

April 2, 1946.

P. BRANDWEN

2,397,528

SEAT TABLE

Filed Oct. 7, 1942

3 Sheets-Sheet 1

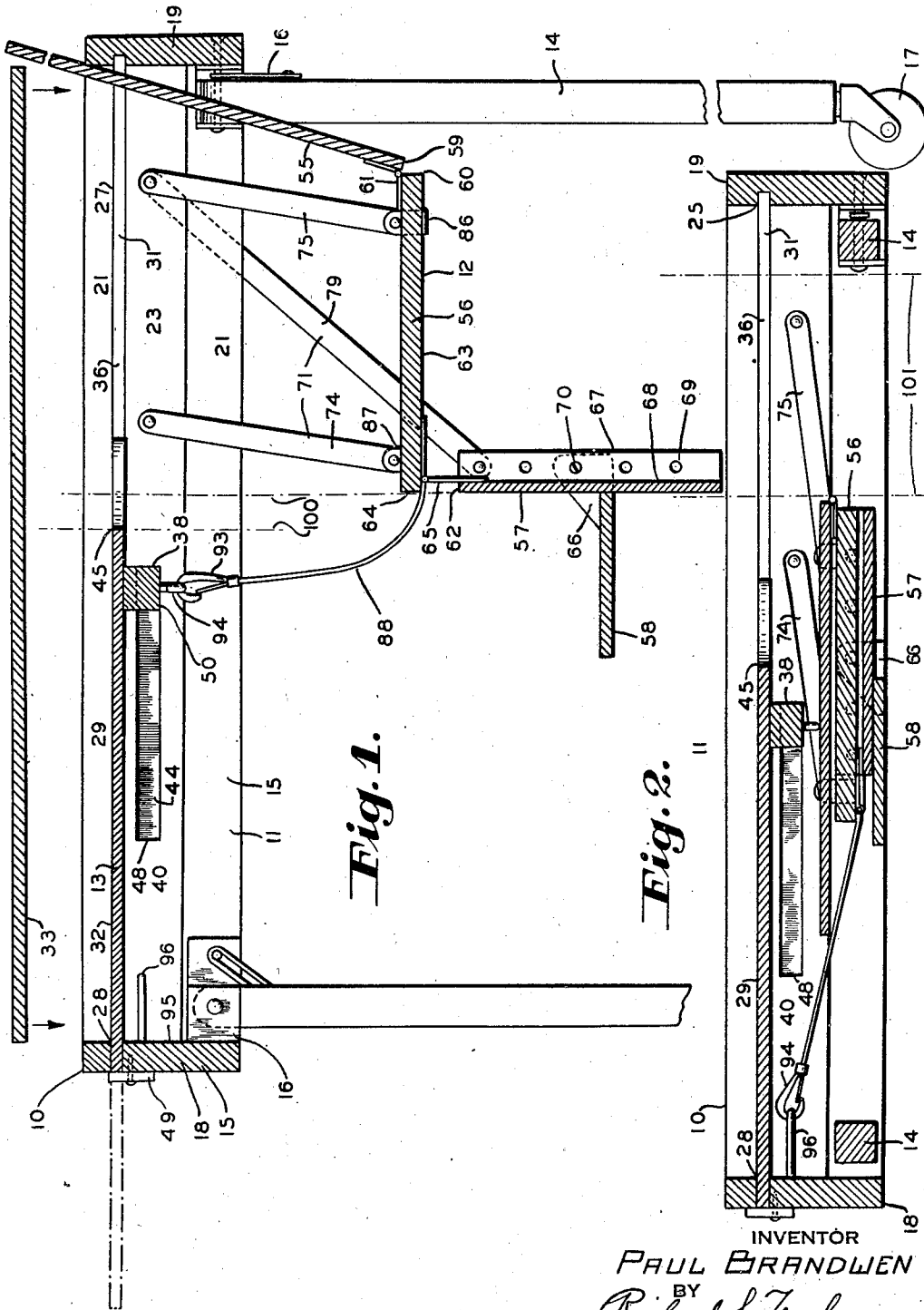


Fig. 1.

