Sept. 5, 1944. H. W. SHELDRICK 2,357,556

HIGH CHAIR

Filed March 19, 1942

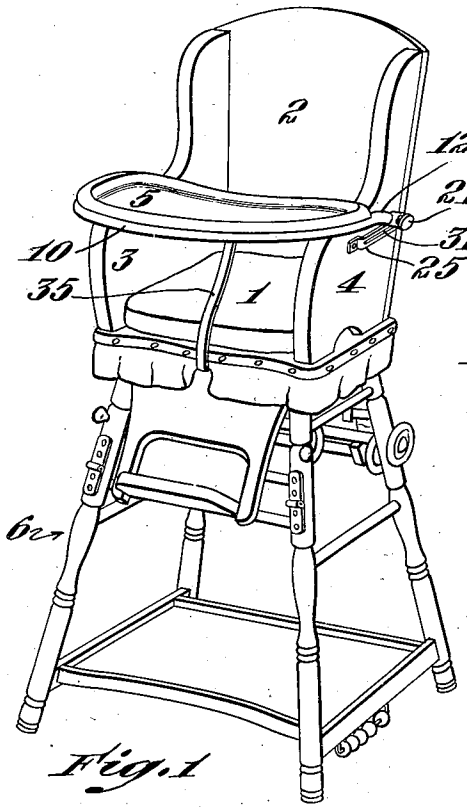


Fig. 1

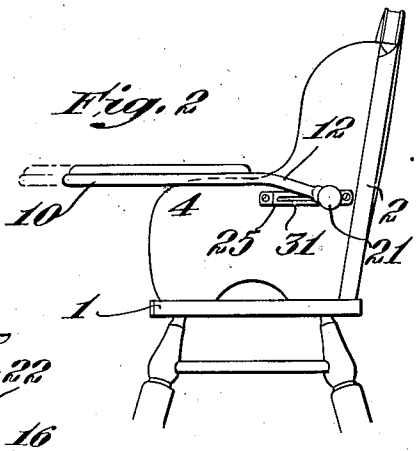


Fig. 2

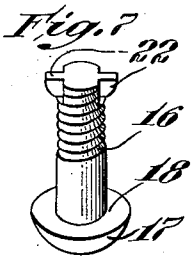


Fig. 7

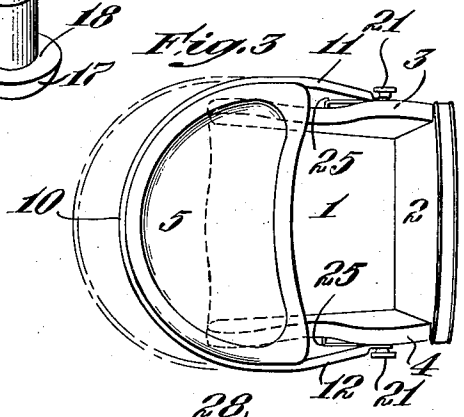


Fig. 3

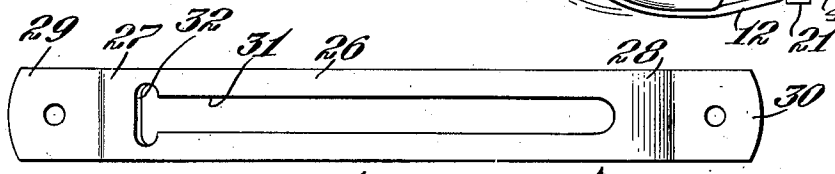


Fig. 4

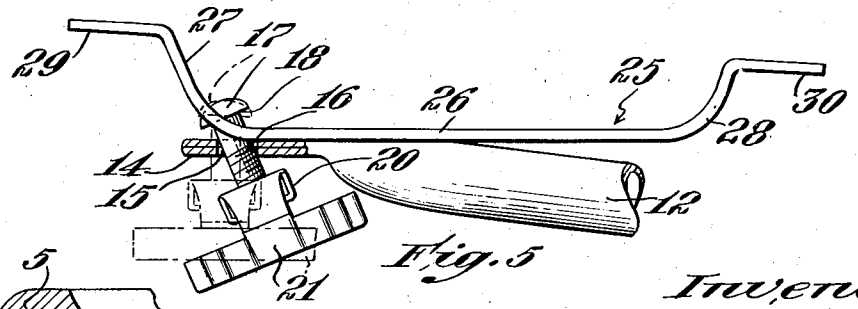


Fig. 5

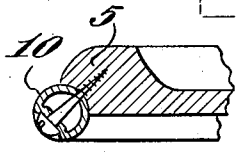


Fig. 6

Inventor
Henry W. Sheldrick
by Robertson, Cushman & Woodbury
Att'ys.

Patented Sept. 5, 1944 2,357,556

UNITED STATES PATENT OFFICE

2,357,556

HIGH CHAIR

Henry W. Sheldrick, Gardner, Mass., assignor to Collier-Keyworth Company, Gardner, Mass., a corporation of Massachusetts

Application March 19, 1942, Serial No. 435,277

2 Claims. (Cl. 155—127)

This invention relates to an improved high chair and its principal object is to provide a high chair which is of strong and durable construction having a simple and efficient means by which the tray may not only be adjusted toward and away from the back, but also quickly and easily removed and replaced without danger of the occupant accidentally or otherwise removing the tray, or displacing it after it has been locked in adjusted position.

Further objects relate to various features of construction and will be apparent from a consideration of the following description and accompanying drawing, wherein

Fig. 1 is a perspective view of a high chair embodying the present invention;

Fig. 2 is a side elevation of the top part of the chair;

Fig. 3 is a top plan view of the chair;

Fig. 4 is an enlarged side elevation of the slotted bracket constituting a part of the detachable interlocking means;

Fig. 5 is an enlarged plan view showing the detachable interlocking means for connecting the tray and side members;

Fig. 6 is an enlarged sectional detail showing the manner in which the tray is affixed to the arms; and

Fig. 7 is an enlarged detail of a preferred form of fastening element.

