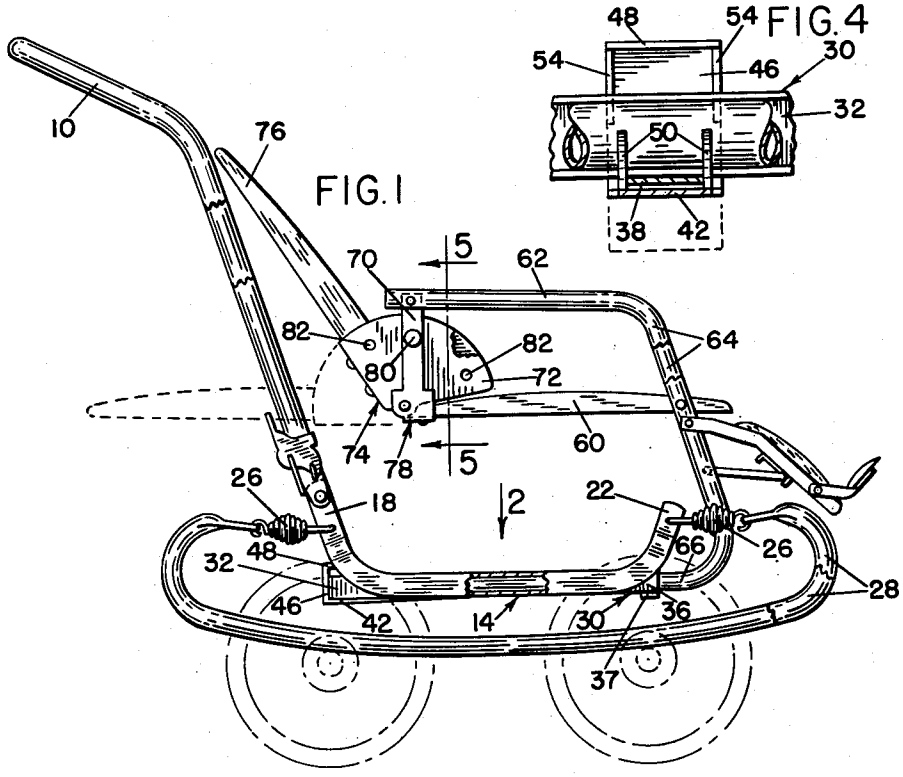
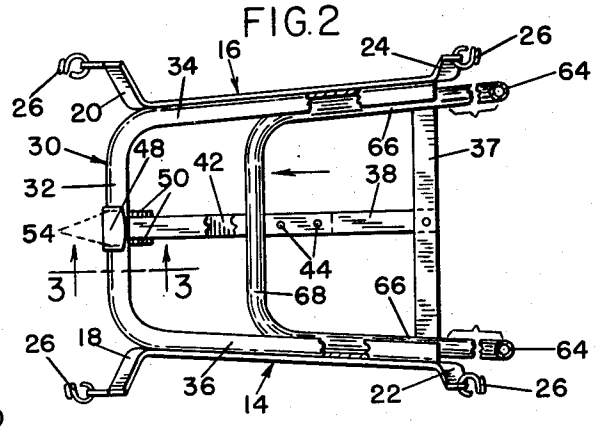
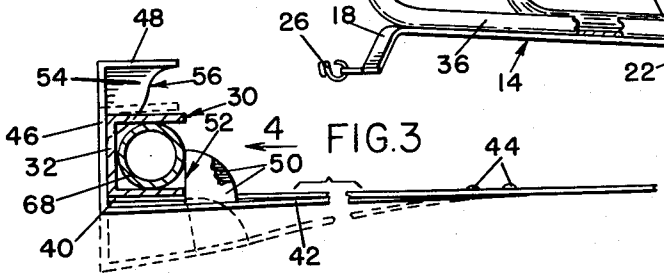
Dec. 24, 1963 O. C. HERSHBERGER ETAL 3,115,365

