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McCracken et al.

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[54] HARNESS FOR RESTRAINING A CHILD IN A CHAIR

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[51] **Int. Cl.** **A47d 15/00**

[58] **Field of Search** 297/385, 384, 390

[56] **References Cited**

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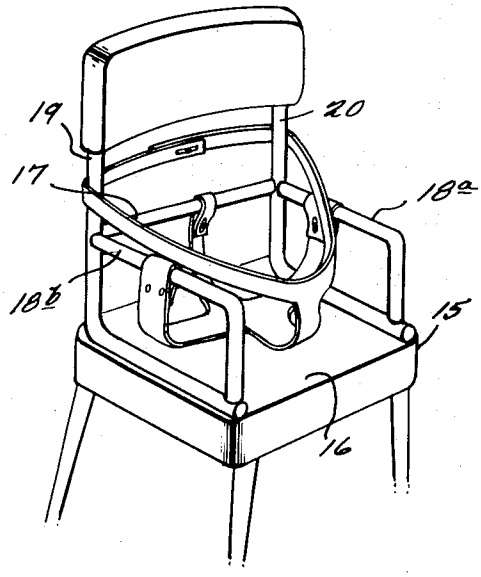
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[57] **ABSTRACT**

A harness for restraining the movement of an infant or small child who is seated in a chair. The seating portion of the harness is secured to the back of the chair by a strap. When the baby is placed upon the seating portion, a forwardly extending strap is brought up between the infant's legs and looped backwards towards the back of the chair. The straps which extend laterally from the forwardly extending strap are then passed under the infant's arms and around the infant's mid-section and connected again at the back of the chair. Straps also extend laterally from the seating portion of the harness and these straps are secured to the side frame members of the chair to prevent lateral movement of the harness in response to the infant's movements.

2 Claims, 2 Drawing Figures



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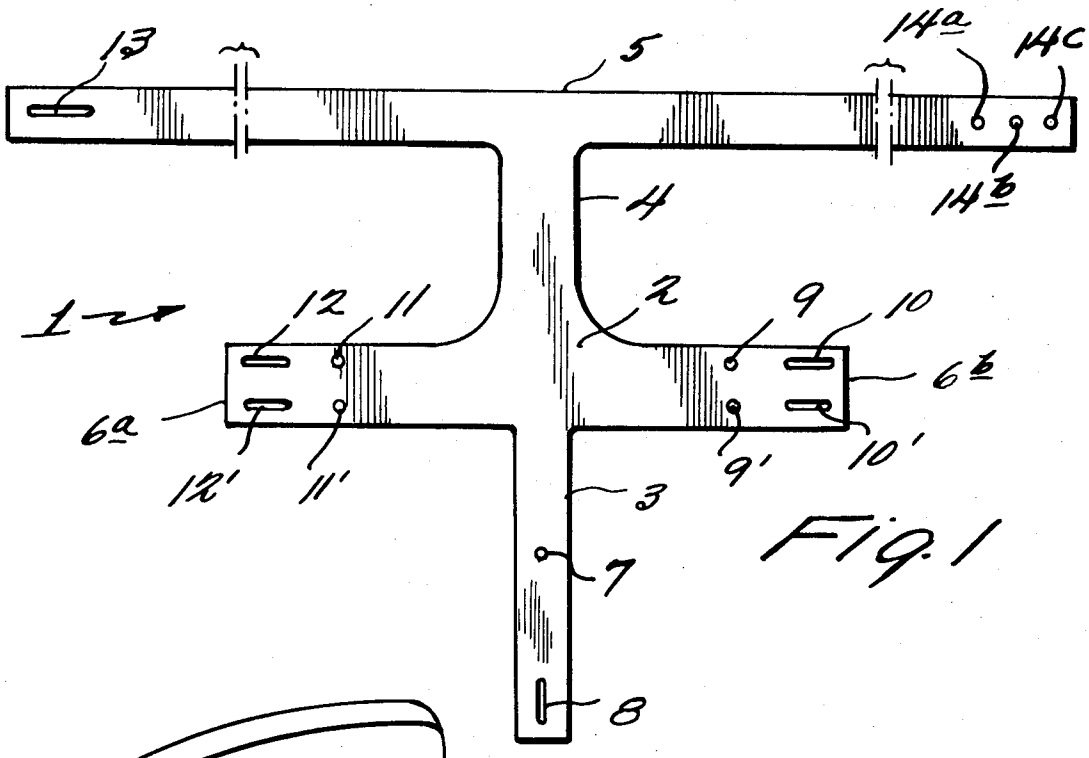


