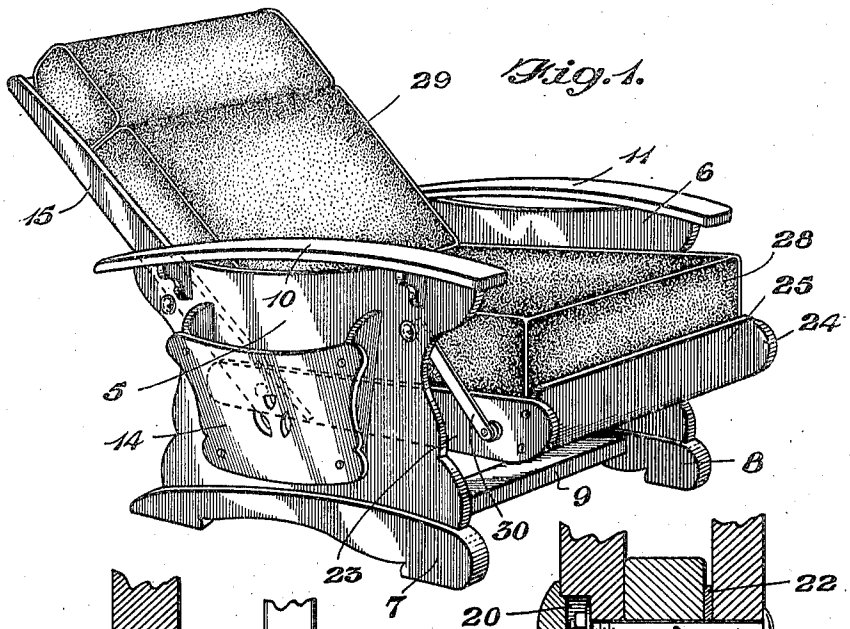
April 11, 1944. L. C. TRAVERS 2,346,629

RECLINING CHAIR

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Fig. 1.



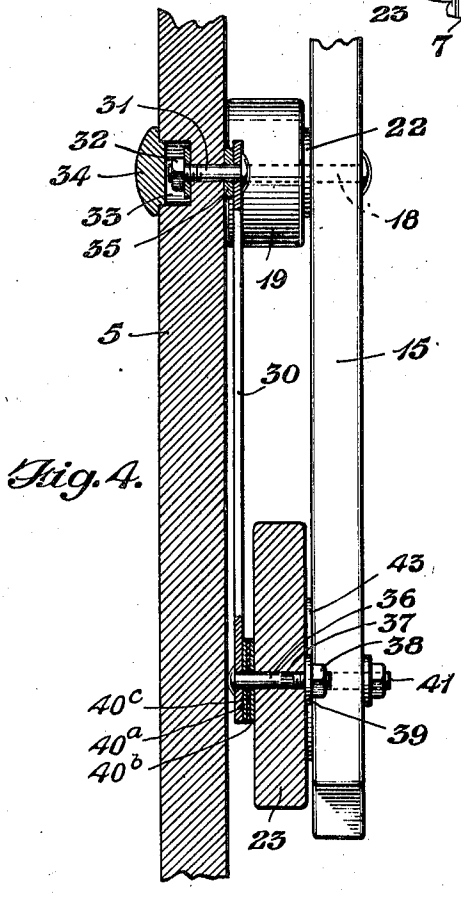


Fig. 4.

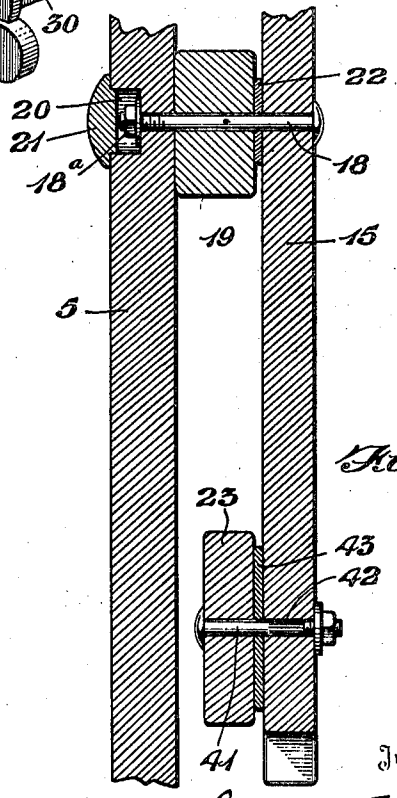


Fig. 5.

