Jan. 26, 1954 J. A. MAGYAR 2,667,207

CHAIR AND TABLE COMBINATION

Filed June 14, 1950

3 Sheets-Sheet 1

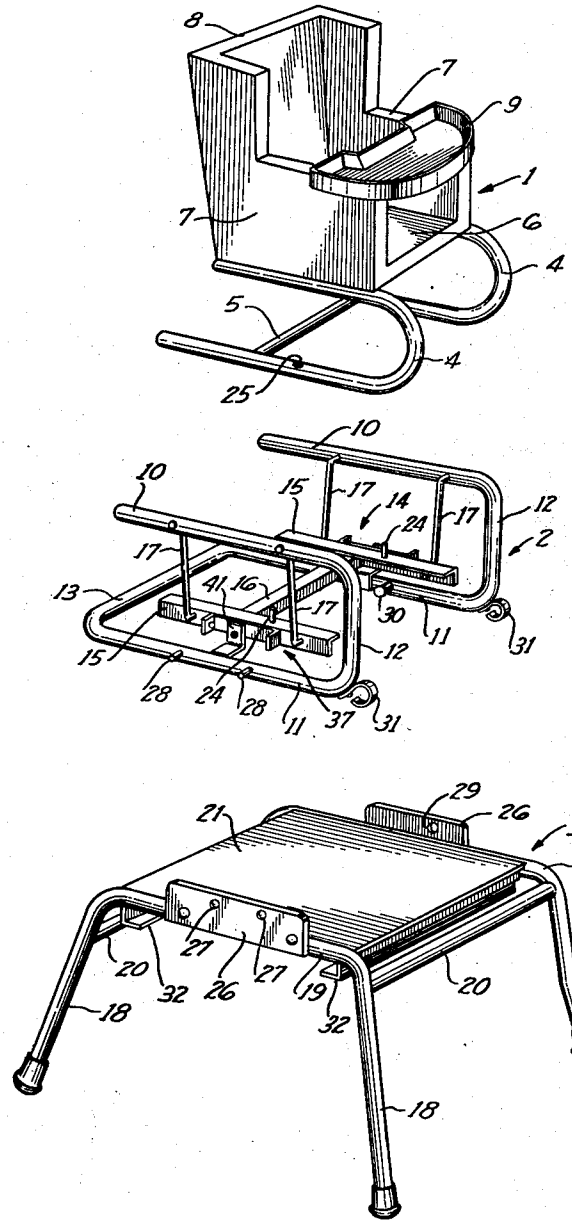

Fig. 1.

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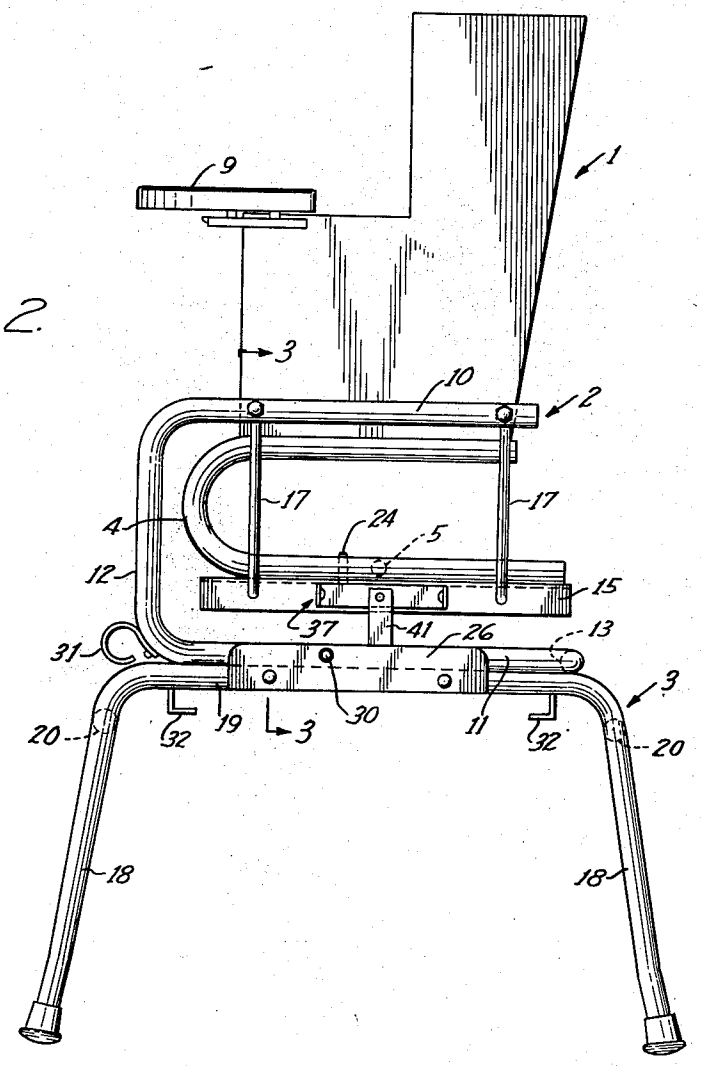
3 Sheets-Sheet 2

