

Aug. 1, 1961

S. S. KING

2,994,557

CHILD'S CONVERTIBLE CHAIR

Filed May 1, 1959

3 Sheets-Sheet 1

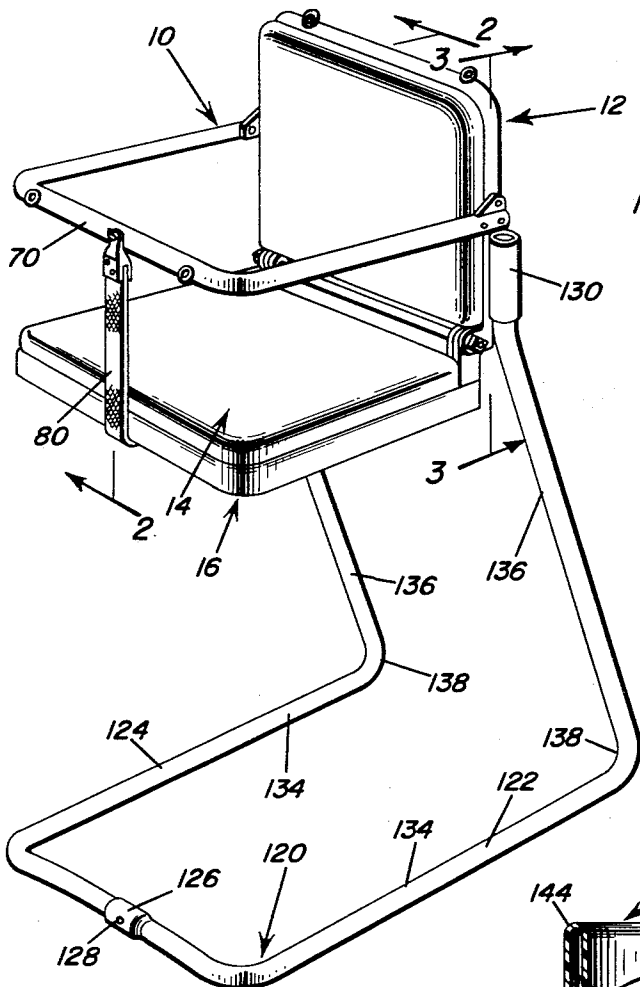


Fig. 1

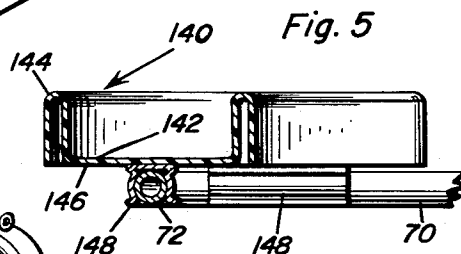


Fig. 5

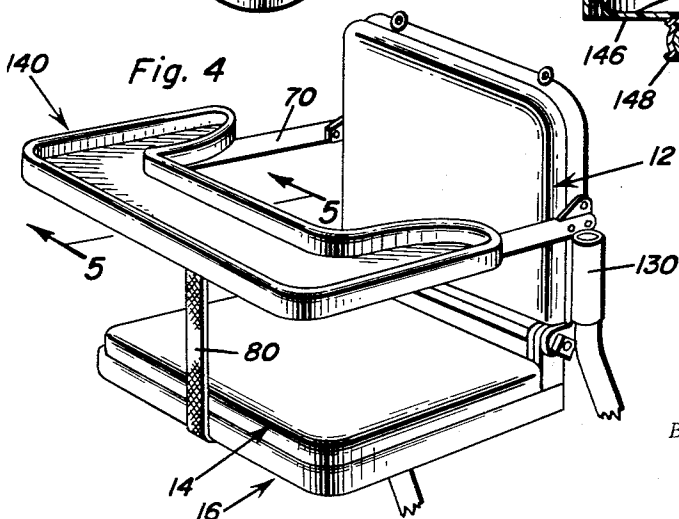


Fig. 4

