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CARRIER OR SUPPORT FOR INFANTS

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2 Sheets-Sheet 2

FIG. 5

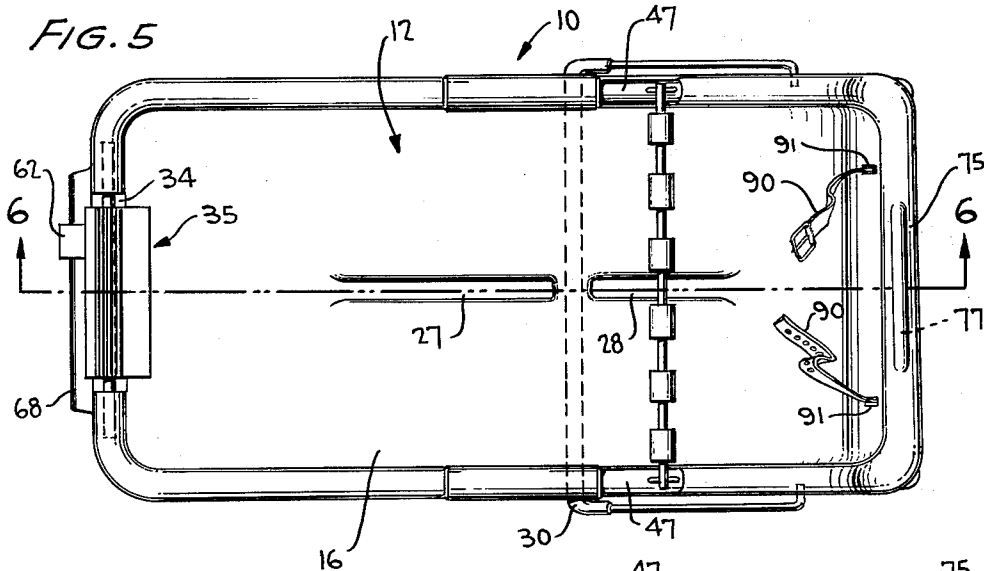


FIG. 6

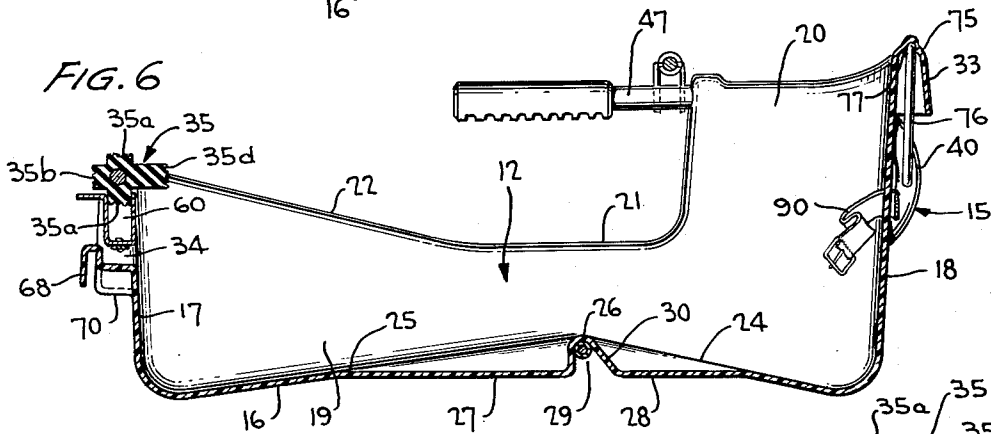


FIG. 7

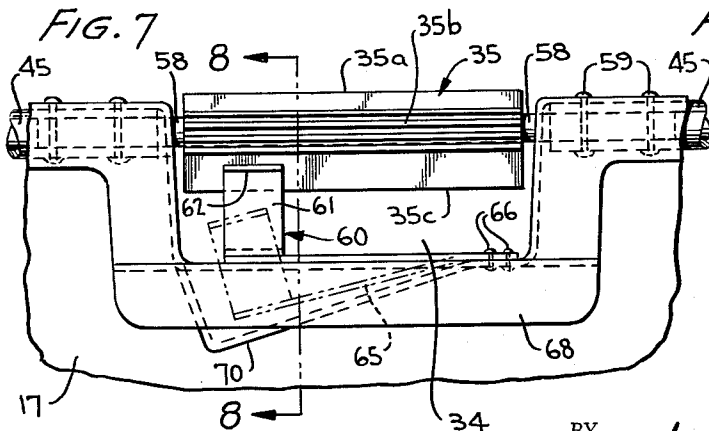
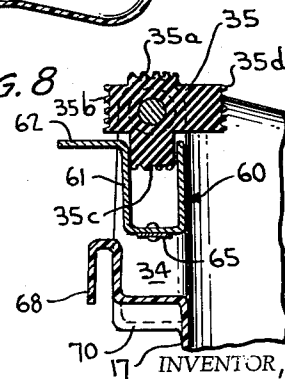


FIG. 8



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CARRIER OR SUPPORT FOR INFANTS

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This invention relates to chairs, seats, or supports for infants and more particularly to such a supporting device, which is primarily adapted to be suspended from the edge of a table to serve as a high chair.

The general object of the invention is to provide a novel and improved chair of this type which is of a simple and sturdy construction, pleasing appearance, and susceptible of a variety of installations and uses.

The invention, in its preferred embodiments, contemplates the provision of a chair or supporting means for infants which is so constructed and arranged that it can be used as a table-supported high chair, a bassinet, an infant's bathtub, or a car seat.

The impermeability, strength, and convenient positioning of the chair is assured by the novel construction which involves a skeleton metal pipe frame which is interengaged with a body or covering structure preferably made of plastic or light sheet metal.

Important features of novelty of the invention include the particular interfitting of the frame and body portions, the adjustable means for suspending the chair from a table or ledge, and certain auxiliary features for steadying and retaining the chair on a seat of an automobile, for amusing the infant occupying the chair, and for other purposes which will be developed as the specification proceeds.

Other objects of the invention and features of novelty will be apparent from the following specification when read in connection with the accompanying drawings in which one embodiment of the invention is illustrated by way of example.

