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J. W. BEST

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HIGH CHAIR

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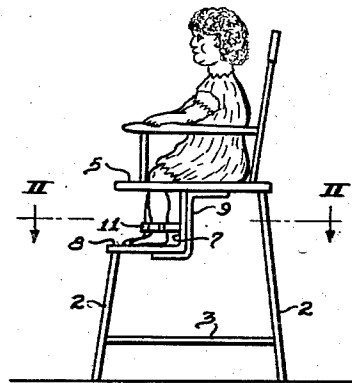
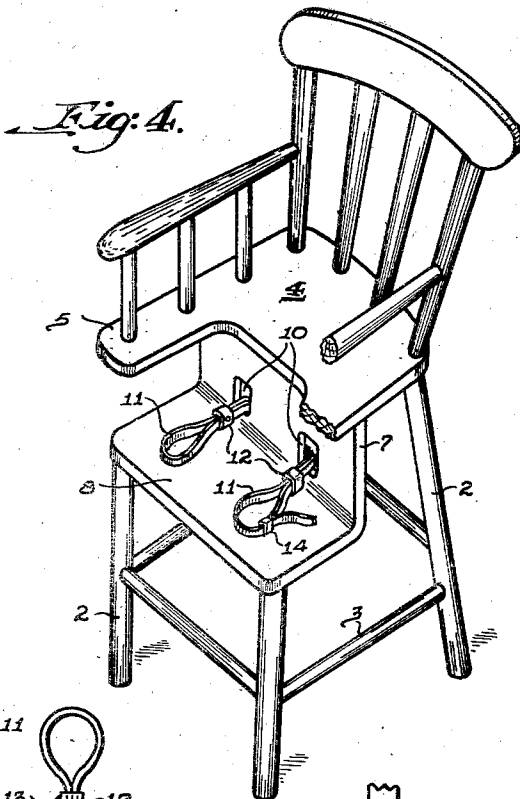


Fig. 1.

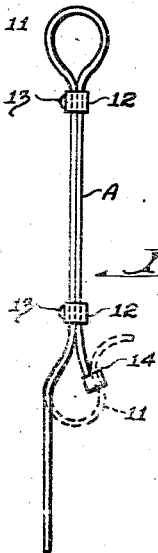


Fig. 6.

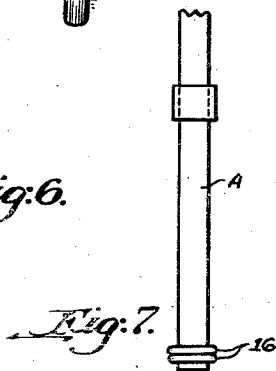


Fig. 7.

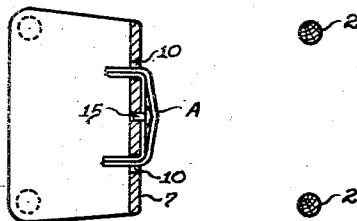
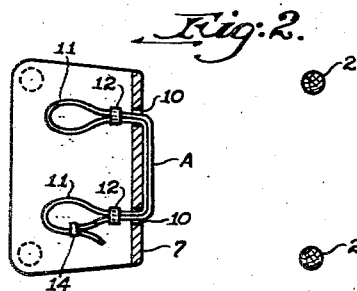
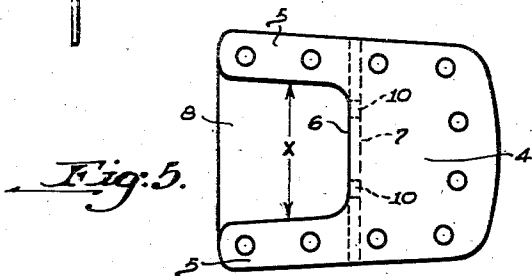


Fig. 3.

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HIGH CHAIR

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7 Claims. (Cl. 155—189)

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My invention is an improvement in children's furniture, more particularly of that type known as a high chair.

