This invention relates to equipment in the form of hardware to be applied to high chairs for releasably holding a slidable tray in any one of a number of adjusted positions on the arms of the high chair. Such a tray serves not only to support a child’s food and toys, but also to hold the child from falling or sliding out or off of the chair.

One of the purposes of our present invention is to provide equipment for detachably mounting a tray upon the arms of a chair so that it may be disconnected and removed from the chair, thereby freeing the child for removal from the chair.

In addition to the general purpose of rendering the tray detachable, our invention is designed to provide for adjustment of the tray so that it may be locked in position at varying distances from the back of the chair to accommodate children of different sizes.

Furthermore, the latching means is automatic in its operation of locking, but is manually releasable and so constructed that it cannot be readily released by the child and so that it affords no opportunity for catching or injuring the child’s fingers or hands.

Another feature of our invention is the provision of a stop or abutment which limits the movement of the tray toward the back of the chair, so that it cannot be accidentally pulled or pushed far enough back to squeeze the child or make it uncomfortable.

Other advantageous features of our invention will be readily appreciated as the same becomes better understood by reference to the following description when considered in connection with the accompanying drawings.

Referring to the drawings, Fig. 1 is a fragmentary side elevation of a high chair embodying our invention;

Fig. 2 is a fragmentary plan view of the disclosure of Fig. 1;

Fig. 3 is a vertical sectional view on the line 3-3 of Fig. 2;

Fig. 4 is a transverse sectional view on the line 4-4 of Fig. 3; and

Fig. 5 is a bottom view looking upwardly at Figs. 1 and 3.

Referring to the drawings more in detail, reference character 1 indicates generally a high chair of any preferred design provided with the parallel arms 2 adapted to serve as the support for a tray 3 proportioned to overlie the arms and shaped to conform to the body of a child when seated in the chair.

For the purpose of detachably and adjustably mounting the tray upon the arms of the chair, our invention contemplates the provision of equipment consisting of hardware, a portion of which is adapted to be mounted on the chair arms and another portion of which is adapted to be mounted on the bottom of the tray, so that it will be slidable engaged with and connected to the portion mounted on the arms.

The arm portion of the equipment consists of a track formed of sheet metal providing a body 9 of channel shape consisting of an upper wall 11, a vertical outer wall 12 and a bottom wall 13 from the inner edge of which depends a flange 14 adapted to lie against the vertical outer face of an arm 7 and be secured thereto by screws 15. Since the two track members, one for each arm, are identical except for being reversed and the parts cooperating therewith are also similarly identical, a detailed description of one only will suffice.

The forward end of the track body 9 is tapered, as indicated at 16, to receive the slide, and the rear end of the lower wall 13 is provided with a depending stop or abutment 17 which limits the rearward movement of the tray toward the chair back. The lower wall 13 is also provided intermediate its ends with a plurality of spaced apart slots or openings 18 adapted to receive a latching detent, which will be later described.

The cooperating member of the equipment comprises a channel-shaped slide 19 consisting of an upper wall 21 secured to the lower face of the tray 1 by a plurality of screws 22, a vertical wall 23 and a bottom wall 24. These channel members are attached to the tray in such spaced relation as to receive and ride upon the track members 9 when the tray is slid onto the arms of the chair.

For the purpose of releasably latching the tray in adjusted position on the track members, an angle-shaped latch 25 is pivotally mounted on a pivot pin 26 upon the outer face of the vertical wall 23 of the slide. The rearward portion of this latch is inclined or sloped upwardly as indicated at 27, terminating in an upwardly projecting detent 28 which extends through an opening 29 formed in the bottom wall 24 of the slide. An expansion spring 31 interposed between the tail of the latching member and the bottom wall 26 of the slide biases the latching member in a clockwise direction, viewing Fig. 5, about its pivot so as to project the detent through any latching opening 18 with which it becomes aligned, thereby latching the slide against movement on the track.

It will be apparent, therefore, that when the tray is slid over the arms of the chair, the slides ride upon the tracks and, if the latches 25 are released, they will snap into the track openings 18, thereby locking the tray to the chair.

The latches are so shaped that they cannot be released or readily manipulated by the child, and by reason of their angle-shape no slot or opening is presented in which the child’s fingers may become caught or injured.

