

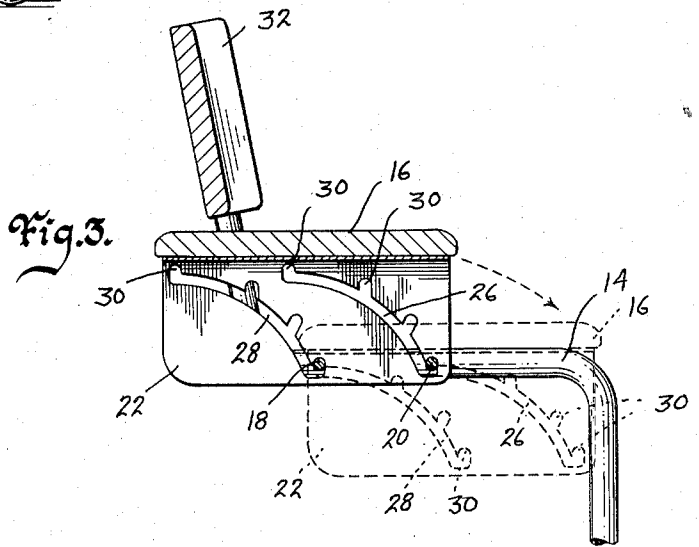
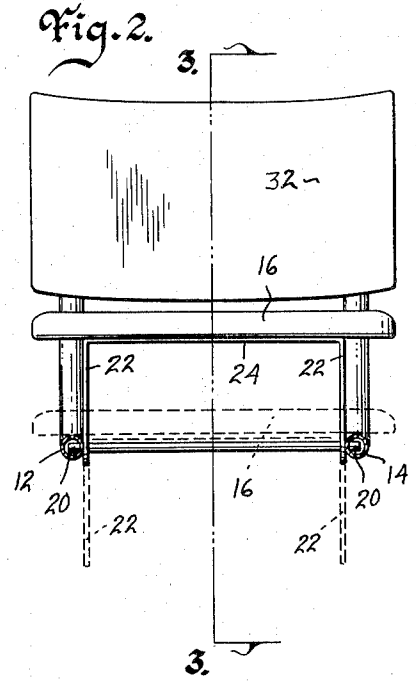
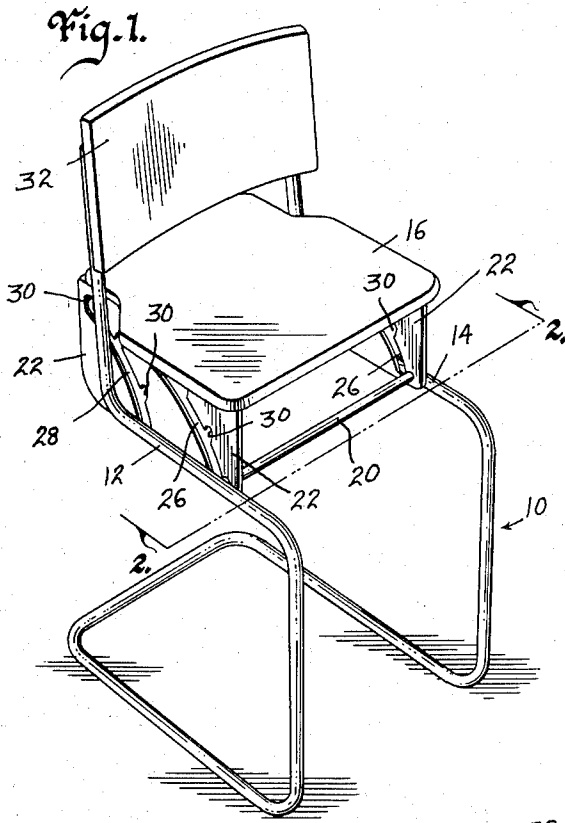
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CONVERTIBLE CHAIR

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CONVERTIBLE CHAIR

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7 Claims. (Cl. 155—38)

My invention relates to improvements in chairs and more particularly to a novel means for selectively adjusting the height of the seat portion thereof.

One of the important objects of this invention is to provide a simple and easily adjustable sturdy high chair for use by children and in accomplishing this objective it will be apparent that the variety of uses to which this chair is susceptible embraces a considerably greater horizon than this one field.

Particularly, however, in regard to high chairs it will be found that while many types and variations exist, they all appear to be designed for the infant child and the height of the seat is established accordingly. For the child who is beyond the infant stage but who has not yet grown to the point where he can comfortably use an adult chair at the dinner table, for example, there is little, if anything, in the way of a single chair to accommodate such a youngster through his various stages of growth. Certain chairs, sometimes known as youth chairs, of an intermediate height may be found but obviously these have a useful life of a limited duration.

