Feb. 5, 1957 R. VALENTE 2,780,276

CONVERTIBLE CHAIR FOR INFANTS

Filed April 9, 1956 2 Sheets-Sheet 1

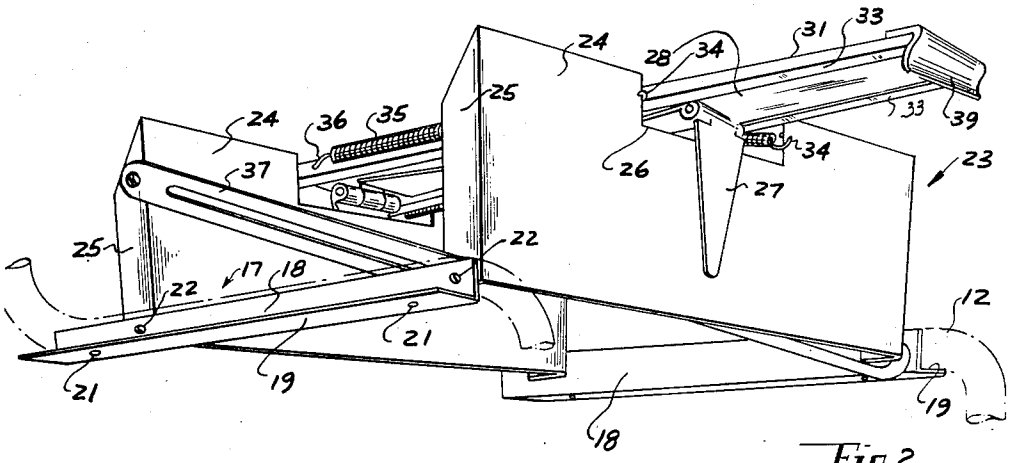


Fig. 2

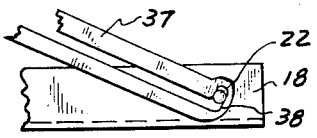


Fig. 7

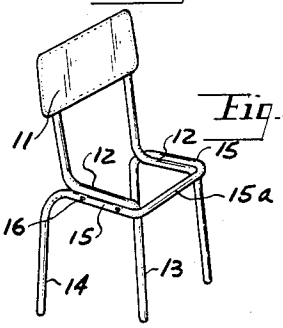
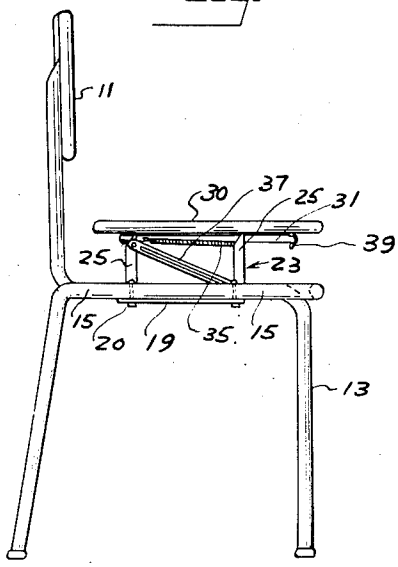


