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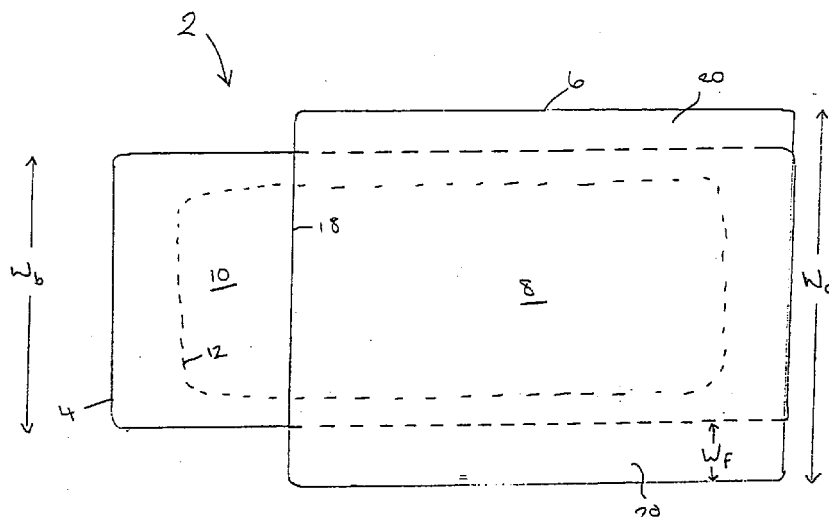
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(54) **Sheet assembly**

(57) A sheet assembly (2) is provided which includes a base sheet element (4) for overlying a mattress and a cover sheet element (6) stitched to the base sheet element at a position spaced from one end thereof. The base sheet element includes a sleeping area portion (8) and a non-sleeping area portion (10), either of which individually may be overlaid by the cover

sheet element. The sleeping area portion is spaced from the foot of the base sheet element and, together with the cover sheet element prevents a baby or young child from manoeuvring itself to the foot of the bed whereby it may become totally covered by the overlying bedding and overheat, possibly leading to cot death.



**Fig 1**

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## Description

**[0001]** The present invention relates to a sheet assembly for use particularly, but not exclusively, with young children's cots, cribs or the like.

**[0002]** Young children are at risk from a phenomenon known as cot death by which the child inexplicably dies whilst asleep in its bed. Much research has been carried out in this area, but no firm conclusions have yet been reached as to the cause of cot deaths. However, one probable explanation is that the child becomes overheated and dies because it cannot regulate its body temperature.

**[0003]** A child may suffer such an overheating problem if it becomes totally covered by all of its bed-linen or bedding. One way a child can become totally covered by its bedding is for it to wriggle down towards the foot of the mattress whereupon it ends up with its entire body underneath the overlying bed linen.

**[0004]** This problem led to the government issuing advice to parents to place their child with its feet at the foot of the mattress whereby the child could then no longer cover itself totally with its bed linen. However, children's bed-linen is typically produced in standard sizes and this means that for small children only a small proportion of the bed linen is in use. The remainder needs to be placed out of the way somewhere and this results in the foot of the mattress becoming cluttered with the unused portions of the bed linen which in turn makes the foot of the bed particularly bulky and makes it difficult quickly and easily to change the bedding. As will be apparent to all parents, it is necessary to change the bed linen on a child's mattress on a frequent basis.

**[0005]** Thus, it is desired to provide an article of bedding for a child's cot, crib or the like which reduces the possibility of a child manoeuvring itself into a position in which it may be totally covered by the overlying bedding and which allows the use of additional items of standard bedding without resulting in a cot, crib or the like having an environment which is unduly bulky or cluttered.

**[0006]** According to the present invention there is provided a sheet assembly comprising a base sheet element for overlying a mattress and a cover sheet element secured to the base sheet element at a position spaced from one end thereof, whereby the respective elements are capable of being brought together with the cover sheet element overlying the base sheet element to define a sleeping area which is spaced from one end of the base sheet element.

**[0007]** In embodiments of this aspect of the invention, the cover sheet element being secured to the base sheet element defines a barrier such that in use, when a child is placed in the sleeping area of the sheet assembly (ie. when the cover sheet element is retained in place covering the child's trunk, legs and, optionally, its arms), the child is prevented from moving towards the bottom or the foot of the bed, the bottom or foot of

the bed being defined as the end portion of the bed which is closest to the child's feet in normal use. Thus, the barrier prevents a child from manoeuvring itself to the foot of the mattress and in so doing, covering its entire body with the overlying bedding.