In accordance with the present invention the high chair may be of conventional construction, embodying the usual seat, back and side members, and a tray having rearwardly projecting arms which extend along and outwardly of the sides, each arm carrying one element of a detachable interlocking fastening device by means of which the tray is supported for movement toward and away from the back and locked in any desired position of adjustment.

In the embodiment herein shown the high chair comprises a seat 1, back 2, sides 3 and 4, tray 5, and the usual supporting structure 6, all of which may be of conventional design and construction. The front or outer edge of the tray 5 is preferably grooved and provided with a bow-shaped metal tubing 10, the ends of which project rearwardly to provide arms 11 and 12, as shown in Figs. 1 to 3, it being noted that the intermediate portion of the tubing 10 not only provides a substantial reinforcement of the front edge of the tray, but also a beaded edge which enhances the appearance of the structure.

The arms 11 and 12 extend along the sides 3 and 4 and the end of each arm is flattened, as indicated at 14 in Fig. 5. The flattened end of each arm is formed with a circular opening 15 which loosely receives a detachable fastening element comprising a threaded shank 16 (Fig. 7), the inner end of which terminates in a rounded head 17 defining an annular shoulder 18. The opposite end of the shank 16 carries a lock nut within a cage or holder 20 formed integral with hand wheel 21, the construction and arrangement of parts being such that the hand wheel 21 may be manipulated from one angular position to another, as indicated by the solid and broken lines of Fig. 5. In order to prevent the removal of the hand wheel 21, the outer end of the fastening element 16, after assembling the parts, may be flattened slightly on each side, as by the use of suitable tools, thereby forming two wings 22, as shown in Fig. 7.