It is, therefore, another object of this invention to provide a chair having a seat portion adjustable to a variety of heights so that one chair can be used when the occasion demands to seat any person, whether an infant, adult or growing child, comfortably and properly relative to his position at a table for eating, working or playing.

A further object of my invention is to provide a chair as described above on which the seat adjustments are made quickly and easily without the use of any tools or members to be tightened and loosened respectively.

Another important object of my invention is to provide a chair in which the seat is adjustable as to height and having means whereby as the height of the chair is increased, the sitting area of the seat is reduced, and as the height is decreased, the sitting area is increased. In this respect, the higher the chair, the smaller is the occupant usually and vice versa and thus I propose to change the seat proportions accordingly.

Other objects of this invention are to provide a chair with a novel seat adjusting arrangement that is refined in appearance, durable and economical in construction and extremely efficient for its intended use.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained as herein-after more fully set forth, and specifically pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a chair illustrating a preferred embodiment of my invention,

Fig. 2 is a front view, partly in section, of this chair taken from the line 2—2 of Fig. 1, and

Fig. 3 is a cross sectional view taken on the line 3—3 of Fig. 2.

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Referring to the drawings I have preferably illustrated my invention on a chair having a one-piece tubular frame designated generally by the numeral 10 although it will be understood that any suitable chair frame will be satisfactory. Such frames as at 10 are in common use and between the frame sides 12 and 14 on which the seat 16 is normally mounted a pair of rod members 18 and 20 are arranged and secured so as to be in parallel spaced relationship to each other. Seat 16 is formed with a depending flange or plate 22 at each side which are spaced apart a distance coinciding with that of the inner sides of rails 12 and 14. In Fig. 2 I have shown plates 22 as being integrally formed with the connecting web portion 24 and attached as a unit to seat 16 but it will be understood that flanges or plates 22 may be separate units suitably attached to the seat so as to depend in the manner illustrated and described.

In each plate 22 there are two like slots 26 and 28 respectively that are spaced apart and each extend from a point near the lower end of plate 22 upwardly and rearwardly in a curve to a point near the upper end of plate 22. The spacing between slots 26 and 28 throughout their length is the same as that between rod members 18 and 20 and in the upper edge of each slot 26 and 28 there is formed a plurality of spaced apart notches 30 of which one defines the lowermost end of each slot and one defines the uppermost end thereof with as many intermediate notches as desired so long as the same number are provided for each slot on each flange. It will be understood, of course, that the corresponding notches 30 in each slot 26 and 28 are on the same horizontal plane and consequently each successive set of notches will be progressively lower or higher depending upon the starting point.

Thus formed, seat 16 is mounted so that rods 18 and 20 respectively pass transversely through the respective slots 28 and 26 as shown in Fig. 3. In this arrangement, seat 16 can be manually moved upwardly and rearwardly or downwardly and forwardly with rods 18 and 20 riding in the respective slots 28 and 26 and by engaging rods 18 and 20 in any corresponding set of notches 30 it will be apparent that each set of such notches represents a different height at which the seat can be fixed and from which it cannot become accidentally dislodged.

Among the many advantages of this chair is that my invention can be applied to any normal adult size chair which can be used by adults when the uppermost notches 30 are engaging rods 18 and 20 and yet in the same chair the sitting area of the seat 16 from front to rear relative to the vertical plane of back 32 becomes progressively smaller as the seat is adjusted from lower to higher levels until when the highest adjustment is reached (Fig. 3) it will be observed that a portion of seat 16 even protrudes rearwardly of back 32. Thus, the smaller the user of the chair, the less seating area is required to provide a natural posture between back 32 and seat 16 and, of course, the reverse is true as the size of the occupant increases. These changes and adjustments in the relative proportions of the chair are not only provided by the invention here disclosed but are accomplished simultaneously with the height adjustment of the seat.

It is submitted that the invention shown and described is aptly suited to achieve the purposes intended and is characterized by a combination of highly useful and mutually cooperating elements that combine their respective and proportionate functions in accomplishing the objects sought to be obtained.