Fig. 2.

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Fig. 3.

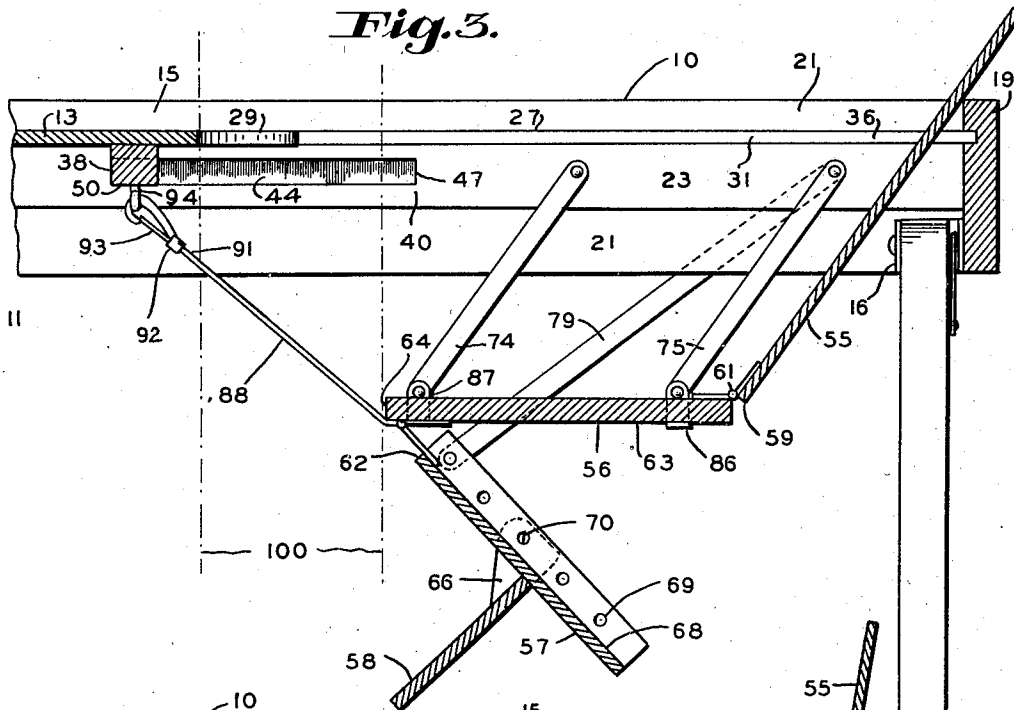
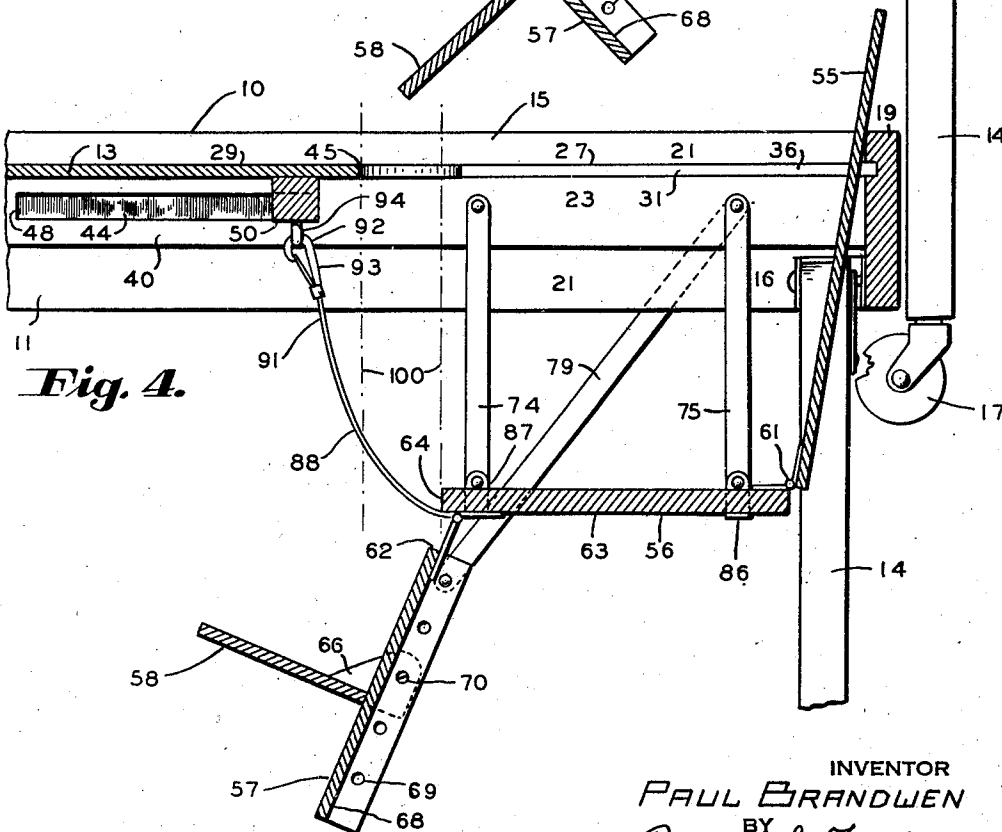