Fig. 2.



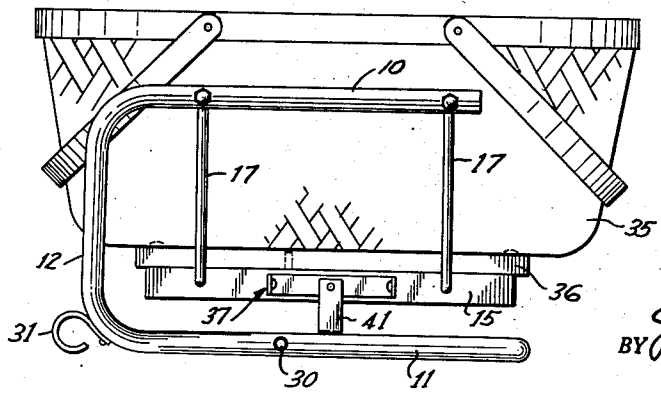


Fig. 5.

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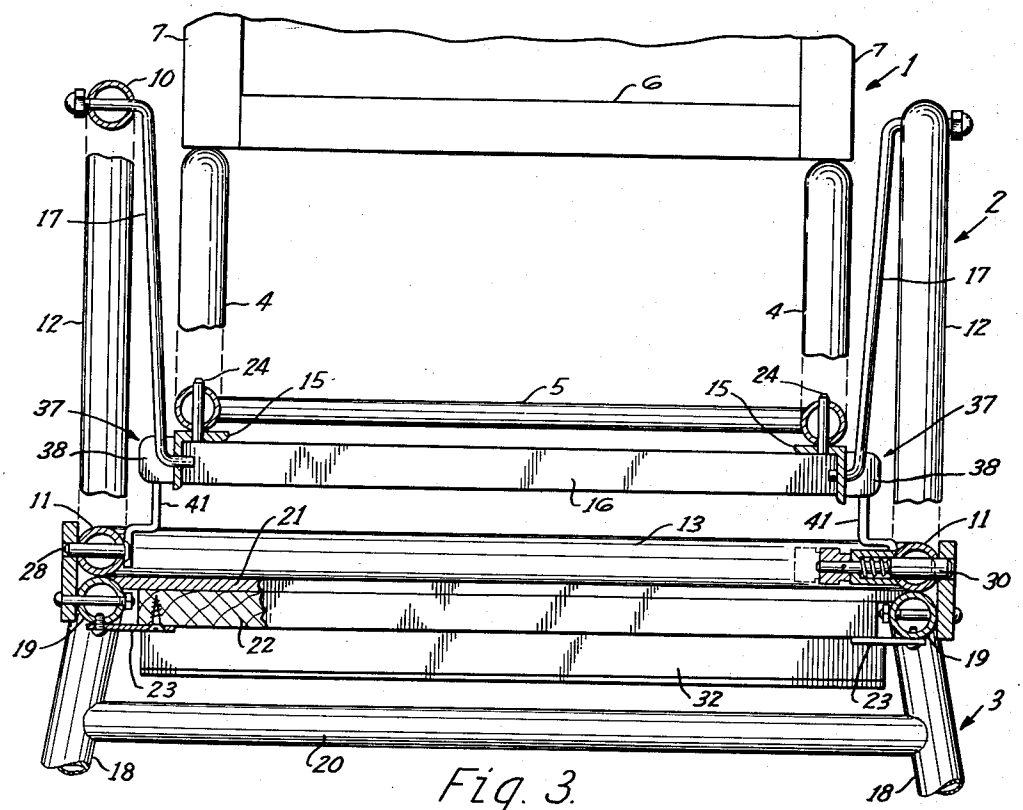

Fig. 3.

