, 22, in use, resiliently urge free edges 33 of the lower skirt 20 towards opposed edges in such a way as to create a clasping action around mattress 12.

10 The aim is to maintain, in use, line of join 30 approximately at the level of top side 27 of mattress 12 when the bumper 10 is fitted to the mattress 12 and in position within cot 11 for use.

This arrangement, on the one hand, minimises the risk of
15 at least the lower regions 26 of the walls of the bumper from rising so as to allow an infant to be smothered under them and, on the other hand, allows fitting of the fitted cot bumper 10 to any standard mattress 12. That is to say, no special adaptation of the mattress 12 is required beyond
20 suitability of size relative to the cot on the one hand and the bumper on the other.

Typical dimensions for a typical infants cot in Australia, for a cot of inside width 69cms x inside length 130cms and a corresponding mattress of approximately 69cms

width x 130cms length and height of 10-16cms would be as follows: the height of lower region 26 will match that of the mattress and be in the range 10-16cms. The height of upper region 29 of the side walls 17, 18, 19 will be in the
5 range of 25cms. The extension of the skirt 20 from lower edge 32 to free edges 33 will be of the order of 26-30cms.

The above describes only one embodiment of the present invention and modifications, obvious to those skilled in the art, can be made thereto without departing from the scope and
10 spirit of the present invention.

For example, the free ends 23, 24 of side walls 17, 18 may extend to the mattress corner whereby side walls 17, 18 become entirely co-extensive with the corresponding side walls of the mattress 12.

15 In a further embodiment the free ends may be joined to each other by a bumper end wall (not shown) whereby the bumper walls surround the mattress 12 entirely.

In further embodiments the number of straps 21, 22 can be varied to ensure stability of retention under the mattress
20 12 in accordance with the dimensions of the mattress and/or the bumper walls. Typically, for larger dimensions more straps will be utilised.

Optionally ties (not shown) can be utilised to releasably join parts of upper region 29 of walls 17, 18, 19 to vertical rods 16 in a manner known in the art.

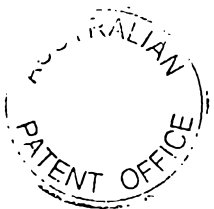
Optionally, and where flat base 13 is made from a plurality of parallel slats, ties (not shown) can be utilised to releasably attach elastic straps 21, 22 to various ones of the slats.

In further alternative forms of the invention the straps 21, 22 may be replaced by other retaining means which perform the same function of ensuring reliable retention of lower regions 26 of the walls of the bumper so that they may not inadvertently become raised or substantially moved, during use, above or from the edge region of the topside 27 of the mattress 12.

In a particular form lower region 26 of the side walls 17, 18, 19 is composed of the same sheet material as the lower skirt 20 and are formed together as one single sheet.

The claims defining the invention are as follows:

1. A cot bumper for a cot; said cot of the type including a base portion to receive and support a mattress; guard means extending upwardly from said base portion adapted
5 in at least a first raised position to prevent an occupant of said cot, when lying on said mattress, from at least rolling off said mattress; said bumper including wall portions adapted to internally line in padded fashion at least portions of said guard means
10 from a position adjacent to edges of a top surface of said mattress to a position which is a predetermined height above said top surface of said mattress; said bumper further comprising retention means associated with said bumper whereby at least a lower region of said
15 wall portions is restrained from rising above or moving away from said position adjacent to edges of said top surface of said mattress by a clamping action of at least portions of said retention means around said mattress and wherein said retention means includes at
20 least a first strap extending between opposed walls of said bumper; said retention means further including skirt portions extending from lower edge portions of said wall portions in order to facilitate entrapment of said retention means between said mattress and said base
25 portion of said cot; said at least a first strap and said skirt portions working together in use to



resiliently urge free edges of said skirt portions towards opposed edges thereof so as to create a resilient clasping action whereby said bumper is restrained relative to said mattress; said skirt portions including gathering; said retention means further including a second strap arranged to lie parallel to and spaced apart from said first strap; said wall portions including an upper region of padded material and a lower region of unpadded sheeting material; said upper region pivotably attached to said lower region by a line of join which is adapted, in use, to lie adjacent said top edges of said mattress.