Fig. 4.



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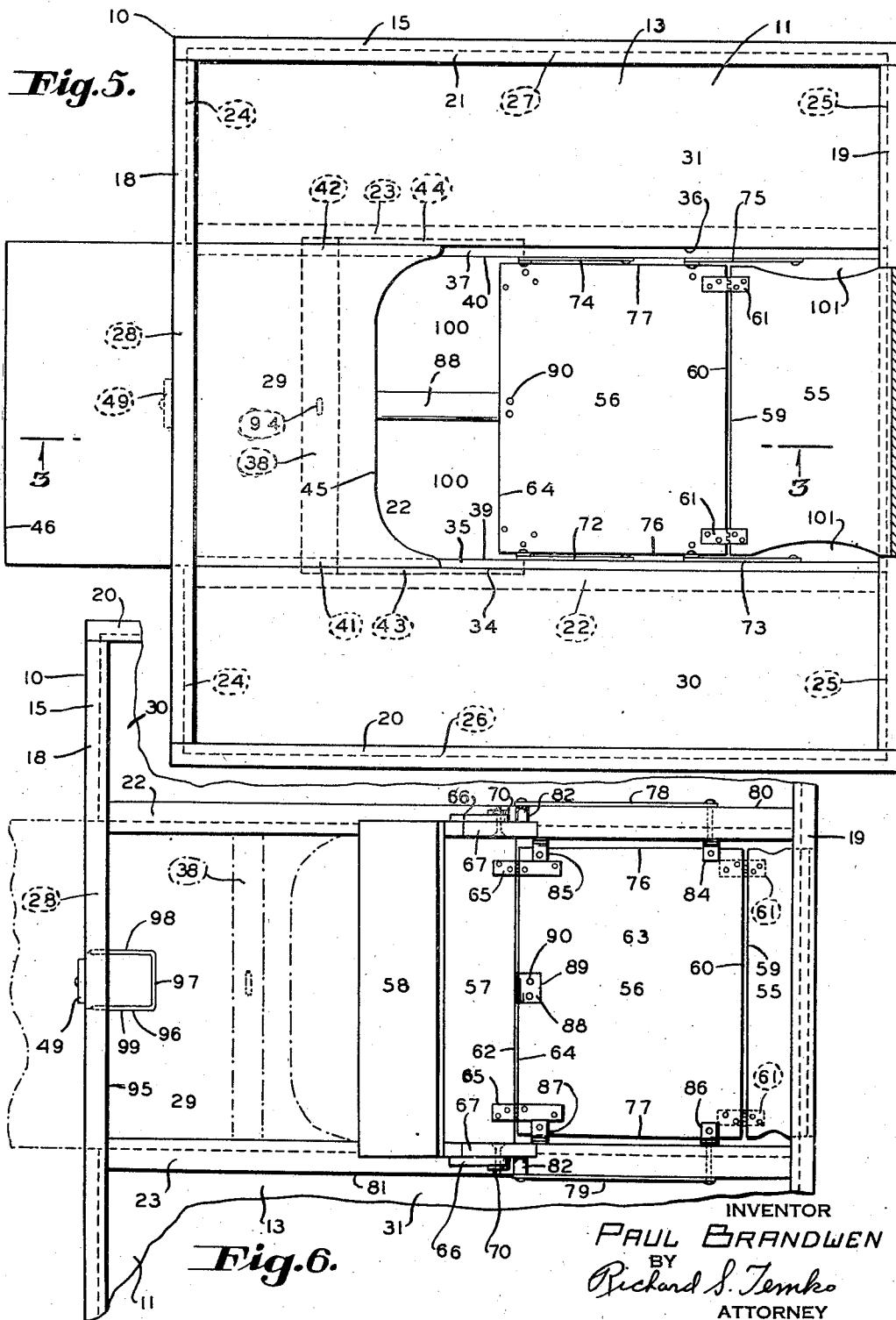
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SEAT TABLE