Fig. 1

Fig. 3



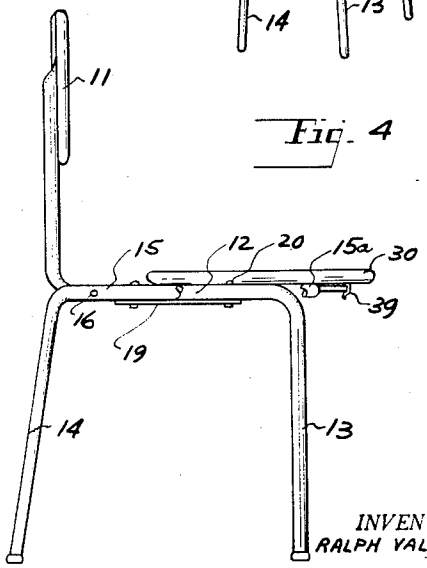


Fig. 4

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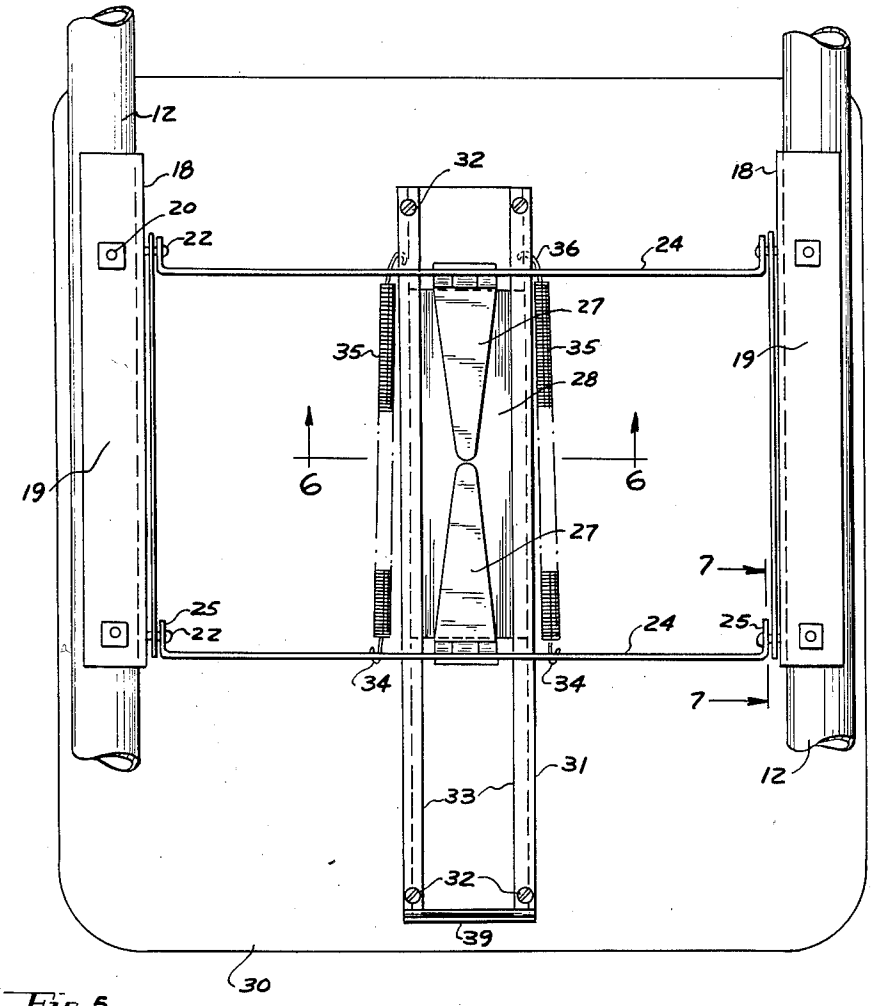


Fig. 5

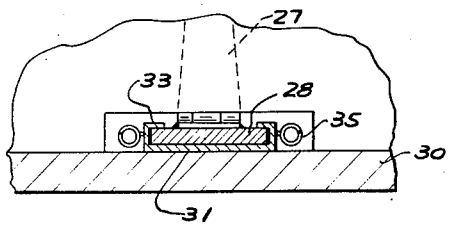


Fig. 6

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CONVERTIBLE CHAIR FOR INFANTS

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4 Claims. (Cl. 155—91)

The invention pertains to a chair including a horizontal frame and a seat supported thereon, the seat being adapted to be raised above the level of the frame to allow a child to be seated at a dining table at a proper elevation with respect thereto.

The object of the invention is to provide a chair in which the operative elements for the purpose of raising said seat are normally concealed within the frame so that the chair has the appearance of an ordinary chair till the seat has been raised.

A further object of the invention is to provide a chair in which the seat, when raised, will stay in place without any danger of its collapse under the weight of a child. Another object of the invention is to provide a chair which may be quickly and easily set up for use of a child and which may be as quickly and easily lowered to its normal position.