CONVERTIBLE FURNITURE FOR INFANTS

Filed Oct. 27, 1961 2 Sheets-Sheet 1







INVENTORS
OLIN C. HERSHBERGER
DOLORE B. MORIN
by Charles R. Fay,
ATTORNEY

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FIG. 5

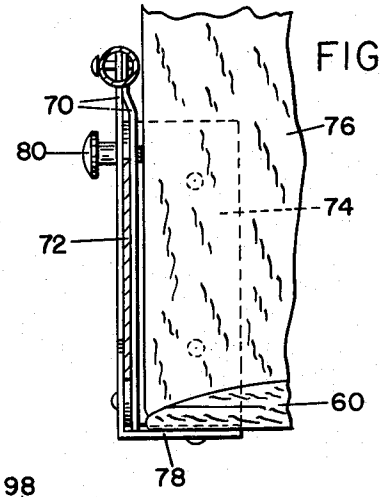


FIG. 6

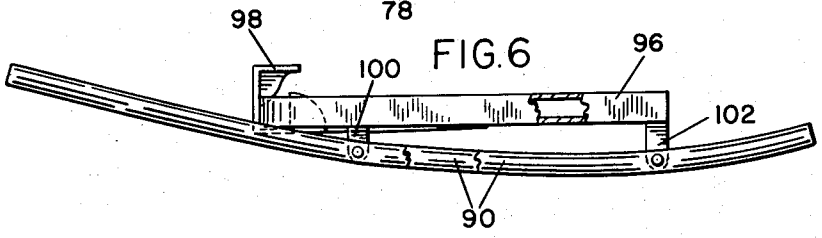
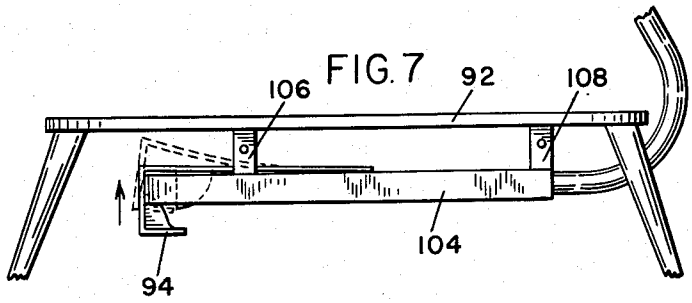


FIG. 7



INVENTORS
OLIN C. HERSHBERGER
DOLORE B. MORIN
by Charles R. Fay.
ATTORNEY

United States Patent Office 3,115,365 Patented Dec. 24, 1963

3,115,365

CONVERTIBLE FURNITURE FOR INFANTS

Olin C. Hershberger and Dolore B. Morin, both of P.O. Box 8, Thompson, Conn.

Filed Oct. 27, 1961, Ser. No. 148,077
3 Claims. (Cl. 297—133)

This invention relates to new and improved convertible furniture for infants. The invention includes the provision of a device of the class described which is quickly and easily changeable from a stroller to a table, chair, or high chair combination, or to a baby buggy, or carriage, rocking chair, etc.

The principal object of the invention resides in the provision of a new and improved base including novel detachable holding means for a seat, said new and improved holding means being stronger, sturdier, and easier to operate, and having a tighter grip than the prior art; the provision of a chair or seat provided with a wedge-shaped supporting element in the form of a bent tube or the like having three sides in the form of a U with a closed end, the closed end being shorter than the opposite open end, forming a wedge; the holding means therefor, as for instance on the stroller, table, carriage base, or rocker, being a base including a similarly formed wedge-shaped channel, bent into the form of a U to accommodate the bent supporting element, so that when the supporting element is slid home in the U-shaped wedge channel, the parts are tightly connected together and will not wobble or rattle; and the provision of a device as above described including a new and improved latching means and also including a new and improved and easily operated device for releasing said latching means to withdraw said supporting element from said base; and the provision of a new and improved latching means as aforesaid including a cam starter thereon for initially dislodging the supporting element from the said U-shaped channel base so as to provide for quick and easy detachment and separation of the parts while at the same time providing for a greatly improved, firmer, and more positive holding mechanism.

Other objects of the invention include the provision of a chair or seat having a pivoted back and new and improved means adjustably securing the back to the seat in different degrees of inclination with respect thereto, said means including an element for closing a normally open space between the pivoted back and the seat or arm members thereof.

The invention further relates to arrangements and combinations of parts which will be hereinafter described and more paritcularly set forth in the appended claims.