**[0008]** Having the sleeping area spaced from one end of the base sheet element also allows additional bedding of a standard size to be used without unduly cluttering the foot of the bed, since the end of the base sheet element from which the sleeping area is spaced is preferably located at the foot of the mattress (ie. the sleeping area is located towards the head of the base sheet element and the non-sleeping area is located towards the foot of the base sheet element). Accordingly, the bed-linen may cover both the sleeping area and the non-sleeping area, resulting in a reduction in the excess bed-linen material to be eg. tucked out of the way.

**[0009]** A further advantage associated with the present invention is that the sheet assembly may still be used when the child has outgrown the sleeping area. This may be achieved by arranging the cover sheet element such that instead of overlying the sleeping area portion of the base sheet element, it overlies the non-sleeping area portion of the base sheet element, with any excess cover sheet element material being foldable out of the way, eg. under the mattress. In this configuration, the sheet assembly of the present invention may simply be used as an under-sheet. This configuration has the further benefit that when formed as an under-sheet for a larger child, the sheet assembly comprises a double thickness of material at one end portion thereof (ie. consisting of the non-sleeping area portion of the base sheet element and the overlying cover sheet element). This double thickness of material can be used as extra protection for the underlying mattress if, for example, the child vomits whilst lying on the sheet assembly. As will be immediately apparent, in this configuration, the double thickness material portion of the sheet assembly is preferably located at the head of the mattress.

**[0010]** The cover sheet element is preferably attached to the base sheet element and more preferably it is stitched thereto. In embodiments in which the cover sheet element is stitched to the base sheet element, it is further preferred that the base sheet comprises two separate portions, namely a sleeping area portion and a non-sleeping area portion, which are stitched together along abutting edge portions, wherein the two abutting edge portions have located between them a fixing portion of the cover sheet element. This type of arrangement has the benefit of producing only one seam in the sheet assembly, the excess material of which may be located on the underside of the sheet assembly for aesthetic and comfort reasons.

**[0011]** In a preferred embodiment, the base sheet element includes means for securing it to a mattress, more preferably, the periphery of the base sheet ele-

ment is elasticated so that the base sheet element of the sheet assembly forms what is commonly known as a fitted sheet. This permits the fitting and removal of the sheet to be carried out quickly and easily.

**[0012]** In an alternative preferred embodiment, the cover sheet is what is commonly known as a flat sheet. It is not elasticated and is sized to overly the sleeping area portion of the base sheet element, with sufficient width for its two side portions to be at least partially retainable under the mattress in use.

**[0013]** The position at which the cover sheet element is secured to the base sheet element is preferably spaced from one end of the base sheet element by a distance of  $L/3$ , where  $L$  is the length of the base sheet. In this embodiment, the cover sheet element is preferably  $2L/3$  in length. This allows the whole sleeping area portion of the base sheet element to be coverable by the cover sheet element and, when the sheet assembly is used in its alternative configuration, it allows the cover sheet element to overlie the non-sleeping area portion of the base sheet element and have sufficient additional material that a portion of the cover sheet element is capable of being secured under the mattress to maintain the cover sheet element in the desired position.

**[0014]** The width of the cover sheet element is preferably greater than the width of the base sheet element. This allows two side portions of the cover sheet element at least partially to be securable under the mattress which thus permits the cover sheet element to be maintained in the desired position.

**[0015]** An embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings in which :

Figure 1 is a plan view from above of a sheet assembly according to the present invention;

Figure 2 is schematic view of the sheet according to figure 1 located over a mattress;

Figure 3 is a schematic view of the sheet assembly of figure 2 in one possible configuration; and

Figure 4 is a schematic view of the sheet assembly of figure 2 in a second configuration.

**[0016]** Figure 1 shows a sheet assembly 2 comprising a base sheet element 4 and a cover sheet element 6. The base sheet element 4 includes an elastic tape 12 which is attached to the periphery of the base sheet element 4.

**[0017]** The base sheet element 4 consists of two separate portions, a sleeping area portion 8 and a non-sleeping area portion 10 stitched together. Between the two portions 8, 10 of the base sheet element is located a fixing portion (not shown) of the cover sheet element 6, such that the cover sheet element 6 is stitched between both portions 8, 10 of the base sheet element

4 at seam 18.