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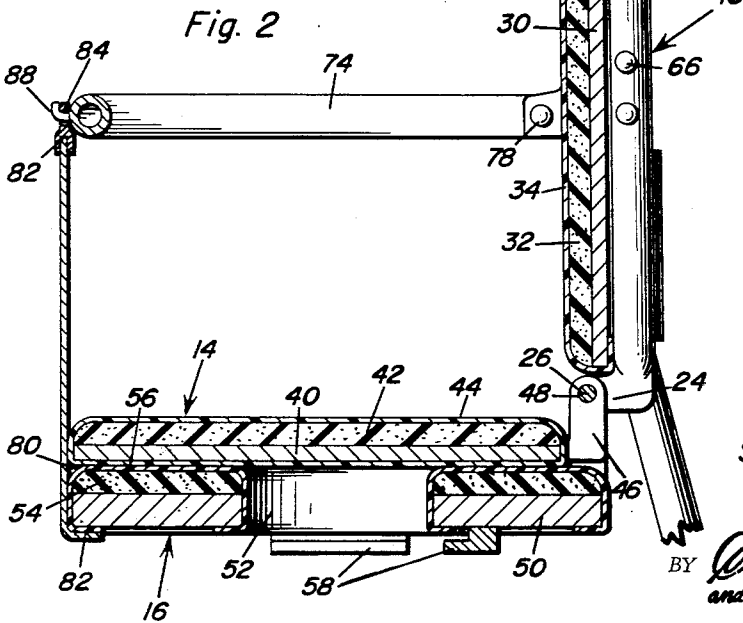
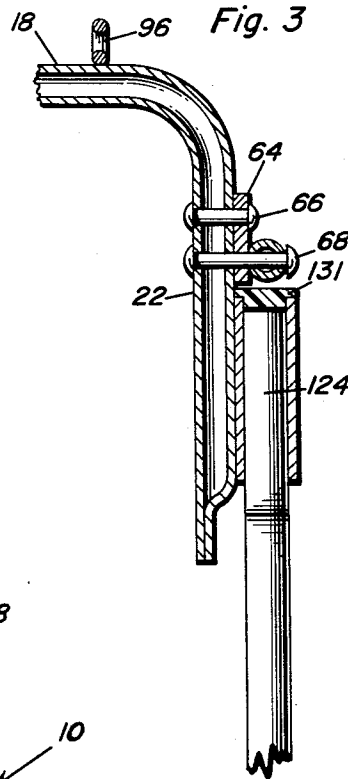
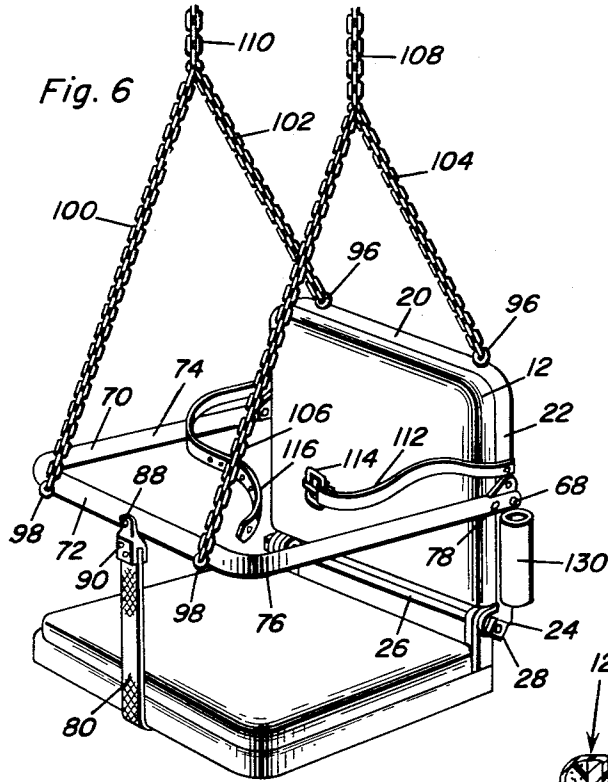
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CHILD'S CONVERTIBLE CHAIR