2. A cot bumper for a cot as claimed in Claim 1 and as hereinbefore particularly described with reference to what is shown in the accompanying drawings.

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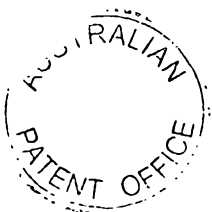
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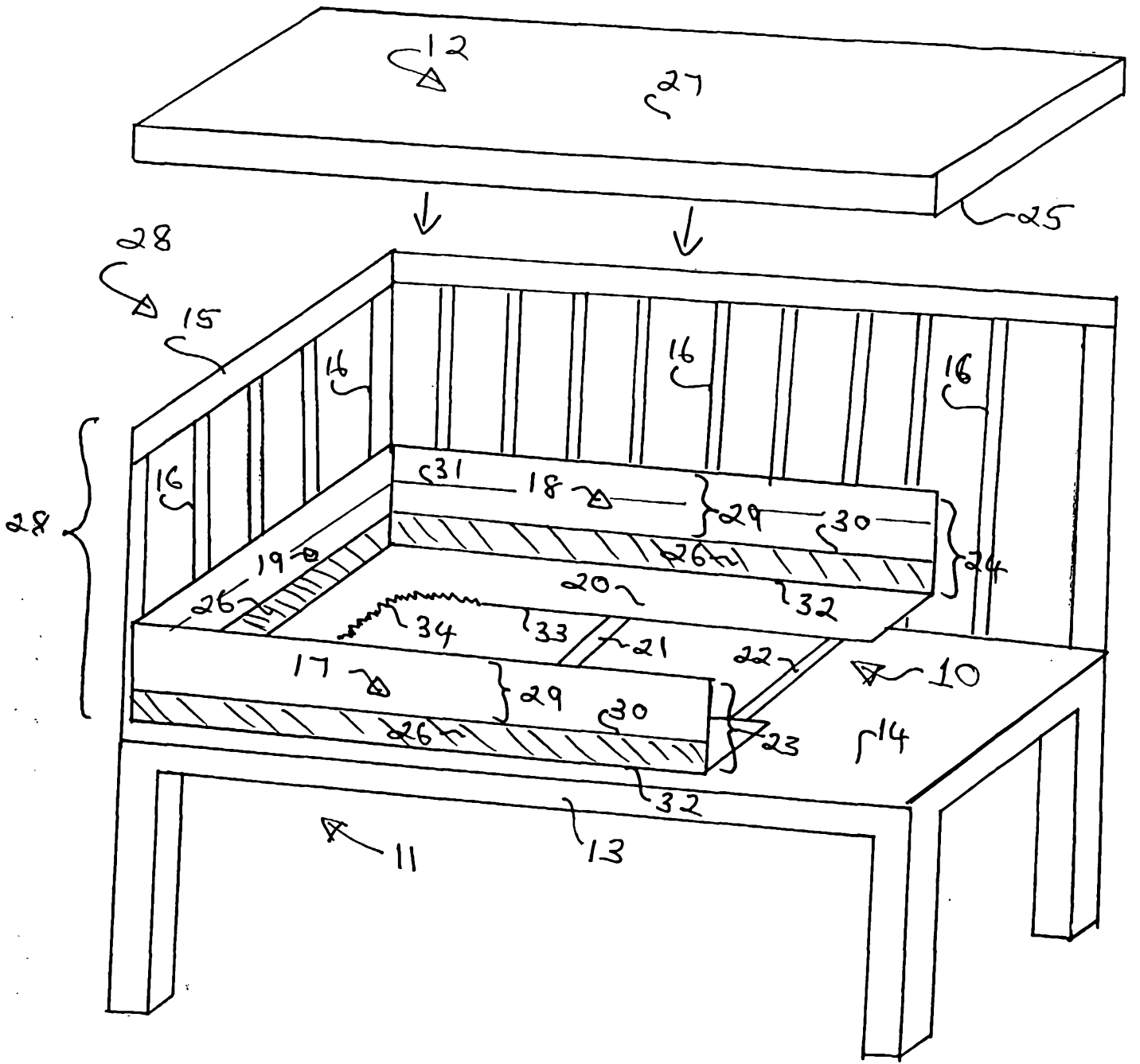


Fig 1