Ordinarily, and so far as observed in my somewhat long experience with the usual standard constructions, there is a lack of stable balance in the chair itself. This defect is owing to failure in properly proportioning the relation between the seat and the foot rest; lack of ample and comfortable seating area, with ample room for free movement of the body and lower limbs; and especially, without satisfactory provision for free movement thereof in various positions in connection with the several different safety retaining means heretofore utilized.

In my experience and observation, any growing child during the period between inability to walk, and in the following development and growth, is naturally under the characteristic urge, to squirm and kick, and with increasing restlessness under the restraint of the usual body or limb restraining devices. Especially is this true in the use of the usual or traditional high chair for placement at the side of a normal dining room table.

The unusual environment in such cases tends to both a physical and mental excitement, inducing a desire to reach for various articles, to change of position especially with a front tray, or if otherwise wisely limited either by physically attached means, or parental control.

In my invention I have sought to and succeeded in producing a chair of novel and effective construction, having ample stability against accidental tipping, with full and sufficient seat area, and ample provision for foot support.

The invention also embodies particularly, highly efficient means for restraining leg movements within reasonable and safe limits, and without causing irritation or excitement, or induced efforts towards more freedom or escape.

One preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a complete view in side elevation, of the chair as used.

Fig. 2 is a horizontal cross section on the line II-II of Fig. 1.

Fig. 3 is a similar view showing the inner strap portion secured to the chair.

Fig. 4 is an isometric view of the chair, partly broken away to illustrate the leg retaining features.

Fig. 5 is a plan view of the seat and foot rest, with the back and side arms removed.

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Fig. 6 is an assembly edge view of the continuous doubled restraining strap member.

Fig. 7 is a face view of one end portion of the strap showing a double loop buckling terminal.

5 The superstructure of the chair is rigidly mounted upon the four customary legs 2, with ample and sufficient cross bracing members 3, for substantial support and stable resting on the floor. The main seat 4 is preferably provided with oppositely extending side portions 5, extending beyond the front edge 6 of a seat, providing the ample intervening space *x* between the side portions 5.

10 Secured to and extending upwardly above the seat are the usual back and side arm structures, of any suitable design, as in Figs. 1 and 4. Extending downwardly below the seat portion 4 at or about the same vertical plane as the front edge 6, is the vertical wall or frame 7 of any suitable construction. Said frame is connected with a forwardly extending foot rest 8, at a suitable level below that of the main seat 4.

20 The foot rest and wall or frame elements 8 and 7 are continuously connected with each other, and with the under side of the seat in any suitable manner, as by angle brackets 9; either individual or of continuous Z-formation as desired, or otherwise.

25 As thus constructed, the main seat and the foot rest portion are supported upon and rigidly connected with the supporting leg members 2 of the chair.

30 With such construction, there is ample seating area for the main body portion of the child, and with ample lateral space between the side extensions 5 for lateral movement of the lower limbs, or lateral shifting of the feet upon the foot rest 8, and with freedom of up and down movement of either limb and foot.

35 For the purpose of providing means for comfortably loose but secure retention of both feet, permitting ample movement thereof, I utilize a continuous strap construction. Such strap, marked A, is adapted to be passed through two openings 10 in the vertical wall or frame member 7, for loose passage therethrough, and for adaptation as to length by tightening or loosening so as to provide outwardly extending loop portions 11, 11.

40 Such loop portions are provided by reversing the strap substantially midway of its length for one such loop terminal, with a connecting slide clip 12 through which the belt may freely pass. The clip 12 may be secured to one side of the strap as indicated at 13 and with facility for

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free sliding movement of the other side there-through, or the clip may be merely loose as to both sides, if preferred.

Such terminal construction is indicated at one side of the chair as shown. At the opposite side, the free ends of the strap are brought together to provide a corresponding loop, and with any suitable buckle or tightening attachment 14, whereby to adjust the dimensions of the loop to loosely fit around the ankle of the occupant, of corresponding size or looseness with that of the companion loop.

Ordinarily, the double strap construction as shown in Fig. 2 may be loose for free movement of both sections of the strap for easy adjustment, or if preferred, the innermost strap section may be fixedly connected midway of the openings 9, as by a securing bolt or rivet 15.

