Sept. 6, 1932. T. J. MILES 1,875,478

CHAIR

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Fig. 2.

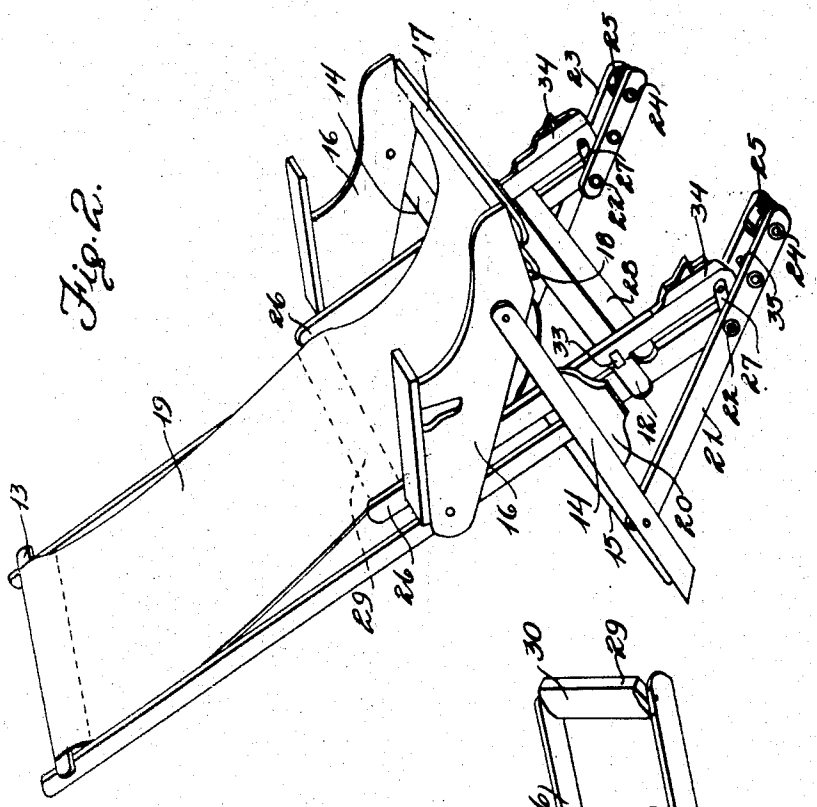
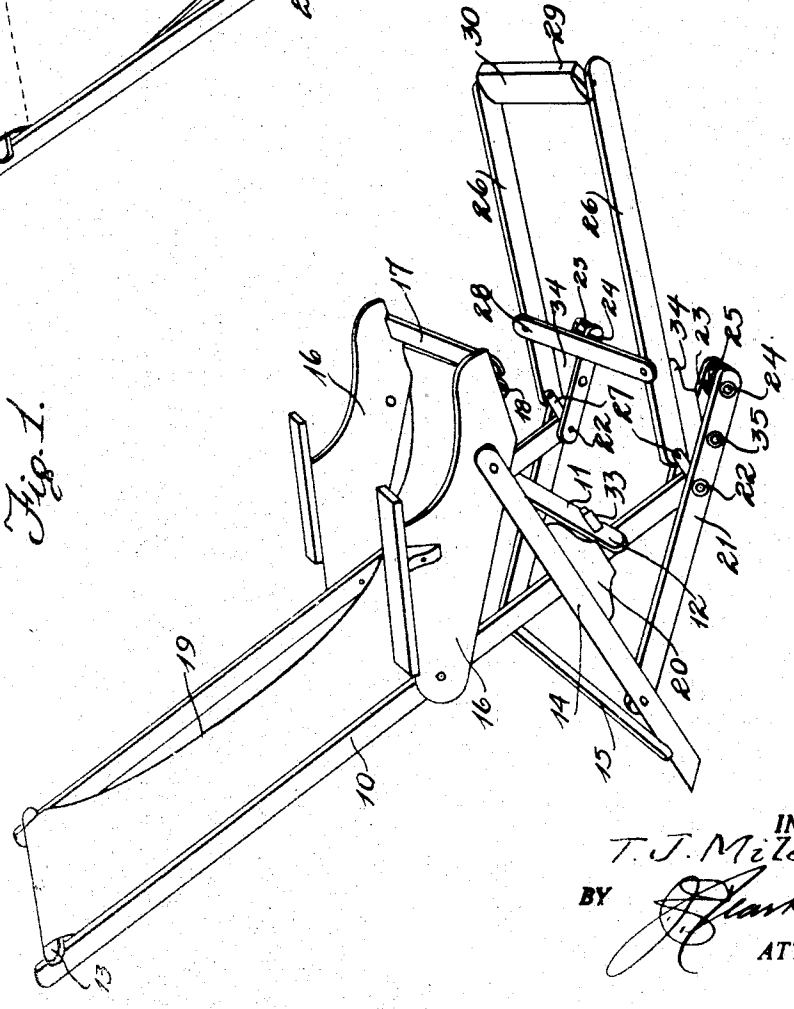


Fig. 1.