Paul Brandwen, Scranton, Pa.

Application October 7, 1942, Serial No. 461,133

5 Claims. (Cl. 155—22)

This invention relates generally to combination table and chair constructions and more particularly to a novel chair table especially adapted for the use of infants and young children.

Among the principal objects of the present invention lies the provision of a novel seat-table which is collapsible so that the same may be readily erected or collapsed, the seat-table in the collapsed condition thereof requiring a minimum of storage space.

Another object herein lies in the provision of structure of the class described, which, when set-up provides a convenient and comfortable seat for the child within which it is safely supported.

A still further object herein lies in the provision of a novel seat-table in which the child if it so desires may cause the seat to swing.

Another object herein lies in the provision of seat-table structure in which the table portion affords ample play and eating space for the child and in which the play space may be amplified with a smooth unbroken plane surface when the child is able to stand and to play at the table.

A feature of the present invention lies in the fact that the working surface of the table is surrounded by an elevated edge which prevents the child's toys and other objects from falling off said working surface.

Another object herein lies in the provision of structure which facilitates the placing into and removal of the child from the seat in the seat-table.

Another object herein is the provision of structure having the aforementioned characteristics and which is simple in construction and efficient in operation so that the same may be readily manufactured on a large scale at low cost, with a consequent widespread distribution.

These objects and other incidental ends and advantages will more fully appear in the progress of this disclosure and be pointed out in the appended claims.

In the drawings constituting a material part hereof similar reference characters designate corresponding parts throughout the several views, in which:

Figure 1 is a fragmentary vertical sectional view of a chair table embodying the invention. In this figure the chair table is shown in an erected condition and the chair parts are shown in the position taken thereby when the movable panel of the table working surface is in the rear or closed position thereof.

Figure 2 is a vertical sectional view of the chair

table, taken similarly to Figure 1, but showing the same in a collapsed condition thereof.

Figure 3 is a fragmentary vertical sectional view taken similarly to Figure 1 showing the position taken by the chair parts when the movable panel of the table working surface is moved to the forward or open position thereof.

Figure 4 is a fragmentary vertical sectional view taken similarly to Figure 1 but showing the position taken by the chair parts when the weight of an occupant (not shown) is placed thereon.

Figure 5 is a plan view of the chair table, slightly reduced in scale, with the movable panel in the forward, open, or second position thereof.

Figure 6 is a bottom plan view of the chair table with the movable parts shown in the positions they would occupy if seen as in Figure 4.

