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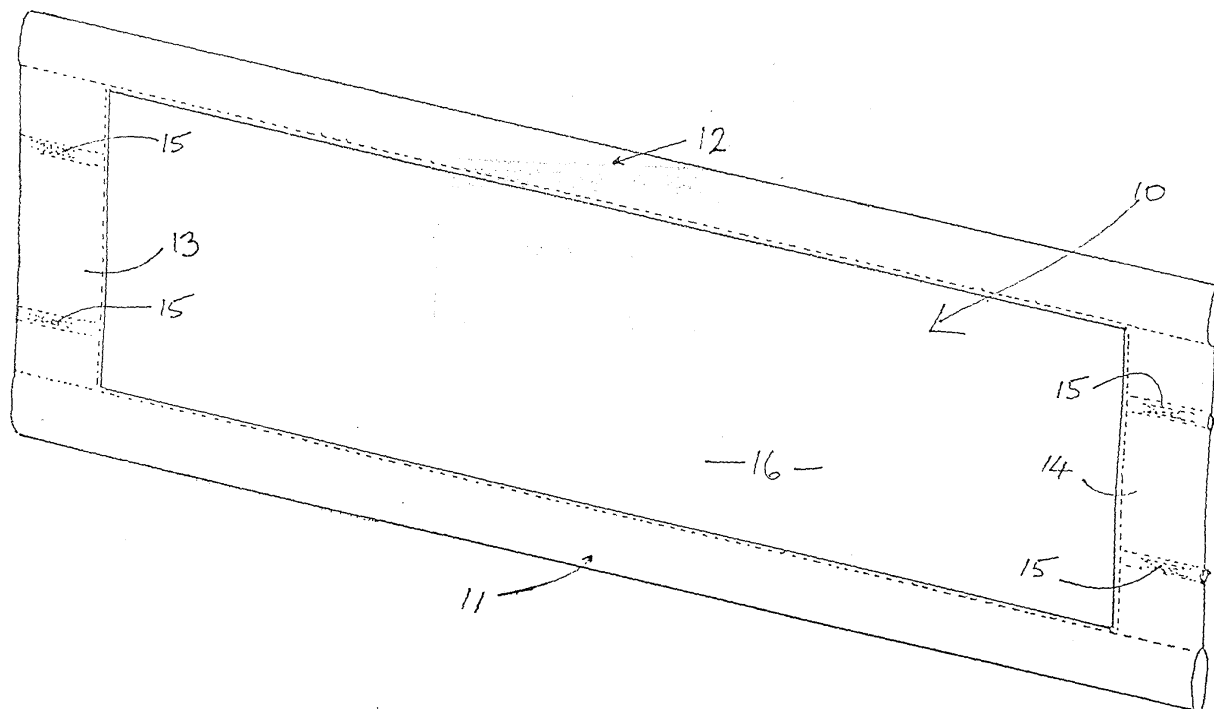
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(54) Bed fittings

(57) A bed side rail (10) comprises a pair of spaced substantially horizontal members, resiliently deformable covers (11 and 12) fitted over the substantially horizontal

members and a sheet (16) of flexible, transparent, fire-retardant plastics material extending between the substantially horizontal members.



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Description

Field of the Invention

[0001] This invention relates to bed fittings and is particularly concerned with side rails that are fitted to the sides of beds to prevent the occupants of the beds falling out.

[0002] Such side rails are typically used in hospitals and homes for the disabled and/or elderly. If the occupants of the beds are likely to be subject to uncontrolled movements or might otherwise damage themselves, the side rails are either padded or provide support for padding.

[0003] For some patients, the rails extend a significant distance above the mattress so that, if the patient spends the majority of his or her time in bed, substantially all that the patient is able to see is the ceiling above the bed.

[0004] It is accordingly an object of the present invention to provide an improved form of bed side rail.

Summary of the Invention

[0005] According to the present invention there is provided a bed side rail comprising a pair of spaced substantially horizontal members, resiliently deformable covers fitted over the substantially horizontal members and a sheet of flexible, transparent, fire-retardant plastics material extending between the substantially horizontal members.

[0006] The flexible, transparent plastics material is preferably of polyvinylchloride (clear p.v.c.) and is conveniently in the form of a sheet having a thickness of the order of 0.75 mm., particularly within the range of from 0.5 mm. to 1.0 mm.

[0007] The resiliently deformable covers preferably extend for the full lengths of the substantially horizontal members. The resiliently deformable covers are preferably of expanded polyvinylchloride (expanded p.v.c.) fabric.