I shall now describe my improvement with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of the framework of the chair upon which the seat of the chair is to be mounted;

Fig. 2 is a perspective view of the seat-raising mechanism mounted on said framework;

Fig. 3 is a side elevational view of the chair with a seat in its raised position;

Fig. 4 is a side elevational view of the chair with the seat in its lowered but partly forwardly-protruding position;

Fig. 5 is a bottom view of the chair;

Fig. 6 is a sectional view on line 6—6 of Fig. 5;

Fig. 7 shows a detail of construction of one of the elements of the chair.

Similar numerals refer to similar parts throughout the several views.

The framework of the chair **10**, as shown in Fig. 1, is composed of four elements. These include a back-rest **11**, two tubular members attached to the back-rest and extending downwardly therefrom, each including a horizontal portion **12**, and a downwardly-extending leg **13**. Two other legs are provided by the fourth element, namely, a tubular member bent upon itself in a broad hairpin turn and including two parallel portions **15** disposed horizontally and connected by a transverse member **15***a*, one of said portions being in abutment with one portion **12**, the other portion **15** being in a parallel abutment with another portion **12**. On each side of the frame, the respective portions **12** and **15** are connected to each other by bolts **16**.

It is these horizontally-disposed tubular members **12** which support the mechanism for raising the seat. The mechanism includes a pair of horizontal rails, each being L-shaped in cross-section to include a vertically-disposed web **18** and a horizontally-disposed flange **19**. The flanges **19** are fastened by screws to the underside of each portion **12** in a parallel relation thereto so that the vertical webs **18** face each other, as shown in Fig. 2. For that purpose the flanges are provided with holes **21**.

Pivotally connected to the webs **18**, by means of pins **22** which project from the webs inwardly, are two props generally identified by numeral **23**. Each of the props is made of metal, specifically, of heavy-gauge sheet stock, and has the form of an oblong rectangular plate **24** which at each end is turned rearwardly at right angle to the plate **24** to form a flange **25**. As shown in Fig. 2, it is the lower portions of the flanges **25** which are so secured to webs **18**. One of said props is located close to the front ends of the rails, in a cross-wise relation thereto, while the other prop is connected to said rails in parallel relation to the first-named prop but to the rear thereof. A part of each of the plates **24** is cut out at the top so as to provide a recess **26**. The latter is defined by a horizontal bottom line and two parallel sides extending therefrom to the top of the plate. Supported by the props is a horizontal bar **28** which at one end is connected to one prop by means of a hinge **27** and which at the other end is connected by a similar hinge to the other prop.

The seat, which is marked **30** and which normally rests on the horizontal portions **12** and **15** of the framework of the chair, carries on its underside a channel member **31** extending from the rear of the seat to the front end thereof, the member being fastened to the seat by means of screws **32**.

The bar **28** described above fits into said channel member **31** in a parallel relation thereto so that the seat, with said channel member, may be shifted longitudinally upon said bar forwardly or rearwardly. The opopsed rims **33** of the channel member are bent inwardly to prevent disengagement of the bar from said channel member.

Hooked to the front prop, as shown at **34**, are a pair of coil springs **35** which extend from said prop rearwardly and are secured to the rear end of the channel member, as shown at **36**, the object of the connection being to cause said springs to pull the seat, with the channel member, forwardly over said bar **28**.

Associated with the rear prop, on each side thereof, is a longitudinally-slotted link **37** which at one end is pivotally connected to the upper portion of the respective flange **25**, while the front end of the link extends to the pin **22** on one side of the front prop for a locking engagement therewith by means of a bayonet slot **38**.

To conclude the description of the above mechanism, I wish to add that the channel member **31** is provided at its front end with a downwardly-extending tongue **40**.

The manner in which the seat of the chair may be raised to an elevated position is as follows:

Normally the seat **30** rests on portions **12** and **15** of the framework of the chair. This is shown in Fig. 4, except that the seat does not extend beyond the front part of the frame, as the tongue **39** depending from the channel member bears against the front member **15***a* of the frame and will prevent movement of the seat forwardly of said member **15***a*.