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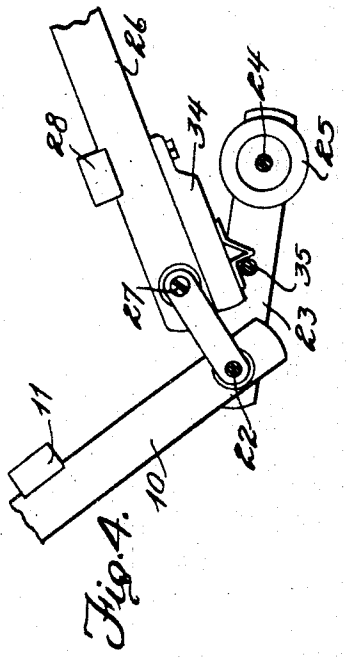


Fig. 4.

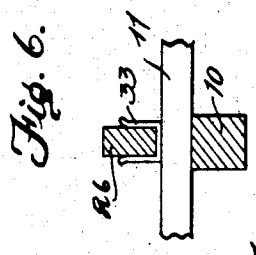


Fig. 6.

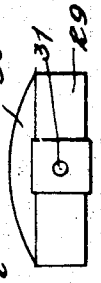


Fig. 7



Fig. 8.

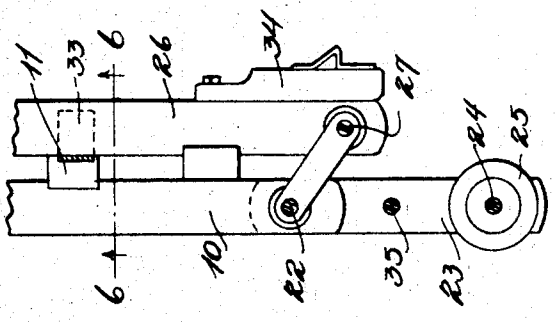


Fig. 5.

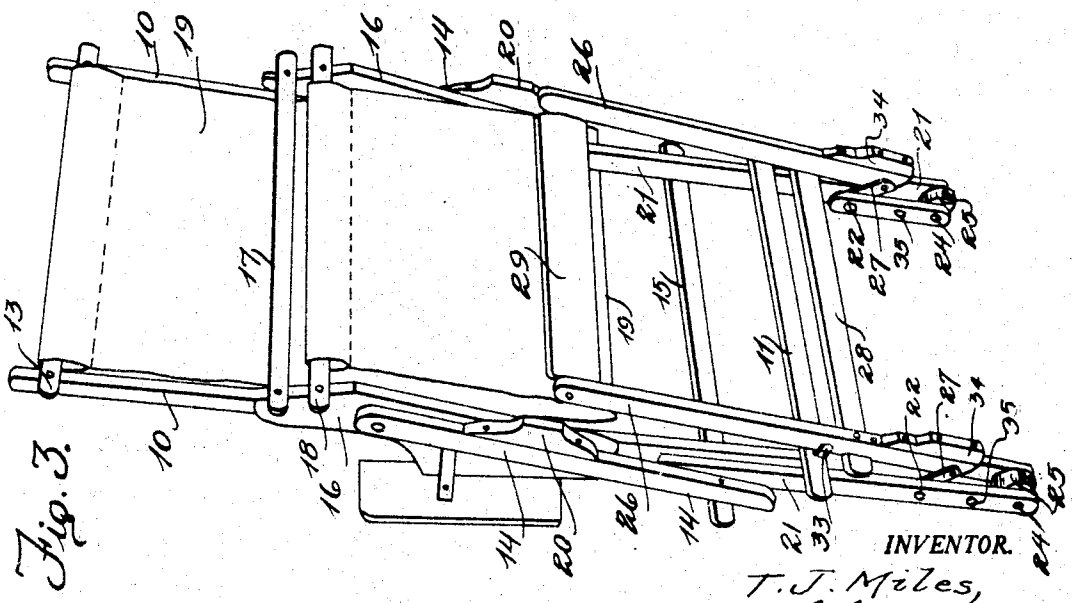


Fig. 3.

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Patented Sept. 6, 1932

1,875,478

UNITED STATES PATENT OFFICE

THOMAS J. MILES, OF LOUISVILLE, KENTUCKY

CHAIR

Application filed September 5, 1930. Serial No. 479,995.

