This invention relates to combined table-and-chair assemblies for infant children, and more particularly to new and improved apparatus of the type described which exhibits features of increased safety and versatility.

In the past, there have been numerous table-and-chair assemblies designed for use by children of tender years. Normally, the assembly constitutes a "high-chair," generally used for feeding purposes. Occasionally the table-and-chair combination takes the form of a play table-and-chair, which is generally much lower to the ground. The height of the play chair is generally quite high so as to suit the comfort of the person feeding the child. The play table-and-chair, in being much lower to the ground, is less likely to tip because of undue activity of the supported child in the absence of an attending adult, since the center of gravity of the table-and-chair and supported child is quite low to the ground.

What is needed is an ensemble which may be adjusted in height, to suit the purposes of both the high-chair and also the play table-and-chair.

Selectable variation in the height of the table-and-chair has been suggested in the prior art, as is evidenced by the patent issued to Goldblatt et al., Patent No. 2,725,694. In this disclosure, the legs of the apparatus are separately extendible to suit the purposes of adjustment in height of the ensemble.

In some instances, separate adjustment of the high-chair legs is awkward and inconvenient to perform. Thus the inventor has felt the need for apparatus which may be adjusted in height to either of the two desired positions, i.e., high chair ("feeding") and play table ("play") positions, very rapidly and conveniently.

Accordingly, it is an object of the present invention to provide a new and useful, combined table-and-chair assembly which will admit of easy adjustment to either a high "feeding" or high-chair position and also to a lower, play table position.

According to the present invention, the "feeding" and "play" table-and-chair assembly includes a basic frame supported by legs of fixed dimension, and a vertically adjustable, table top and chair combination. Slide rails depend from the table-top and are slidably received by guides affixed to the frame. A U-shaped handle serves as a lever for advancing the table top and chair combination upwardly to "feeding" position; the assembly is provided with catch and detent so that the "feeding" position may be selected and retained. When it is desired to lower the table top and chair to "play" position, then the catch is released and tension springs cushion the descent of the table top and chair with respect to the basic frame.

The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation, together with further objects and advantages thereof, may best be understood by reference to the following description, taken in connection with the accompanying drawings in which:

Figure 1 is a plan view of a combined table and chair assembly for children, according to the present invention.

Figure 2 is a rear elevation of the apparatus shown in Figure 1, as taken along the line 2—2 in Figure 1.

Figure 3 is a rear elevation of the apparatus shown in Figure 1, similar to Figure 2, but with the chair and table top combination elevated for feeding purposes.

Figure 4 is a fragmentary view taken along the line 4—4 in Figure 1.

Figure 5 is a fragmentary view partly in cross-section taken along the line 5—5 in Figure 3.

Figure 6 is a rear elevation of the table top and chair combination employed in the present invention.

Figure 7 is a fragmentary view partly in cross-section taken along the line 7—7 in Figure 2.

Figure 8 is a fragmentary view partly in cross-section taken along the line 8—8 in Figure 3.

In the drawings, table top 10 is shown provided with an aperture or open tray 11 for receiving and modulating the positioning therewithin of a child of tender years. Child's chair 12 includes a seat 13 and back 14. Back 14 may be secured to the rear portion of table top 10 in a usual manner such as by means of screws. In any event, seat 13 of chair 12 will be positioned directly below open area 11. It will be understood that table top 10 and chair 12 are securely affixed together in fixed relationship so that the two may move up or down together, as desired.

Rectangular frame 15 is suspended above the floor by means of four mutually spaced legs 16 of fixed dimension, affixed at the upper ends thereof to the inside corners of frame 15.

Pivotal attachment to the rear portion 17 of frame 15 is catch member 18, the latter being affixed to the frame by means of conventional attachments (nut and bolt) 19. A stop 20 is screwed or glued to the inside surface of rear portion 17, of frame 15, so as to define the extremity of travel of catch member 18 to a vertical upright position as is indicated in Figures 3 and 4. Catch member 18 is supplied torque in the direction shown by arrow A in Figure 4 by a tensioli spring 21, the latter being affixed to frame 15 and catch member 18 at the points 22 and 23, respectively, in a conventional manner. Thus, when unimpeded, catch member 18 will assume the position indicated in Figure 3, under which condition the upper part 24 of catch member 18 will fit into a dent region 25 of cam member 26, the latter being affixed to the underside of table top 10. When the table top and chair combination are raised or lowered, then the underside edge of member 26 provides a cam surface for the upper edge of catch member 18. See Figure 3 in this regard. Accordingly, and as is indicated in Figure 2, when one lowers or, perhaps more accurately, rotationally displaces U-shaped handle member 27, then the chair and table top combination is elevated with respect to the basic frame 15, and thus with respect to ground. The accomplishment of this function is indicated generally in Figures 3 and 5 through 8.