Inventor

Lewis C. Travers

By A. Yates Dowell

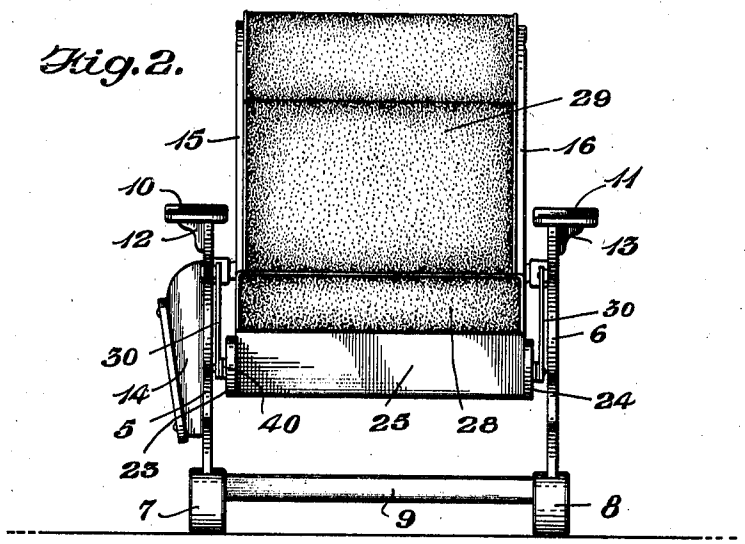
Attorney

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Fig. 2.



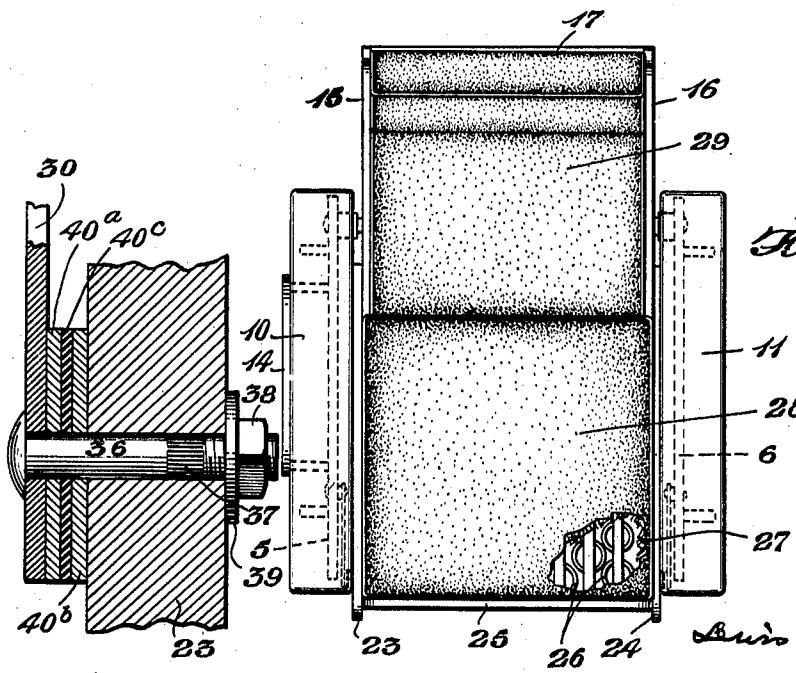


Fig. 3.

Fig. 6.

Inventor

Louis C. Travers

By

Attorney

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UNITED STATES PATENT OFFICE

2,346,629

RECLINING CHAIR

Lewis C. Travers, Gardner, Mass., assignor to Mahoney Chair Company, Gardner, Mass., a corporation of Massachusetts

Application January 19, 1940, Serial No. 314,690

2 Claims. (Cl. 155—116)

This invention relates to reclining chairs of the upholstered type, and the primary object of the same is to provide a reclining chair which is readily and easily adjustable to various reclining positions through a mere change of position by an occupant, and which when so adjusted maintains the desired position through frictional resistance to change without any attention from the occupant, and which at the same time provides a maximum of comfort in any and all adjusted positions.

