June 8, 1954

J. B. ADLER

FOLDING CHAIR

2,680,473

Filed Dec. 28, 1951

2 Sheets-Sheet 1

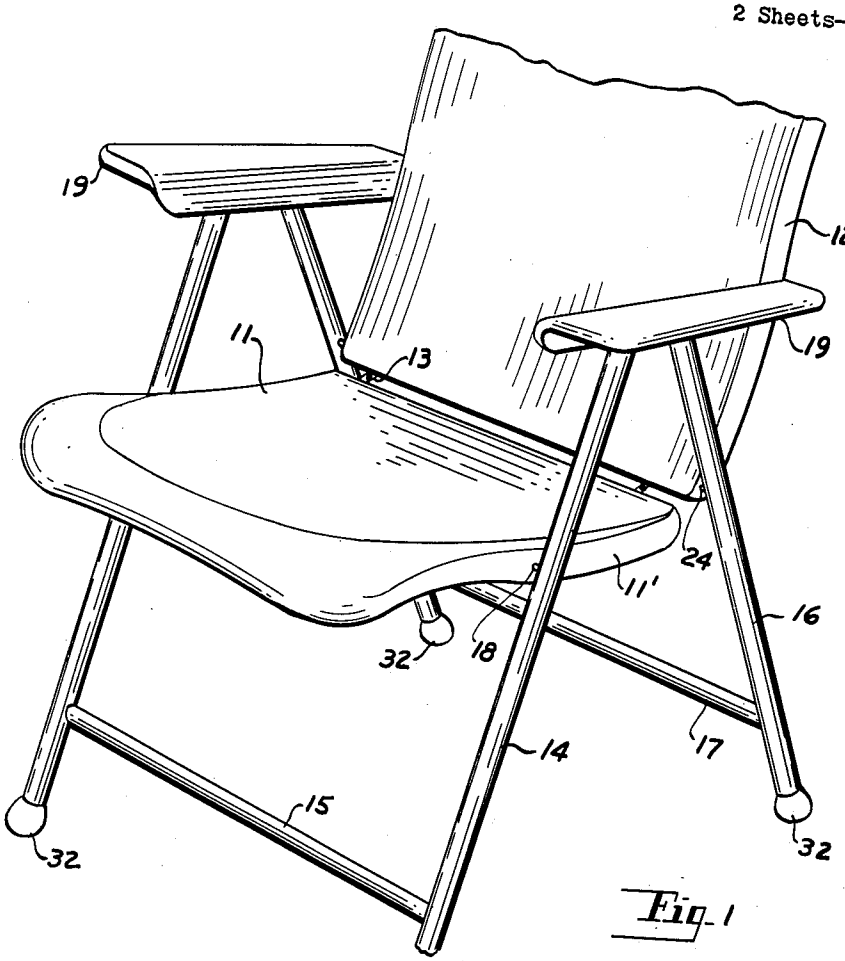


Fig. 1

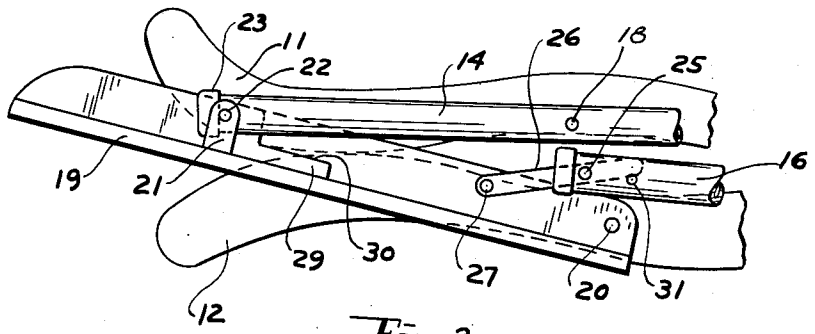


Fig. 2

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2 Sheets-Sheet 2

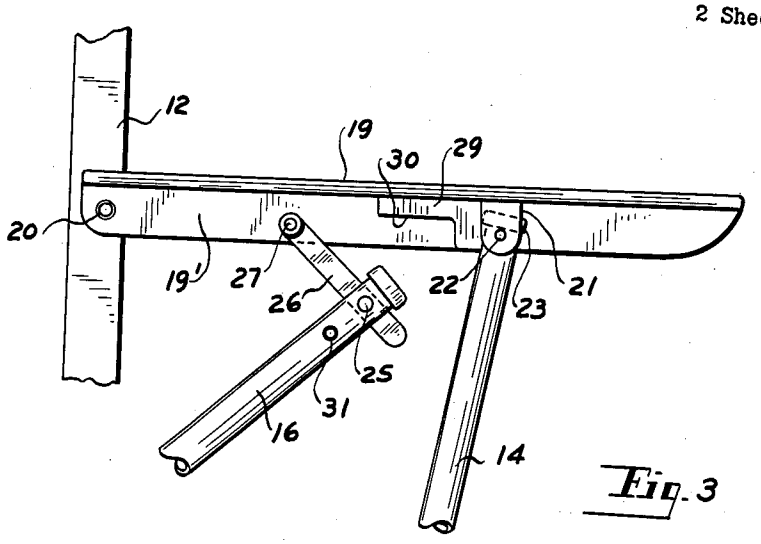


Fig. 3

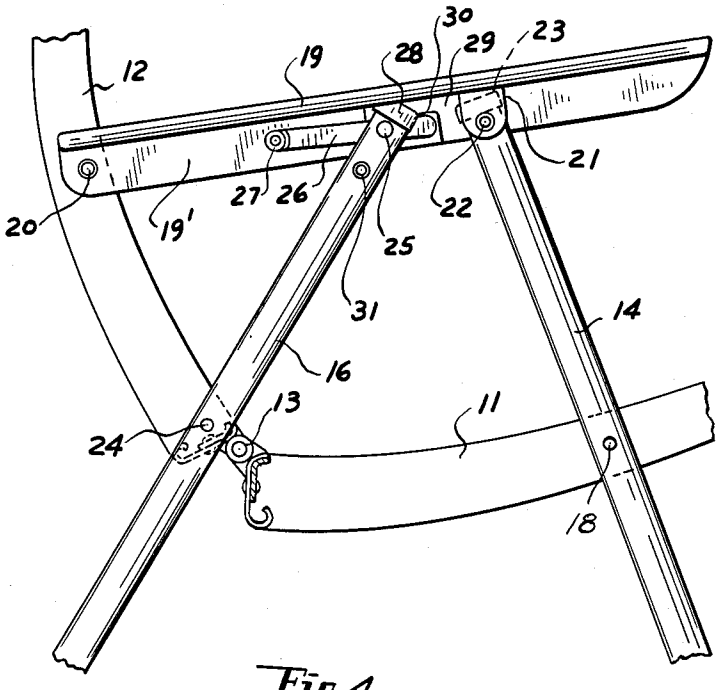


Fig. 4

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FOLDING CHAIR

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2 Claims. (Cl. 155—139)

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This invention relates to a folding arm chair construction and more particularly to a novel leg linkage therefor.

It is the object of the present invention to provide a novel leg linkage for a folding arm chair which provides a new and improved control and connection for the rear legs thereof.

It is the further object of this invention to provide an improved folding arm chair construction including a simplified leg linkage and control which is inexpensive to manufacture and which does not detract from the appearance of the chair.

These and other objects will be seen from the following specification and claims in conjunction with the appended drawings in which:

Fig. 1 is a fragmentary perspective view of the arm chair in unfolded position.

Fig. 2 is a fragmentary side view of said chair in fully collapsed folded position.

Fig. 3 is a fragmentary side elevational view illustrating the leg linkage and connections with respect to the chair arm rest when partially folded; and