This invention relates to furniture and has special reference to a folding chair of the type commonly known as lawn or porch chairs.

More particularly the invention relates to improvements in the chair shown and described in my copending application for patent Serial Number 392,855.

One important object of the present invention is to provide an improvement in the means for adjusting the inclination of the back of such a chair while seated therein.

A second important object of the invention is to provide an improved chair having means for limiting the forward movement of the chair back.

A third important object of the invention is to so improve the structure of the chair shown in said copending application as to eliminate all danger of the chair tilting forwardly upon a person seating himself therein or arising therefrom.

A fourth important object of the invention is to provide an improved arrangement of folding rest frame for such a chair.

A fifth important object of the invention is to provide a novel combined foot and back rest in connection with such a chair.

With the above and other objects in view, as will be presently understood, the invention consists in general of certain novel features of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and specifically claimed.

In the accompanying drawings like characters of reference indicate like parts in the several views, and:

Figure 1 is a perspective view of the chair with the rest frame positioned to form a foot rest.

Figure 2 is a perspective view of the chair with the rest frame in position to form a back rest.

Figure 3 is a perspective view of the chair in completely folded position.

Figure 4 is a side view, partly in section, of the joint connecting the rest frame to the remainder of the chair with the rest frame unfolded.

Figure 5 is a similar view to Figure 4 but showing the rest frame completely folded.

Figure 6 is a section on the line 6—6 of Figure 5.

Figure 7 is an end view of the foot board.

Figure 8 is a detail showing the foot board bearing.

In the construction of the chair as shown in the accompanying drawings there are provided two frames which may be termed, for convenience, the back frame and the seat frame.

Referring to the chair in its set-up or erected position as shown in Figures 1 and 2, the back frame will be seen to consist of a pair of laterally spaced upwardly and rearwardly extending side bars 10 which are connected adjacent their bottom ends by a back frame cross bar 11. This bar lies in front of the bars 10 and its ends project outwardly beyond the bars 10 to form stops 12, the purpose of which will be presently explained. At the upper ends of the bars 10 these bars are connected by an upper back frame cross bar 13.

The seat frame consists of two upwardly and forwardly extending side bars 14 which are connected adjacent their lower or rear ends by a rear seat frame cross bar 15. The upper or forward ends of the bars 14 are pivoted on the outside of arm bars 16 intermediate their ends and the rear ends of the arm bars 16 are pivoted to the bars 10 on the outsides thereof. These arm bars thus project forwardly of the bars 14 and beneath the forward ends of the bars 16 are secured the seat cross bars 17 and 18, the latter being behind the former and carrying one end of a fabric back and seat strip 19 which has its remaining end secured to the bar 13. On the under sides of the bars 14 are secured the bumper pieces 20 which, in the most forwardly inclined position of the back engage the stops 12 and thus limit such forward movement. It is to be noted that the members 16 tie the members 10 and 14 together above their points of intersection and may thus be termed upper tie members. Pivoted intermediate their ends to the lower ends of the members 10 are the lower tie members

21 which have their rear ends pivoted to the members 14 in spaced relation to the lower ends thereof so that they incline downwardly from rear to front. These bottom tie members project forwardly beyond the lower ends of the members 10 and are connected thereto by the pivot bolts 22 which also carry the rear ends of cover plates 23, the members 21 being on the outside of the members 10 and the cover plates on the inner sides thereof. Through the forward end of each member 21 and the corresponding plate 23 passes a bolt 24 whereon is mounted a roller 25.

The rest frame consists of a pair of side members 26 which have their rear ends linked to the bolts 22 by links 27 which are thus pivoted to the members 10 and are pivoted to the members 26. A cross bar 28 connects these members 26 adjacent the links 27. Between the forward ends of the members 26 is a foot bar 29 having padding 30 on one side. This foot bar is provided with journals 31 removably fitting in bearings 32 in the forward ends of the members 26. A clip 33 is carried by one of the members 11 to grip a member 26 when the rest frame is folded. On the under side of each member 26 adjacent the link end is a stop block 34 and a bolt 35 extends through each member 21 and the adjacent member 23 so that the stop blocks engage these bolts and hold the rest frame in an upwardly inclined position when in use as a foot rest. (Fig. 1).

