March 6, 1951 J. A. GUSTAFSON ET AL 2,544,080

COMBINED TABLE AND CHAIR FOR INFANTS

Filed Aug. 29, 1947 2 Sheets-Sheet 1

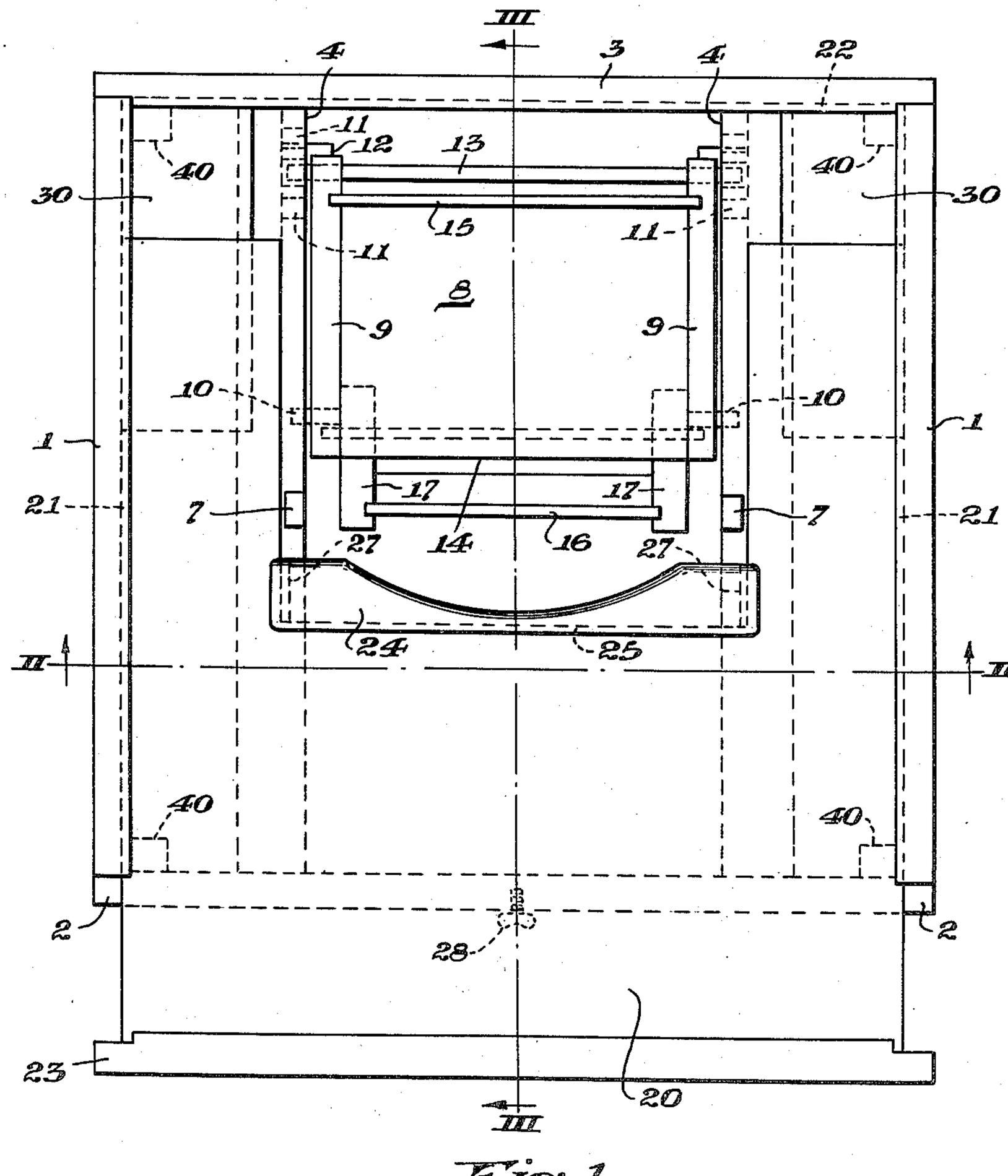


Fig. 1.