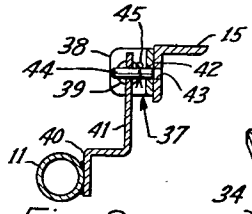

Fig. 8

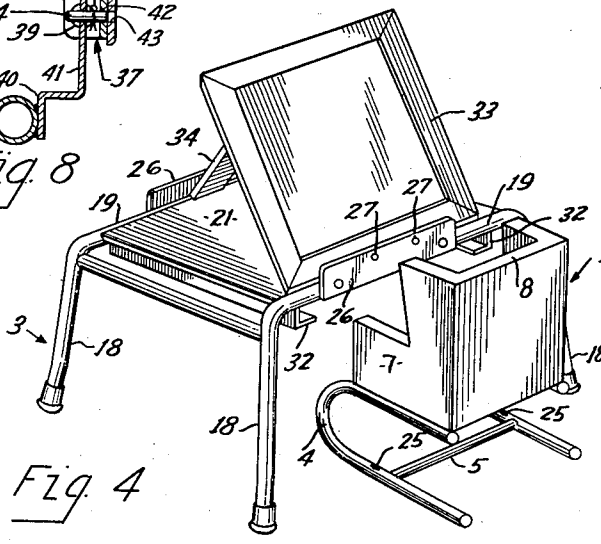

Fig. 4

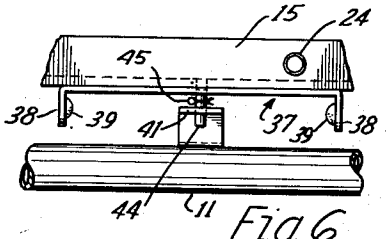

Fig. 6.

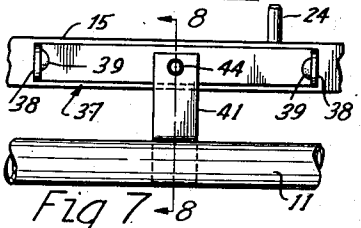

Fig. 7

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CHAIR AND TABLE COMBINATION

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Application June 14, 1950, Serial No. 168,010

8 Claims. (Cl. 155—39)

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This invention relates to convertible furniture and particularly to a chair and table of matching height and an adapter cooperable with the chair and table together to provide therewith a high chair of conventional height, and with the chair alone to provide an exercising chair of proper height.

Heretofore, chair and table combinations have been provided wherein the leg assemblage of a high chair of conventional height is in the form of an upper sub-assemblage and a lower sub-assemblage, the upper end of the lower sub-assemblage being hinged to the lower end of the upper sub-assemblage so that the chair, when not used as a high chair, can be supported on a floor by the upper sub-assemblage with the seat at a level above the floor lower than high chair level. The lower sub-assemblage is provided with a horizontal platform which, when the lower sub-assemblage is in a high chair supporting position is spaced above the level of the floor and which when the lower sub-assemblage is inverted from its chair supporting position serves as a table top of matching height relative to the chair seat. In such prior structure it is necessary that the platform be spaced in this manner above the floor level when the sub-assemblage is in high chair supporting position so as to be of matching height relative to a chair seat of proper level when the lower sub-assemblage is inverted to form a table. This is because the proper chair seat level, when the chair is supported on the floor as a low chair, by the upper sub-assemblage, is limited to a relatively narrow range of levels which permits a child's feet to rest flat on the floor when the child is seated in the chair whereas the conventional seat level of a high chair is greater than the combined height of the table top and a low chair seat. Again, in such prior structures the juncture of the sub-assemblages must be relatively limited in horizontal extent as otherwise the chair, when used as a high chair, would be too cumbersome. Accordingly, when the lower sub-assemblage is inverted to provide the table, the feet of the resultant table define a very small area and the table therefore is unstable and apt to tip over.

It is well known that a very young child does not remain inactive for any appreciable interval when at the dining table. After a short interval he usually begins to squirm and to exercise by attempting to rock his high chair, often causing the high chair to upset. The same is true of a low chair unless the child has a table of proper height for accommodating toys and the like

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for his manipulation and entertainment while seated.

