C. J. SNIDEMAN.

HIGH CHAIR TRAY.

APPLICATION FILED APR. 9, 1919.

1,361,505. Patented Dec. 7, 1920.

Fig. 1.

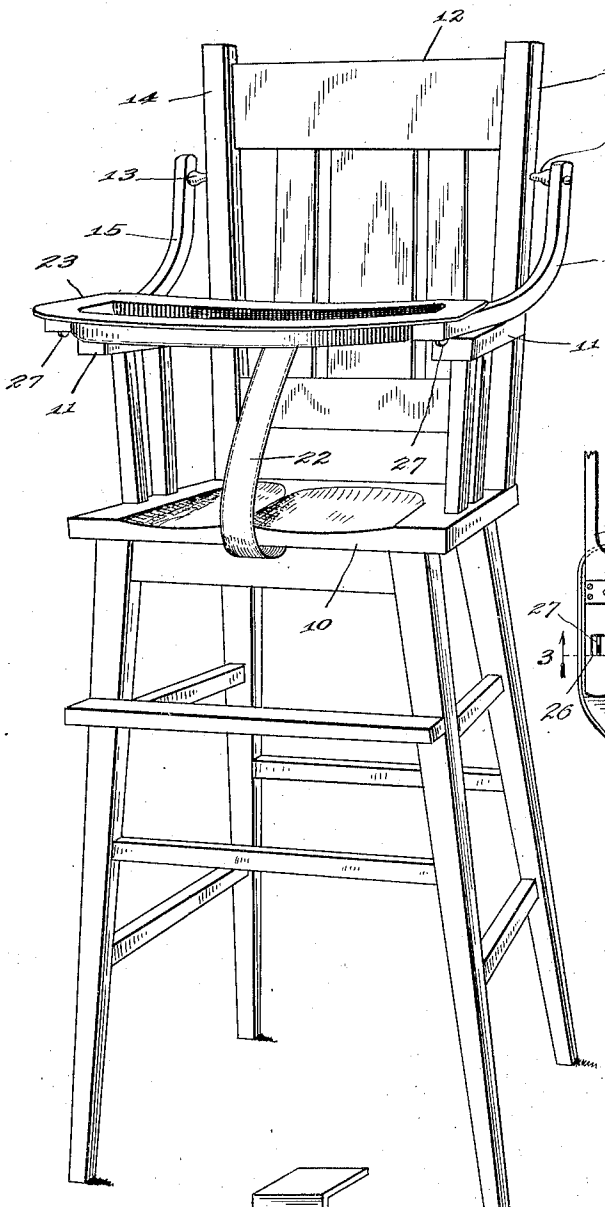


Fig. 2.

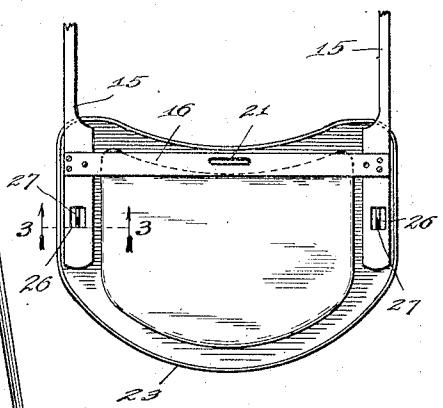


Fig. 3.

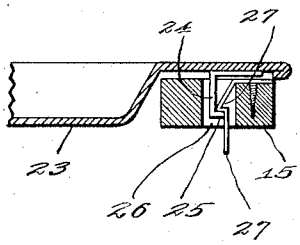


Fig. 4.

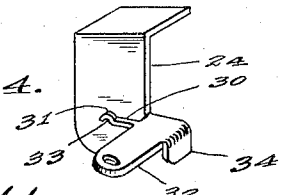
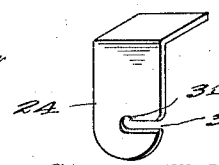


Fig. 5.



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UNITED STATES PATENT OFFICE.

CLORA J. SNIDEMAN, OF WABASH, INDIANA, ASSIGNOR TO WABASH SANITRAY COMPANY, OF WABASH, INDIANA, A CORPORATION OF INDIANA.

HIGH-CHAIR TRAY.

1,361,505. Specification of Letters Patent. Patented Dec. 7, 1920.

Application filed April 9, 1919. Serial No. 288,786.

To all whom it may concern:

Be it known that I, CLORA J. SNIDEMAN, a citizen of the United States, residing at Wabash, in the county of Wabash and State of Indiana, have invented a new and useful High-Chair Tray, of which the following is a specification.

It is the object of my invention to provide a detachable sanitary tray and its mounting, preferably on swinging arms, for children's high-chairs. More particularly, such object is to provide a tray mounting whereby the tray may be attached and released quickly and easily by a simple lowering or lifting movement, and whereby the tray is held rigid when in place; and further, to provide a construction whereby the child will be held in the chair even though the tray is removed.

In some respects, the present invention is a development and improvement on the constructions shown in Patent No. 1,021,901, granted April 2, 1912, to Frank H. Henley and myself, and in my prior Patent No. 1,182,938, granted May 16, 1916.

The accompanying drawing illustrates my invention: Figure 1 is a perspective view of a high-chair equipped with the tray mounted in accordance with my invention; Fig. 2 is a bottom view of the tray and its mounting; Fig. 3 is an enlarged section on the line 3—3 of Fig. 2, with the tray in normal position; and Figs. 4 and 5 are details of a modification.