Another object of the invention is to provide a reclining chair possessing the foregoing advantages while at the same time embodyng a minimum number of parts in its construction and which parts are of utmost simplicity and economy in manufacture.

Another object of the invention is to provide an upholstered reclining chair wherein the seat and back are pivotally suspended for easy adjustment to various reclining positions and are maintained in the desired adjusted position through a highly efficient yet simple type of friction means.

The foregoing and other objects and advantages will become apparent in view of the following description taken in conjunction with the drawings, wherein:

Fig. 1 is a view in perspective of an upholstered reclining chair embodying the features of the present invention;

Figs. 2 and 3 are views in front elevation and top plan respectively of the chair, part of the seat upholstery being broken away in Fig. 3;

Fig. 4 is an enlarged fragmentary view in section and elevation of the side frame and front pivoted seat-supporting member looking from front to rear;

Fig. 5 is a view similar to Fig. 4 except that in this instance the section is taken further towards the rear of the chair and shows one of the back posts and the manner of suspending the seat therefrom; and,

Fig. 6 is a fragmentary view of the lower portion of Fig. 4 showing the friction member and pivot bolt used at the front of the chair in enlarged section.

Referring to the drawings in detail, the chair comprises side frames 5 and 6 which are preferably solid or substantially so to provide a rugged supporting means for the seat and back of the chair. The side frames are mounted on base members 7 and 8, the latter being connected by cross braces 9. Arm rests 10 and 11 are mounted on the side frames 5 and 6 and are reinforced by braces 12 and 13.

Beneath the arm rests 10 is a book or magazine rack 14 which fits against the side frame 5 within convenient reach of an occupant of the chair, the frame 5 forming the inner wall of the rack.

A back rest frame is provided and is made up of side rails 15 and 16 connected by cross braces 17, note Fig. 3. The side rails 15 and 16 extend downwardly and are pivoted to the side frames 5 and 6 through the medium of pivot bolts 18, each of which projects through a side rail, an intermediate spacer 19 and the adjacent side frame as illustrated in Fig. 5. Each pivot bolt 18 is provided with a nut 18a which lies in a countersunk portion or recess 20 formed in the side frame, the recess being covered by an upholstery button 21. Between each spacer 19 and its adjacent back side rail or post is a friction disc 22 which is preferably made of metal or analogous wear resisting material.

The seat frame is made up of side rails 23 and 24 and front and rear cross connecting members 25, these frame members being connected to provide a bed for the seat material, which in the present instance is made up of springs 26 and a suitable covering fabric 27. A seat cushion is indicated at 28 and a back rest cushion at 29.

The seat at its front extremity is pivotally suspended from the side frames 5 and 6 through the medium of the assembly particularly shown in Figs. 4 and 6. At each side of the seat a link 30 is provided and at its upper end is pivotally connected to the adjacent side frame by means of a pivot bolt 31 having a nut 32 thereon which lies in a countersunk portion or recess 33 covered by an upholstery button 34. A bearing washer 35 is located between the link 30 and adjacent side frame.

At its lower extremity each link 30 is pivotally connected to the adjacent seat side rail by means of a pivot bolt 36 having a serrated portion 37 thereon which bites into the wood of the side rail to prevent turning of the bolt in its socket or bore and permits tightening to obtain the desired adjustment without danger of subsequent loosening due to continued use. The inner end of the bolt is provided with an adjusting and securing nut 38 and a washer 39.

Since at this point the friction may be more pronounced than at the rear of the seat due to adjustment, a particular type of friction member is provided and generally indicated at 40, said member consisting of outer discs 40a and

40b which are preferably of metal or other suitable wear resisting material having therebetween a disc 40c preferably of fiber or other material having a slight yielding action with respect to the discs 40a and 40b. With this arrangement, a more satisfactory adjustment is permitted while at the same time movement of the chair seat is smooth, or there is no "freezing" or sticking of the bearing member against the wood when the adjusting movement is initiated.

