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INFANT/TODDLER SHOWER CHAIR

The invention is described in the following statement:

Field of the invention

[1] The present invention relates to an infant/toddler child chair and in particular to a chair for use in showering an infant or toddler.

[2] The invention has been developed primarily for use in showering and will be described hereinafter with reference to this application. However, it will be appreciated that the invention is not limited to this particular field of use.

Background of the invention

[3] One of the difficult tasks for parents and carers is bathing or showering infants and young children. There are many inherent risks and difficulties in this task for both the child and the adult, including slipping and falling, water danger, and the adult having to bend down constantly and handle a moving slippery child.

[4] The present invention seeks to overcome or substantially ameliorate at least some of the deficiencies of the prior art, or to at least provide an alternative.

[5] It is to be understood that, if any prior art information is referred to herein, such reference does not constitute an admission that the information forms part of the common general knowledge in the art, in Australia or any other country.

Summary of the invention

[6] According to a first aspect, the present invention provides a chair for showering an infant or toddler child, the chair comprising

a chair body supported by a stand, the chair body comprising a seat and seatback adapted to support at least the torso of the child;

at least one of the seat and the seatback comprising padding means having lateral portions which cover respective internal lateral sides of the seat and/or the seatback, the lateral portions being separated by a middle section therebetween to provide a space between the lateral portions.

[7] Preferably, both the seat and the seatback comprise padding means having the lateral portions separated by a middle section therebetween.

[8] Preferably, the chair body comprises an integrally formed shell shaped as a hollow pod.

[9] Preferably, the chair body further comprises side guards extending between respective lateral edges of the seat and the seatback.

[10] Preferably, the padding means comprises side portions covering the internal surfaces of the side guards.

- [11] Preferably, the middle section comprises a plurality of spaced apertures.
- [12] Preferably, the chair body further comprises harness means for securing the torso of the child.
- [13] Preferably, the chair body further comprises a footrest extending from a lower portion thereof.
- [14] Preferably, the stand comprises a height adjustment means where the height of the lowermost portion of the chair body from the ground can be adjusted up to a height of 2 metres.
- [15] Preferably, the height adjustment means allows the height of the lowermost portion of the chair body from the ground to be adjusted between a height of 70 cm to 2 metres.
- [16] Preferably, the stand comprises a base and lateral posts which extend generally upwardly from the base, wherein the length of the lateral posts can be adjusted.
- [17] Preferably, the base is generally U-shaped and comprises a rear curved section and two generally straight side sections having a respective front end, wherein the lateral posts respectively extend from the front end.
- [18] Preferably, the base comprises wheels which can be selectively locked as required to prevent movement of the chair when required.
- [19] Preferably, the lateral posts are curved and extend upwardly and rearwardly.
- [20] Preferably, the chair body is pivotably attached to the stand which allows the angle of the chair body relative to the ground to be adjusted and fixed at a desired angle.
- [21] Preferably, the chair further comprises an angle adjustment means between the chair and the stand.
- [22] Preferably, each lateral post comprises an upper portion and a lower portion telescopically arranged with each other.
- [23] Preferably, each lower portion comprises a number of spaced holes and each upper portion comprises a biased lock pin which can selectively engage one of the spaced holes for adjusting the effective length of the lateral post.
- [24] Preferably, the middle unpadded section is in the shape of an X.
- [25] Preferably, the chair body is removable and reattachable to the stand.
- [26] Preferably, the stand is foldable such that at least the base portion thereof can be reduced in width.

[27] In another aspect, the present invention provides a chair for showering an infant or toddler child, the chair comprising

a chair body supported by a stand, the chair body adapted to support at least the torso and head of the child;

wherein the stand comprises a height adjustment means where the height of the lowermost portion of the chair body from the ground can be adjusted up to a height of 2 metres.

[28] In another aspect, the present invention provides a chair for showering an infant or toddler child, the chair comprising:

a chair body, at least one section of the chair body comprising portions separated by a channel section therebetween, the channel section being sized to receive at least a user's hand or arm.

[29] Preferably, the portions comprise lateral portions separated by a middle channel section.

[30] Preferably, the chair body comprises a seat and seatback, and the at least one section is in the seatback.

