Dec. 26, 1950 E. L. JOHNSON 2,535,212

INFANT'S CHAIR

Filed June 26, 1946

Fig. 1

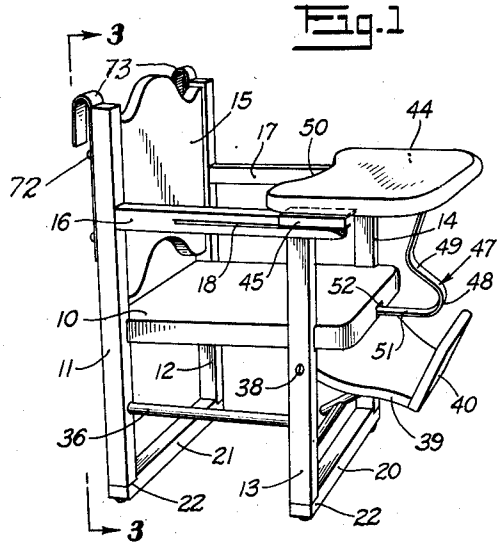


Fig. 2

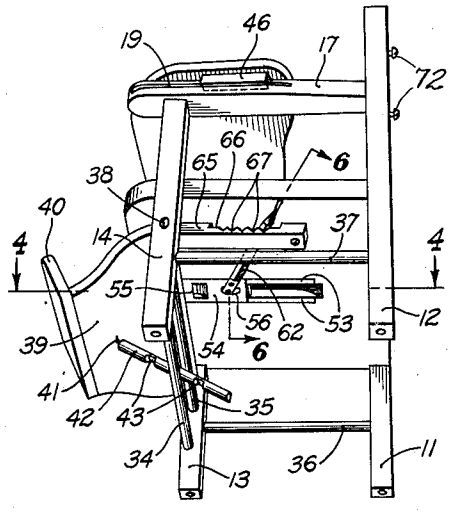


Fig. 3

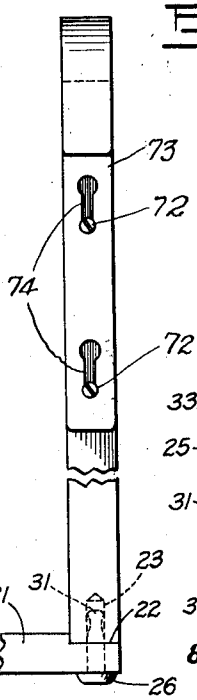


Fig. 4

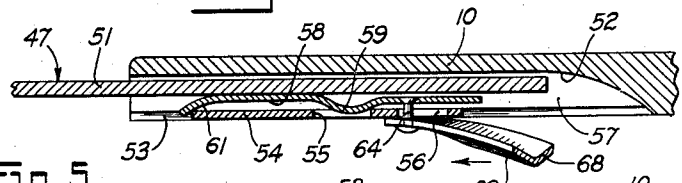


Fig. 5

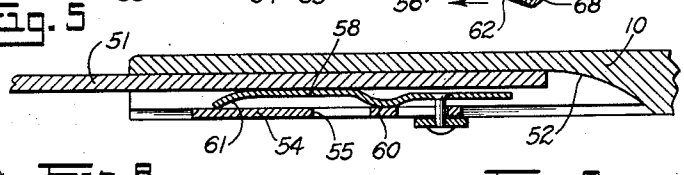


Fig. 8

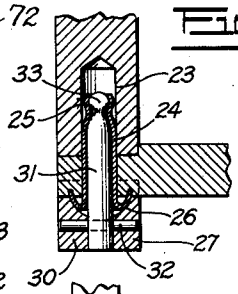


Fig. 6

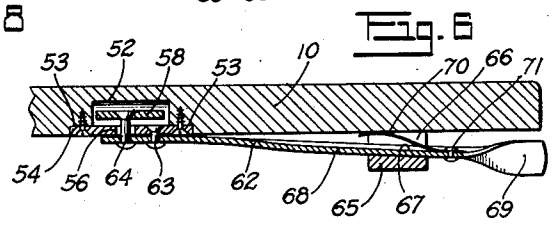
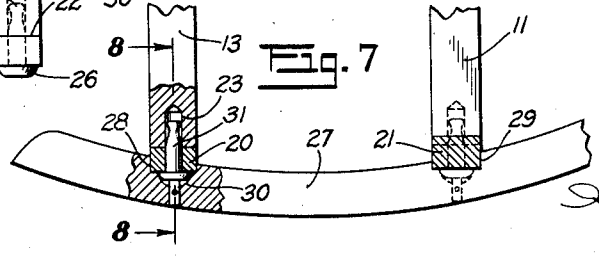


Fig. 7



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Patented Dec. 26, 1950

2,535,212

UNITED STATES PATENT OFFICE

2,535,212

INFANT'S CHAIR

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Application June 26, 1946, Serial No. 679,443

5 Claims. (Cl. 155—127)

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This invention relates to what is generally termed as chairs or seats, and might be further termed a "stub-highchair" adapted for use upon an ordinary dining-room or dinner-table chair, or for hanging in conjunction with a vertical support of any type and kind. More particularly, the invention deals with a chair structure including side arms, with means adjustably supporting a tray in connection with the arms and for retaining the tray in different positions of adjustment. More particularly, the invention deals with a chair having an adjustable step or footrest to compensate for growth of a child, and still more particularly, the invention includes means for detachably supporting supplemental leg members with the legs of the chair frame in adapting the chair to different uses. The novel features of the invention will be best understood from the following description when taken together with the accompanying drawing, in which the separate parts are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a perspective view of a chair made according to my invention, showing the tray in an outward adjusted position.

Fig. 2 is a bottom perspective view of the chair shown in Fig. 1 with parts in a different position and omitting parts of the construction.