**[0018]** The periphery of the base sheet element 4 including the elastic tape 12 is shown as a broken line in Figure 1 as the elastic tape urges the periphery of the base sheet element 4 into a flattened elliptical configuration which is typical of fitted sheets. The periphery of the base sheet element 4 is located beneath the sleeping area and non-sleeping area portions 8, 10 of the base sheet element 4.

**[0019]** Instead of the fitted sheet as described above, the base sheet element 4 may instead be what is known as a flat sheet.

**[0020]** In Figure 1, the cover sheet element 6 overlies lengthwise the sleeping area portion 8 and extends beyond the sleeping area portion 8 in a transverse direction to define flaps 20 one each of which is located on respective sides of the cover sheet element 6. In particular, the width  $W_b$  of the sleeping area portion 8 of the base sheet element 4 is 60cm and the width of the cover sheet element  $W_c$  is 120cm. Thus, each of the two flaps 20 has a width  $W_f$  of 30cm. It will of course be appreciated by those skilled in the art that the dimensions given here may be altered as desired.

**[0021]** Figure 2 shows the sheet assembly 2 located over a mattress 14. In this arrangement, the seam 18 is spaced from the foot of the mattress (indicated by F) by a distance equal to one third of the length  $L$  of the mattress 14. The cover sheet element 6 has a length equal to two thirds the length  $L$  of the mattress 14.

**[0022]** As can be seen in figure 2, the base sheet 4 is secured in position on the mattress 14 by means of the elastic tape 12. This type of arrangement is commonly referred to as a fitted sheet type of arrangement.

**[0023]** When the sheet assembly 2 is arranged in a first configuration (shown in figure 3) the cover sheet element 6 overlies the majority of the sleeping area portion 8 of the base sheet element 4. The two flaps 20 of the sheet element 6 are folded such that a portion of the flap 20 is adjacent to the side of the mattress 14 and the distal edge portion of each of the flaps 20 is secured or tucked underneath the mattress 14. This arrangement maintains the cover sheet element 6 in the desired position. As is common with cover sheets in general, an end portion 22 of the cover sheet element 6 maybe turned or folded back for comfort and to provide an uncovered area 24 of the base sheet element 4 where the child's head may be positioned so that it is not covered by the cover sheet element 6. In this configuration, the sleeping area portion 8 of the base sheet element 4, the seam 18 and the cover sheet element 6 define a pocket or chamber in which the child may safely sleep, with or without additional items of bedding overlying the sheet assembly 2, depending upon the ambient temperature.

**[0024]** The uncovered area 24 of the base sheet element 4 in this configuration is located at the head of the mattress 14 (indicated by H)

**[0025]** In a second configuration (shown in figure 4)

the sheet assembly 2 may still be used after a child has grown such that its length is greater than two thirds the length L of the mattress. In this configuration, the cover sheet element 6 is arranged such that a portion 26 of it entirely overlies the non-sleeping area portion 10 of the base sheet element 4, with the remainder of the material of the cover sheet element 6 being folded or secured adjacent to the side edge portion of the mattress 14 or under it. In this configuration, a substantially flat upwardly facing sheet consisting of the sleeping area portion 8 of the base sheet 4 and the portion 26 of the cover sheet element 6 which overlies the non-sleeping area portion 10 of the base sheet element 4. When using the sheet assembly 2 in this second configuration, the sheet assembly may effectively be reversed such that the sleeping area portion 8 of the base sheet element 4 is located towards the foot F of the mattress and the cover sheet portion 26, overlying the non-sleeping area portion 10 of the base sheet element 4, is positioned towards the head H of the mattress. This is because the sheet assembly 2 provides a double thickness of sheet material (the non-sleeping area portion 10 and overlying portion 26 of the cover sheet element 6) at the head H of the bed which would provide additional protection in the event that the child is ill during the night.

**[0026]** This preferred embodiment has been described by way of an example only and it will be apparent to those skilled in the art that many alterations can be made that are still within the scope of the invention, in particular, the aforementioned dimensions and relevant locations of the component parts may be varied as desired to allow for variations in the size of mattresses and/or the size of the user.