Any suitable buckle attachments may be used, either of the common tongue and hole type, or of the friction type, as preferred, the length of the strap as indicated in Fig. 6, being ample to provide for any minimum or maximum adjustment.

One suggestive alternation avoiding the typical buckle joint, may be adopted by using a pair of flat rings 16, through which the free end of the strap may be inserted in any desired manner, for holding the strap members in desired location.

As thus constructed and mounted in connection with the middle wall or frame 7, the looped terminals of the strap project forwardly through the openings 10 for insertion of the feet and desired tightening around the ankles, with the desired tension by the strap adjustment as above described. In such arrangement there is accomplished a very satisfactory retaining effect, while permitting ample lateral or vertical movement. This is due to the flexibility of the strap itself, and at the same time not in any way interfering with the normal support and natural position of the feet on the front foot rest 8.

Any suitable kind of strap construction or material may of course be utilized, as leather, fabric, plastic, or the like, or loosely woven heavy cord, having any suitable means for holding at varying degrees of ultimate doubled length or tension.

It will be observed that by such construction, the chair itself is consistently and properly adapted to reception and use by a child, permitting lateral or vertical shifting movements, or various of the different movements and activities usually indulged in by children, during the customary period when such type of chair is appropriate.

It may be changed or varied in design, dimensions, material, or in other respects, and may of course be used with any additional body retaining straps, belts, or harness connected with the upper portions of the chair. However the retaining straps for the feet are quite capable of satisfactory use, either with or without any such additional restraints.

It will be noted that the accompanying drawing does not include a tray. This item, although having no restrictive bearing on my invention, is usually useful or necessary to complete the chair, when intended for use away from the dining table. Such tray should not be close enough to the child's body to cause any restriction of movement whatever, but simply to prevent the child from falling forward, and thereby

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eliminating the necessity for any other safety device attached to the upper part of the child's body. Any suitable tray, adjustable or otherwise as at present in use, may be attached to the chair with any kind of catch or locking device, as may be used.

Having described the invention, what I claim is:

1. A chair having a seat provided with a lower forwardly extending foot rest and an intervening connecting frame having spaced apart openings, and an adjustable strap member extending through said openings of the frame having terminal loop portions for holding the limb members of a child.

2. A chair having a seat provided with forwardly extending side portions and intervening clearance, a lower forwardly extending foot rest, a vertically disposed frame connecting the seat and foot rest having spaced apart openings, and an adjustable strap member extending through the said openings in the frame having terminal loop portions for holding the limb members of a child.

3. A chair having a seat provided with forwardly extending side portions and intervening clearance, a lower forwardly extending foot rest, a vertically disposed frame connecting the seat and foot rest having clearance openings for securing means, and a limb retaining assembly having doubled loop-forming portions passed through said clearance openings.

4. A chair having a seat provided with forwardly extending side portions and intervening clearance, a lower forwardly extending foot rest, a vertically disposed frame connecting the seat and foot rest having clearance openings for securing means, and a limb retaining assembly having doubled loop-forming portions passed through said clearance openings, and means providing for lengthening or shortening same.

5. In combination with a high chair as described having a depending frame below the front edge of its seat provided with clearance openings, and a lower forwardly extending foot rest; a continuous doubled adjustable strap or the like having looped limb-engaging portions extending forwardly through said openings above the foot rest.

6. In combination with a high chair as described having a depending frame below the front edge of its seat provided with clearance openings, and a lower forwardly extending foot rest; a continuous doubled adjustable strap or the like having looped limb-engaging portions extending forwardly through said openings above the foot rest, the middle portions of the doubled strap passing across the rear side of the frame between the openings.

7. In combination with a high chair as described having a depending frame below the front edge of its seat provided with clearance openings, and a lower forwardly extending foot rest; a continuous doubled adjustable strap or the like having looped limb-engaging portions extending forwardly through said openings above the foot rest, the middle portions of the double strap passing across the rear side of the frame between the openings, one of said portions being secured to the frame and the other portion being free for relative adjustment.

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