

[54] **CHILD'S BASSINET, SEAT, BED OR CARRIER**[75] Inventor: **Dillon Charles Furey**, Kirribilli, New South Wales, Australia[73] Assignee: **Charles Furey and Associates Proprietary Limited**, North Sydney, New South Wales, Australia[22] Filed: **Feb. 1, 1972**[21] Appl. No.: **222,530**[30] **Foreign Application Priority Data**

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[52] **U.S. Cl.**..... 297/250, 297/1, 297/118[51] **Int. Cl.**..... **A47d 1/10**[58] **Field of Search**... 297/118, 130, 250, 254, 253, 297/1, 2, 3, 325[56] **References Cited****UNITED STATES PATENTS**

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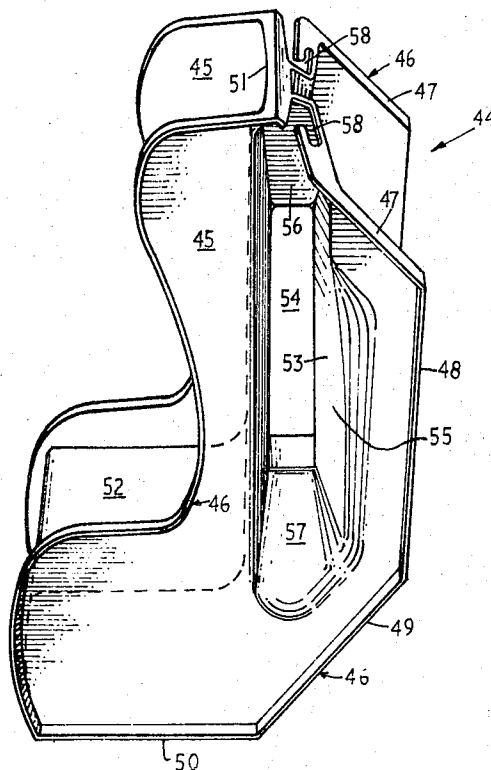
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Primary Examiner—Francis K. Zugel*Attorney, Agent, or Firm*—Ladas, Parry, Von Gehr, Goldsmith & Deschamps[57] **ABSTRACT**

The device is a carrier suitable for carrying a baby or small child and is so constructed that the carrier may be readily secured to a vehicle or aircraft seat in one of two alternative positions.

The carrier has a base in four sections secured together end to end, there being an outer and an inner foot section and an outer and an inner head section. Each section may be flat or may comprise at least two similar parallel runners. The base sections are angularly disposed to each other at their junctions so that when the inner foot section is on the seat, the outer head section is against the seat back and when the outer foot section is on the seat the inner head section is against the seat back.