In accordance with the invention, the chair or seat table, generally indicated by numeral 10, is comprised by the table 11 and the chair or seat 12.

The table 11 includes a table top 13 and a plurality of legs 14. The legs are preferably four in number and are secured at the corners of the table frame 15 in foldable relation thereto by any suitable means 16, as known in the art to which this invention relates. Such means are well known by reason of their use in connection with folding bridge tables, and they permit the legs 14 to be locked either in a vertical position as shown in Figure 1 or in a horizontal position as shown in Figure 2. The lower terminals of the legs 14 are preferably provided with casters 17 which permit the seat table 10 to be wheeled about when in use.

The table frame 15 is preferably composed of wood or other similar material and includes a front frame member 18, left side frame member 20, right side frame member 21 and a pair of spaced and parallel reinforcing members 22. The ends of the frame members 18—21 inclusive are suitably joined as for example by means of screws which penetrate orifices in the side frame members and engage the ends of the front and rear frame members. The reinforcing members have the ends thereof secured to the inner opposed surfaces of the front and rear frame members 18, and 19. Each of the frame members 18—21 is provided with a groove 24—27 respectively. These grooves are located upon the inner surfaces of the frame members in which they are disposed and the groove 24 in the front frame member leads into an elongated slot 28 in said frame member. The height of the slot 28 is preferably slightly greater than the thickness of the

movable panel 29, and the width of said slot is also preferably greater than the panel 29.

The movable panel is flanked on both sides by stationary panels 30 and 31. The panels 29—31 inclusive form the working surface 32 and may be superposed by an auxiliary working surface 33 (Figure 1), more fully described hereinbelow. The stationary panel 30 is of oblong shape and has the forward edge thereof engaged within the groove 24, the rear edge thereof engaged within the groove 25, and the outer side edge thereof engaged within the groove 26. The inner side edge 34 of the panel 30 rests upon the upper surface 35 of the reinforcing member 22. The stationary panel 31 is of oblong shape and has the forward edge thereof engaged within the groove 24, the rear edge thereof engaged within the groove 25, and the outer side edge thereof engaged within the groove 27. The inner side edge 36 of the panel 31 rests upon the upper surface 37 of the reinforcing member 23. The stationary side panels 30 and 31 are preferably secured in place by the clamping action thereupon of the table frame members 18—21 inclusive by making the said stationary panels a tight fit therewith. Since the edge of the panels 30 and 31 is enclosed within the bordering grooves on three edges thereof, the edges 34 and 36 may be positively secured to the reinforcing members 22 and 23 respectively by any suitable means such as screws or brads not shown.

The inner opposed edges 34 and 36 of the stationary panels 30 and 31 together with the exposed portions of the upper surfaces 35 and 37 form guideways for the horizontal reciprocation of the panel 29. The panel 29 has affixed to the lower surface thereof, a transverse reinforcement 38.

The transverse reinforcement 38 is, at the upper portion thereof substantially equal in length to the distance between the inner opposed surfaces 39 and 40 of the reinforcing members 22 and 23 respectively, and the lower portion of said reinforcement 38 is of greater length so that the outwardly extending terminals 41 and 42 of said lower portion are disposed within the ways 43 and 44 which are grooves in the surfaces 39 and 40. The reinforcement 38 serves to strengthen the rear edge 45 of the panel 29 and also to prevent vertical movement of said panel by reason of the engagement of its terminals 41 and 42 in the ways 43 and 44. Vertical movement of the forward portion and front edge 46 of the panel 29 is prevented by the portion of the front frame member 18 overlying the slot 28. Rearward movement of the panel 29 is limited by the terminals 41 and 42 meeting the rear ends 47 of the ways 43 and 44, while forward movement of the panel 29 is limited by said terminals meeting the forward ends 48 of the ways. The forward movement of panel 29, when the latter is in the rear or closed position thereof is controlled by a turn button latch 49. The rear edge 45 of the panel 29 is preferably curved at the outer ends thereof to more nearly conform to the shape of the occupant's body at that level. The lower surface 50 of the reinforcement 38 is provided with first connector anchoring means 94 which may take the form of a screw eye secured therein.