[0008] The ends of the resiliently deformable covers fitted over the substantially horizontal members are preferably interconnected by vertical members so that, together, the resiliently deformable covers and the vertical members form a frame that, in use, extends alongside the bed to prevent an occupant of the bed falling out of the bed while, at the same, providing the occupant of the bed with a horizontal field of view and enabling carers to obtain a clear view of the occupant of the bed.

[0009] The vertical members are preferably formed of expanded p.v.c. fabric. The vertical members may be formed with pockets to receive slidable elements that are engageable with vertical bedposts.

[0010] The lower of the two substantially horizontal members may be connected to a horizontally extending base member that is provided with fittings for connection of the side rail to the bedstead. The arrangement is pref-

erably such that, when the side rail is attached to the bedstead and a mattress is in position on the bedstead, the lower of the two substantially horizontal members is at substantially the same level as the upper surface of the mattress.

Brief Description of the Drawing

[0011] The single figure of the accompanying drawing is a perspective view of a bed side rail.

Description of the Preferred Embodiment

[0012] The bed side rail 10 shown in the drawing includes upper and lower elongated, substantially horizontal tubular members over which resiliently deformable covers 11 and 12 respectively are fitted. The end portions of the covers 11 and 12 are interconnected by vertical members 13 and 14 so that, when the side rail 10 is attached to a bedstead, the side rail 10 forms a vertically extending frame preventing the occupant of the bed from falling out of the bed on that side of the bed. The lower of the two substantially horizontal tubular members, i.e. that within the tubular cover 11, is at substantially the same level as the upper surface of the mattress on the bed, and a similar side rail is provided at the other side of the bed.

[0013] The lower of the two substantially horizontal members, i.e. that within the tubular cover 11, may be connected to a horizontally extending base member (not shown) that is provided with fittings for connection of the side rail 10 to the bedstead.

[0014] Plastic sliders 15 are contained in pockets formed in the vertical members 13 and 14 and are so shaped that, in their extended positions, they can engage with complementary formations of vertical posts at the corners of the bedstead whereby the side rail 10 can readily be moved between its "in use" upright position and a lowered position or removed completely.

[0015] Other means of connection of the side rail 10 to the bedstead may be employed. For example, ring fittings may be provided at each end of the side rail 10 for slidable engagement with vertical posts at the corners of the bedstead.

[0016] The covers 11 and 12 and the vertical members 13 and 14 are formed of a fire-resistant flexible plastics material of such thickness and composition as to provide a cushioning action if the occupant of the bed should strike one of the covers 11 and 12 or one of the vertical members 13 and 14 with, for example, an arm or a leg.

[0017] The fire-resistant flexible plastics material from which the covers 11 and 12 and the vertical members 13 and 14 are formed is typically an expanded polyvinylchloride leatherette fabric that is fire-resistant to British Standard 5852.

[0018] A transparent plastic sheet 16 fills the rectangular space between the covers 11 and 12 and the ver-

tical members 13 and 14 and is bonded in position so that it provides a flexible transparent window alongside the bed. The plastic sheet 16 can be of polyvinylchloride of the following specification:-

Thickness - 0.50 mm. to 1.0 mm., typically 0.75 mm.,
Tensile Strength (Warp) - 190 kg/cm²,
(Weft) - 189 kg/cm²,
Tear Strength (Warp) - 6 kg/mm,
(Weft) - 6 kg/mm,
Elongation (Warp) - 240%,
(Weft) - 260%,
Heat Strinkage (Warp) - Minus 5%,
(Weft) - Plus 2%,
Weight - 640 g/m², and
Fire Retardant to British Standard 5438.