Reference is to be had to the accompanying drawings, in which

FIG. 1 is a view in side elevation showing the device in the form of a stroller;

FIG. 2 is a plan view of the frame with parts omitted looking in the direction of arrow 2 in FIG. 1;

FIG. 3 is a view on an enlarged section on line 3—3 of FIG. 2;

FIG. 4 is a view looking in the direction of arrow 4 in FIG. 3, parts being in section;

FIG. 5 is an enlarged section on line 5—5 of FIG. 1;

FIG. 6 is a view in elevation showing a rocker base to which the seat may be attached, and

FIG. 7 is a view in side elevation showing the seat supporting element attached to a table top or the like.

In illustrating the present invention, the same is shown as made up as a stroller in FIG. 1. A pusher handle 10 of any convenient kind, and including the usual latches for holding the handle if desired, extends forwardly and downwardly as shown and is secured at its lower end to a pair of side frame members which are generally indicated

by the reference numerals 14 and 16 at the rear ends of said members (see FIG. 2). These frame members extend inwardly as at 18 and 20 and extend forwardly in diverging relationship (see FIG. 2), terminating in upwardly and outwardly extending end members 22 and 24 to which are secured springs (or the usual shackles) 26, all more or less a like, these springs being mounted on the usual carriage frame 28. This carriage frame is the main part of the undercarriage and on it are mounted the wheels, brakes, etc., all as is well known in the art.

Between the two frame members 14 and 16, there is secured as by riveting or welding a generally U-shaped channel frame generaliy indicated by the reference character 30. This frame is provided with a closed end 32 and has a pair of diverging arms 34 and 36, all of which are made of channel members in the nature of a channel iron, and it will be seen that together the U-shaped member 30 and the carriage members 14 and 16 provide a rigid frame which may, however, be strengthened by various cross frame members such as at 37 if desired.

A longitudinal central frame member 38 is preferably secured at its forward end to the cross member 37 and at its rear end at the under side of the channel member at the closed end thereof as perhaps best seen in FIG. 3 at 40. Underneath this member 38 and in general conformance therewith there is a rearwardly extending spring latch element 42. This may be secured as at 44 to the longitudinal carriage frame member 38 lying underneath the same and extending to its rear end past the same and upwardly as at 46 and thence forwardly as at 48. The member 48 is spaced from the upper part of the channel and is capable of being manually depressed from its outer line position of FIG. 3 to the dotted line position thereof, against the spring action of the member 42.

The spring member 42 has a pair of spaced longitudinal ears mounted on it as at 50, these having a substantially flat forward face 52 for a purpose to be described and being movable by the inherent resiliency of the spring member 42 to the solid-line position of FIG. 3. Also, the member at 48 has a pair of downwardly extending ears at 54, these being in the nature of cams and are so shaped so as to have cam edges 56 extending from an outermost portion downwardly toward the rear, as shown in FIG. 3.

As shown in FIG. 1, there is a seat 60 which may be made in any way desired and as known in the art but it is preferably provided with armrests 62 which are continuations of the bent tubing members 64 and extend downwardly at the forward portion thereof and then to the rear as at 66 in two divergent runs which form a U-shaped supporting member having a closed end 68 (see FIG. 2). The U-shaped member 66, 68 generally fits the U-shaped member 30 and is slidingly held and wedged therein as will be described hereinafter, being latched as to the member 68 by the ears 50. When the latch member at 48 is moved downwardly to the dotted line position in FIG. 3, the latching ears 50 descend to clear the open side of the channel at 32 to release the U-shaped member 66, 68 of the chair seat so that it can be removed from the channel frame 30. The downwardly extending cam-like ears 56 assist this movement by impinging upon the rear surface of the member 68 as the member 48, 46, 42 moves downwardly and cams it back and out so as to break the wedging action which is assured by the general divergence of arms 34, 36 and those at 66. It will be seen that the construction therefore provides an extremely sturdy frame which cannot rattle or work loose and which very closely holds and locks the seat in the channel frame 30 but at the same time provides means for ejecting it from its wedged condition so that it may be grasped, say at the front edge of

the seat and removed and replaced quickly and easily. When it is replaced, of course the member 68 merely snaps into the latch, no action being required on the part of the operator.