Fig. 1

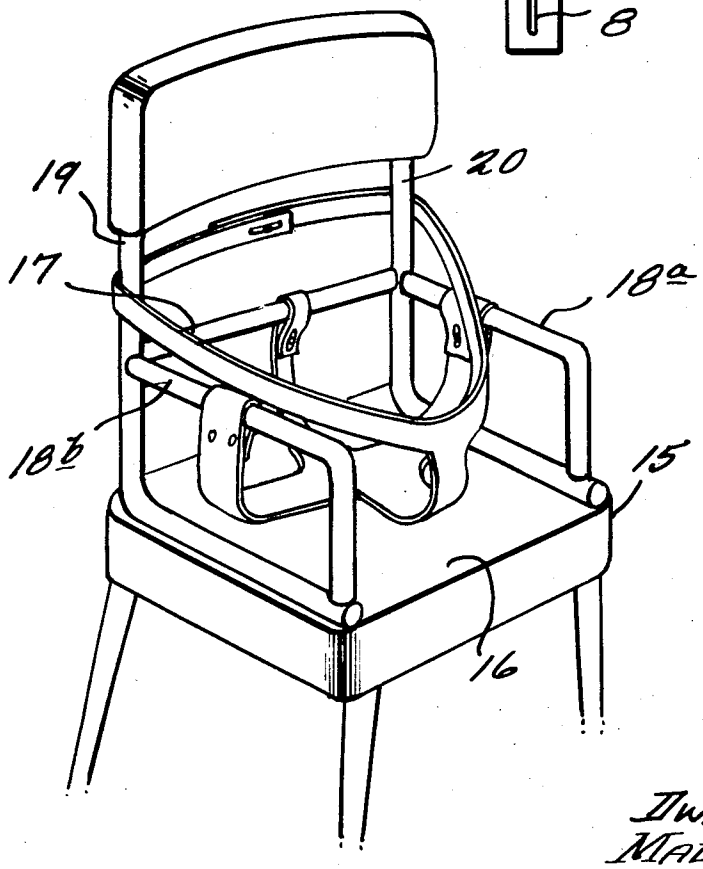


Fig. 2

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HARNESS FOR RESTRAINING A CHILD IN A CHAIR

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a harness designed for securing babies or small children in chairs. Typically, such harnesses attempt to allow the baby some movement but to prevent the baby or child from working loose and falling from the chair in which he is secured.

2. Description of the Prior Art

Harnesses for securing babies and small children in chairs are well known. It is common for these harnesses to consist of a seating portion upon which the infant is seated, a strap extending rearwardly from the seating portion and connected to the back of the chair and another strap extending forward from the seating position which is brought up between the baby's legs, looped backwards towards the back of the chair and is fastened thereto. Usually this strap also encloses the baby's mid-section. Further, certain harnesses have additional straps disposed on the outside of the baby's legs and also attached to the back of the chair. Evidently, it is the purpose of these outer straps to minimize lateral movement of the baby within the chair.

None of the harnesses described above, however, have further means extending laterally from the seating portion of the harness and secured to the side frame members or arms of the chair. Thus, none of the harnesses known to the applicant, prevent lateral movement of the entire harness by an active infant. Furthermore, lateral movement can eventually cause sufficient strain upon the means by which the harness is fastened to the back of the chair to loosen at least one point of contact between the chair and the harness and, of course, the baby would then be free to fall from the chair and the very purpose of the harness would be defeated.

SUMMARY OF THE INVENTION

In view of the disadvantages outlined above with respect to the prior art, it is an important object of the invention to provide a harness having means by which it is secured against lateral movement.

In short, the applicant's invention consists of a harness for restraining a child in a chair which includes a seating portion upon which the child is seated, a strap extending rearwardly from the seating portion which is fastened to the back of the chair, a strap extending forwardly from the seating portion, which has lateral straps extending therefrom. This forwardly extending strap is brought up between the child's legs, looped back towards the back of the chair and the lateral straps which extend therefrom are wrapped around the child's mid-section and fastened to the back of the chair. Other straps extend laterally from the seating portion to the sides of the chair where they are securely attached to prevent lateral movement of the harness.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top view showing the harness according to the invention resting against a flat surface.

FIG. 2 shows a harness according to the invention in position upon a chair.

Identical parts are identified by the same reference numerals in both figures.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. 1 a harness for restraining a child in the chair is identified generally by the reference numeral 1. In FIG. 1 the harness is so shown that the rearward direction, i.e., the direction towards the back of the chair is towards the bottom of the figure and therefore the frontward direction, i.e., the direction away from the back of the chair is towards the upper part of the figure. The seating portion of the harness is indicated by the reference numeral 2 and from this seating portion a strap 3 extends rearwardly while a strap 4 extends forwardly. The strap 4 ends in a T intersection with the laterally extending strap 5. The lateral straps 6*a* and 6*b* also extend from the seating portion. Fastenings comprising the button 7 and the mating slot 8 are provided on strap 3. Likewise, fastenings comprised of buttons 9 and 9' and the mating slots 10 and 10', respectively, are associated with strap 6*b* while strap 6*a* carries fastenings comprised of buttons 11, 11' and mating slots 12 and 12', respectively. Finally, the strap 5 has the fastenings comprised of the slot 13 and buttons 14*a*, 14*b*, and 14*c*, any one of which can be inserted into slot 13 to provide an adjustable mid-section restraint.