Fig. 3 is a view looking in the direction of the arrows 3—3 of Fig. 1, on an enlarged scale, and with part of the structure broken away.

Fig. 4 is an enlarged section on the line 4—4 of Fig. 1, with part of the construction shown in forward projected position.

Fig. 5 is a view similar to Fig. 4 showing parts in a different position.

Fig. 6 is an enlarged section substantially on the line 6—6 of Fig. 2.

Fig. 7 is a side and sectional view showing the mounting of a rocker upon the lower leg portions of the chair; and

Fig. 8 is an enlarged sectional view on the line 8—8 of Fig. 7.

In Figs. 1 and 2 of the drawing, I have illustrated one adaptation and use of my invention in which a chair frame comprising a seat 10, four vertically arranged leg members 11, 12, 13 and 14 and a backrest 15 is employed. The backrest joins the upper ends of the rear legs 11 and 12, and upper parts of the rear legs also join the upper ends of the front legs 13 and 14 in forwardly extending arms 16 and 17, each having grooves on the outer surface thereof, the groove

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in the arm 16 being shown at 18 in Fig. 1 and of the arm 17, at 19 in Fig. 2.

Also employed in conjunction with the front and rear leg members are supplemental front and rear bottom leg rails or feet 20 and 21, the latter being of a width common to the respective leg members and having recessed ends, as at 22, to receive the lower ends of the leg members. The recessed ends of the so called feet 20 and 21, as well as the lower ends of the leg members are fashioned to form communicating recesses generally identified as 23, one of which is clearly shown in Fig. 8 of the drawing.

Mounted in the recesses or apertures 23 is a socket member 24 having an inner contracted spring end 25 and an outer protruding domed portion 26. The domed portion will form suitable supports for the chair when placed upon a floor or other smooth hard surface, and will, at the same time, not interfere with arrangement of the chair upon a soft or cushioned surface, such as an upholstered chair, in which latter event, the feet 20—20' in conjunction with the leg members form the support for the chair.