In Figures 3, 5, 7 and 8 it is indicated that attached to the underside of table top 10 are a pair of guide rails 28, these being slidably received by guides 29 associated with the frame 15. Guides 29 may be configured in any suitable way, such as that indicated in Figure 5, for example, wherein it is shown that the guide is composed of three parts, namely, two end blocks 30 and a joining member 31. Support blocks 32 may be centrally apertured (not shown) to aid in the retention of guide rails 28 to table top 10.

We come now to a consideration of the actuating mechanism itself. A principal component of the actuating mechanism is of course U-shaped handle member...
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27, constituting in form a pair of arms 33 and a joining cross-bar portion 35. Links 36 pivotally affix the respective ends of U-shaped handle member 27 to the lower regions of slide rails 28. Spacer blocks 36 may be used for this coupling, if necessary. Support members 37 are fixed to and depend from the basic frame 15 and pivotally engage the arms of U-shaped handle member 27 at medial points thereof by means of pivot pins 38. Frame extensions 39 serve to anoint one end of springs 40, the remaining ends being attached to the arms of U-shaped handle member 27 in between the positions of guides 29 and support member 37.

The apparatus operates as follows: Figure 2 describes the configuration of the table and chair assembly when the same is in "play" position. Thus, while it may well be inconvenient to feed the child at the height indicated in Figure 2, the child may nonetheless play in the table and chair ensemble without any danger of tipping the apparatus, since the center of gravity of the table and chair in conjunction with the child is very low to the floor. When, however, the adult desires to feed the child, he will slide the table and chair assembly, that is, the adult need only press downwardly, by means of hand or foot, the U-shaped handle member 27 in the region of cross bar 34. In doing so, the configuration of the apparatus will change from that shown in Figures 2 and 7 to that shown in Figures 3 and 8. In the meantime, the upper area of catch member 18 will slide along the cam surface exhibited by the underside edge of member 26 until the catch engages detent 25. At this point "feeding" position is attained. When the adult wishes to lower the chair and table top to play position, he or she need only press slightly down on the cross-bar of the U-shaped handle member and advance the catch 18 in a counter-clockwise direction as is indicated in Figure 3. Thereupon, the top table and chair combination will descend gradually (owing to tension springs 40) until catch member 18 in being forced downwardly by member 26 finally assumes its position shown in Figure 4 and the apparatus comes to rest as is indicated in Figure 2.

While particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that changes and modifications may be made without departing from this invention in its broader aspects, and, therefore, the aim in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of this invention.

I claim:

1. A combined feeding and play table-and-chair assembly of adjustable height for children, including, in combination, a table top having an open area for receiving a child, a child's chair affixed to and fixedly disposed with respect to said table top and having a seat disposed immediately below said open area, a horizontal frame positioned below said table top, a plurality of mutually spaced vertical legs affixed at their upper ends to said horizontal frame, a pair of vertically disposed slide rails affixed to said table top on the under side thereof and depending therefrom, guide means affixed to said frame for slidably receiving said slide rails, and manually actuatable means for alternately raising and lowering said seat and table top with respect to said frame to fixed, "feeding" and "play" positions, respectively, said manually actuatable means including a unitary, U-shaped lever member having an actuable, cross-bar handle and also a pair of arms the ends of which are respectively affixed to said slide rails and medial points of which are fixedly disposed with respect to said frame to define a fulcrum axis for said lever member.

2. A combined feeding and play table-and-chair assembly of adjustable height for children, including, in combination, a table top having an open area for receiving a child, a child's chair affixed to and fixedly disposed with respect to said table top and having a seat disposed immediately below said open area, a horizontal frame positioned below said table top, a plurality of mutually spaced vertical legs affixed at their upper ends to said horizontal frame, a pair of vertically disposed slide rails affixed to said table top on the under side thereof and depending therefrom, guide means affixed to said table top for slidably receiving said slide rails, and manually actuatable means for alternately raising and lowering said seat and table top with respect to said frame to fixed, "feeding" and "play" positions, respectively, said manually actuatable means including a unitary, U-shaped lever member having an actuable, cross-bar handle and also a pair of arms the ends of which are respectively affixed to said slide rails and medial points of which are fixedly disposed with respect to said frame to define a fulcrum axis for said lever member.

Tannen ---------------- May 8, 1958
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