

July 11, 1939.

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2,165,529

FOLDABLE CHAIR

Filed June 3, 1938

2 Sheets-Sheet 1

Fig. 1.

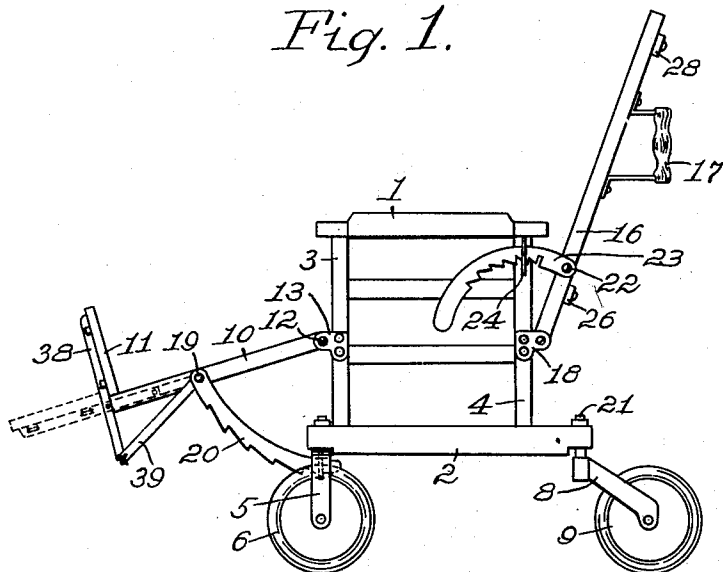


Fig. 2.

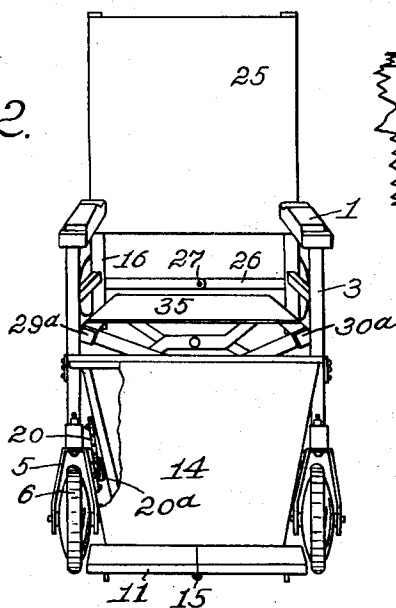
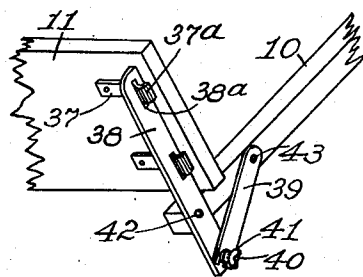


Fig. 5.



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Fig. 3.

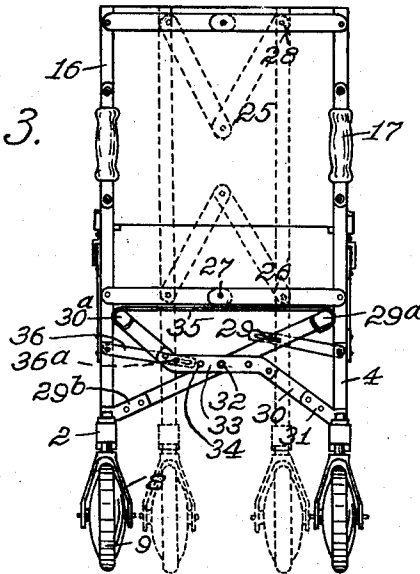
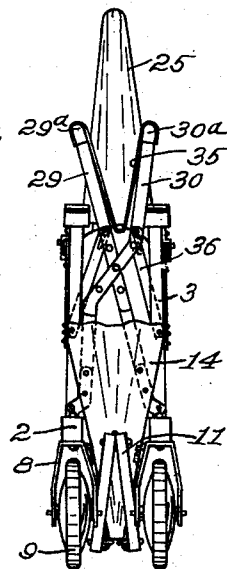


Fig. 4.



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FOLDABLE CHAIR

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Application June 3, 1938, Serial No. 211,598

1 Claim. (Cl. 155—30)

My invention relates to improvements in foldable chairs, and the object of my improvements is to supply a chair of this class suitable for being compactly collapsed after use, and when extended to supply various adjustable extensions of its movable components.

Another object of my improvements is to provide means for coordinating its foldable or collapsible seat, tilting back support, and forward leg support in various combinations suitable for various postures of an user.

Another object of my improvements is to render the chair readily compactly collapsible by co-acting jointed rigid elements for extension, or contraction one upon another, for use or storage.

Another object of my improvements is to include ratcheting devices in the combination of elements, independently operable for different or related positions, assuring easy adjustments for any desired support of the body and members of the user.

These objects, together with others to be described, are achieved by the means which are hereinafter described, claimed and illustrated in the accompanying drawings.

It is to be understood that various modifications may be effected in the elements of the device and their coactions, without departing from the principles and protection of the invention.