Each side member is provided with a generally U-shaped bracket 25 (Fig. 4) having a body portion 26 integral with inwardly directed legs 27 and 28 formed with feet 29 and 30 by means of which the bracket is rigidly secured to a side member. The body portion 26 is formed with a horizontally extending elongated keyhole slot 31, the enlarged part 32 of which is located at the curved junction of the body portion 26 and rear leg 27. The width of the slot 31 is such as to receive the shank 16 of the fastening element to provide a loose sliding fit with the marginal portions of the slot being engageable with the annular shoulder 18 of the fastening element; and the size and shape of the enlarged opening 32 is such as to permit the headed end 17 to pass therethrough only when the fastening element is held at a predetermined angle, shown by the full lines of Fig. 5, but preventing the passage of the headed end when the fastening element is disposed in all other positions.

With this construction and arrangement the elements 16, 26 pivotally support the tray arms and permit the tray to be moved toward and away from the back 2 and adjusted to any desired position, as indicated by the full and broken lines of Fig. 3. The tray may be locked in any position of adjustment by the hand wheels 21 which cooperate with the fastening elements 16 to clamp the flattened ends 14 of the arms against the body portions 26 of the brackets, and when thus locked the tray is firmly held against sliding movement, the usual strap 35 (Fig. 1) being availed of to prevent or restrict pivotal movement of the tray. When or if the hand wheels 21 are loosened, the tray may be slid rearwardly until the shank 16 abuts the end of the slot, but

due to the construction and arrangement of the headed end 17 and the enlarged opening 32, there is no danger of the fastening element accidentally becoming disengaged from the bracket.

In order to effect disengagement of the parts, each hand wheel 21 must be loosened and then swung from its normal position, indicated by the dot and dash lines of Fig. 5, forwardly to a predetermined angular position, shown by the full lines of Fig. 5, in which position the headed ends 17 may be withdrawn through the enlarged opening 32. The bracket and fastening element thus provide detachable interlocking parts by means of which the tray 5 may not only be locked in any desired position of adjustment, but furthermore permit ready removal of the tray by a simple manipulation of the hand wheels 21. Although such manipulation may be conveniently made by any person attending the child, it would be practically impossible for a child occupying the chair, accidentally or otherwise, to detach the parts.

While I have shown and described one desirable embodiment of the invention, it is to be understood that this disclosure is for the purpose of illustration, and that various changes in shape, proportion and arrangement of parts, as well as the substitution of equivalent elements for those herein shown and described, may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

I claim:

1. A high chair having a seat, back and side members, a tray having rearwardly projecting arms extending along and outwardly of said side members, and detachable means for adjustably connecting each of said arms to the adjacent side members comprising a bracket secured to each side and formed with a substantially horizontally extending slot having an enlarged portion, a fastening element carried by each arm, said fastening element having a threaded shank which terminates in a headed end portion adapted, when swung to a predetermined angular position relative to said bracket, to pass through the enlarged portion of said slot to form with the slotted bracket a detachable interlocking connection by means of which said tray may be moved toward and away from said back, and a lock nut carried by said shank portion and adapted to bear against the marginal portions about said slot, thereby to hold said tray in any position of adjustment.

2. A high chair having a seat, back and side members, a tray having rearwardly projecting arms extending along and outwardly of said side members, and detachable means for adjustably connecting each of said arms to the adjacent side members comprising a generally U-shaped bracket secured to each side and having a body portion formed with a substantially horizontally extending keyhole slot, the enlarged end of which lies at the junction of one leg and the body portion, a fastening element carried by each arm, said fastening element having a threaded shank terminating at one end in an enlarged head adapted, when in predetermined angular position, to be inserted through the enlarged end of said slot to form with the slotted bracket a detachable interlocking connection by means of which said tray may be moved toward and away from said back, and a lock nut carried by the opposite end of said shank adapted to bear against the marginal portions about said slot, thereby to hold said tray in any position of adjustment.

HENRY W. SHELDRICK.