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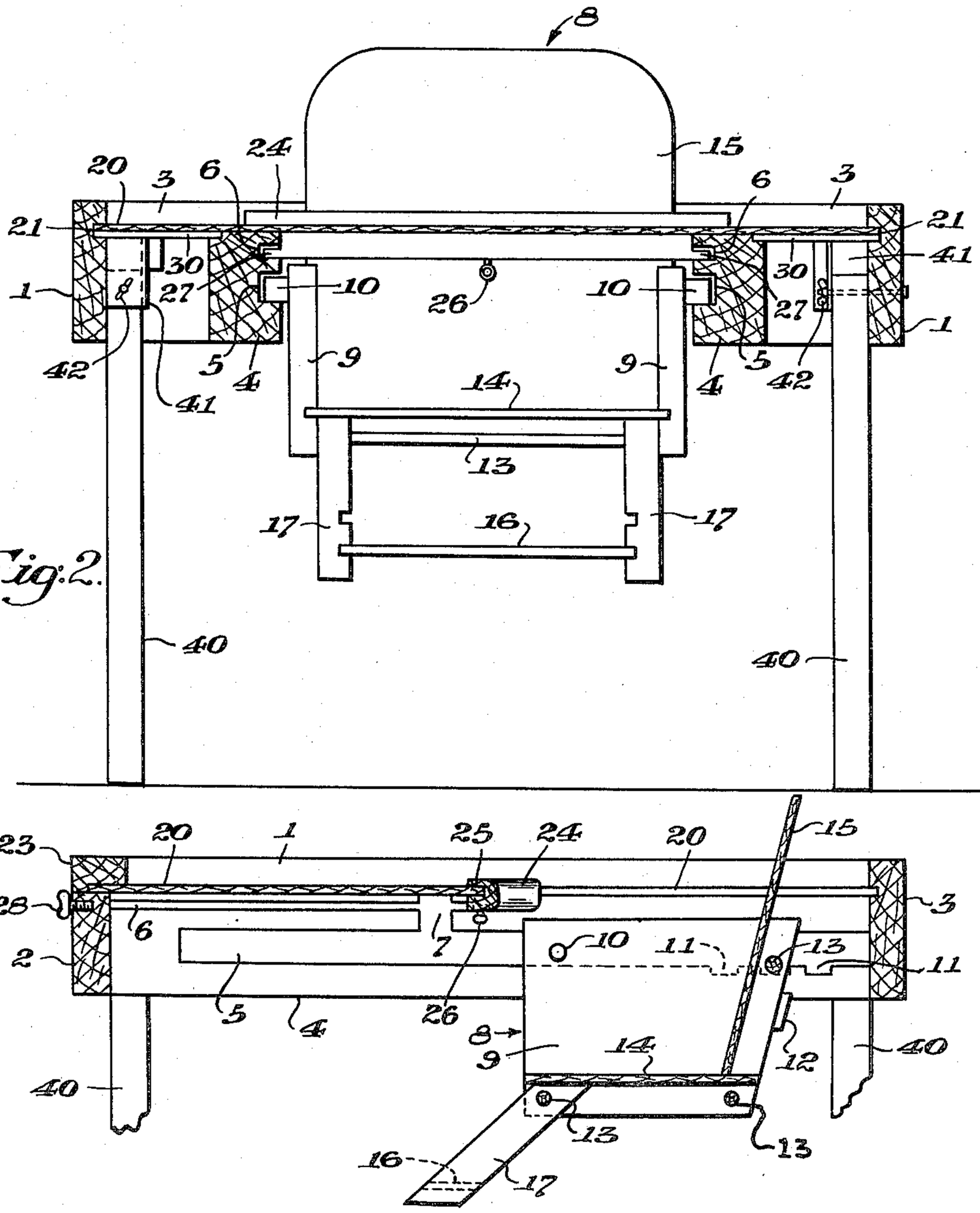


Fig. 2.




Fig. 3.

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Patented Mar. 6, 1951 2,544,080

# UNITED STATES PATENT OFFICE

2,544,080

## COMBINED TABLE AND CHAIR FOR INFANTS

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Application August 29, 1947, Serial No. 771,300

6 Claims. (Cl. 155—123)

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This invention relates to a combined table and chair, and more particularly, to such a combination designed for the use of infants.

An object of this invention is to provide a combined table and chair that will afford generous access to the chair for seating or removing an infant and that will hold a seated infant safely and comfortably.

Another object of this invention is to provide such a table-chair combination in which the position of the chair may be adjusted in accordance with the size and comfort of the infant and from which the chair may be easily removed from above.

A further object of this invention is to provide such a combination which can be easily cleaned and which presents a minimum of cracks or crevices for the accumulation of food and dirt.