In the drawings:

FIGURE 1 is a perspective view of a chair embodying the principles of the invention;

FIGURE 2 is a view in side elevation of the chair;

FIGURE 3 is a view in front elevation of the same;

FIGURE 4 is a fragmentary view in vertical section taken on line 4—4 of FIGURE 2;

FIGURE 5 is a top plan view of the chair;

FIGURE 6 is a view in vertical longitudinal section taken on line 6—6 of FIGURE 5;

FIGURE 7 is a fragmentary view in enlarged detail of the front portion of the chair showing the bearing device for contacting the underside of the table; and

FIGURE 8 is a fragmentary sectional view taken on line 8—8 of FIGURE 7.

The novel infant's chair is designated in the exemplary embodiment shown in the drawings by the general reference numeral 10 and will be seen to comprise the plastic or sheet metal body portion 12 which is supported and reinforced by the skeleton framework 15, portions only of which are shown in certain of the perspective and elevational figures, since the body or covering portion 12 envelops or shrouds the greater portion of the framework 15 when the device is assembled and in use.

The chair body 12 preferably comprises a molded shell of plastic material or, if preferred, a stamped or drawn shell of sheet metal, and includes a bottom area 16 of peculiar configuration to be described presently, a front wall 17, a rear wall 18, and side walls 19.

As probably best shown in FIGURE 6 of the drawings, the rear wall 18 is somewhat higher than the front wall 17 and is curved so as to merge into the upwardly extending arm portions 20 of the side walls 19. Forwardly of these arm portions 20 the side walls 19 dip downwardly to a minimum height as at 21 and then the margins incline

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upwardly and forwardly as at 22 to merge with the side portions of the front wall 17.