Considering for a moment the illustrations in Figs. 7 and 8, I have here shown one rocker 27 adapted for detachable mounting with the lower portion of the chair or the feet 20—20', the rocker having at suitable spaced sections of the upper surface thereof notches or recesses, as at 28 and 29 to receive the rail-like feet 20 and 21. The rocker is further recessed, as seen for example at 30, in Figs. 7 and 8 to receive a coupling pin 31, keyed in position in the rocker 27 by a key pin 32 and projecting above the upper surface thereof to enter the socket 24 the, pin having a head 33 at its upper end, note Fig. 8, adapted to be engaged by the spring end 25 in retaining the rocker against accidental displacement from the chair while permitting forceable removal of the rocker whenever desired.

The front legs 13 and 14 are further braced by two rods 34 and 35 and the front and back legs are braced by other rods 36 and 37. Pivoted between the front legs 13 and 14, as at 38, is an outwardly extending foot supporting member 39 having an angularly arranged footpiece 40. Pivoted to the member 39 centrally thereof, as at 41, note Fig. 2, is a notched link 42 having a series of notches 43 adapted to engage the brace 34 in adjustably supporting the member 39 in different positions.

At 49 is shown a tray, at opposite sides of the lower surface of which are secured inwardly directed U-shaped channel strips, one being shown

at 45 in Fig. 1, and the other at 46 in Fig. 2. These strips operate in the recesses 18 and 19 in slidably supporting the tray upon the arms 16 and 17. Secured centrally of the front or outer end of the tray 44 at the lower surface thereof, is a lock rod or element 47 which has an outwardly offset portion, as at 48, and an inwardly offset portion 49, so as to extend the tray or the inner curved end 50 thereof to a position in close proximity to the body of an infant in order to retain an infant securely but freely in the chair and to prevent the infant from displacing itself from the chair.

The bar or element 47 has a rearwardly extending lower portion 51 which passes through a recess 52 arranged centrally and longitudinally of the lower surface of the seat 10, note in this connection Fig. 4 of the drawing. Arranged across the recess 52 and seating in supplemental shallow recesses 53, at opposite sides of the deep recess 52, is a plate 54 having a large rectangular aperture 55 near the forward portion thereof and an elongated curved aperture 56 near the rear portion thereof. The plate 54 forms in the recess 52 between it and the straight end 51 of the element 47, a channel 57 in which is slidably mounted a cam lock plate 58 having a downwardly extending rounded cam surface 59 adapted to be positioned in the aperture 55 to free the lock element from the bar end 51 in adjusting the tray 44 and to ride upon the surface 60 of the plate 54 in tensionally locking the bar 51 in engagement with the seat 10, as clearly shown in Fig. 5 of the drawing. The element 58 also has a downwardly curved cam end 61 which also aids in this locking operation, as will clearly appear from a consideration of Fig. 5.

To operate the element 58, I provide a lever 62 pivoted to the plate 54, as seen at 63, note Fig. 6. The short end of the lever beyond the pivot 63 carries a pin 64 which operates in the curved aperture 56 and is secured to the element 58. It will thus be seen that by swinging the lever 62 on its pivot, the element 58 can be moved into its operative and inoperative positions.

Secured to the lower surface of the seat is a forwardly and backwardly directed ratchet member 65, shown clearly in Fig. 2, and also shown in section in Fig. 6. This member has a recessed inner surface, as at 66 to provide for free movement of the lever 62 within predetermined limits and this recessed surface has a series of longitudinally spaced notches or recesses 67 into which the lever is adapted to rest, the outer end portion 68 of the lever being preferably V'd to seat in the V-shaped notches 67. The outer end of the lever 62 is twisted to form a vertically disposed fingerpiece or handle end 69, note Fig. 6. Inwardly of the handle end, the lever 62 also has a flat spring 70 secured thereto, as at 71 to bear upon the lower surface of the seat 10 in retaining the lever in any one of the notches 67. It will be understood that to adjust the lever 62, the lever must first be raised against the action of the spring 70 to become free of the notched portions 67. It is then moved over the lower surface of the seat in bringing the element 58 to the desired position of adjustment. By providing the notches, the applied pressure of the adjusted tray can be increased within predetermined limits. It will also be understood that with the element 58 in the free position, the entire tray can be removed from the chair, and further this tray can be adjusted to any desired position on the arms within the limits

of the channel engagement with the arms and the length of the recesses 18 and 19, provided the latter open through the free ends of the arms, as is clearly apparent.