[31] In another embodiment, chair body comprises a seat and seatback, and the at least one section is in the seat.

[32] In another embodiment, the chair body comprises a seat and seatback, and the at least one section is in both the seat and the seatback.

[33] Preferably, the chair body comprises a number of spaced apertures therein.

[34] Preferably, the apertures are in the channel section.

[35] Preferably, the lateral portions comprise padding means.

[36] In another embodiment, the lateral portions are defined by spaced padding means on the chair body separated by the channel section.

[37] Preferably, the chair body further comprises harness means for securing the torso of the child.

[38] Preferably, the chair body further comprises a footrest extending from a lower portion thereof.

[39] Preferably, the chair body is supported by a stand.

[40] Preferably, the stand comprises a height adjustment means where the height of the lowermost portion of the chair body from the ground can be adjusted up to a height of 2 metres.

[41] Preferably, the height adjustment means allows the height of the lowermost portion of the chair body from the ground to be adjusted between a height of 70 cm to 2 metres.

[42] Preferably, the chair body is pivotably attached to the stand which allows the angle of the chair body relative to the ground to be adjusted and fixed at a desired angle.

[43] Preferably, the chair further comprises an angle adjustment means between the chair and the stand.

[44] Preferably, the channel section extends from an upper portion of the chair body.

[45] Other aspects of the invention are also disclosed.

Brief Description of the Drawings

[46] Notwithstanding any other forms which may fall within the scope of the present invention, preferred embodiments of the present invention will now be described, by way of examples only, with reference to the accompanying drawings in which;

[47] Fig. 1 is a schematic perspective view of an infant/toddler shower chair in accordance with a preferred embodiment of the present invention;

[48] Fig. 2 is a front view of the chair of Figure 1;

[49] Fig. 3 is a side view of the chair of Figure 1;

[50] Fig. 4 is a modified embodiment of the chair of Figures 1 to 3 where (a) is a rear perspective view and (b) is a front perspective view.

Description of Embodiments

[51] It should be noted in the following description that like or the same reference numerals in different embodiments denote the same or similar features.

[52] Figures 1 to 3 show a chair 10 for showering an infant or toddler in accordance with a preferred embodiment of the present invention. The chair 10 comprises a chair body 20 supported by a stand 40.

[53] The chair body 20 comprises a shell 21 and a footrest 22. The shell 21 is generally formed as a hollow pod and defines a seat 24, a seatback 25 and side guards 26. The seatback 25 is slightly curved and is generally perpendicular to the seat 24. The side guards 26 extend between the respective lateral edges of the seat 24 and the seatback 25.

[54] The seat 24, seatback 25 and side guards 26 together define an open front 27 and an internal space 28 for receiving at least the torso and head portion of an infant or toddler in use.

[55] The shell 21 comprises padding means 30, which comprises side portions 30c covering the internal surfaces of the side guards 26, lateral portions 30a and 30b which cover respective internal lateral sides of the seat 24 and the seatback 25, and a head portion 30d which covers the upper portion of the seatback 25.

[56] The lateral portions 30a and 30b are separated by a middle section 31 therebetween. The middle section 31 is a portion of the shell 21 which is not padded, and which includes a plurality of spaced circular apertures 32. The shell 21 also includes harness means 80, such as a 5-point strap assembly for securing the torso of the infant or toddler within the internal space 28 in use. The footrest 22 extends from a lower portion of the shell 21

[57] The shell 21 in the embodiment is integrally made from a single piece of plastics material and the padding means 30 is made from a waterproof flexible material such as plastics, vinyl or leather which contains cushioning material therein.

[58] The stand 40 comprises a base 42 and lateral posts 44 which extend generally upwardly from the base 42. The base 42 is generally U-shaped and comprises a rear curved section 51 and two straight side sections 52 having a respective front end 53. The base 42 comprises wheels 71 disposed below the curved section 51 and the front ends 53. Each of the wheels 71 can be selectively locked as required to prevent movement of the chair 10 when required.