Fig. 4 is a fragmentary partially sectioned side elevational view of the chair illustrating the relationship of the legs and their connections with the chair seat, back rest and arm rest.

It will be understood that the above drawings illustrate merely a preferred embodiment of the invention, and that other embodiments are contemplated within the scope of the claims hereafter set out.

Referring to the drawings, the present chair includes the formed generally rectangular seat 11 and the upright formed generally rectangular back rest 12, which is hingedly connected to said seat as by the hinge connections 13 as shown in Fig. 1.

The chair also includes a pair of parallel forwardly and downwardly inclined front legs 14 with interconnecting transverse cross brace 15. There are also provided a pair of parallel rearwardly and downwardly inclined rear legs 16, also interconnected at their lower ends by the transverse cross brace 17. The front leg 14 on either side of the chair seat 11 is aligned with and in coplanar relationship with the corresponding rear leg 16.

Front legs 14 are arranged upon opposite sides of seat 11 and are pivotally joined to the said flange 11' as at 18 intermediate the front and rear edges of said seat. Legs 14 extend above pivotal connection 18 and are pivotally joined at their upper ends to the respective arm rest 19

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toward its forward end, said arm rest being pivotally joined at its rear end at point 20 to back rest 12 intermediate said back rest's upper and lower longitudinal edges.