At the rear portion of seat 60 the same is provided with a pair of closely spaced flat, parallel depending straps or standards 70 providing between them a guide for a movable sector plate 72. This sector plate is bent over at its rear as at 74 and is attached to an inclined backrest 76. The straps 70 are bent under the seat as at 78 and are secured thereto, and thus it will be seen that this forms an extremely strong and rigid connection.

A thumbpiece latch 80 is mounted on one strap and is designed to enter one of a series of holes 82 in the sector plate 72 for holding the brackrest 76 in desired angular position of adjustment. This sector plate covers the usual opening between the straps at 70 and the backrest so that this area is always closed contrary to similar devices of the prior art.

The entire U-frame at 30 including its ltching mechanism, etc., may be mounted on rockers as at 90 as shown in FIG. 6 so that the seat can be mounted as a rocking chair. Also the base can be mounted at the under side of a table top 92 as shown in FIG. 7, but in this case the latch member which is indicated at 94 is mounted in upside down relationship so that access may be had to move it upwardly in the direction of the arrow in FIG. 7 in order to release the seat frame. Otherwise, however, the construction is the same.

It is pointed out that the seat structure described may also be made in other forms as long as the shaped base member 66, 68 is utilized for the purpose described. For instance, a baby carriage body could be mounted thereon and other appurtenances. Also in the form of the invention shown in FIG. 7, the device can be used as a high chair or the like.

In FIG. 6 the channel U-shaped base is indicated by the reference character 96 and the releasing element at 98. These are the same as elements 30 and 46, 48 and 54 in FIGS. 1 to 3 inclusive. In this case, however, the channel-shaped base 96 which is the equivalent to that at 30 is mounted on a pair of cross braces 100, 102 which are in turn mounted on the rocker members 90. Braces 100 and 102 are spaced and parallel and the rockers 90 are spaced and parallel or substantially so.

In FIG. 7 the reference numeral 104 indicates the channel U-shaped channel base which is equivalent to that at 30 but in this case as stated it is upside down and the releasing member at 94 is operated in the opposite direction. In this case also parallel cross braces at 106 and 108 are attached to the under side of the table top 92 and hold the channel U-shaped member 104 in the position indicated, but it is emphasized that in both disclosures as to FIG. 6 and FIG. 7, the channels and the seat-supporting elements are the same as before described.

Having thus described our invention and the advantages thereof, we do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what we claim is:

1. In convertible furniture for infants, the combination of a base and a separable member for supporting an infant, the base comprising a generally flat U-shaped channel including a closed end and open end, the channel being U-shaped in section having a closed sides at the exterior of the base and open sides at the interior of the base, said infant-supporting member including a U-shaped element including a closed end and an open end and being adapted for removable reception in the base and alternatively per se mounting the infant-supporting member in the absence of the base, the U-shaped element and the U-shaped channel both including arms extending from the respective closed ends thereof to the open ends thereof, said arms being similarly divergent and the element being wedgingly slidably receivable in and fitting the channel for a tight, firm at tachment of the element to the channel, the closed end of the U-shaped channel comprising a stop limiting the relative motion of the U-shaped element by abutting the closed end of the latter, and releasable interengaging means on the closed ends of both the U-shaped element and U-shaped channel to latch the same together in stopped condition of the U-shaped element relative to the U-shaped channel.

2. The combination recited in claim 1 wherein the interengaging means includes a resilient member on the channel, a catch on the resilient member normally in latching position, a cam surface on the catch in the path of the closed end of the U-shaped element as it is moved into its stopped position in the channel, the closed end of the U-shaped element engaging the cam surface and moving the catch against the action of said resilient member to pass the catch, said resilient means providing for return of the catch after passage of the closed end of the U-shaped element to releasably latch the element in place, and manually operable means to release the catch to allow removal of the element from the channel, said cam moving downwardly to release the closed end of the U-shaped element said manually operable means extending above the closed end of the channel and being movable downwardly to release the catch, the manually operable means and catch being connected.

3. The combination of claim 1 including manually operable means to initiate a separation of the closed end of the U-shaped element from the closed end of the U-shaped channel, said last-named means comprising a cam having an edge located generally at right angles to the closed end of the element, said cam being movable to engage the said element closed end and urge the same in a direction to free the element from the base.

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