[59] The lateral posts 44 extend from a respective front end 53 of the side sections 52. Each lateral post 44 is curved and extends upwardly and rearwardly, such that an upper end 45 thereof is disposed substantially vertically over the rear section 51. The chair body 20 is pivotably attached to the stand 40, by outer surfaces of the side guards 26 being pivotably attached to a respective upper end 45 of the lateral posts 44, with an angle adjustment means 33 provided therebetween which allows the angle of the chair body 20 relative to the ground to be adjusted and fixed at a desired angle. The angle adjustment means 33 can be any suitable means such as a biased pin on the chair body 20 which can engage a number of spaced holes in a plate attached to the upper end 45 of the lateral posts 44.

[60] Each lateral post 44 comprises an upper portion 56 received in a lower portion 57 such that they are arranged telescopically with each other. Each lower portion 57 comprises a number of spaced holes 62 and each upper portion 56 comprises a biased lock pin 64 which can selectively engage one of the spaced holes 62 for adjusting the effective length of the lateral post 44. In this manner, a height adjustment means 65 is provided where the

height of the chair body 20 from the ground can be adjusted as desired. The lateral posts 44 are of a length to allow the lowermost portion of the shell 21 from the ground to be adjusted up to a height of 2 metres. Preferably, the height adjustability is between 1 metre and 2 metres from the ground as required.

[61] The shape of the stand 40 provides an open front 59 which allows an adult stand between the lateral posts 44 so that the adult can stand close to the chair body 20 in use. Also, the base 42 is dimensioned to be small enough to fit inside a standard shower. The stand 40 is made from non-rusting material such as plastics or suitably coated metal material.

[62] In use, an adult parent or carer will adjust the chair 10 as required prior to placing the infant/toddler therein. For example, the angle of the chair body 20 will be adjusted via the angle adjustment means 33 as infants will require a more laid back orientation than older toddlers. Also, the adult can adjust the height of the chair body 20 via the height adjustment means 65 so that the adult does not have to bend down unnecessarily during use.

[63] The adult can then place the child in the chair body 20 and secure the child therein via the harness means 80. The adult then wheels the chair 10 into the shower and the infant/toddler can be washed. The middle section 31 which is not padded provides a channel which provides space for the adult's arm and hand for washing the back, bottom and back of leg portions of the infant/toddler while the toddler is secured in the chair body 20. Also, the shell 21 provides an open front 27 with no obstructions which provides the adult with easy access to the child. Water in the chair body 20 drains via the circular apertures 32 in use.

[64] The preferred embodiment thus provides an infant/toddler shower chair which allows parents and carers to easily handle an infant/toddler in the shower. The adult can easily wheel in the infant/toddler in the chair and with ease shower the infant/toddler without hurting their back and with the infant safely secured within the chair. The infant/toddler is provided with cushioned seating and the chair can be used in all seasons.

[65] Whilst preferred embodiments of the present invention have been described, it will be apparent to skilled persons that modifications can be made to the embodiments described. For example, the stand can be embodied in other forms, such as a tripod form. Also, the footrest can be made to be adjustable in length and the shell can be provided with means for attachment of infant/toddler toys for the child in use.

[66] Also, it is possible to vary the shape of the padding means, such as by having the middle unpadded section be in the shape of an X. The chair body can also be made removable and reattachable to the stand. The stand can also be made foldable such that at

least the base portion thereof can be reduced in width. These features will assist in use of the chair through narrow shower screen doors or storage of the chair.

[67] Figure 4 shows a modified embodiment of a chair 10b which is similar to the chair 10 above. The chair 10b also comprises the chair body 20 supported by the stand 40.

[68] In this embodiment however, the shell 21 does not comprise padding means. Instead, lateral portions 30a and 30b of the seatback 25 are separated by a middle channel section 31 therebetween. The middle channel section 31 is sized to receive at least a user's hand or arm.

[69] The other features of the chair 10 are similar to that of the chair 10b, including having a harness means 80, the footrest 22 and the features of the stand 40.

[70] The chair body 10b can thus have at least one section comprising portions separated by a channel section 31 sized to receive at least a user's hand or arm.

[71] The at least one section can be in the seat 24, the seatback 25 or both.

[72] The chair 10b can also comprise a number of spaced apertures therein, preferably in the channel section 31.

[73] The lateral portions 30a and 30b can also comprise padding means.

[74] The chair 10b comprises a height adjustment means where the height of the lowermost portion of the chair body from the ground can be adjusted up to a height of 2 metres.