The high-chair is of any suitable construction, with the usual seat 10, fixed side arms 11, and back 12. Pivotally mounted on pivot pins 13 on the two uprights 14 of the back 12 are two swinging arms 15, preferably curved so as to permit their pivot points to be high so that when the swinging arms are swung upward anything cross-connecting their free ends will clear the child's head. These swinging arms may rest on the upper surfaces of the fixed side arms 11, or may be swung upward in the usual manner about pivot pins 13.

The two swinging arms 15 are cross-connected near their free ends by a cross-connecting strip 16, the ends of which are permanently fastened, as by screws, to the under faces of the arms 15, as is clear from Fig. 2. The arms 15 and this cross-connector 16 thus form a rigid frame, which swings about the pivot pins 13 as a unit, and which serves to hold the child in the chair independently of any tray which may be mounted on such swinging frame. At about its middle, the cross-connector 16 is provided with a slot 21, for receiving one end of the strap 22, the other end of which strap may be fastened to the under side of the seat 10 at the front so that such strap may be passed between the knees of the occupant of the chair to assist in holding him in it and to prevent him from swinging upward the swinging frame formed by the swinging arms 15 and cross-connector 16. This is all independent of any tray which this swinging frame may carry, so that the tray may be removed and carried away without fear that the child will fall out.

The tray 23 is detachably mounted on the swinging frame 15—16. This tray is preferably made as a stamping from a single sheet of metal, without open joints; and is preferably enameled on the upper side, and may be painted on the under side. This provides a thoroughly sanitary construction, because of the ease and completeness with which it may be cleaned. The tray usually has a depressed center portion and raised edge portions. The depressed center portion fits down between the two swinging arms 15, while the two raised portions at the ends of the tray overlap and rest upon such arms. Suitably fastened, as by being soldered, to the under face of each of these end raised portions of the tray is a downwardly projecting finger 24 provided at its lower end with a catch 25, as by being turned outwardly; and through each arm 15 there is a vertical hole 26 into which such finger 24 projects when the tray is in place, the two fingers 24 and the two holes 26 being similarly spaced apart. Each arm 15 is provided with a latch 27, preferably a spring latch, which consists of a spring metal strip fastened at one end of the upper face of the arm 15, as by a screw, and projecting through the hole 26 and below the lower face of the arm 15; this strip has an intermediate transverse portion or horizontal shoulder 27 which overlies the catch 25 to hold the tray in place, with an oblique portion above such transverse portion whereby the spring latch 27 is pushed aside as the associated arm 24 is pushed downward, and with a lower finger piece which may be engaged by the finger of the attend-

ant below the arm 15 to release the latch from the catch 25.

With this construction, when it is desired to attach the tray 23, it is placed in position with the fingers 24 over the holes 26 and pushed downward; and as the fingers 24 enter the holes 26, the spring latches are pushed aside until the catches 25 are below the horizontal shoulders of the spring latches, whereupon such latches spring back of their normal positions with such shoulders overlying the catches 25 so as to hold the tray in place. When it is desired to remove the tray, the attendant takes hold of the tray at the two ends, and reaches beneath the associated arms 15 to pull the spring latches aside by their depending finger pieces, whereby the tray is simply lifted off the arms 15.

In Figs. 4 and 5 a modified form of latch is shown. Here the downwardly projecting finger 24 is provided with a notch 30 on one edge, and the upper side of this notch has a smaller notch 31. An arm 32 is pivoted on the under side of the arm 15, and may be swung into or out of the notch 30. The arm 32 has a ridge 33 for entering the smaller notch 31 to prevent accidental disengagement of the arm 32 from the notch 30; and has a downward wing 34 to provide a thumb-piece by which it may readily be operated. This modified construction is operated in much the same way as is the form first described, but as its latch is not a spring latch the arm 32 is swung manually, by the finger of the attendant on the thumb-piece 34, both to locking and unlocking position.

I claim as my invention:

1. A detachable tray mounting for high-chairs, comprising two side arms of a chair, said side arms being provided with vertical openings, and a tray provided with downwardly extending fingers which may be made to register with the openings in said arms, said fingers and said arms being provided with interlocking spring latch parts for releasably holding the tray in place on the arms.

2. A detachable tray mounting for high-chairs, comprising two side arms of a chair, a detachable tray, and coöperating spring-latch parts carried by said side arms and tray and permitting attachment and detachment of the tray by vertical movement thereof, said latch parts being set into latching relation by the placing of the tray in position on the side arms.

3. A detachable tray mounting for high-chairs, comprising two side arms of a chair, a detachable tray, and coöperating fingers and spring latches carried in part by the tray and in part by the side arms, said spring latches having releasing finger pieces projecting below the side arms, and said fingers and spring latches being associable by and dissociable by vertical movement of the tray.

4. A detachable tray mounting for high-chairs, comprising two side arms of a chair, said side arms being provided with vertical openings, and a tray provided with downwardly extending fingers which may be made to register with the openings in said arms, said fingers and said arms being provided with interlocking latch parts for releasably holding the tray in place on the arms.

5. A detachable tray mounting for high-chairs, comprising two side arms of a chair, a detachable tray, and coöperating latch parts carried by said side arms and tray and permitting attachment and detachment of the tray by vertical movement thereof, said latch parts comprising a downwardly extending member on the tray and a laterally movable member carried by the side arms and movable into and out of locking engagement with said downwardly projecting member.

6. A detachable tray mounting for high-chairs, comprising two side arms of a chair, a detachable tray, and coöperating fingers and latches carried in part by the tray and in part by the side arms, said latches including parts carried by the side arms and provided with releasing finger pieces projecting below the side arms, and said tray and said side arms being associable and dissociable by vertical movement of said tray.

In witness whereof, I have hereunto set my hand at Wabash, Indiana, this fifth day of April, A. D. one thousand nine hundred and nineteen.

CLORA J. SNIDEMAN.