In accordance with the present invention, a chair and table combination is provided in which the chair seat and table top are of matching height, that is, they are of the proper relative heights so that when the chair and table are disconnected from each other and supported on the floor, the child can sit in normal position in the chair with his legs under the table, his feet flat on the floor and his arms and head at a proper level with respect to the table top. A detachable adapter is provided which is assembled with the chair and table so that the adapter is supported by the table while the table is in normal upright position and, in turn, supports the chair above the table with the chair seat at the conventional high chair seat level, thereby providing a high chair with its seat at the proper level relative to the level of a conventional dining room table. The adapter thus compensates for the insufficient high chair seat level that would result were a chair and table, each of proper height when floor supported, assembled with the chair directly on the table.

The adapter also is adapted to rest on the floor and is provided with a glider or other movable support for the chair at an elevation such that, when the adapter rests on the floor and the chair is mounted thereon, the chair seat is at a convenient height for the child to rock or operate it by applying his feet to the floor.

Likewise when the table, chair and glider are assembled to provide a high chair, the child can manipulate the glider or movable support to a sufficient extent to entertain and exercise himself by throwing his weight forwardly and rearwardly without danger of upsetting the assembled high chair.

Various specific objects and advantages of the invention will become apparent from the following description wherein reference is made to the drawings illustrating a preferred embodiment of the invention and in which:

Fig. 1 is an exploded perspective view showing the chair, table and adapter of the present invention;

Fig. 2 is an enlarged side elevation showing the chair, table, and adapter of Fig. 1 in assembled condition to provide a high chair;

Fig. 3 is an enlarged fragmentary sectional view taken on the line 3—3 of Fig. 2, part thereof being shown in elevation for clearness in illustration;

Fig. 4 is a perspective view showing the table

and chair in use in floor supported condition, with a blackboard supported on the table;

Fig. 5 is a side elevation illustrating another use of the adapter when the adapter is floor supported.

Fig. 6 is a fragmentary enlarged top plan view of the adapter and chair supporting platform showing a combined bumper and latching means for the platform;

Fig. 7 is a front elevation of the structure illustrated in Fig. 6, and

Fig. 8 is a sectional view taken on line 8—8 in Fig. 7.

As illustrated in Fig. 1 the invention comprises three principal elements, these being a chair, designated generally at 1, an adapter, designated generally at 2, and a table, designated generally at 3.

The chair 1 and table 3 are of matched height for a small child, that is, the chair and table are of such height that a child seated in the chair can place his legs beneath the table and rest his feet flat on the floor while his arms and head are at the proper level above the table for working on the latter.

The chair may comprise two legs 4, each of which preferably is a single length of tubular stock bent into U-shape. The legs 4 are connected by a cross brace 5 which also is of tubular stock and is welded or otherwise secured to the legs 4. The legs 4 are secured to the remainder of the chair by any conventional means such as bolts or screws, not shown. The chair 1 is provided with a seat 6, side arms 7, and back 8 each of which may be of any conventional type. A suitable tray 9 of any of the conventional snap-fastening detachable types may be provided for the chair 1.

The adapter 2 has a main frame which comprises two upper longitudinal side frame members 10 and two lower longitudinal side frame members 11 therebeneath, respectively. Each frame member 10 is connected to the frame member 11 therebeneath by an upright member 12. Either the upper frame members 10 or the lower frame members 11 must be connected together. In the form illustrated, the lower frame members 11 are so connected by means of a cross member 13. Preferably the entire main frame comprising the members 10 through 13 is formed from a single length of tubular stock.

Movably supported by the main frame of the adapter 2 is a chair supporting frame 14 which in the form illustrated comprises two longitudinal side sills 15 connected together by a cross member 16. These sills 15 and the member 16 preferably are in the form of structural angles.

As mentioned, it is desirable to have the platform 14 mounted for movement relative to the main frame. One type of such mounting is illustrated and comprises links 17 arranged one pair at each side of the platform 14. The links of each pair are spaced forwardly and rearwardly of the adapter from each other and all links are of the same length and pivotally connected at their upper ends to the upper longitudinal side frame members 10 of the main frame and at their lower ends to the sills 15 of the platform 14. As a result, the platform can be swung forwardly and rearwardly while being maintained in a horizontal position.

The table has four wide-spread legs 18. In the form illustrated the legs are preferably arranged in pairs, the legs of each pair being connected by the horizontal frame member 19 and these sub-assemblies in turn connected by cross members 20. Each sub-assembly thus comprises two legs 18 and one horizontal frame member 19 and preferably is formed of a single length of tubular stock. The cross members 20 connecting these sub-assemblies also are preferably of tubular stock.