In order to raise the seat, it is first necessary to push the chair a slight distance rearwardly to disengage the tongue from member **15***a*. On continuation of said push rearwardly, the two props **23** which are normally disposed in a horizontal position will be swung up by said seat, upwardly from said pins **22**, till said props have been brought to vertical positions, as shown in Fig. 2. At this stage the bayonet slots **38** in the links **37** will engage the pins **22** within the front portions of the respective rails and lock the rear prop against return to its normally-horizontal position. Thus, the seat will be held in an elevated position above said tubular members **12**. If it is desired to lower the seat to its normal position, the links are pushed upwardly at the ends which are provided with the bayonet slots to disengage said links from the pins **22** at the junction with the front prop, whereupon the seat may be swung down on said

props forwardly till it has encountered the members **12**. This position is shown in Fig. 4.

As the front part of the seat projects to beyond the front member **15***a* of the frame, the seat may be pushed rearwardly against the tension of the springs **35** to permit the tongue to be thrust into engagement with said member **15***a* from the rear to cause the tongue to bear against said member forwardly.

It will be understood that structural details of the inventive combination shown by me may be modified without departing from the inventive idea disclosed herein.

What I, therefore, wish to claim is as follows:

1. A chair including a horizontally-disposed frame including two parallel side members and a transversely-disposed front member, two oblong sheet metal props, each being pivotally connected at its ends to the opposed sides of the frame transversely thereto, said props being in a parallel, spaced relation to each other, a horizontal bar mounted on said props and hinged to each, the bar extending from the front member of the frame rearwardly, a channel member mounted upon the bar for a sliding longitudinal movement thereon, a seat mounted on the channel member, coil spring means at one end attached to one of the props and connected at the other end to the rear end of the channel member to pull the seat forwardly, a tongue at the front end of the channel member adapted to be engaged with the front member of the frame to keep the seat in a normally retracted position against the tension of said spring means, the props being adapted to be swung up from the pivotal connections to bring the seat to a level above that of the frame, and link means associated with the props and the frame, but disconnectable at one end, to hold the props in the upswung position.

2. A chair including a horizontally-disposed frame including two parallel side members and a transversely-disposed front member, a pair of parallel props disposed transversely to the side members of the frame and pivotally connected thereto, one of the props being located close to the front member of the frame, the other being spaced rearwardly therefrom, the props being disposed normally in substantially-horizontal positions but being adapted to be swung up from their pivotal connection to vertical positions, link means associated with the props and the frame, but disconnectable at one end, to hold the props in the upswung positions, a horizontal bar connected by hinges to the top of each prop, an oblong channel member seated upon the bar for a longitudinal sliding movement thereon, a seat mounted on said channel member, coiled spring means attached at one end to the front prop and connected at the other end to the rear end of the channel member, the springs serving to move

the seat, with the channel member, forwardly, and a tongue at the front of the seat for engagement with the front member of the frame to keep the seat in a rearwardly-retracted position.

3. A chair including a horizontally-disposed frame including two side members and a transversely-disposed front member, a transverse prop pivotally connected at each end to the side members of the frame close to said front member but including a top portion adapted to be raised on the upward swing from the pivotal connections to a level above that of the frame, a similar prop disposed parallel to the first-named prop rearwardly therefrom, an oblong bar in a hinged connection with the top portion of each prop, a channel member mounted upon the bar for a sliding movement thereon, a seat mounted on the channel member, spring means anchored to the front prop and urging the seat forwardly, and means at the front of the seat for engagement with the front member of the frame to keep the seat in a retracted position against the tension of the spring means, the props, with the seat, being adapted to be swung forwardly from their pivotal connections to vertical positions, and link means associated with the frame and the props but disconnectable at one end to hold the props in their vertical positions.

4. A chair including a horizontal frame including two side members for support of a seat, a pair of elongated prop means having side elements pivotally connected to the side members of the frame, the props being transversely disposed with respect to the side members and in a parallel, spaced relation to each other, an oblong bar disposed transversely over the props and hinged at the top portion of each, the bar being normally disposed at the level of the frame but being adapted to be swung upwardly on said props to a level above that of the frame, a channel member seated upon the bar for a longitudinal sliding movement thereon, a seat mounted on said channel member, coiled spring means attached at one end to the front prop and connected at the other end to the rear end of the channel member, the springs serving to move the seat, with the channel member, forwardly, and a tongue at the front of the seat for engagement with the front member of the frame to keep the seat in a rearwardly-retracted position.

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