1 Claim, 8 Drawing Figures

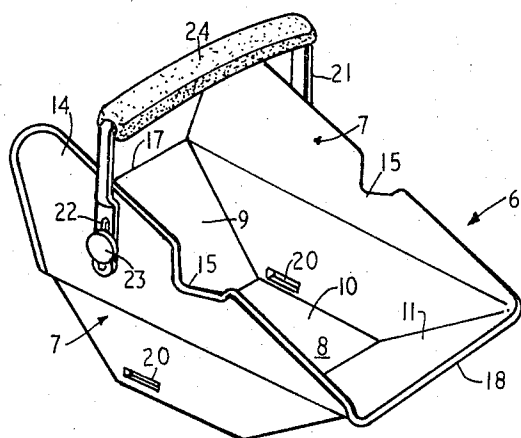


FIG. 1

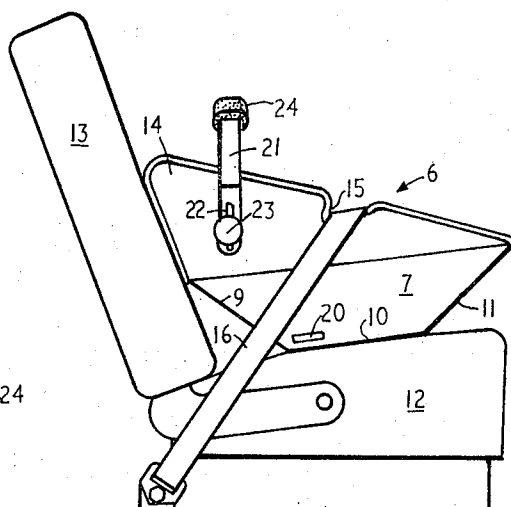


FIG. 2

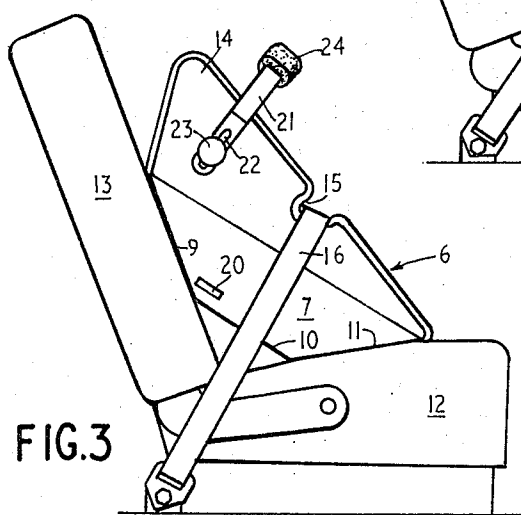