[75] The height adjustment means allows the height of the lowermost portion of the chair body from the ground to be adjusted between a height of 70 cm to 2 metres.

[76] The chair body 20 is pivotably attached to the stand 40 which allows the angle of the chair body relative to the ground to be adjusted and fixed at a desired angle.

[77] The chair 10b further comprises an angle adjustment means between the chair and the stand.

[78] The channel section 31 extends from an upper portion of the chair body 20.

Interpretation

Embodiments:

[79] Reference throughout this specification to "one embodiment" or "an embodiment" means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, appearances of the phrases "in one embodiment" or "in an embodiment" in various places

throughout this specification are not necessarily all referring to the same embodiment, but may. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner, as would be apparent to one of ordinary skill in the art from this disclosure, in one or more embodiments.

[80] Similarly it should be appreciated that in the above description of example embodiments of the invention, various features of the invention are sometimes grouped together in a single embodiment, figure, or description thereof for the purpose of streamlining the disclosure and aiding in the understanding of one or more of the various inventive aspects. This method of disclosure, however, is not to be interpreted as reflecting an intention that the claimed invention requires more features than are expressly recited in each claim. Rather, as the following claims reflect, inventive aspects lie in less than all features of a single foregoing disclosed embodiment. Thus, the claims following the Detailed Description of Specific Embodiments are hereby expressly incorporated into this Detailed Description of Specific Embodiments, with each claim standing on its own as a separate embodiment of this invention.

[81] Furthermore, while some embodiments described herein include some but not other features included in other embodiments, combinations of features of different embodiments are meant to be within the scope of the invention, and form different embodiments, as would be understood by those in the art. For example, in the following claims, any of the claimed embodiments can be used in any combination.

Different Instances of Objects

[82] As used herein, unless otherwise specified the use of the ordinal adjectives "first", "second", "third", etc., to describe a common object, merely indicate that different instances of like objects are being referred to, and are not intended to imply that the objects so described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner.

Specific Details

[83] In the description provided herein, numerous specific details are set forth. However, it is understood that embodiments of the invention may be practiced without these specific details. In other instances, well-known methods, structures and techniques have not been shown in detail in order not to obscure an understanding of this description.

Terminology

[84] In describing the preferred embodiment of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. However, the invention is not intended to be limited to the specific terms so selected, and it is to be understood that each

specific term includes all technical equivalents which operate in a similar manner to accomplish a similar technical purpose. Terms such as "forward", "rearward", "radially", "peripherally", "upwardly", "downwardly", and the like are used as words of convenience to provide reference points and are not to be construed as limiting terms.

Comprising and Including

[85] In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" are used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

[86] Any one of the terms: including or which includes or that includes as used herein is also an open term that also means including at least the elements/features that follow the term, but not excluding others. Thus, including is synonymous with and means comprising.

Scope of Invention

[87] Thus, while there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further modifications may be made thereto without departing from the spirit of the invention, and it is intended to claim all such changes and modifications as fall within the scope of the invention. For example, any formulas given above are merely representative of procedures that may be used. Functionality may be added or deleted from the block diagrams and operations may be interchanged among functional blocks. Steps may be added or deleted to methods described within the scope of the present invention.

[88] Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.

Industrial Applicability

[89] It is apparent from the above, that the arrangements described are applicable to the child furniture industries.

Claims

The claims defining the invention are as follows:

1. A chair for showering an infant or toddler child, the chair comprising
a chair body supported by a stand, the chair body comprising a seat and seatback adapted to support at least the torso of the child;

at least one of the seat and the seatback comprising padding means having lateral portions which cover respective internal lateral sides of the seat and/or the seatback, the lateral portions being separated by a middle section therebetween to provide a space between the lateral portions.
2. The chair of claim 1 wherein both the seat and the seatback comprise padding means having the lateral portions separated by a middle section therebetween.
3. The chair of claim 1 wherein the chair body comprises an integrally formed shell shaped as a hollow pod.
4. The chair of claim 1 wherein the chair body further comprises side guards extending between respective lateral edges of the seat and the seatback.
5. The chair of claim 4 wherein the padding means comprises side portions covering the internal surfaces of the side guards.
6. The chair of claim 1 wherein the middle section comprises a plurality of spaced apertures.
7. The chair of claim 1 wherein the chair body further comprises harness means for securing the torso of the child.
8. The chair of claim 1 wherein the chair body further comprises a footrest extending from a lower portion thereof.
9. The chair of claim 1 wherein the stand comprises a height adjustment means where the height of the lowermost portion of the chair body from the ground can be adjusted up to a height of 2 metres.
10. The chair of claim 9 wherein the height adjustment means allows the height of the lowermost portion of the chair body from the ground to be adjusted between a height of 70 cm to 2 metres.
11. The chair of claim 1 wherein the stand comprises a base and lateral posts which extend generally upwardly from the base, wherein the length of the lateral posts can be adjusted.