The top of the table preferably comprises a top sheet of Formica 21 or other suitable rigid material which is arranged to fit on top of the horizontal members 19 with its upper surface substantially tangent to the top level of the members 19. Beneath and against the top sheet is a suitable rigid and relatively thicker reinforcing plate 22 of wood or the like. The top sheet 21 preferably is glued securely to the plate 22. The plate 22 is secured in place by suitable brackets 23 which, in turn, are secured to the underside of the members 19. The lateral margins of the top sheet 21 are cut to fit the upper inwardly exposed portions of the members 19 so that the top sheet 21 is nested therebetween and supported directly thereon. The entire top can be removed by disconnecting the brackets 23 from the plate 22 and lifting the sheet 21 and plate 22 upwardly.

Suitable means are provided for detachably securing the chair 1, adapter 2, and table 3 in assembled relation to provide a high chair. In the form illustrated, the connecting means between the chair 1 and platform 14 of the adapter 2 comprise suitable upright pins 24 which are secured in fixed position on the longitudinal side sills 15 and project upwardly thereabove. The legs 4 of the chair are provided with apertures 25 positioned to receive the pins for securing the chair in fixed position laterally and longitudinally relative to the longitudinal side sills 15.

In order to secure the adapter 2 to the table 3 the table is provided with suitable flanges 26 which are arranged at opposite sides. One flange is provided with apertures 27 in which pins 28 on one of the lower frame members 11 are received. The other flange 26 is provided with an aperture 29 in which a spring fitted detent 30 is received, the detent 30 being mounted in the other lower frame member 11, as best illustrated in Fig. 3.

Suitable spring pads 31 are provided at the forward end of the members 11 to prevent forward rocking of the main frame of the adapter 2 when the adapter 2 is supported on the floor.

If desired, as best illustrated in Fig. 4 suitable depending guides 32 may be secured at opposite sides of the table beneath the plate 22, these guides providing a slideway and support for a blackboard 33. The blackboard 33, in turn, is provided with the usual hinged leg 34 so that the lower edge of the blackboard frame may be placed against one flange 26 and the hinged leg against the other flange 26 for supporting the blackboard on the table in a convenient position for use by the child.

If desired the adapter may be used for supporting a sleeping basket or crib 35 as illustrated in Fig. 5, inasmuch as it can support such a crib or basket at a convenient height relative to an adult bed. When so used, a suitable frame 36 is mounted on the platform 14, the frame being provided with apertures for engagement by the pins 24 so that the frame 36 is held in proper position. The basket or crib, in turn, is supported on the frame 36.

As illustrated in Fig. 4, the table 3 and chair 1 may both be floor supported and used in the

usual manner due to their proper and matched height.

On the other hand, they may be assembled as shown in Fig. 2 in which case the level of the chair seat is at the conventional height for high chairs.

Again, due to the relation of the heights of the adapter 2 and chair 1, they may be used together to provide a glider. In such case, the adapter 2 is supported on the floor and in turn supports the chair 1 on the sills 15 with the chair seat in a sufficiently elevated position to permit the child so to engage the floor with his feet as to render convenient the manipulation of the glider.

It will be apparent from Fig. 2 that when the assembled chair, adapter and table are used as a high chair, the assembled high chair is extremely stable due to the wide spacing of the legs 18. Due to this spacing of the legs 18 and the resultant high degree of stability, movement of the chair by the child is not fraught with danger of overturning.

However, it is desirable that the degree to which the platform may glide forwardly and rearwardly be limited and in many instances such as when a child is being fed that it be latched in fixed position. For limiting the swinging movement and for selectively latching and unlatching the platform 14, the structures illustrated in Figs. 6 through 8 may be provided. One such bumper and one such latching means are provided at each side of the adapter but since they are the same in form and function, one only is described in detail.