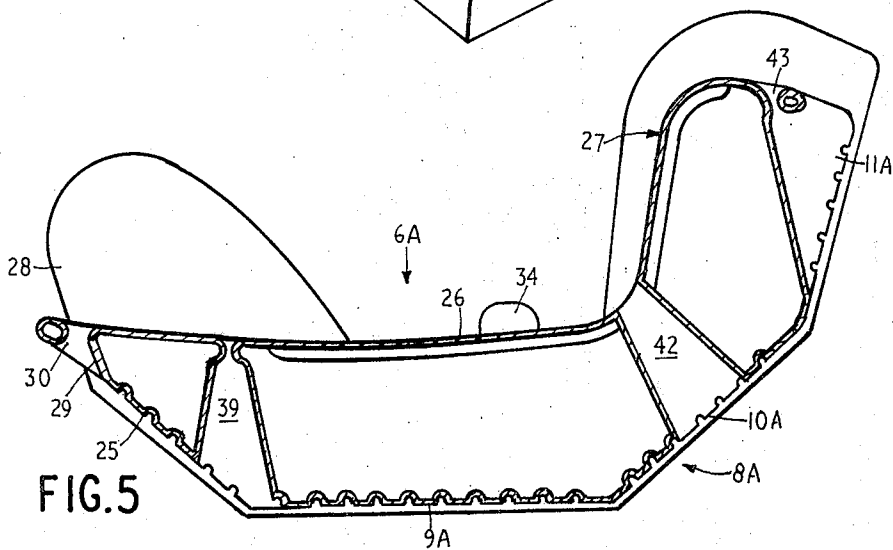
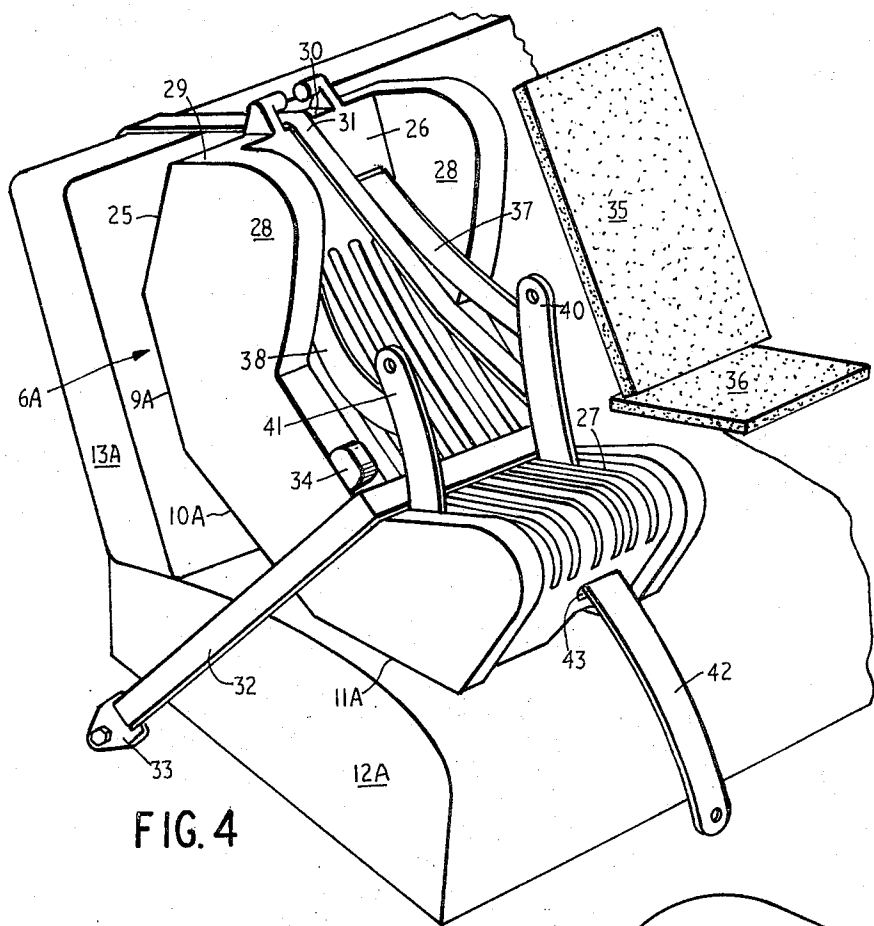
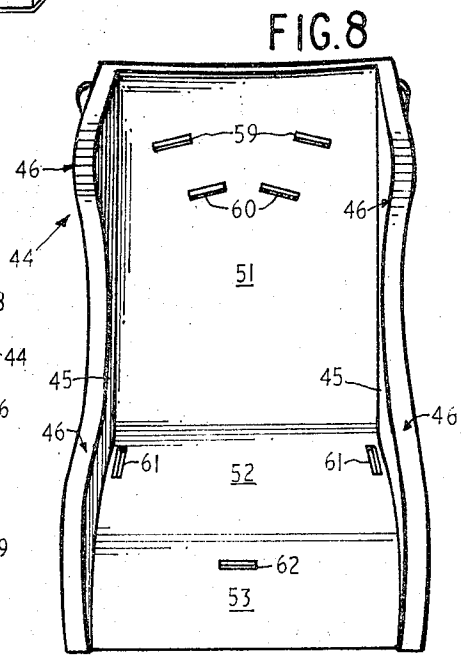
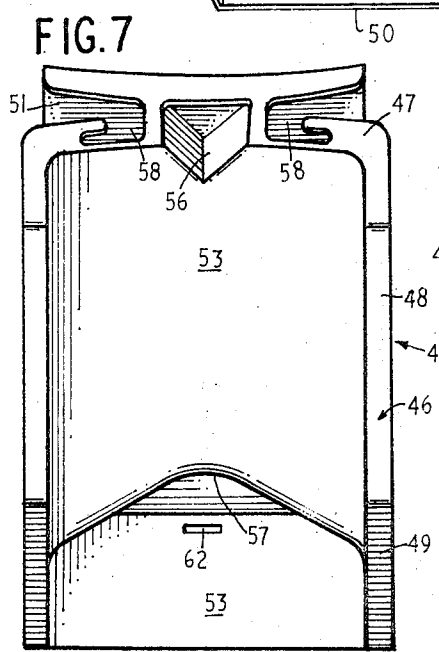
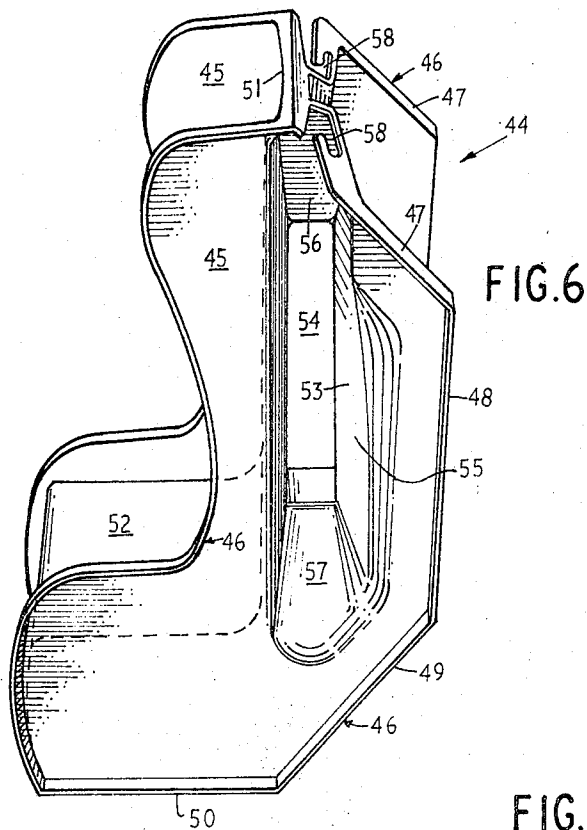