Fig. 1 is an extended side elevation of the invention. Fig. 2 is a front perspective view thereof. Fig. 3 is a rear elevation, as extended, of the wheeled chair, and Fig. 4 is a front elevation of the foldable chair as collapsed. Fig. 5 is a perspective of the foot-board hinge device.

It will be noted that in said Fig. 2 a portion of the limb supporting apron is broken away, in order to thereby disclose the position of one of the forward pair of ratchets.

In the respective figures similar numerals designate similar parts throughout the several views.

It should also be understood that this foldable chair may be mounted upon caster wheels, or a combination of such with non-turnable wheels, or be used without supporting wheels.

In my folding or collapsible chair or seat shown in the drawings are side frames, alike, and each having the following rigidly connected components, a base bar 2 and a top bar 1, mounted at or near their ends by standards 3 and 4, and when desired by one or more intermediate bars as shown. These side frames when extended transversely have other and foldable or collapsible connections to be described. Each base bar 2 has at its forward end a depending rigidly mounted fork

5, seating rotatably the pintles of a wheel 6. The rear end of each base bar 2 has a rock-shaft 21 mounted thereon, the rock-shaft carrying an off-set wheel 9 on an arm 8 rigid with said shaft, being a caster-wheel.

In Figs. 3 and 4 are shown respectively cross-bars 29 and 30, medially pivoted together at 32, the bar 29 being straight, the bar 30 being bent oppositely at opposite sides of the pivot, but these bars may be otherwise shaped as desired. The bar 30 has, at opposite sides of its pivot, pins 34 projecting across the bar 29 at opposite side edges of the latter to serve as stops thereagainst. The lower ends of said cross bars, as shown in Fig. 4, are pivoted to the lower rear faces of the side standards 4. The upper free ends of said cross-bars are at each side connected rigidly by bars 29a and 30a, as shown in 2 and 3, and a flexible seat strip 35 has its opposite ends carried about and secured to the bars 29a and 30a. The lower end parts of the cross-bars are fortified by metal plates 29b and 31 respectively fixed thereon.

Intermediate the bars 1 and 2, the rear standards 4 have medial rearwardly extending metal brackets 18 having pintles on which are rockably mounted for forward and rear swinging the side bars 16 of a back-rest. As shown in Fig. 3, like pairs of pivotally jointed cross-bar connections 26 and 28 respectively are hinged at their inner ends on pivots 27, and a flexible back-rest 25 is connected at its side margins to the side bars 16. On the rear of these sidebars 16 are mounted the rearwardly projecting handles 17.

Brackets 13, similar to said brackets 18, are fixed to project forwardly from the forward standards 3. Like forwardly directed arms 10 convergent forwardly are rearwardly pivoted on pintles on the brackets 13. The arms are connected by a flexible member 14. A medially hinged pair of foot rests 11 are hinged to the ends of said arms 10 as shown in Figs. 1 and 5, on pintles 42 between fixed arms 38 secured on the rests 11 by spring catches 37—37a separably traversing slots 38a in the arms 38, and other arms 39 are pivoted on pintles 43 to the arms 10. The outer ends of the arms 39 are bifurcated and a bolt 40 traverses a hole in the arm 38 and said bifurcation to hinge the arms together to raise or lower the rests 11, the bolt having a wing-nut 41 thereon to clamp the joint to retain it in an adjusted position as shown in dotted lines in Fig. 1.

A curvate ratchet bar 23 at each side of the back-rest 16 is pivoted thereto at 22, with detents engageable with a stop 24, for adjusting the

back-rest. A similar ratchet 20 on each of the arms 10 and pivoted at 19, are engageable with stops 20a.

As shown in Figs. 3 and 4, slotted links 36 are pivoted on the side frames forward and back and to opposite parts of the cross arms 20 and 30, the inner parts of the links having their slots traversed by pins 36a on said arms as additional linking connections between the side frames.

When the ratchets 20 and 23 are released, the cross bars 20 and 30 may be collapsed as shown in Fig. 4 drawing the side frames inwardly while the flexible members between the arms 10, and the arms 10 are folded, the foot rest members 11 being folded when the joint members 38 and 39 are disconnected. Fig. 4 shows the collapsed chair with its side frames collapsed inwardly, but somewhat widely, in order to better display the intervening elements. The dotted lines in Fig. 3 serve to indicate how the hinged members 26 and 28 collapse toward each other in the process of moving the back rest members 4 toward each other. The flexible seat member 35 also folds inwardly, as does the flexible leg rest member 14, and back rest member 25.

I claim:

In a foldable chair, side supports, medially pivoted pairs of cross-members pivoted at their lower ends to the lower rear parts of said supports, a transversely foldable flexible seat member mounted on and across the upper ends of the cross-members, transversely spaced arms pivoted for forward and rear movements at their lower ends on the rear medial parts of the side supports, a transversely foldable flexible back-rest connected between said arms, means for collapsibly connectedly holding said arms apart when extended, transversely spaced arms having their rear ends swingingly connected to the forward side supports to extend forwardly, a transversely foldable leg-rest connected between said arms, a foot-rest composed of hingedly connected members pivoted to said arms and transversely foldable together when collapsed, and coacting arms on the foot-rest members and said arms, with means for locking their free ends together releasably when the foot-rest members are extended angularly relative to said arms.

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