The rear of the seat is preferably suspended in the manner shown at the lower portion of Fig. 5 from the back posts or side rails 15 and 16, each side rail being connected to the adjacent back post by means of a pivot bolt 41 having a knurled or serrated portion 42 and a wear disc 43 therebetween of metal or other suitable wear resisting material.

The pivotal suspension of the seat from the side frames is preferably such as to provide a substantially true parallelogram defined at its base by the line extended between the pivotal connections with the seat side rail, at opposite ends by the link 30 and the pivotal connections with the rear post 15 and at the top by a line extended from the upper pivotal point of the link 30 to the upper pivotal point of the rear side rail or post with the side frame. With this arrangement, the seat cushion and back cushion are always maintained in relatively sung fitting relation, regardless of the position of adjustment of the seat and back.

The take up on the friction members 40 through the nuts 38 is preferably such as to render the seat and back adjustable through a change of position by the occupant of the chair, and after such adjustment has been made, the seat holding its adjusted position until the occupant deliberately changes posture and at the same time exerts slight pressure to effect a change of position of the seat and back.

Actual commercial production and usage has demonstrated that the chair is highly satisfactory in use and is relatively economical in cost of manufacture, the parts required for suspending the chair being relatively few in number and simple in construction and design.

It will be understood that certain changes in features of construction of the chair may be adopted at will within the scope of the invention as defined by the appended claims.

I claim:

1. In an upholstered reclining chair, upright side supporting frames, a back frame including side rails pivotally connected at an intermediate point to said side frames, said side rails being of such width as to project forwardly and upwardly to provide in conjunction with the remaining part of the back frame a recessed back cushion bed, a seat frame including upstanding seat side rails and a front rail providing a seat cushion bed, back and seat cushions disposed in said beds, the lower edge of the back cushion abutting the adjacent rear edge of the seat cushion and the back cushion bed being open above the back cushion to permit sliding movement of the latter cushion in its bed upon relative adjustment of the seat and back frames, pivotal members connecting the rear extremities of the seat side rails to the lower ends of the back side rails, suspension links pivotally connected at their upper ends to the side frames and at their lower ends to the seat side rails at the front extremities of the latter, said links being of substantially the same length as the distance between the pivotal connections of the back side rails with the side frames and the rear extremities of the seat side rails to thereby always maintain the seat in substantially the same plane irrespective of adjustment, certain of said pivotal connections including adjustable pivot bolts and associated friction washers providing such frictional resistance that the seat and back may be adjusted through a change in posture of an occupant of the chair and will remain in such adjusted position until the occupant again changes posture and exerts some additional pressure to effect a different adjustment.

2. In an upholstered reclining chair, upright side supporting frames, a back frame including side rails pivotally connected at an intermediate point to said side frames, said side rails being of such width as to project forwardly and upwardly to provide in conjunction with the remaining portion of the back frame a recessed back cushion bed, a seat frame including upstanding seat side rails and a front rail providing a seat cushion bed, back and seat cushions disposed in said beds, the lower edge of the back cushion abutting the adjacent rear edge of the seat cushion and the back cushion bed being open above the back cushion to permit sliding movement of the latter cushion in its bed upon relative adjustment of the seat and back frames, pivotal members connecting the rear extremities of the seat side rails to the lower ends of the back side rails, suspension links pivotally connected at their upper ends to the side frames and at their lower ends to the seat side rails at the front extremities of the latter, the pivotal suspension of the seat from the side frames being such as to provide a substantitlly true parallelogram defined at its base by a line extended between the pivotal connections with each side rail, at opposite ends respectively by one of said links and the pivotal connections with one of the back frame side rails and at the top by a line extended from the upper pivotal connection of one of said links with the adjacent side frame and the rear pivotal connection of one of the back frame side rails with said side frame and whereby the seat cushion is always maintained in a substantially horizontal position regardless of the adjustment of the seat and back frames, certain of said pivotal connections including adjustable pivot bolts providing such frictional resistance that the seat and back may be adjusted to effect a change in posture of an occupant of the chair and will remain in such adjusted position until the occupant again changes posture and exerts some additional pressure to effect a different adjustment.

LEWIS C. TRAVERS.