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3 Sheets-Sheet 2



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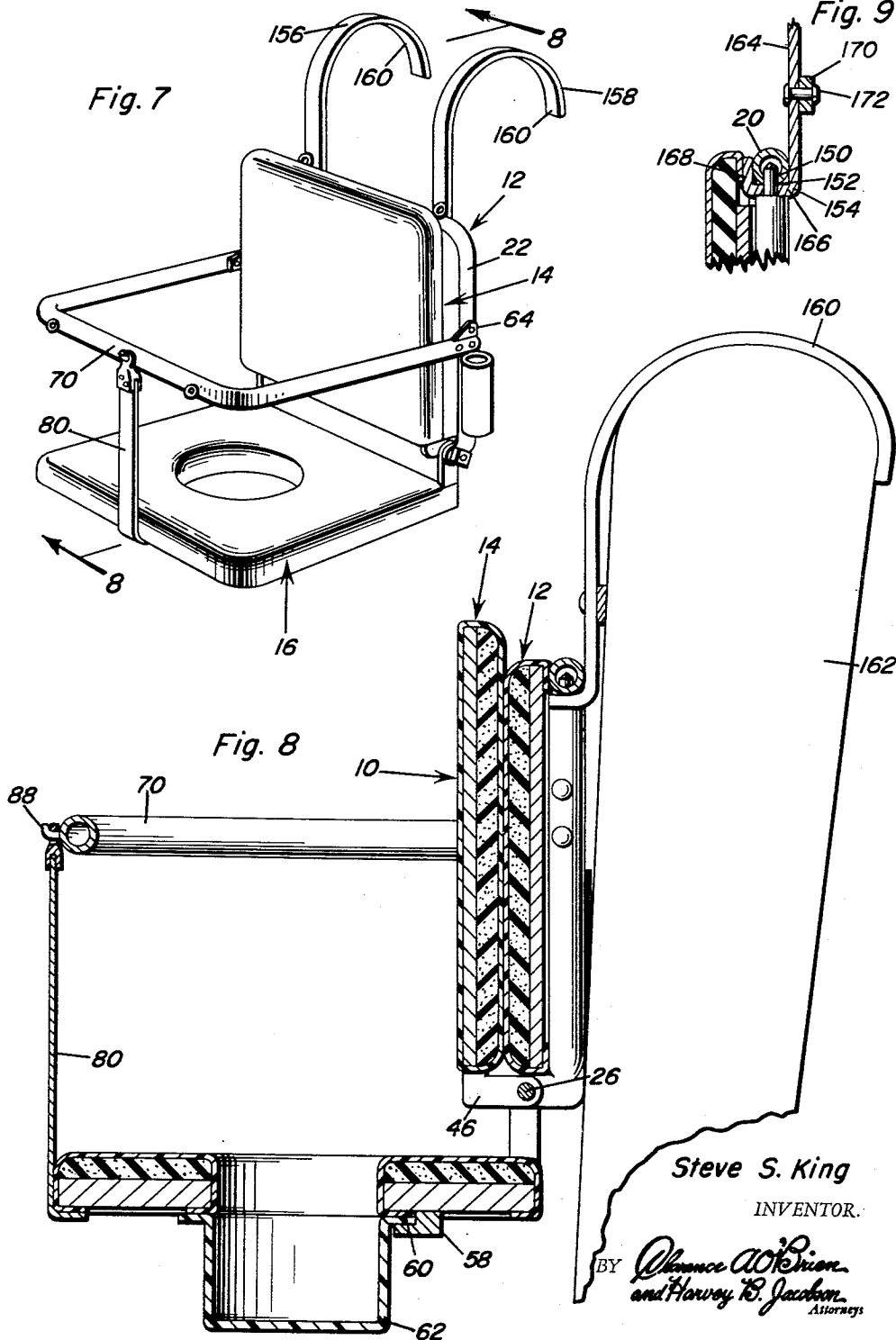
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3 Sheets-Sheet 3
Fig. 9



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CHILD'S CONVERTIBLE CHAIR

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4 Claims. (Cl. 297-105)

This invention relates generally to a child's chair and more particularly to a novel chair construction including convertible characteristics which allows the chair to be efficiently adapted for utilization as a high chair, a car seat, a potty, or a swing.

Increasing number of types of baby furniture confront parents each year. For instance, special purpose car seats to accommodate a baby are found in great quantities on the market. Further, it will be realized that high chairs, potties, and swings, are also found in many varied forms. It often proves costly and inconvenient for parents to purchase and store these various articles of furniture and accordingly the development of a single device for sufficing for all these various purposes would be extremely desirable. Accordingly, it is principal object of this invention to provide a novel construction in child's chairs which is easily convertible to adapt the construction for a multitude of purposes.