As contrasted with this generally upwardly concave configuration of the upper portions of the body 12, the bottom panel 16 has an opposite curvature being generally concave in a downward direction as effected by the rearward slope 24 and the forward slope 25 extending in both directions from a peak 26.

As a means for reinforcing the bottom panel 16, downwardly facing hollow ribs are molded or otherwise formed centrally of the panel 16 as at 27 and 28, the continuity of the two ribs 27 and 28 being interrupted by the transverse notch or groove 29 which is adapted to receive the bail 30 of an attachment to be described later. The upward margins of the side and end walls of the body 16 are molded to the form of inverted U's, both to strengthen the sheet material structure and also to embrace and interfit with portions of the skeletal framework 15. Such rounded edges are clearly shown at 32 in FIGURE 4 and at 33 in FIGURE 6 of the drawings.

As probably best shown in FIGURES 1, 3, 7 and 8, the upper edge portions of the front wall 17 are interrupted at a central point to provide a gap 34 which is intended to receive an adjustable bearing device to which is given the general reference numeral 35 and which will be described in detail presently.

At this point it would be well to describe the skeleton framework 15 and its interfitting relationship with the body 12 of the chair. As clearly suggested in solid and dotted lines in FIGURE 2 of the drawings, this framework comprises essentially two return-bent laterally spaced pipe frames 40 each having a bight portion 41 rearwardly of the device and an elongated forwardly and then upwardly extending lower portion 44, these latter portions being bent inwardly toward each other at the front end of the chair, the resulting inwardly directed stub ends being indicated at 45 in FIGURES 3 and 7 of the drawings.

From the rearward bight portion 41, the two side frame members 40 have upwardly disposed forward extensions indicated at 47, these extensions being partially enveloped by the upper edge of the arm portions 20 of the covering shell or body 12 but passing through an opening in the forward portion of the area 20 to be exposed as shown best in FIGURES 1, 2 and 6, and then to provide at their ends with the applied grips 50 which may be made of rubber or a rubber-like plastic having a corrugated lower surface 51 and adapted to bear upon the top surface of a table or ledge (suggested at 55 in FIGURE 2).

Bridging the gap 34 in the upper portion of the front wall 17 is the shaft 58, the opposite ends of which are socketed in the open ends of the inwardly directed ends 45 of the side frame members 40; and the shaft may be securely retained within these pipe frame ends as by means of the rivets 59 suggested in FIGURE 7 of the drawings. Rotatably mounted on the shaft 58 is the adjustable bearing element 35 which, as shown in FIGURE 2, is adapted to bear upwardly upon the under-surface of the table or ledge 55 to cooperate with the bearing pieces 50 to provide a kind of cantilever mounting for the chair.

The bearing member 35 is provided with a plurality of radially extending flanges (four being shown in the present embodiment) the lowermost flange being shown at 35a, the next higher at 35b, the third flange at 35c, and the highest flange at 35d.

Thus it will be seen that the angular positioning of the chair and the adaptation of the chair to ledges or tables or different thicknesses can be provided for by the rotative adjustment of the bearing member 35.

In order to secure the member 35 in its selected adjusted positions, there is provided a spring mounted

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latch or retainer 60, this element being best shown in FIGURES 3, 6, 7 and 8. The latch itself is indicated at 61 and comprises a U-shaped piece having an extended flange 62 which can act as a handle for manipulating the device. A spring strip 65 is riveted to the bight portion of the latch 61 and is secured at its remote end as by means of the rivets 66 to a portion of the flanged rim 68 of the wall 17 of the body portion 12 which surrounds the opening 34. This curved rim portion 68 is also molded or otherwise shaped to provide an angular depressed pocket portion 70 adapted to receive the latch 60 while it is being held in released position for the adjustment of the bearing element 35 all as clearly shown in FIGURES 7 and 8.