In accordance with the invention, a substantially rectangular horizontal frame is provided with legs at each corner. Within the frame and spaced from its sides are two spaced parallel rails having their ends connected to the front and back of the frame. The inner side of each rail is provided with a groove extending lengthwise of the rail. Near the front of the rails, the forward part of each groove opens into a recess, which is also cut into the inner side of each rail to the same depth as the groove and extends from the groove to the top of the rail. A top panel is mounted in the frame and is slidable forward therein. A portion of the rear edge of the panel is cut away to provide a central opening between the rails, and below this opening is disposed a chair. The chair is supported by lateral projections extending from its opposite sides into the grooves in the rails, so that the chair may be slid forward and backward between the rails. When the top panel is slid forward, enlarging the central opening in the table, the chair may also be slid forward until its lateral projections are below the recesses in the rails. The chair can then be lifted from the table.

The preferred embodiment of the invention is shown in the accompanying drawings, of which Fig. 1 is a plan view, showing the top panel slid forward and partially withdrawn from the frame to expose the preferred arrangement for removing the chair; Fig. 2 is a front elevation in section along line II—II in Fig. 1; and Fig. 3 is a side elevation in section along line III—III in Fig. 1, showing the top panel in its closed position.

The table comprises a substantially rectangular horizontal wooden frame having sides 1, a front 2 and a back 3. The frame is preferably constructed of wide material to give it additional strength; but the front 2 of the frame, is

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narrower than the sides and back, so that its top edge is lower than the top edges of the adjoining sides. Spaced from each side of the frame are two parallel wooden rails 4 having their ends attached to the front and back of the frame. The tops of the rails are level with the top edge of the front of the frame. The inner side of each rail is provided with a groove 5 extending lengthwise from the back to beyond the middle of the rail. Preferably, the inner side of each rail is also provided with a second groove 6, parallel to and above the groove 5, but extending from the front to beyond the middle of the rail. Both grooves may be cut to the same depth, but the lower groove is preferably of greater width. Near the front of each rail, the inner side of the rail is cut away to form a recess 7 extending from the top of the rail to the lower groove. This recess is cut to the same depth as the grooves but may be of any convenient width that will permit the removal of a chair from the table as hereinafter explained.

A wooden chair 8 is centrally disposed within the frame between the rails 4. The sides 9 of the chair are provided with lateral projections extending into the lower grooves in each rail for slidably supporting the chair between the rails. These lateral projections may consist of tongues extending along the sides of the chair or, preferably, as indicated in the drawings, of short pins 10. Two such pins on each side, near the front and back of the chair, have been found to give adequate support. In order to lock the chair in various positions between the rails, a plurality of spaced notches 11 are cut in the lower side of each of the grooves 5 near the back ends of those grooves. The back of the chair can then be lifted and the position of the chair between the rails adjusted by engaging the rear pins 10 in one of the notches in each rail. A catch 12 on the back edge of one of the chair sides is adapted to engage the bottom of one of the rails to prevent the back of the chair from being lifted so as to lock it in the desired position. The sides of the chair are below the upper groove 6 in each rail and are connected by dowels 13 and a fixed seat 14. A removable back 15 is inserted in slots in the sides of the chair. A foot rest 16 is supported by two leg pieces 17, which are pivotally secured by one of the dowels 13 to the sides of the chair below the seat to permit the leg pieces to be folded up and forward when the chair is removed for storage or packing.

tively thin material, such as pressed composi-

A top panel 20 consisting of one piece of relatively thin material, such as pressed composition wood, is slidably mounted in grooves 21 in the sides of the frame. In its closed position, the back edge of the panel fits into a groove 22

in the back of the frame, while the front edge of the panel rests on top of the front of the frame. The panel has a portion of its back edge cut away to provide a central opening between the rails giving access to the chair. The front edge of the panel is recessed into the bottom of a wooden strip **23**, which fits into the frame when the top is in its closed position. The sides and back of the frame extend above the top panel a slight distance and form, with the wooden strip **23**, a flange around the edge of the table that prevents articles with which an infant may be playing from falling from the table.

To the inner edge of the panel adjacent to the central opening is detachably connected a breast piece **24**, having a groove **25** in its front edge to receive the panel. In addition, the breast piece is fastened to the panel by a screw eye **26**, or by some similar means. The back edge of the breast piece is smoothly rounded to protect a seated child from the relatively sharp edge of the panel. The ends of the breast piece are grooved to provide tongues **27** engaging the upper groove **6** in each rail, so that the breast piece is slidably associated with the rails but firmly held by them against vertical movement. The panel may be locked in its closed position by a rotatable catch **28** mounted on the front of the frame. When the top panel is in its closed position, it covers the recesses **7** in the front part of the rails, and an infant seated in the chair has before and on either side of it a smooth plane surface that can be easily cleaned and is without cracks to trap food and dirt.