It is a further object of this invention to provide a novel construction in child's chairs which is convertible for various purposes and which is durable, attractive, and easily convertible to its various intended uses.

It is a still further object of this invention to provide a novel convertible child's chair construction which is relatively inexpensive to manufacture; particularly, when compared with the cost of producing a plurality of chairs to fulfill the multitude of functions contemplated for the present invention.

In accordance with the above stated objects, below is particularly described the construction and utilization of the novel convertible chair construction which includes a back portion having a U-shaped frame attached to the perimeter of one surface thereof. A hinge rod is terminally carried by the legs of the U-shaped frame member spaced from the back portion. A first seat portion is terminally hinged to the hinge rod. A second seat portion, having a central opening therein, is likewise hinged to the hinge rod. A U-shaped arm member has a bight portion and a pair of legs with the legs being fixed to the U-shaped frame member and extending perpendicularly therefrom. A flexible strap extends from the bight portion of the U-shaped arm member to support the hinged mounted first and second seat portions.

A pair of sleeves are outwardly supported on the legs of the U-shaped frame member for receiving the terminal portions of arms forming a part of a rocker base for supporting the chair construction. A tray conforming to the shape of the U-shaped arm member and adaptable to be fixed thereto aids the base in converting the chair construction for use as a high chair. A pair of eyes are fixed to the bight portion of the U-shaped frame member while a pair of eyes are fixed to the bight portion of the U-shaped arm member with the eyes being aligned to terminally receive chain portions to allow the chair construction to be utilized as a swing. When the first seat portion is lifted so as to engage the back portion, the second seat portion provides the central aperture so that the chair construction may be utilized as a potty. A throw away container is mounted beneath the central aperture by L-shaped projections which receive the throw away container. In order to utilize the chair construction as a car seat, a pair of arcuate seat straps are adaptable to be secured to the U-shaped frame member for

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overhanging a car seat to secure the chair construction thereon.

Other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the invention being utilized as a chair on a rocker base;

FIGURE 2 is a sectional view taken substantially on the plane 2-2 of FIGURE 1;

FIGURE 3 is a sectional view taken substantially on the plane 3-3 of FIGURE 1;

FIGURE 4 is a fragmentary perspective view illustrating the chair construction incorporated with the tray having a shape conforming with the U-shaped arm member;

FIGURE 5 is a sectional view taken substantially along the plane 5-5 of FIGURE 4;

FIGURE 6 is a perspective view of the chair construction illustrating utilization thereof as a swing;

FIGURE 7 is a perspective view of the chair construction illustrating the invention utilized as a potty and a car seat;

FIGURE 8 is a sectional view taken substantially upon the plane 8-8 of FIGURE 7; and

FIGURE 9 is a fragmentary sectional view illustrating the structural attachment between the seat straps and the chair construction.

With continuing reference to the drawings, the numeral 10 generally represents the chair construction including a back portion 12, a first seat portion 14, and a second seat portion 16.

The back portion 12 has a U-shaped frame member 18, preferably formed of a tubular material as aluminum, fixed to the rear surface of the back portion 12 and extending around the periphery thereof. The U-shaped frame member 18 includes a bight portion 20 and leg portions 22. The leg portions 22 terminate in forwardly extending projections 24. Received between the projections 24 is a removable hinge rod 26. The hinge rod 26 is terminally threaded to receive nuts 28 thereon to retain the hinge rod 26 between the projections 24. Of course, the nuts 28 are removable to provide means for easy disassembly of the device. The back portion 12 includes a rigid backing 30 having a foam rubber layer 32 superposed thereon. The foam rubber 32 is covered by a plastic sheet 34 to protect the back portion 12. It is contemplated that the back portion 12 be contoured to fit a child's back to provide the chair with the desired comfort.

Hingedly carried by the hinge rod 26 is the first seat portion 14 including a rigid portion 40 having a foam rubber layer 42 superposed thereon. Again, the foam rubber layer 42 is covered by a plastic cover 44. Upwardly extending projections 46 have apertures therein, as 48, and receive therethrough the hinge rod 26. As will be particularly noted in FIGURE 8, the first seat portion 14 is adapted to pivot about the hinge rod 26 to engage the back portion 12.