The auxiliary working surface 33 is preferably a relatively thin rigid rectangular sheet, the greatest dimensions of which are preferably only slightly less than the distances between opposed pairs of inner surfaces on the front and rear

frame members, on one hand, and the side frame members on the other hand.

The chair or seat 12 comprises a back rest 55, a seat portion 56, a leg rest 57 and a foot rest 58. The back rest 55 is pivotally connected at its lower edge 59 to the rear edge 60 by any suitable means such as the hinges 61. The upper edge 62 of the leg rest 57 is pivotally connected to the undersurface 63 of the seat 56 adjacent the forward edge 64 of said seat by any suitable means such as the hinges 65. The foot rest 58 is provided with a pair of side brackets 66 by means of which the said foot rest is pivotally connected to flange members 67 connected to the rear surface 68 of the leg rest 57 at the outer vertical edges of said rest. The flange members 67 are each provided with a row of orifices 69, the orifices in each of the flange members being coaxially aligned with those in the other flange member.

Bolts and wing-nuts 70 permit adjustment of the foot rest 58 along the leg rest 57. The chair or seat is supported in its several positions by suspending means generally indicated by numeral 71 which is preferably in the form of opposed pairs of hangers 72, 73, 74, and 75. The said hangers are preferably elongated strips which are pivotally connected at their upper ends to the inner surfaces 39 and 40 of the reinforcing members 22 and 23. The lower ends of said hangers are pivotally connected to the side edges 76 and 77 of the seat portion 56, the hangers on each side of the said portion being preferably parallel to each other so that in any vertically altered position the seat 56 will remain at all times parallel to the working surface 32. The seat portion 56 thus has a pendulum action and a child seated thereon may swing the seat forward and backward for its amusement or comfort. The lower ends of the hangers 72—75 may be pivotally connected directly to the side edges 76 and 77 of the seat portion 56 or by means of brackets 84—87 as shown.

The leg rest at the upper portion thereof is connected to the reinforcing members 22 and 23 by means of a pair of long links 78 and 79. The said links are preferably composed of rigid material and pivotally connected at the upper ends thereof to the outer surfaces 80 and 81 of the reinforcing members 22 and 23. These pivotal points of connection are preferably coaxial with the points of connection of the upper ends of the rear hangers 73 and 75. The lower ends of the links 78 and 79 are pivotally connected to the upper ends of the flange members 67. In order to permit free movement of the links they are preferably maintained parallel to each other by means of spacers 82.

The forward edge 64 of the seat 56 has preferably permanently attached thereto a flexible connector 88 which may take the form of a strap made of leather or webbing. The rear end 89 of the connector 88 may, for example, be secured to the undersurface of the seat 56 by means of rivets 90. The forward or normally upper end 91 of the connector 88 is provided with means 92 to detachably attach said end to the rear portion of the movable panel 29. I have found a practical construction to involve the use of an ordinary harness type snap hook 93 and first anchoring means in the form of a screw eye 94, the latter being threadably engaged through the surface 50 of the transverse reinforcement 38. The inner or rear surface 95 of the front frame member 18 is provided with second anchoring means 96 which may be engaged by the means 92,

particularly the snap hook 93, when said hook has been detached from the screw eye 94. The second anchoring means 96 is preferably of U-shaped configuration presenting a transverse rod 97 which joins two legs 98 and 99 the forward terminals of which are secured in the frame member 18.