By partially folding the chair front member 17 upwardly the rest frame may be swung into the position shown in Fig. 2 so that the rest bar may act as a back rest for a person sitting in an upright position and when in this or the completely folded position one member 26 will be held by the clip 33. To completely fold the chair it is merely necessary to pull the bar 17 upwardly towards the bar 13 as far as it will go and then to fold up the rest frame if this is in its extended position. It is to be noted that, by reason of the stops 20 and 12 engaging the whole chair may be tilted forwardly on the rollers 25 by using the upper parts of the members 10 as handles and in this position may be rolled from place to place. Also, because these rollers are forward of the member 17 a person may stand on that member without tilting the chair forwardly, the chair thus being secure from tilting forwardly when rising therefrom or when taking a seat therein.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material spirit thereof. It is not, therefore, desired to confine the invention to the exact form herein shown and described, but it is desired to include all such as properly come within the scope claimed.

Having thus described the invention, what is claimed as new is:

1. In a folding chair, a back frame including spaced side members, a rest frame including side members spaced equally with the back frame side members and positioned directly in front of the same, pivotal connections between the lower ends of the back frame side members and the lower ends of the rest frame side members, said rest frame being pivotally movable between a position adjacent and substantially parallel to the back frame to constitute a back rest and a position extending forwardly from the back frame to constitute a foot rest, and a seat frame including side members pivoted at their rear ends to the outside of the back frame side members to lie out of the paths of the rest frame side members.

2. In a folding chair, a back frame including spaced side members, a rest frame including side members spaced equally with the back frame side members and positioned directly in front of the same, pivotal connections between the lower ends of the back frame side members and the lower ends of the rest frame side members, said rest frame being pivotally movable between a position adjacent and substantially parallel to the back frame to constitute a back rest and a position extending forwardly from the back frame to constitute a foot rest, a seat frame including side members pivoted at their rear ends to the outside of the back frame side members to lie out of the paths of the rest frame side members, and a cross bar connecting the side members of the rest frame and positioned to engage the back frame upon the rest frame being arranged to lie adjacent to the back frame, said cross bar supporting the rest frame in this position to form a back rest.

3. In a folding chair, a back frame including spaced side members, a rest frame including side members spaced equally with the back frame side members and positioned directly in front of the same, pivotal connections between the lower ends of the back frame side members and the lower ends of the rest frame side members, said rest frame being pivotally movable between a position adjacent and substantially parallel to the back frame to constitute a back rest and a position extending forwardly from the back frame to constitute a foot rest, a seat frame including side members pivoted at their rear ends to the outside of the back frame side members to lie out of the paths of the rest frame side members, a cross bar connecting the side members of the rest frame and positioned to engage the back frame upon the seat frame being arranged to lie adjacent to the back frame, said cross bar supporting the rest frame in back rest forming position, and sup-

porting means connected to the back frame and supporting the forward end of the rest frame in foot rest position.

4. In a folding chair, a back frame including spaced side members, a rest frame including spaced side members, pivotal connecting between the lower ends of the back frame side members and the lower ends of the rest frame side members, said rest frame being movable on its pivotal connections between a position adjacent and substantially parallel to the back frame to constitute a back rest and a position extending forwardly from the back frame to constitute a foot rest, a seat frame including side members pivoted at their rear ends to the back frame side members, the side members of the seat frame being spaced more widely than the side members of the rest frame whereby the rest frame may move between the side members of the seat frame, means on the rest frame engaging the back frame to limit pivotal movement thereof upon the rest frame being positioned to form a back rest, and means connected to the back frame and supporting the forward end of the rest frame in foot rest position, and means for supporting the back frame in operative position.

5. In a folding chair, a back frame including spaced side members, a rest frame including spaced side members, pivotal connections between the lower ends of the back frame side members and the lower ends of the rest frame side members, said rest frame being movable on its pivotal connections between a position adjacent and substantially parallel to the back frame to constitute a back rest and a position extending forwardly from the back frame to constitute a foot rest, a seat frame including side members pivoted at their rear ends to the back frame side members, the side members of the seat frame being spaced more widely than the side members of the rest frame whereby the rest may move between the side members of the seat frame, means on the rest frame engaging the back frame to limit pivotal movement thereof upon the rest frame being positioned to from a back rest, means connected to the back frame and supporting the forward end of the rest frame in foot rest position, the side members of the seat frame forming chair arms, legs having their upper ends pivoted to the forward part of said seat frame, said legs extending rearwardly from their pivot points to cross the side members of the back frame, tie bars each having its rear end pivoted to the lower part of a respective leg, pivotal connections between the lower ends of the back frame side members and points on the tie bars spaced from the forward ends of said bars, rollers carried by the forward ends of the tie bars, a cross member extending between the upper ends of the back frame side members, a second cross member extending across the front of the seat frame, and a fabric strip having its ends connected to respective cross members and hanging loosely therebetween, said rest frame being movable between the side members of the seat frame to lie behind and support the fabric strip in spaced relation to its upper end.

In testimony whereof I affix my signature.

THOMAS J. MILES.