The second seat portion 16 has a rigid bottom 50 defining a central aperture 52 therein. A foam rubber layer 54 having a central aperture is superposed on the rigid portion 50 while a plastic cover 56 covers the foam rubber layer. A plurality of L-shaped projections, as 58, are dependently supported from the second seat portion 16 for slidably receiving the flanges 60 of a throw away plastic container 62.

An ear 64 is secured to each of the legs 22 of the U-shaped frame member 18 by rivets 66 and 68 as particularly indicated in FIGURE 3. A U-shaped arm mem-

ber 70 having a bight portion 72 and a pair of legs 74 and 76 is secured to the ear 64 by said rivet 68 and rivet 78. The rivet 68, as illustrated in FIGURE 3, passes through the legs 76 of U-shaped arm member 70 and also through leg 22 of U-shaped frame member 18. A flexible strap 80 is terminally fixed to the bottom surface of the second seat portion 16 at 82. An aperture 84 on the bifurcated member 86 receives a hook 88, secured to bight portion 72 of U-shaped arm member 70, therethrough. The bifurcated member 82 is secured to the flexible strap 80 by rivets 90. It will be appreciated therefore that the hinged first and second seat portions are supported in a horizontal position by the projecting hook 88 carried by the U-shaped arm member 70. It will be apparent that when a child sits on the chair construction 10, the flexible strap 80 will be positioned between his legs to prevent the child from falling from the chair beneath the U-shaped arm member 70.

A pair of eyes 96 are positioned on the bight portion 20 of the U-shaped frame member 18 as particularly illustrated in FIGURE 6. Further, a pair of eyes 98 are positioned on the bight portion of U-shaped arm member 70 as indicated in FIGURE 6. It will be noted that the eyes of the pair 96 and 98 are aligned so that the terminal links of chains 100, 102, 104 and 106 may be received therein for holding the chair construction 10 in a balanced condition. The chains 104 and 106 are secured to a chain 108 while the chains 102 and 100 are secured to the chain 110. A strap 112 having a buckle 114 to receive the perforated strap portion 116 is secured to one leg of the U-shaped frame member 18 while the perforated portion 116 is secured to the second leg 22 of the U-shaped frame member 18. When a child is seated on the first seat portion 14 with the chair 10 suspended from the chains 110 and 108 as indicated in FIGURE 6, the child may be strapped in by the strap 112. The utilization of the device as formed in FIGURE 6 will then be apparent. By pushing the chair 10, the child may be pivoted about a swing bar to which the chains 110 and 108 are secured.

With particular reference to FIGURE 1, a rocker base 120 is provided including a first rocker arm 122 and a second rocker arm 124. The rocker arm 122 is ferruled at 126 to terminally receive the rocker arm 124 therein. The rocker arms 122 and 124 are secured together by a pin 128. A pair of sleeves 130 having caps 131 are secured, as by welding, to the legs 22 of the U-shaped frame member 18 as indicated in the drawings. The sleeves 130 terminally receive the rocker arms 122 and 124. With the device positioned as in FIGURE 1, the chair 10 may be rocked on the horizontal portions 134 of the rocker arms 124 and 122 while the upwardly inclined portions 136 limitedly pivot about the junction 138 between the horizontal portions 134 and the upwardly inclined portions 136. The ferruled terminal 126 is provided to increase the stability of the rocker base 120. To further increase the utility of the invention, it is contemplated that a tray 140, generally conforming to the shape of the U-shaped arm member 70, be provided. The tray 140 includes a top surface 142 having an up-standing peripheral wall 144 formed integral therewith or secured thereto. The bottom surface 146 of the tray 140 has channel shaped resilient clips 148 secured thereto for receiving portions of the U-shaped arm member 70, as particularly illustrated in FIGURE 5, to secure the tray 140 to the U-shaped arm member 70. The utilization of the tray 140 is thought to be apparent and with the tray mounted on the construction as illustrated in FIGURE 1, the device forms a novel and improved high chair construction.

As noted above, in order to utilize the invention as a potty, the first seat member 14 may be pivoted about the hinge rod 26 and a throw away container 62 is received in the L-shaped dependingly supported projections 58 for mounting the container 62.