Operation

Assuming the device to be in the condition shown in Figure 2 the erecting of the chair table 10 to its normally operating condition is a relatively simple matter. Each of the legs 14 is in turn pulled out to its vertical position at which it will normally become locked. The table may then be stood upon the four casters. The chair or seat generally indicated by numeral 12 will still be in the position shown in Figure 2 although the legs 14 of the table 10 will appear as seen in Figure 1. (One of the legs in Figure 2 is omitted for clarity.) Next the snap hook 93 is unhooked from the transverse rod 97 and the weight of the seat 56 as well as the leg rest 57 and the foot rest 58 will cause these parts to take the position shown in Figure 1. (The foot rest 58 must be manually lowered to the extended position shown in Figure 1.) The back rest 55 will however be in a horizontal position superposing the upper surface of the seat 56. Next the back rest 55 is rotated upwardly about the hinges 61 until it takes the position shown in Figure 1 with the rear surface of said back rest resting against the upper inner edge of the rear frame member 19. The hook 93 is hooked upon the screw eye 94. The various parts will now appear as seen in Figure 1.

The latch 49 is rotated about its pivot until it is in the position shown in Figure 5 or 6. Next the rear edge 45 of the panel 29 is manually grasped and outwardly and forwardly slid through the slot 28 until the panel takes the position shown in Figures 3 and 5 in full lines and in Figure 1 in dot-dash lines. It will be noted that in this position the foot and leg rests are pulled rearwardly out of the way by the action of the links 78 and 79; also the back rest 55 is placed in a more inclined position and the seat 56 is elevated and moved forwardly. With the panel 29 in its forward position as best seen in Figure 5, two convenient openings or passages 100 are provided on either side of the flexible connector 88 through which the child's feet may be easily inserted. In the case of young children whose intelligence is not far advanced and who do not assist in their placement in the device 10, this feature is of great value since even if the child squirms, his placement upon the seat 56 may be quickly and conveniently accomplished.

It may be mentioned at this point that in devices of the class to which the present invention relates, it is well known to use auxiliary padding which covers the seat 56 and the back rest 55 as well as the hangers 72-75, and for that reason as well as to aid in the clarity of the drawings such padding has not been illustrated therein. It is also common to use a form of harness composed of light webbing to prevent the child from removing himself from the device 10. This harness is also not illustrated for the same reason.

After the child is properly seated, the panel 29 is moved to its rear position causing the rear edge 45 to take the position shown in Figure 4 so that it is quite close to the child's body and

an undesirable space between said edge and his body is not produced through which food and toys may be dropped. The panel 29 in its rear position is secured by a rotation of the latch 49 to the position thereof seen best in Figure 1.

The connector 88 also prevents the child from falling forwardly between the forward edge 64 of the seat 56 and the rear edge 45 of the panel 29, because the child straddles the connector 88.

After the child is properly seated upon the seat 56, the panel 29 is moved to its rear position at which time the device 10 will have its parts positioned substantially as shown in Figures 4 and 6. It will be noted at this point that the weight of the child upon the seat 56 causes the seat to shift slightly rearwardly (compare Figure 1) and this movement causes by means of the links 78 and 79 a shift in position of the leg rest 57.

In order to collapse the device 10, it becomes necessary only to remove the child, harness and padding; fold the foot rest against the leg rest; unhook the hook 93 from the screw eye 94 and to pull the hook forwardly and hook it upon the transverse rod 97 of the second anchoring means 96. This will return the parts to the position shown in Figure 2. Unlocking and folding the legs 14, completes the collapsing of the device 10.

While the movement of the panel 29 to its forward position has been described as facilitating the placing of the child in the chair table 10, this forward movement can also be used to facilitate the withdrawal of the child.

As the child grows older, it will be desirable to use the present device as a play table next to which the child may stand. The table may be used with the chair parts in the position shown in Figure 2 but with the legs 14 vertically extended, of course. When so used the working surface 32 will have a relatively large orifice bordered by the inner side edges 34, 36, the rear edge 45, and the rear frame member 19. There will also be cracks between the side edges of the panel 29 and side edges 34 and 36. These hiatus in the surface 32 are overcome by the use of the auxiliary working surface 33 which is placed upon the surface 32 and within the confines of the inner surfaces of the frame members 18-21. During the period when the child desires to both sit upon the seat 56 and to use the device as a play table, the auxiliary working surface 33 may be used by merely dropping the back rest 55 about the hinges 61. The child's interests in the device as a means for amusement, entertainment, and education may be heightened by suitably decorating the upper and lower surface of the auxiliary working surface 33 with games, blackboards, or slates, and similar accessories.