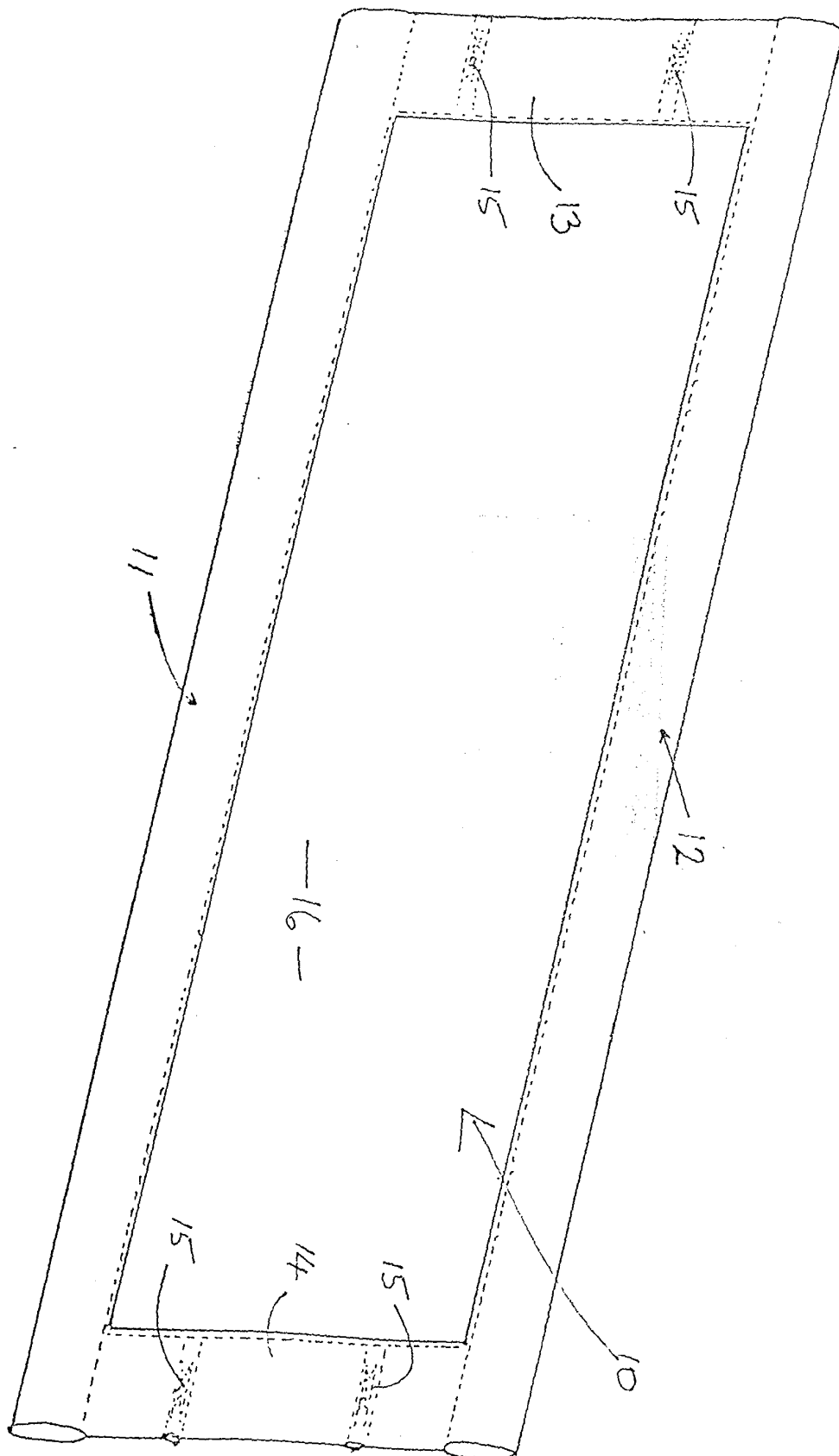
[0019] Fitting of a pair of side rails 10 as described above to a bed in a hospital, care home or the like not only enables the occupant of the bed to see more of the environment around the bed, without any reduction in the safety of the occupant, but also ensures that the carers are able to see the occupant of the bed more easily.
[0020] A typical bed side rail 10 will have a length of 2000 mm., to correspond to the length of a standard bed, and a height within the range of from 600 to 650 mm., for example, 635 mm.

Claims

1. A bed side rail comprising a pair of spaced substantially horizontal members, resiliently deformable covers fitted over the substantially horizontal members and a sheet of flexible, transparent, fire-retardant plastics material extending between the substantially horizontal members.
2. A bed side rail as claimed in Claim 1, in which the flexible, transparent plastics material is polyvinylchloride.
3. A bed side rail as claimed in either of the preceding claims, in which the flexible, transparent plastics material is in the form of a sheet having a thickness within the range of from 0.5 mm. to 1.0 mm.
4. A bed side rail as claimed in any one of the preceding claims, in which the resiliently deformable covers extend for the full lengths of the substantially horizontal members.
5. A bed side rail as claimed in Claim 4, in which the resiliently deformable covers are of expanded polyvinylchloride fabric.
6. A bed side rail as claimed in any one of the preceding

ing claims, in which the ends of the resiliently deformable covers fitted over the substantially horizontal members are interconnected by vertical members so that, together, the resiliently deformable covers and the vertical members form a frame that, in use, extends alongside the bed.

7. A bed side rail as claimed in Claim 6, in which the vertical members are formed of expanded polyvinylchloride fabric.
8. A bed side rail as claimed in Claim 7, in which the vertical members are formed with pockets to receive slidable elements that are engageable with vertical bedposts.





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 04 25 0321

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Place of search THE HAGUE		Date of completion of the search 18 May 2004	Examiner Kus, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/92 (P04/C01)

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