A pair of apertures 150 are provided in the bottom of the bight portion 20 of U-shaped frame member 18. Received in the apertures 150 are projections 152 secured in the channel 154 are terminally channeled seat strap members 156 and 158. The seat strap members 156 and 158 have arcuate top portions 160 which may be received over a car seat 162 as indicated in FIGURE 8. A vertical portion 164 extends from the arcuate portion 160 and terminates in the horizontal portion 166 of the channel 154. A vertical portion 168 with the vertical portion 164 defines the channel 154. The bight portion 20, as noted above, is received within the channel with the projections 152 passing through the apertures 150 as indicated particularly in FIGURE 5. A spacer 170 may be secured to the vertical portion 164 by rivet 172 so as to cushion the bearing of the seat 10 against the automobile seat 162 and to provide some resilient or spring-like action therebetween.

It is thought that one skilled in the art will now fully appreciate that the novel chair construction disclosed above is versatile inasmuch as it provides the owner with a swing construction, a car seat construction, a potty construction, a rocker seat construction, and a high chair construction. One skilled in the art will further appreciate that various combinations of these devices may be formed by utilizing teachings consistent with the above recitation. It is further within the contemplation of the applicant that the teachings herein be utilized with conventional car seats which may be provided with the hinge rod and additional disclosed structural elements.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A child's convertible chair comprising a back portion, a U-shaped frame member fixed to one surface of the back portion near the periphery thereof, said frame member including an upper bight portion and a pair of depending leg portions, a removable hinge rod extending through and between the lower free ends of said leg portions, an upper seat portion hinged on said rod, a lower seat portion hinged on said rod, a U-shaped arm member including a bight portion and leg portions, the ends of said portions fixed to the U-shaped frame member, a flexible strap extending from said bight portion of said arm member to said lower seat member, said lower seat member including a vertical aperture therein, each of said seat members being constructed of a firm base supporting foam rubber covered by plastic, substantially horizontally extending grooved support means extending on opposite sides of said aperture for slidably supporting flanges of a removable container, a pair of eyes on the bight portion of said frame member, a pair of eyes on the arm member, said eyes terminally receiving the lower ends of chains for supporting said chair in a stable position.

2. A child's convertible chair comprising a back portion, a U-shaped frame member fixed to one surface of the back portion near the periphery thereof, said frame member including an upper bight portion and a pair of depending leg portions, a removable hinge rod extending through and between the lower free ends of said leg portions, an upper seat portion hinged on said rod, a lower seat portion hinged on said rod, a U-shaped arm member including a bight portion and leg portions, the ends of said portions fixed to the U-shaped frame member, a flexible strap extending from said bight portion of said arm member to said lower seat member, said lower seat member including a vertical aperture therein, each of said seat members being constructed of a firm base

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supporting seat padding, substantially horizontally extending grooved support means extending on opposite sides of said aperture for slidably supporting flanges of a removable container, a sleeve fixed to each leg portion of said frame member adjacent an edge of the back, each of said sleeves receiving terminal portions of upwardly extending arms fixed to a rocker base.

3. A child's convertible chair comprising a back portion, a U-shaped frame member fixed to one surface of the back portion near the periphery thereof, said frame member including an upper bight portion and a pair of depending leg portions, a removable hinge rod extending through and between the lower free ends of said leg portion hinged on said rod, a U-shaped arm member including a bight portion and leg portions, the ends of said portions fixed to the U-shaped frame member, a flexible strap extending from said bight portion of said arm member to said lower seat member, said lower seat member including a vertical aperture therein, each of said seat members being constructed of a firm base supporting seat padding, substantially horizontally extending grooved support means extending on opposite sides of said aperture for slidably supporting flanges of a removable container, a pair of arcuate seat straps, each of said straps including a channeled end portion, a pro-

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jection perpendicularly fixed in said channel, a pair of apertures in said bight portion of said frame member, said projections being smaller in cross-section than said apertures and removably received therein, said bight portion of said frame member received in said channels.

4. The combination of claim 3 including a U-shaped tray, said tray having a top surface and a bottom surface, an upstanding wall extending about the perimeter of said top surface, a plurality of resilient channel shaped clips fixed to said bottom surface, said clips resiliently receiving and removably retaining portions of said arm member therein, said U-shaped tray having a bight portion and leg portions supported directly upon the bight portion and legs of said U-shaped member respectively.

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