As shown in Figs. 1, 2 and 3 of the drawing, the rear legs 11 and 12 have on the inner surfaces of the upper portion thereof rearwardly extending pairs of headed pins or screws 72 with which hook-shaped hangers 73 are adapted to be supported in hanging a chair over the back of another chair, or any other support and the curvature of these members may be made to suit different types and kinds of hangings, for example, on stuffed or upholstered chairs or seats, such as an automobile seat. The hooks will have a wider spread than any engaging backrest of a normal dining-room or similar chair. The members 73 have pairs of keyhole apertures, as indicated at 74 in Fig. 3 of the drawing for detachably coupling the members with the pairs of hooks 72.

It will be noted from a consideration of Fig. 4 of the drawing that the showing of the lever 62 is somewhat schematic, simply to illustrate the combination with the pin end 64, the pivot 63 has been omitted.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A stub-highchair comprising a seat, back and front leg members, a backrest joining upper ends of the back leg members, a pair of arms joining the back leg members with upper ends of the front leg members, said arms having longitudinal recesses, a tray, side portions of the tray having channel members slidably engaging the recesses of said arms in adjusting the position of the tray on said arms, rigid means extending from the tray and slidably engaging said seat for further guiding the tray in its adjustable movement on the chair, means on said seat cooperating with said last named means for retaining the tray in different positions of adjustment on said arms, said last named means comprising a cam lock element slidably mounted in the chair seat, a plate engaged by said element in movement of the element into operative positions, and a lever coupled with said element and extending beyond a peripheral portion of the chair seat for moving said element into operative and inoperative positions.

2. A stub-highchair comprising a seat, back and front leg members, a backrest joining upper ends of the back leg members, a pair of arms joining the back leg members with upper ends of the front leg members, said arms having longitudinal recesses, a tray, side portions of the tray having channel members slidably engaging the recesses of said arms in adjusting the position of the tray on said arms, rigid means extending from the tray and slidably engaging said seat for further guiding the tray in its adjustable movement on the chair, means on said seat cooperating with said last named means for retaining the tray in different positions of adjustment on said arms, said last named means comprising a cam lock element slidably mounted in the chair seat, a plate engaged by said element in movement of the element into operative positions, a lever coupled with said element and extending beyond a peripheral portion of the chair seat for moving said element into operative and inoperative positions, and means engaging said lever to hold the same in different positions of adjustment.

3. In chairs employing seat, back, armrest por-

tions and a tray, means slidably coupling the tray with the arms of the chair, said tray having a rod attached to the lower edge thereof and slidably engaging the lower surface of the seat, means comprising a plate guiding the rod of the tray in its movement on the seat, a lock element disposed between said plate and rod, and means comprising a manually actuated member coupled with said element for moving the same into operative and inoperative positions in locking and releasing the tray on the chair.

4. In chairs employing seat, back, armrest portions and a tray, means slidably coupling the tray with the arms of the chair, said tray having a rod attached to the lower edge thereof and slidably engaging the lower surface of the seat, means comprising a plate guiding the rod of the tray in its movement on the seat, a lock element disposed between said plate and rod, means comprising a manually actuated member coupled with said element for moving the same into operative and inoperative positions in locking and releasing the tray on the chair, and means retaining said member in different positions of adjustment.

5. In chairs employing seat, back, armrest portions and a tray, means slidably coupling the tray with the arms of the chair, said tray having a rod attached to the lower edge thereof and slidably engaging the lower surface of the seat, means

comprising a plate guiding the rod of the tray in its movement on the seat, a lock element disposed between said plate and rod, a manually actuated lever coupled with said element for moving the same into operative and inoperative position, and means yieldably supporting said lever in different positions of adjustment.

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