FIG. 3





CHILD'S BASSINET, SEAT, BED OR CARRIER

This invention relates to a child's bassinet, seat, bed or carrier. It is particularly applicable to use in a motor vehicle and for convenience it will be referred to hereinafter as a carrier.

One object of the present invention is to provide such a carrier which is an improvement on existing carriers in that it may be used by children over a wider range of ages than usual.

Another object is to provide a carrier for a child with which the child may be securely held in the carrier by means of existing seat belt equipment in the vehicle, no seat belt equipment being required in the carrier itself.

Three preferred forms of the invention are illustrated in the accompanying drawings in which:

FIG. 1 is a perspective view of a first form of the invention,

FIG. 2 is a side elevation of the first form showing the carrier secured to a car seat so that its occupant will be accommodated in the reclining position,

FIG. 3 is a similar view to FIG. 2 with the carrier position changed so that its occupant will be in a seated position,

FIG. 4 is a perspective view of a second form of the carrier showing upholstered cushions displaced from their normal position,

FIG. 5 is a side elevation in section of the carrier shown in FIG. 4,

FIG. 6 is a view of a third form of the invention, and

FIG. 7 is a rear elevation and FIG. 8 a front elevation of the form of FIG. 6.

In the first preferred form of the invention the carrier 6 has a continuous floor 8 and spaced side walls 7 integral with the floor. An important feature of the invention is that the floor 8 consists of three panels 9, 10 and 11 located in three different planes. The panels are generally rectangular and are located integrally end-to-end. For convenience the panels may be referred to as a head panel 9, a middle panel 10 and a foot panel 11. Each is approximately rectangular with one end of the head panel 9 secured to or formed integrally with one end of the middle panel 10, and one end of the foot panel 11 secured to or formed integrally with the other end of the middle panel 10. When the middle panel 10 is horizontal, as in FIG. 2 the other panels 9 and 11 extend outwards and upwards away from the middle panel 10. The angle between the extended planes of the head and foot panels is approximately 100° which corresponds substantially to the usual angle between a car seat 12 and the seat back 13.

The two side walls or panels 7 are similar and are formed integrally with the corresponding side edges of the floor panels 8. The head end 14 of each side panel 7 extends upwards beyond the line joining free edges of the head and foot panels 9 and 10 when the middle panel 10 is horizontal. The upper edge of each side panel 7 is provided with one recess 15 or two or more spaced recesses, the recesses 15 on the upper edge of one side panel 7 being symmetrical with respect to those on the upper edge of the other panel 7.

The upper edge of each side panel 7 extends approximately from the head end to an end of the free edge of the foot panel 11.