When it is desired to place an infant in the chair, the catch **28** is rotated to its unlocking position, and the top panel is slid forward in the frame to increase the size of the central opening giving access to the chair. When the child has been seated, the panel is closed and locked. The position of the chair below the opening may then be adjusted to the size and comfort of the child by sliding the chair backwards or forwards between the rails and locking the rear pins in the appropriate notches **11** by means of the catch **12**. Since the sides of the chair are below the level of the top panel **20** and the breast piece **24**, the front part of the chair may be slid forward underneath the breast piece so that a small infant unable to sit upright without support, may be supported by the breast piece and the back of the chair.

When the top panel is slid forward in the frame for the purpose of placing an infant in or removing it from the chair, there is a possibility that toys or other objects on the top panel may be pushed into one or both of the openings between the rails and the sides of the frame at the back of the table. To close these openings, cover panels **30** of thin sheet material similar to the top panel are secured to each rail and to the adjacent side and back of the frame. It is desirable that these cover panels be recessed in the frame and in the top of the rail and be flush with the latter, so that the top panel will slide over them. The cover panels need not extend forward beyond approximately the middle of the table. Their front edges will then always be covered by the top panel, even when the latter is slid forward until the breast piece comes in contact with the front of the frame.

Folding legs **40** are secured to each corner of the frame by brackets **41** and wing bolts **42**. The front legs may be provided with casters, so that an adult can easily move the table by lifting the back of the table and sliding it on the casters,



but the table will not be easily displaced by the movements of a seated infant.

It is a feature of this invention that the chair can be easily removed from the table, as for example, when it is desired to convert the chair to a car seat for use in an automobile, or to use the table as a play table, or to pack the combination in a small space. To remove the chair, the top panel is slid forward until the breast piece comes in contact with the front of the frame, exposing the recesses **7** in the inner sides of the rails. The catch **12** is disengaged from the rail, and the chair is also slid forward until the two rear pins **10** in the sides of the chair are below the recesses. The rear of the chair is then lifted, permitting the rear pins to pass through the recesses clear of the rails. The chair is then slid backward on the two front pins until those pins in turn are below the recesses, when the entire chair can be lifted clear of the table.

In the embodiment shown in the drawings, the recesses **7** in the rails are only slightly wider than the diameter of the pins **10** in the sides of the chair, so that it is necessary, as explained above, to pass the rear pins and then the front pins successively through those recesses. However, each rail could, of course, be provided with two recesses so spaced as to allow both the front and rear pins in the chair to pass through them at the same time. If the lateral projection on each side of the chair were in the form of a continuous tongue, the recess in each rail would have to be as wide as the tongue was long in order to make it possible to remove the chair.

If the table is to be used simply as a play table, the chair is removed and the breast piece **24** detached from the top panel by unscrewing the screw eye **26** and twisting the breast piece out of the upper groove in the rails. The top panel is then closed and locked in the frame, and a rectangular sheet of thin material (not shown in the drawings) may be placed within the frame on top of the panel to present a smooth surface without an opening therein.

According to the provisions of the patent statutes, we have explained the principle of our invention and have illustrated and described what we now consider to represent its best embodiment. However, we desire to have it understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

We claim:

1. A combined table and chair for infants, comprising a substantially rectangular horizontal frame, legs at the corners of the frame, a pair of spaced parallel rails spaced from the sides of the frame and having their ends connected to the front and back of the frame, the inner side of each rail being provided with a groove extending lengthwise thereof and with a recess extending from the top of the rail to the groove, a top panel mounted in the frame and slidable forward therein, a portion of the rear edge of the panel being cut away to provide a central opening between the rails, said top panel being made of a unitary sheet of substantially U-shape, and a chair below said opening having lateral projections extending from its opposite sides into the said rail grooves for slidably supporting the chair between the rails, the chair being slidable forward and removable from the table from above by lifting its lateral projections through said rail recesses.