Bracket 21 depends from the interior undersurface of arm rest 19 and is adapted to receive the upper end of the respective front leg 14 which is pivotally joined to said bracket at 22. Front legs 14, preferably tubular, have closure caps 23 within their upper ends.

Each of the rear legs 16 is joined intermediate its ends as at 24 to the lower end portions of back rest 12 upon opposite sides thereof. Rear legs 16 extend upwardly above their pivotal connection 24 and are pivotally joined to the arm rest flange 19' by the rear leg control links 26.

Each of the links 26 for the respective rear leg 16 is pivotally joined adjacent one end of the upper end of the rear leg as at 25. The opposite end of the link 26 is pivotally joined to the interior surface of the respective arm rest flange 19' as by the pivot 27. Said rear legs, preferably of tubular form also have closer caps 28 enclosing their upper ends which register with the undersurface of arm rest 19 when the chair is fully open for use as shown in Fig. 4. Bracket element 29 with rearward extension 30 is secured to arm rest 19, and may be formed as a part of the front leg engaging bracket 21. The cut away portion 30 permits a greater securing area for the bracket 21, and at the same time provides clearance for the front leg 14 when the chair is fully collapsed.

Stop pins 31 project from the corresponding sides of legs 16 upon which link 26 is pivoted, and said stop pins 31 are adapted to cooperatively and retainingly engage a portion of link 26 to limit its folding movement when the chair is fully collapsed as shown in Fig. 2.

This pin 31 thus limits the pivotal movement of link 26 and thereby prevents such extensive pivotal movement thereof as might hinder the reopening of the folded chair.

The present rear leg linkage including the control link provides an improved pivotal connection for the upper ends of the rear legs for controlling their pivotal movements when the chair is collapsed and for effectively joining the upper ends of the legs to the arm rests to complete the chair construction.

The present control link 26 is substantially concealed when the chair is fully open to thereby provide an improved appearance for the chair. It will be noted from Fig. 1 that the link 26 is not visible and, therefore, does not detract from the appearance of the chair.

Nevertheless, a fully effective and improved linkage is thereby provided for the rear legs of the chair to thereby maintain a rigid structure when the chair is fully opened for use and at the same time provide proper control connections for the rear legs to permit and facilitate the complete collapsing of the chair elements into substantial alignment as shown in Fig. 2 of the drawing. It will be noted from Fig. 2 that when the chair is fully collapsed, the arm rests **19**, the legs **14** and **16**, the seat **11** as well as the back rest **12** are folded into close compact substantially parallel relationship.

The rear leg caps **28** may be non-metallic, if desired, and constructed of rubber or other plastic material. In the preferred embodiment of the invention shown in Fig. 1, the lower ends of the legs have secured thereon the rubber feet **32** to prevent slipping.

While the seat **11** and the back **12** have been separately described and are hinged together as at **13**, Fig. 1, it may be regarded as a seat-back unit, which term is used in some of the claims hereafter set out.

Having described my invention, reference should now be had to the claims which follow for determining the scope thereof.

I claim:

1. A folding chair comprising a pair of rear legs, a pair of front legs, a seat pivoted intermediate its front and rear to said front legs and adapted to tilt therebetween, a back pivotally secured at its bottom to said rear legs and adapted to tilt therebetween, said back pivoted at its bottom edge to the rear edge of said seat, said front and rear legs extending upwardly above their pivotal connections with said seat and back respectively, a pair of arms pivoted to the back, said arms adapted to fold alongside the back and in substantial alignment with said rear legs, said arms being pivoted to the upper ends of said front legs, and control links pivotally joined at their one ends to the upper ends of said rear legs respectively and pivotally joined at their other ends to said arms respectively, said arms being adapted to seat upon the upper ends of said rear legs upon unfolding of the chair to the occupant supporting position.

2. A folding chair comprising a pair of rear legs, a pair of front legs, a seat pivoted intermediate its front and rear to said front legs and adapted to tilt therebetween, a back pivotally secured at its bottom to said rear legs and adapted to tilt therebetween, said back pivoted at its bottom edge to the rear edge of said seat, said front and rear legs extending upwardly above their pivotal connections with said seat and back respectively, a pair of arms pivoted to the back, said arms adapted to fold alongside the back and in substantial alignment with said rear legs, said arms being pivoted to the upper ends of said front legs, control links pivotally joined at their one ends to the upper ends of said rear legs respectively and pivotally joined at their other ends to said arms respectively, and a stop pin projecting from the upper end of each of said rear legs upon the same side thereof as said link and spaced from its pivotal connection with said leg for limiting the relative pivotal movements of said rear leg and link upon collapsing of said chair.

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