The inclines 16 at the forward end of the
tracks enable the slides to be engaged with the tracks without manipulation of the latches 25, since the inclines will force the latch detents 28 outwardly as the slides move backwardly upon the tracks. When the latches are released, the tracks may be moved backwardly until the rear ends of the slides engage the stops or abutments 17 on the tracks, whereby the rearward movement of the tray is limited. The slides may be disconnected from the tracks by pressing upwardly against the tails of the latches 25, thereby enabling the tray to be detached and removed from the chair.

The structural details illustrated and described may be varied within considerable limits without departing from the scope of our invention as defined in the following claims.

We claim:

1. Equipment for high chairs, including a pair of track members and a pair of slide members, each track member being shaped to provide an attaching flange and an outwardly projecting body beveled at one end, provided with an abutment at the other end and provided intermediate its ends with latch receiving openings, each slide member being of channel-shape with its upper wall adapted for attachment to the bottom of a tray, a latch member of angle shape pivoted on the vertical wall of each slide and provided with a portion underlying said body having an upwardly projecting detent adapted to extend through an opening in the slide and to engage in the track openings, and a spring interposed between each latch member and the lower wall of the slide whereby said latch is biased into track engaging position.

2. High chair equipment, consisting of a pair of track members and a pair of slide members, each track member having a body of hollow channel shape construction provided with a depending attaching flange for attachment to the vertical face of a high chair arm, each body having a tapered forward end, latch receiving openings between its ends in the lower wall and an abutment at its rear end, each slide member being of channel-shaped construction with the upper wall thereof adapted for attachment to the lower face of a tray, an angle-shaped latch member overlying the lower and vertical walls of the slide member and pivotally mounted on the vertical wall, said latch member having an upwardly projecting detent at its rear end adapted to project through an opening in the slide member and to engage in the openings of the track member, and a spring for biasing the latch into track engaging position.

3. High chair equipment, comprising a pair of track members each having a hollow body tapered at its forward end, provided with an abutment at its rear end and provided with latch receiving openings in its lower wall, the body having a depending flange along the inner edge of the lower wall for attachment to the vertical face of a chair arm, slide members of channel shape adapted to receive said track members, each slide member being constructed for attachment to the lower face of a chair tray, and spring pressed latch members pivotally mounted on the vertical walls of said slide members, each having a detent in said member to project through an opening in the lower wall of the slide and releasably engage in said openings of said track members.

4. Equipment for high chairs, including a track member adapted to be mounted on the arm of such a chair, said member being shaped to provide an attaching flange and a body projecting laterally therefrom, said body including upper and lower walls spaced apart and connected by a vertical outer wall, said lower wall being provided with spaced apart latch receiving openings, a channel-shaped slide member proportioned to receive said track body, the upper wall of the slide member being provided with screw holes for attachment of the member to the bottom of a tray, and a spring pressed angle bar latch pivotally pivoted on the vertical wall of the slide member having a portion underlying said body and having a detent adapted to project through an opening in the lower wall of the track member and an opening in the slide whereby the slide member is locked against movement on the track member.

5. Equipment for high chairs, including track members adapted to be mounted on the arms of the chair and channel-shaped slide members adapted to be mounted on the under surface of the chair tray, said track members being each shaped to provide an attaching flange and a body comprising parallel upper and lower walls and a connecting outer wall, said body projecting outwardly from said flange and provided on its lower wall with latch receiving openings, the slide members being adapted to receive said track member and each slide member comprising upper, lower and outer walls opposed respectively to the corresponding walls of the companion track member, a latch member pivoted on the vertically disposed outer wall of a slide and having a portion underlying said track wall provided with a detent at one end adapted to engage in the track openings and project through a slide opening, and a spring for normally urging said latch into track engaging position.

6. Equipment for high chairs, including a track member adapted to be mounted on the outer vertical face of the arm of a chair, said member being formed of metal comprising a channel-shaped body including upper and lower spaced apart walls, a vertical connecting wall and an attaching flange extending downwardly from the upper inner edge of the lower wall and adapted to be secured by screws or the like to the vertical face of the chair arm, said lower wall being provided with spaced apart detent receiving openings, said track member being adapted to be mounted so that the open side of the channel is closed off by the arm upon which the member is mounted, a channel shaped slide member comprising upper, lower and vertical walls embracing respectively the upper, lower and vertical walls of the track member, and a latch pivoted on the vertical wall of the slide member and comprising a portion underlying the slide member and provided with a detent, the lower wall of the slide being provided with an opening through which said detent projects into engagement with a selected spaced opening in the track member.

EDWIN W. NORTH.
ROY A. STONE.

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