In use, where a child is to be supported in a suitable position, the carrier 6 is disposed in the vehicle with the foot panel 11 on the car seat 12 as in FIG. 3 and the head panel 9 against the seat back 13. The carrier is also disposed between the anchors for two seat belts 16. The child can then be placed in a sitting or reclining position in the carrier 6 and is secured in position by passing the seat belt 16 across the free edges of the side panels 7 in a pair of corresponding recesses 15. The recesses 15 locate the belt 16 securely when it is tightened. Alternatively, the carrier may be readily moved to a position as in FIG. 2 in which the middle panel 10 rests on the seat 12 and the free edge 17 of the head panel 9 and the head end 14 of each side panel 7 rests against the seat back 13. In this latter position the top of the child's head may rest against the seat back 13 above the free edge 17 of the head panel 9.

In the carrier described the head edges 14 of the side panels 7 and the free edge 17 of the head panel 9 form a U-shaped opening through which, as described above when the child is seated, the back of the child's head might rest against the seat back 13. If thought desirable, this U-shaped opening may be partly or completely filled in by an additional panel.

Normally the child's feet may extend over the free edge 18 of the foot panel 11.

The carrier 6 is preferably moulded from plastics but, in addition, it may be upholstered and/or provided with padding such as plastic foam. If desired, further restraint on the child may be provided by additional straps (not shown) anchored within the carrier itself and the carrier 6 may be further anchored by seat belts 16 anchored to the car and passed through slots 20 near the lower edges of the side panels 7, the belt 16 then being underneath the child's body.

In some circumstances the head, middle and foot panels 9, 10 and 11 may be ribbed or corrugated for stiffening purposes or dished or otherwise contoured to the shape of the child's body. The surfaces of the panels may be perforated. The panels need not always be upholstered or cushioned.

Another important feature of the invention is that the angle between a longitudinal extension of the surface of the middle panel 10 and a downward extension of the area bounded by the head end edges 14 of the side panels 7 and the free edge 17 of the head panel 9 shall also intersect at an angle of approximately 100°.

In a modification of the first form of the invention a head restrainer 21 is adjustably secured to the side panels. The restrainer will normally comprise a U frame, the lower end of each arm of the U being slotted as at 22 near its free end and provided with suitable means such as a set screw 23 passing through each slot and secured to a side panel 7. By loosening the screw 23 the position of the U frame 21 in relation to the carrier 6 may be adjusted and by tightening the screw 23, the frame may be retained in the adjusted position. A suitable form of U frame may be made from metal strip. The U base may be padded or upholstered as at 24 in any suitable fashion. To suit the requirements of a particular child the frame 21 is displaced to a position in which the padded or upholstered U base 24 is disposed in front of and above the child's head. In case of rapid deceleration of a vehicle, the child's head will be restrained by the U base 24 and the child's body will be restrained by the car seat belt 16.

A second preferred form of the invention is shown in FIGS. 4 and 5. In this case the carrier 6A is a hollow plastic box formed, e.g., in one piece by the rotary casting process or in two pieces by injection moulding; the two parts being then joined together, or in any other suitable way. The floor 8A is provided with four successive panels 25, 9A, 10A and 11A disposed at the same angles as in the first form. The panel 25 provides a filled in area in place of the open area between the head ends 14 of the side panels 7 in the first form of the invention.

The carrier 6A can be mounted in two positions on the car seat 12A and back 13A as already described, i.e., with the panels 9A and 11A in contact with its back and seat as shown in FIG. 4 or with the panels 25 and 10A in contact with the back and seat respectively.

The upper surface of the carrier is formed into two integral panels 26 and 27 disposed at approximately 90° to each other. The panel 27 is approximately parallel to the panel 11A and the panel 26 similarly disposed to the panel 9A. The occupant of the carrier 6A will rest upon the panel 26 when said carrier is secured in the reclining position; and will sit upon the panel 27 with his back against the panel 26 when the carrier is secured in the more nearly upright position. Integral side wings 28 are formed to each side of the panel 26 as protection for the child's head.