Referring to Figs. 6 through 8, mounted on the outside of the sill 15 is a bumper, indicated generally at 37, which may be in the form of an elongated strip of metal having its ends turned outwardly to provide ears 38, each of which carries a rubber button 39. The bumper 37 is preferably centered between the forward and rearward links 17 of the sill 15. Mounted on the lower frame member 11 of the adapter is an upwardly extending strap 40 which has an offset portion 41 which extends vertically between the ears 38. The offset portion 41 is preferably of much less width than the distance between the rubber buttons 39 and is positioned so as to engage the buttons upon swinging of the platform forwardly and rearwardly so as to limit the forward and rearward movement of the platform. In order to latch the platform in fixed position the bumper 37 is provided with an aperture 42 and if desired the sill 15 may be provided with an aligned aperture 43. Mounted in the offset portion 41 of the strap 40 in axial alignment with the apertures 42 and 43 and for sliding movement axially is a pin 44. The pin and apertures 42 and 43 are so positioned as to be aligned when the platform is in its normal position of rest in which position it may be fixed by pushing the pin into the apertures 42 and 43 and from which position it may be released by moving the pin 44 outwardly. A suitable cotter pin or other means 45 is provided for limiting the movement of the pin into the apertures 42 or 43 and to prevent the pin from being drawn outwardly through the aperture in the offset portion 41. If desired, however, the structure described may be reversed, the bumper being mounted on the lower frame member 11 and the strip of metal mounted on the sill 15.

The space between the buttons 39 and the width of the strap preferably are such as to limit the swinging movement of the platform 15 equidistantly from the normal position of rest. The

links 17 are sufficiently long so that the platform travels only the lower portion of an arc which is of sufficient radius so that the vertical component of movement of the platform 14 is hardly detectable.

While the plaftorm 14 is shown as arranged as a glider, it may be arranged to rock or swing. However, the glider type is preferred inasmuch as there is less danger of the child falling out of the chair if it is maintained at all times in horizontal position. As mentioned, the tray 9 preferably is snap fastened into position so as to reduce the chances of the child falling out of the chair.

While I have described in detail a preferred embodiment of my invention for purposes of illustration, it is to be understood that various modifications may be made in the details of the structure without departing from my invention which is defined in the claims.

Having thus described my invention, I claim:

1. In combination, a table having its top at a conventional level above the floor for a small child, a chair having its seat at a matching level relative to the level of the table top when the chair is supported on the floor, an elevating adapter supported on the table and detachably connected thereto and extending above the level of the table top and detachably connected to the chair and supporting the chair with the chair seat above the level of the table top at the conventional high chair level above the floor, said adapter comprising a main frame resting on and detachably connected to the table, a chair supporting frame detachably connected to the chair for supporting the chair, and connecting means connected to the main frame and to the chair supporting frame and suspending the chair supporting frame from the main frame for oscillation of the chair supporting frame relative to the main frame in a direction forwardly and rearwardly of the chair.

2. The combination according to claim 1 characterized in that the table and adapter are detachably connected by means of upright flanges at the lateral edges of the one between which the other fits, and complementary interlocking means are provided on the flanges and on the other, respectively.

3. The combination according to claim 1 characterized in that limiting means are provided on the main frame and chair supporting frame and operatively interconnect the main frame and chair supporting frame so as to limit the relative oscillation between the main frame and chair supporting frame.

4. The combination according to claim 1 characterized in that cooperable latching members are provided on the chair supporting frame and on the main frame, respectively, for selectively latching the chair supporting frame against oscillation relative to the main frame.

5. The combination according to claim 1 characterized in that a combined bumper and latching means are provided for limiting the oscillation of the chair supporting frame and for latching the chair supporting frame in fixed position, selectively, and said bumper comprises an element on one of the frames having spaced abutments and an element on the other frame having a portion positioned between and normally spaced from said abutments, and means movably mounted on one of said elements and engageable with and disengageable with one of said elements,

selectively, for latching the elements together in fixed position, selectively.

6. The combination according to claim 1 characterized in that the main frame of the adapter has laterally spaced top frame portions disposed above the level of the chair supporting frame and the connecting means depend from said top frame portions and suspend the supporting frame from the said top frame portions of the main frame.

7. The combination according to claim 6 characterized in that said connecting means are in the form of links arranged in pairs, said pairs being pivotally connected to the lateral top frame portions, respectively, at their upper ends and to opposite sides of the chair supporting frame, respectively, at the lower ends, by horizontal pivots extending laterally of the frames.

8. In combination, a table having its top at a conventional level above the floor for a small child, a chair having its seat at a matching level relative to the level of the table top when the chair is supported on the floor, an elevating adapter supported on the table and detachably connected thereto and extending above the level of the table top and detachably connected to the chair and supporting the chair with the chair seat above the level of the table and at the conventional high chair level above the floor, flange members on the table at opposite sides thereof and projecting above the level of the table top so as to provide abutments for the frame and leg members, respectively, of an easel-type blackboard, and interconnecting means on the adapter and on the flanges, respectively, for detachably connecting the adapter to the table in fixed position.

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