When the chair parts are in the position shown in Figure 2, an opening 101 is presented which is bordered by the reinforcing members 22 and 23, the rear frame member 19 and the lower edge 59 of the back rest 55, within which, depending upon the size of the parts, a child may stand and support himself by leaning against the parts bordering said opening. Thus with the legs 14 extended in vertical position the casters 17 permit the child to push the device 10 about, at the same time using it as a support. The device 10 thus becomes a "walker."

It may thus be seen that I have provided a novel and useful chair or seat table which is simple in construction and highly efficient in use.

I wish it to be understood that I do not desire to be limited to the exact details of construction

shown and described, for obvious modifications will occur to a person skilled in the art.

I claim:

1. A collapsible combination chair table and walker for use by a child, comprising: a table having a working surface with an opening therein sufficiently large for the child to stand erect therein when said working surface is in a horizontal position; a plurality of foldable legs connected to said table, said legs in the erected position thereof being located outwardly of the border of said opening to provide an unobstructed space therebeneath avoiding interference with the legs of the standing child; a foldable chair movably connected to said table and adapted in a first position thereof to lie below said opening to support the child in a seated condition and in a second position thereof to be laterally displaced with respect to said opening to provide an unobstructed space beneath the opening avoiding the interference with the legs of the standing child; and means to detachably secure said chair in the second position thereof.

2. A combination chair table, for use by a child, comprising: a table having fixed working surface means with an opening therein, and a movable panel supported on said means; a chair movably mounted on said table below said opening and adapted to have a lower position and an upper position, the said upper position being closer to the working surface; and means connecting the chair with the panel for movement of the chair in correlation to movement of the panel, whereby movement of the movable panel in a direction to enlarge the effective size of said opening automatically shifts the chair from the lower position to the upper position thereof, the increased size of the opening and the closer position of the chair to said opening affording easier access by or placement of the child within the opening and on the chair.

3. A combination collapsible chair and table, for use by a child, comprising: a table having a working surface with an opening therein; a chair movably mounted on said table and adapted in the active position to be disposed below said opening and in a folded position thereof to

be disposed closer to said working surface; first anchoring means connected to the working surface of the table; second anchoring means connected to the table at a point more distant from said opening than the first anchoring means; and a detachable connector adapted in a first position thereof to interconnect said chair and said first anchoring means said connector then acting as a guard against undesired movement by the child when in the chair, and in a second position thereof adapted to interconnect said chair and said second anchoring means, said connector then acting to maintain said chair in the said folded position thereof.

4. A combination collapsible chair and table for use by a child, comprising: a table having a working surface with an opening therein; a chair movably mounted on said table below the opening; a leg rest pivotally connected to said chair; and a link pivotally connected at one end thereof to said table and at the other end thereof to said leg rest at a point on said leg rest spaced from said point of pivotal interconnection.

5. A combination chair table for use by a child, comprising: a table having fixed working surface means with an orifice therein, and a movable panel supported on said means; a chair having a seat portion, said chair being movably mounted on said table below said orifice; a leg rest movably mounted on said seat portion; said chair being adapted to have a lower position and an upper position, the said upper position being closer to the working surface; means connecting said leg rest and said table whereby when the chair is in the upper position thereof the leg rest is retracted to a position below said seat portion; and second means connecting said movable panel and said seat portion whereby movement of the movable panel in a direction to enlarge the effective size of said orifice automatically shifts the chair from the lower position to the upper position thereof, the increased size of the orifice, the closer position of the chair to said orifice, and the retraction of the leg rest affording easier seating of the child through the said orifice and on the seat portion with the child's legs below the seat portion.

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