Due to the upper forward curvature of the rear end bight portion 41 of each side frame member 40, these members do not firmly underlie and reinforce the extreme upper rearward areas 75 of the rear panel 18, so an auxiliary reinforcing or bracing element in the form of an inverted U-shaped bar 76 is provided. The underside of the curved upward rim of the portion 75 is provided with a pocket 77 which receives the elongated transverse intermediate portion of the bar 76 while outwardly turned end portions 77 are adapted to pass through openings in the bight portions 41 of each side bar 40 as shown best in FIGURES 1 and 6 of the drawings.

As suggested in FIGURE 2 of the drawings, a bail 30 is provided which can be employed, when the device is used as a car seat for infants, in projecting between the seat cushion and the back of the usual car seat to retain the infant carrier in place. The inoperative position of the bail 30 is shown in solid lines in FIGURE 2 and the operative position in broken lines where the rubber-covered bight portion 30a of the bail is in position to be inserted between the back and seat cushion portions of the seat of the automobile. The side portions of the bail 30 are bent as clearly indicated and the inwardly turned end portions 30b shown clearly in FIGURE 4 are trunnioned in openings provided in the lower arm portion 44 of the side frames 40.

As an added feature to provide a device for attracting the attention of the infant and keeping it amused, there is provided a cross bar 80 on which are strung spools or beads 81 which may be of various colors and shape if desired. The bar 80 has its ends secured to the loops or eye members 82 which may also form an anchorage for a chain 84 having a snap hook 85 at the end thereof. Such chains may be provided upon both sides of the chair for the purpose of providing additional safety means for securing the chair in various positions.

Also, a further safety feature may be provided in the form of a belt 90 which may be looped and passed through slots 91 in the rear wall 18 of the chair and suitably buckled either in front of the infant or behind the rear wall portion 18 of the chair.

It is understood that various changes and modifications may be made in the embodiment illustrated and described herein without departing from the scope of the invention as determined by the subjoined claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A support or carrier for infants which comprises a shell-like body of a generally oblong configuration in plan and having a bottom wall, spaced side walls, a front wall, and a rear wall, the upper margins of at least the side walls being curved outwardly and downwardly to provide an inverted downwardly opening channel therealong, a pair of spaced skeleton side frame members comprising bars which are for the most part received within said side wall channels to rigidify and lend support to said shell-like body; the rear wall being higher than the front wall and each of said side walls being of stepped configuration having rearward substantially hori-

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zontal upper edge portions higher than their approximately horizontal forward edge portions and approximating the height of said rear wall, the side frame members being return-bent to a U-shaped configuration in their vertical planes with lower longer arms supporting the lower approximately horizontal edge portion of the side walls of the body and shorter upper arms received within the curved upper edges of the elevated rearward horizontal edge portions of the side walls.

2. The support or carrier set forth in claim 1 in which the ends of the upper arms of the side frame members are provided with means for bearing upon said external structure and the ends of the lower arms are provided at the front wall of the carrier with additional means for bearing against such external structure for supporting the carrier, and in which the bearing means at the ends of the lower longer arms of the side frame members comprise a movable member having radii of different lengths whereby the bearing means is adjustable in height to compensate for various dimensions of the outside structure or to regulate the angular position of said carrier.

3. The carrier as set forth in claim 1 in which the ends of the upper arms of the side frame members are provided with means for bearing upon said external structure and the ends of the lower arms are provided at the front wall of the carrier with additional means for bearing against such external structure for supporting the carrier, and in which inverted marginal channels are also formed in the front wall of the body and in which the forward ends of the lower longer arms of the side frame members are bent inwardly toward each other and within the marginal channels in the front wall, the middle portion of the upper margin of the front wall being recessed, and additional bearing means disposed within said recess and secured to the inturned ends of said arms.