### Claims

1. A sheet assembly (2) comprising a base sheet element (4) for overlying a mattress and a cover sheet element (6) secured to the base sheet element at a position spaced from one end thereof, whereby the respective elements are capable of being brought together such that the cover sheet element overlies the base sheet element to thereby define a sleeping area which is spaced from one end of the base sheet element.
2. A sheet assembly according to claim 1 wherein the cover sheet element is stitched to the base element.
3. A sheet assembly according to claim 1 or claim 2 wherein the base sheet element comprises a sleeping area portion (8) and a non-sleeping area portion (10), the two portions being secured together along adjacent abutting edge portions, and wherein the two adjacent abutting edge portions have located between them a fixing portion of the cover sheet

element.

4. A sheet assembly according to any preceding claim wherein the base sheet element includes a means for securing it to a mattress.
5. A sheet assembly according to claim 4 wherein the securing means is provided by the periphery of the base sheet element being elasticated, whereby the base sheet is releasably retainable on the mattress.
6. A sheet assembly according to any preceding claim wherein the width of the cover sheet element is greater than the width of the base sheet element.

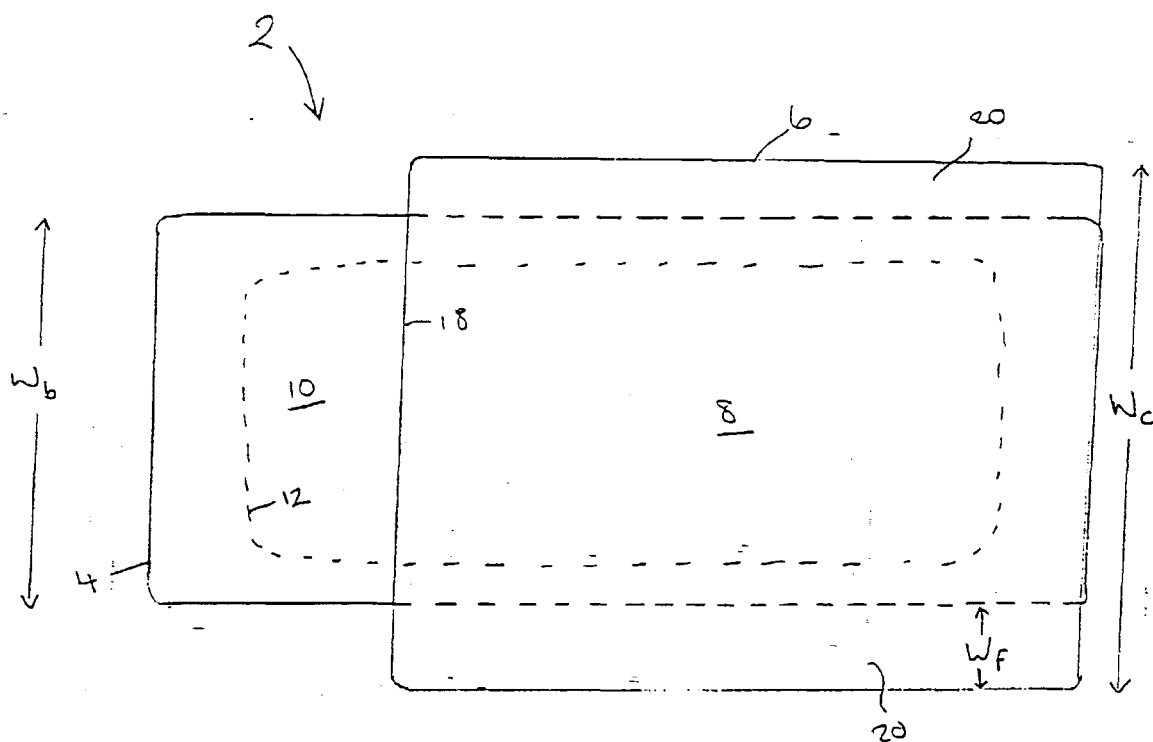


Fig 1

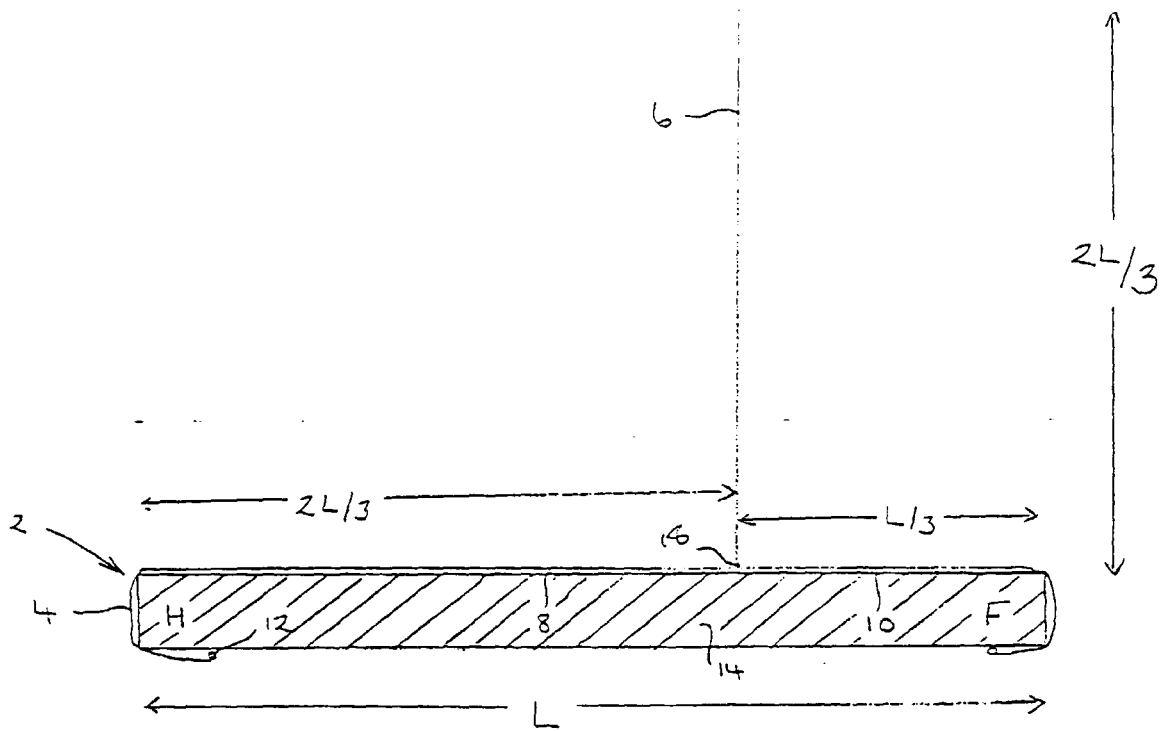


Fig 2

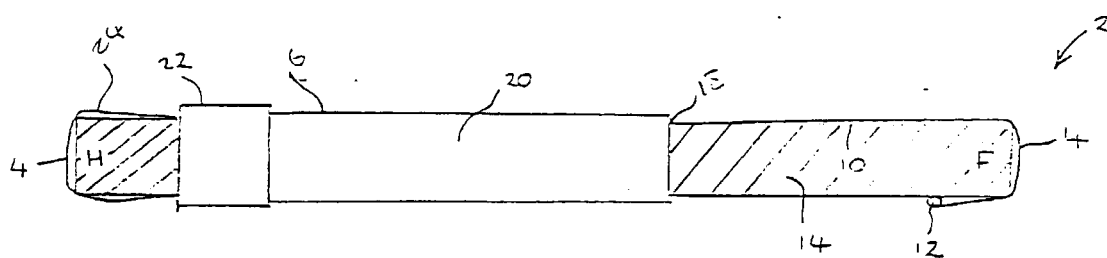


Fig 3

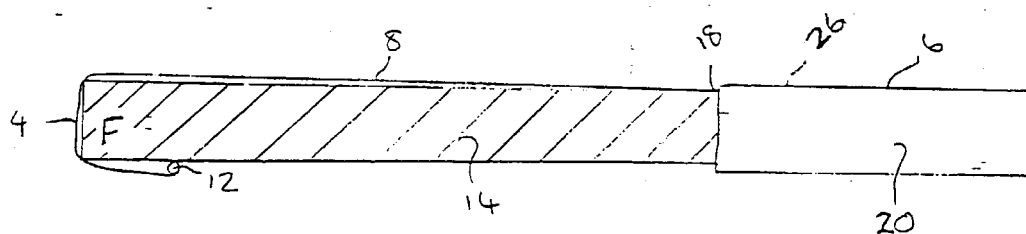


Fig 4