12. The chair of claim 11 wherein the base is generally U-shaped and comprises a rear curved section and two generally straight side sections having a respective front end, wherein the lateral posts respectively extend from the front end.
13. The chair of claim 1 wherein the base comprises wheels which can be selectively locked as required to prevent movement of the chair when required.
14. The chair of claim 11 wherein the lateral posts are curved and extend upwardly and rearwardly.
15. The chair of claim 1 wherein the chair body is pivotably attached to the stand which allows the angle of the chair body relative to the ground to be adjusted and fixed at a desired angle.
16. The chair of claim 15 further comprising an angle adjustment means between the chair and the stand.
17. The chair of claim 11 wherein each lateral post comprises an upper portion and a lower portion telescopically arranged with each other.
18. The chair of claim 18 wherein each lower portion comprises a number of spaced holes and each upper portion comprises a biased lock pin which can selectively engage one of the spaced holes for adjusting the effective length of the lateral post.
19. The chair of claim 1 wherein the middle unpadded section is in the shape of an X.
20. The chair of claim 1 wherein the chair body is removable and reattachable to the stand.
21. The chair of claim 11 wherein the stand is foldable such that at least the base portion thereof can be reduced in width.
22. The chair of claim 1 wherein the middle section is sized to receive at least a user's hand or arm.
23. The chair of claim 1 wherein the middle section extends from an upper portion of the chair body.
24. A chair for showering an infant or toddler child, the chair comprising
a chair body supported by a stand, the chair body adapted to support at least the torso and head of the child;
wherein the stand comprises a height adjustment means where the height of the lowermost portion of the chair body from the ground can be adjusted up to a height of 2 metres.

25. A chair for showering an infant or toddler child, the chair comprising
a chair body, at least one section of the chair body comprising portions separated by
a channel section therebetween, the channel section being sized to receive at least a
user's hand or arm.
26. The chair of claim 25 wherein the portions comprise lateral portions separated by a
middle channel section.
27. The chair of claim 25 wherein the chair body comprises a seat and seatback, and the
at least one section is in the seatback.
28. The chair of claim 25 wherein the chair body comprises a seat and seatback, and the
at least one section is in the seat.
29. The chair of claim 25 wherein the chair body comprises a seat and seatback, and the
at least one section are in both the seat and the seatback.
30. The chair of claim 25 wherein the chair body comprises a number of spaced
apertures therein.
31. The chair of claim 30 wherein the apertures are in the channel section.
32. The chair of claim 26 wherein the lateral portions comprise padding means.
33. The chair of claim 25 wherein the lateral portions are defined by spaced padding
means on the chair body separated by the channel section.
34. The chair of claim 25 wherein the chair body further comprises harness means for
securing the torso of the child.
35. The chair of claim 25 wherein the chair body further comprises a footrest extending
from a lower portion thereof.
36. The chair of claim 25 wherein the chair body is supported by a stand
37. The chair of claim 36 wherein the stand comprises a height adjustment means where
the height of the lowermost portion of the chair body from the ground can be adjusted
up to a height of 2 metres.
38. The chair of claim 37 wherein the height adjustment means allows the height of the
lowermost portion of the chair body from the ground to be adjusted between a height
of 70 cm to 2 metres.
39. The chair of claim 36 wherein the chair body is pivotably attached to the stand which
allows the angle of the chair body relative to the ground to be adjusted and fixed at a
desired angle.

40. The chair of claim 36 further comprising an angle adjustment means between the chair and the stand.

41. The chair of claim 25 wherein the channel section extends from an upper portion of the chair body.