Some changes may be made in the construction and arrangement of my chair without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure

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or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. As a new article of manufacture, a chair, comprising, a frame having at least two spaced apart side members extending from front to rear relative to the usual position of use of said chair, a pair of rod members spaced apart between and secured to said side members, a seat, plate members depending from two opposite sides of said seat, each plate having two slots parallel to each other and spaced apart a distance coinciding with that of said rod members each slot extending from a point near the lower edge of said plate member upward and rearwardly in a curved path to a point near the upper edge thereof, notches in each slot, said seat mounted on said frame so that one rod member extends transversely through the corresponding slots on each plate and the other rod member is similarly arranged relative to the other corresponding slots, said seat manually movable in two directions respectively by passing said slots past said rod members, and said notches engageable at times with said respective rod members for holding said seat at a desired position relative to said rod members.

2. As a new article of manufacture, a chair, comprising, a frame having at least two spaced apart side members extending from front to rear relative to the usual position of use of said chair, a pair of rod members spaced apart between and secured to said side members, a seat, plate members depending from two opposite sides of said seat, each plate having two slots parallel to each other and spaced apart a distance coinciding with that of said rod members, each slot extending from a point near the lower edge of said plate member upward and rearwardly in a curved path to a point near the upper edge thereof, notches in the upper edge of each slot, each slot provided with a like number of notches similarly located, said seat mounted on said frame so that one rod member extends transversely through the corresponding slots on each plate and the other rod member is similarly arranged relative to the other corresponding slots, said seat manually movable in two directions respectively by passing said slots past said rod members, and said notches engageable at times with said respective rod members for holding said seat at a desired position relative to said rod members.

3. As a new article of manufacture, a chair, comprising, a frame, a back member on said frame, a pair of spaced apart parallel rod members carried by said frame, a seat, a depending flange on each of two opposite sides of said seat, each flange having a pair of spaced slots extending in a curved path so that their extremities are on different horizontal levels, a plurality of notches communicating with each slot and spaced longitudinally thereof, said seat mounted on said frame so that one rod member extends transversely through the corresponding slot on each plate and the other rod member is similarly arranged relative to the other corresponding slots, said seat manually movable over said rod members upwardly and rearwardly toward said back member and downwardly and forwardly away from said back member, and said notches engageable at times with said rod members for holding said seat at any desired horizontal level.

4. As a new article of manufacture, a chair, comprising, a frame, a back member on said frame, a seat having a front and rear edge, a depending flange on each of two opposite sides of said seat, each flange provided with a slot extending from one horizontal level upwardly and rearwardly in a progressive curve to a higher horizontal level, a plurality of notches communicating with the

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upper edge of each slot respectively, means on said frame for engaging said slots and notches whereby said seat can be manually moved in a path defined by said slots and removably fixed at different horizontal levels, said seat when in its lowermost position having its rear edge forwardly of the vertical plane of said back member, and as said seat is moved upwardly and rearwardly having its rear edge becoming progressively closer to the vertical plane of said back member and passing at times rearward thereof so that as the height of the seat is increased, the usable sitting area thereon is progressively decreased with the reverse effect resulting as the height of said seat is reduced.

5. As a new article of manufacture, a chair, comprising, a frame, a seat, a depending flange on each of two opposite sides of said seat, each flange provided with a slot extending from one horizontal level upwardly and rearwardly in a progressive curve to a higher horizontal level, a plurality of notches communicating with the upper edge of each slot respectively, means on said frame for engaging said slots and notches whereby said seat can be manually moved in a path defined by said slots and removably fixed at different horizontal levels.

6. As a new article of manufacture, a chair, comprising, a frame, a seat, a depending flange on each of two opposite sides of said seat, each flange provided with a slot extending from one horizontal level upwardly and rearwardly in a progressive curve to a higher horizontal level, means on said frame for engaging said slots whereby said seat can be manually moved in a path defined by said slots and removably fixed at different horizontal levels.

7. As a new article of manufacture, a chair, comprising, a frame, a back member on said frame, a pair of spaced apart parallel rod members carried by said frame, a seat normally disposed forwardly of the vertical plane of said back member, a depending flange on each of two opposite sides of said seat, each flange having a pair of spaced slots extending in a curved path so that their extremities are on different horizontal levels, a plurality of notches communicating with each slot and spaced longitudinally thereof, said seat mounted on said frame so that one rod member extends transversely through the corresponding slot on each plate and the other rod member is similarly arranged relative to the other corresponding slots, said seat manually movable over said rod members upwardly and rearwardly to progressively pass under said back member so that the distance between the vertical plane thereof and the forward edge of said seat is progressively smaller as the horizontal level increases, and said notches engageable at times with said rod members for holding said seat at any desired horizontal level.

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