2. A combined table and chair for infants, com-

prising a substantially rectangular horizontal frame, legs at the corners of the frame, a pair of spaced parallel rails spaced from the sides of the frame and having their ends connected to the front and back of the frame, the inner side of each rail being provided with a groove extending lengthwise thereof and with a recess extending from the top of the rail to the groove, a top panel mounted in the frame and slidable forward therein and having a portion of its rear edge cut away to provide a central opening between the rails, said top panel being made of a unitary sheet of substantially U-shape, a breast piece detachably secured to the inner edge of the panel adjacent to said opening, and a chair below said opening having lateral projections extending from its opposite sides into said grooves to support the chair, the chair being slidable forward between the rails and adapted to be lifted from the table by passing its lateral projections through said rail recesses.

3. A combined table and chair for infants, comprising a substantially rectangular horizontal frame, folding legs at the corners of the frame, a pair of spaced parallel rails spaced from the sides of the frame and having their ends connected to the front and back of the frame, the inner side of each rail being provided with a groove extending lengthwise thereof and with a recess extending from the top of the rail to the groove, a top panel mounted in the frame and slidable forward therein and having a portion of its rear edge cut away to provide a central opening between the rails, said top panel being made of a unitary sheet of substantially U-shape, the panel being adapted in its closed position within the frame to cover said rail recesses, a breast piece detachably secured to the inner edge of the panel adjacent to said opening, a chair below said opening having lateral projections extending from its opposite sides into said grooves to support the chair slidably between the rails, the sides of the chair being below the breast piece and the panel to allow the chair to be slid forward beneath the breast piece and panel, the chair being adapted to be removed from the table from above by passing its lateral projections through said rail recesses after the top panel is slid forward, and locking means to secure the chair in various positions between the rails.

4. A combined table and chair for infants, comprising a substantially rectangular horizontal frame, folding legs at the corners of the frame, a pair of spaced parallel rails spaced from the sides of the frame and having their ends connected to the front and back of the frame, the inner side of each rail being provided with a groove extending lengthwise thereof and with a recess in the front portion of the rail extending from the top of the rail to said groove, a top panel mounted in the frame and slidable forward therein and having a portion of its rear edge cut away to provide a central opening between the rails, said top panel being made of a unitary sheet of substantially U-shape, cover panels attached to the top of each rail and to the adjacent side and back of the frame below the top panel for closing the openings between the rails and the sides of the frame when the top panel is slid forward, a breast piece detachably secured to the inner edge of the top panel adjacent to said central opening, and a chair below said central opening and accessible therethrough for seating purposes and having lateral projections extending from its opposite sides into the said grooves



for slidably supporting the chair between the rails, the chair being adapted to be slid forward between the rails and to be lifted from the table by passing its lateral projections through said rail recesses after the top panel is slid forward.

5. A combined table and chair for infants, comprising a substantially rectangular horizontal frame, folding legs at the corners of the frame, a pair of spaced parallel rails spaced from the sides of the frame and having their ends connected to the front and back of the frame, the inner side of each rail being provided with a groove extending lengthwise thereof and with a recess extending from the top of the rail to the groove, a top panel mounted in the frame and slidable forward therein and having a portion of its rear edge cut away to provide a central opening between the rails, said top panel being made of a unitary sheet of substantially U-shape, the panel being adapted in its closed position within the frame to cover said rail recesses, a breast piece detachably secured to the inner edge of the panel adjacent to said opening, a chair below said opening having lateral projections extending from its opposite sides into said grooves to support the chair slidably between the rails, the sides of the chair being lower than the breast piece and the panel to allow the chair to be slid forward beneath the breast piece and panel, the chair being adapted to be removed from the table from above by passing its lateral projections through said rail recesses after the top panel is slid forward, and a plurality of spaced notches in the lower side of said grooves adapted to engage said lateral projections in the sides of the chair for holding the chair in various positions between the rails.

6. A combined table and chair for infants, comprising a substantially rectangular horizontal frame, folding legs at the corners of the frame, a pair of spaced parallel rails spaced from the sides of the frame and having their ends connected to the front and back of the frame, the inner side of each rail being provided with a groove extending lengthwise thereof, a top panel mounted in the frame and slidable forward therein and having a portion of its rear edge cut away to provide a central opening between the rails, said top panel being made of a unitary sheet of substantially U-shape, a cover panel attached to the top of each rail and to the adjacent side and back of the frame below the top panel for covering the spaces between the rails and the sides of the frame when the top panel is slid forward, and a chair below said central opening for seating purposes and having lateral projections extending from its opposite sides into the said grooves for slidably supporting the chair between the rails.

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