The dimensions of the harness are, of course, determined by the size of the children which are to be secured by the harness as well as the size of the chair in which they are to be secured. Within these limits the dimensions are not critical to the invention. However, for the sake of example, the straps 5 and 3 may be approximately 2 inches wide, while the straps 4, 6*a*, and 6*b* may be approximately 3 inches wide. Similarly, strap 5 may be 41 inches long, while the strap 3 may be 12 inches long and each of the straps 6*a* and 6*b* may be 12 inches long. Finally, strap 4 from its junction with strap 5 to its junction with straps 6*a* and 6*b* may be 7 inches long. While the straps have been discussed as separate items they are, as is apparent from FIG. 1, actually produced from a single piece of fabric. It is desirable that this fabric be of launderable material or a plastic material which may be easily wiped off.

The harness described with reference to FIG. 1 above is now described in its preferred position, that is, attached to a chair 15 which may be a baby's high chair or a regular family chair. The chair 15 has a seat portion 16 upon which seating portion 2 of the harness rests and a back portion 17 to which the strap 3 is fastened by the button 7 in the slot 8. In addition, forwardly extending strap 4 is shown to be looped back towards the back 17 and attached thereto by means of the laterally extending strap 5, the slot 13 and one of the buttons 14*a* through 14*c*. Finally, the laterally extending straps 6*a* and 6*b* are attached to the arms 18*a* and 18*b* of the chair, respectively. Strap 6a is attached to arm 18*a* by button 11 and 11' and slots 12 and 12' while strap 6*b* is attached to arm 18*b* by buttons 9, 9' and slots 10 and 10', respectively.

In summary, the harness 1 is attached to the chair 15 with two points of contact both at the back 17 of the chair and also a point of contact at arms 18*a* and 18*b*. Therefore, the harness is secured both from forward

movement and from lateral movement while yet allowing the child restrained thereby a certain amount of vertical freedom since the strap **5** can ride up and down vertically along the vertical back rails **19** and **20** of the chair **15**.

It will be seen that in its flat condition the harness is in the form of a T having an additional cross bar parallel to the main cross bar and extending from the body portion of the T at a location approximately midway between the ends of the body portion, the width of the additional cross bar being uniform and somewhat greater than the width of the main cross bar and the length of the additional cross bar being somewhat less than the length of the main cross bar. Each free end of the additional cross bar is provided with at least one pair of complementary fastening means spaced apart so as to permit the respective free end to be wrapped once around the arm of a chair and to be secured to itself. The free end of the body portion is provided with at least one pair of complementary fastening means spaced apart so as to permit the free end to be wrapped once around a horizontal rail in the back of a chair and to be secured to itself. Each of the free ends of the main cross bar is provided with one half of a complementary fastening means to permit said ends to be connected together behind the back of a chair.

While the above description adequately sets forth the preferred embodiment of the applicant's invention, it should be obvious to one skilled in the art that various modifications are within the scope of this invention. Thus, for example, in the preferred embodiment the strap **3** attaches to the horizontal member **19** which is associated with the back **17** of the chair. It is possible, of course, that the chair would be of a variety having only vertically extending bars. In this case, a different fastening means could be provided for the strap **3** in the form of a pair of tie cords which would tie around one of the vertical members. In addition, at least some of the button and hole fasteners disclosed above may be replaced by other well known fastening devices such as snaps, hooks and eyes, or the like.

What is claimed is:

1. A harness for restraining a child in a chair, said harness being constructed from a single piece of flexible sheet material which in a flat condition is in the form of a T having an additional cross bar parallel to the main upper cross bar of the T and extending from the body portion of the T at a location approximately midway between the ends of the body portion, the width of the additional cross bar being uniform and somewhat greater than the width of the main cross bar and the length of the additional cross bar being somewhat less than the length of the main cross bar, each free end of the additional cross bar being provided with at least one pair of complementary fastening means spaced apart so as to permit the respective free end to be wrapped once around the arm of a chair and to be secured to itself, the free end of the body portion being provided with at least one pair of complementary fastening means spaced apart so as to permit the free end to be wrapped once around a horizontal rail in the back of a chair and to be secured to itself, each of the free ends of the main cross bar being provided with one half of a complementary fastening means to permit said ends to be connected together behind the back of a chair.

2. A harness for restraining a child in a chair comprising a single piece of flexible material formed in the shape of a T having an additional cross bar of lesser length and greater width than the main upper cross bar of the T, the intersection of the additional cross bar with the body portion of the T forming a seat for the child, the free end of the body portion of the T extending rearwardly and then upwardly for attachment to the center portion of the chair back and the free ends of the additional cross bar extending laterally and then upwardly for attachment to the arms of the chair, the part of the body portion of the T intermediate the cross bars extending upwardly between the child's legs, and the main cross bar extending rearwardly so as to encircle the entire chair back.

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