A tee slot 30 is formed medially in the upper edge 29 of the panel 25 to enable the shoulder sash belt 31 of a lap sash harness to be used to secure the carrier 6A. The belt 31 passes up against the panel 26, through the tee slot 30 and down over the back 13A. The lap belt 32 passes from its anchorage 33 across the lower end of the panel 26 to its anchorage on the other side of the seat 12A. A small integral tongue 34 helps locate the lap belt 32 in this position.

Upholstered cushions 35 and 36 are placed on the panels 26 and 27 respectively to cover the lap sash harness just described. The carrier 6A is provided with its own harness system. This comprises two shoulder straps 37 and 38 which emerge through ports 39 formed near the end 29 of the panel 25. Two lap belts 40 and 41 emerge through ports 42 formed at the junction of the panels 26 and 27, and the free ends of the straps 37 and 38 are secured to said lap belts 40 and 41. Finally a crotch belt 42 emerges from a port 43 at the end of the panel 11A. This harness is secured by a suitable anchor (not shown) to hold the child firmly in place. To provide for children of varying sizes addition belt ports spaced from the ports 39 may be provided, the belts being passed through a selected pair of openings.

A further embodiment of the carrier is illustrated in FIGS. 6, 7 and 8. In this form the carrier 44 is a one piece moulding having two similar side panels 45 with outwardly turned peripheral flanges 46. The flanges 46 at one side are contoured into four angled planes 47, 48, 49 and 50 which contact a car seat in a similar manner to that described in the previous embodiments.

The side panels 45 are united by a transverse panel 51 which forms a back rest for an occupant when the carrier 44 is in an erect attitude as shown. The panel 51

is also smoothly radiused into a seat panel 52 at right angles to said panel 51, and finally into a short front panel 53 approximately parallel to said panel 51. The side panels 45 also form wings to locate the occupant, and the flanges 46 stiffen the edges of said wings.

A secondary back panel 53 extends between the side panels 45, spaced from the parallel to the panel 51 so that a transverse aperture 54 is formed through the carrier 44. Ports 55 are formed through each panel 45 opening into said aperture 54.

The back panels 51 and 53 are joined at the top by a vee shaped integral web 56 and at the bottom by a wider domed web 57. The aperture 54 is thus bounded by the panels 51 and 53 and the webs 56 and 57.

The flange 46 in the vicinity of the plane 47 is contoured so as to provide two apertured slots 58. In use, the carrier 44 is mounted as desired on the car seat and both the shoulder and lap belts of the normal harness are passed through the aperture 54. The shoulder strap can be located in either apertured slot 58 and passed through the port 54 together with the lap belt to emerge through a port 55. The harness can now be tightened to securely lock the carrier 44 onto the car seat.

A secondary harness (not shown) is provided for the occupant of the carrier 44. Apertures 59 and 60 are formed in the back panel 51 to carry the shoulder straps of this harness. Similar apertures 61 are provided in the seat panel 52 for the lap belts of this harness. An aperture 62 is provided in the panel 53 for a crotch belt.

It will be seen that this form 44 of the carrier enables the said carrier to be secured to the car seat with the normal car harness isolated from the occupant of said carrier, thus adding to the comfort of said occupant.

The means used to secure the lap belt to the top of the carrier is not necessarily restricted to the apertured slots 58. Any other suitable anchorage can be used as circumstances demand.

What I claim is:

1. A carrier for the purpose described comprising a base having four longitudinal sections joined together in succession end to end and including in turn an outer head section and an inner head section, an inner foot section and an outer foot section, the relative orientation of the sections being such that when the inner foot section is on the vehicle seat the outer head section is against the seat back and when the outer foot section is on the vehicle seat the inner head section is against the seat back, means on the carrier being provided to facilitate the securing of the carrier to the vehicle body, wherein each section comprises at least two transversely spaced similar runners and including also a longitudinal floor spaced from the runners except near its head and foot ends, side walls connecting the runners and the floor and extending above the floor at least near the head and foot ends, the means to facilitate securing of the carrier to the vehicle body including a passage for a securing belt extending through the side walls between the head end of the floor and the adjacent part of the base.

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