4. The carrier as set forth in claim 3 in which the first named bearing means carried by the ends of the upper arms of the side frame members comprises rubber-like sleeves surrounding said ends and adapted to bear downwardly upon said structure, and the second named bearing means carried by the ends of the longer lower arms of the side frame members comprises a rubber-like member having radial portions of different radial extent and rotatably adjustable with respect to the inturned ends of said longer arms.

5. The support or carrier as set forth in claim 1 in which the upper margin of the rear wall of the body is also curved to provide an inverted downwardly opening channel and an arched bridging bar is secured at its ends to the respective return-bent portions of the side frame members and has a bight portion received in the channel of said rear wall.

6. The support or carrier as set forth in claim 5 in which a swinging bail is provided having its ends pivoted to the side frame members adjacent the return-bent portion and a bight portion adapted, when the bail is swung rearwardly, to be inserted between the seat and the back cushions of an automobile, and when swung forwardly to retracted position to lie snugly beneath the bottom wall of the said body.

7. A support or carrier for infants which comprises a shell-like body of a generally oblong configuration in plan having a bottom wall, spaced side walls, a front wall, and a rear wall, a pair of spaced skeleton side frame members supporting the side walls of said body, and a swinging bail having its ends pivoted to rearward portions of said side frame members and a bight portion adapted when the bail is swung rearwardly to be inserted between the seat and back cushions of an automobile, and when swung forwardly to retracted position to lie snugly beneath the bottom wall of said body, and a transverse groove formed in a portion of said bottom wall to receive the bight portion of said bail.

8. A support or carrier for infants which comprises a shell-like body of a generally oblong configuration in

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plan and having a bottom wall, spaced side walls, a front wall, and a rear wall, the upper margins of at least the side walls being curved outwardly and downwardly to provide an inverted downwardly opening channel therealong, a pair of spaced skeleton side frame members comprising bars which are for the most part received within said channels to rigidify and lend support to said shell-like body; and means carried by said side frame members for supporting them from an external structure, a gap in the upper portion of the front wall of the body, and said supporting means including a bar bridging the gap at the upper edge of said front wall and an adjustable bearing element for abutting said external structure in the support of said carrier, said bearing element comprising a sleeve of cruciform cross section rotatably mounted on said bar and having arms of different radial extents, and latch means for retaining said element in selected rotative positions for one of said arms to bear against said outside structure.

9. The support or carrier as set forth in claim 8 in which said latch comprises a resilient member secured at one end to a margin of the gap in the front wall and provided at its distal end with means to interlock with said rotatable element, and a recess in the front wall for accommodating said latch in its retracted position.

10. A support or carrier for infants which comprises a shell-like body of a generally oblong configuration in plan and having a bottom wall, spaced side walls, a front wall, and a rear wall, the upper margins of said walls being curved outwardly and downwardly to provide inverted downwardly opening channels therealong, a pair of spaced skeleton side frame members comprising bars which are for the most part received within the side wall channels to rigidify and lend support to said shell-like body; and means carried by said side frame members for supporting them from an external structure, the forward ends of the side frame bars being bent inwardly toward each other and within the marginal channels of

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said front wall, the middle portion of the upper margin of the front wall being cut away providing a gap in said front wall, and additional bearing means disposed substantially entirely within said gap and means for adjustably securing said bearing means to the in-turned ends of said bars.

11. The support or carrier as set forth in claim 1 in which there is formed longitudinally and centrally of the bottom wall a downwardly projecting rib structure producing a correspondingly shaped channel in the upper surface of the bottom wall.

12. The support or carrier as set forth in claim 11 in which a swinging bail is provided having its ends pivoted to the side frame members adjacent the return-bent portion and a bight portion adapted, when the bail is swung rearwardly, to be inserted between the seat and the back cushions of an automobile, and when swung forwardly to retracted position to lie snugly beneath the bottom wall of the said body, and a transverse notch formed in said rib structure to receive the bight portion of said bail.

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