Jan. 2, 1934. W. R. McGOWEN 1,942,301

FURNITURE

Filed May 27, 1932

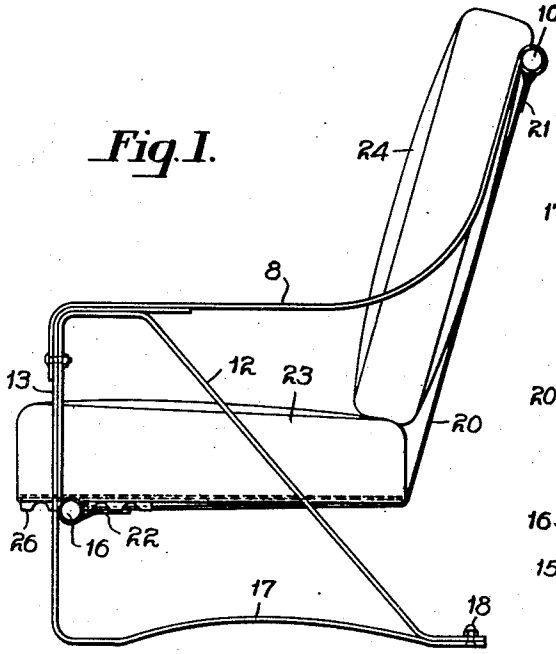


Fig. 1.

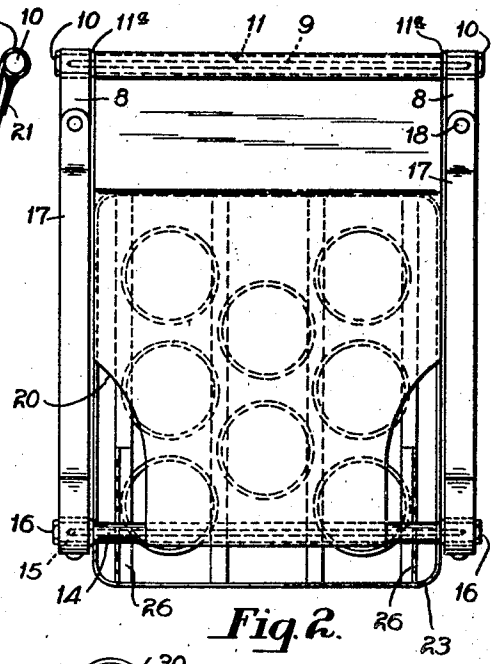


Fig. 2.

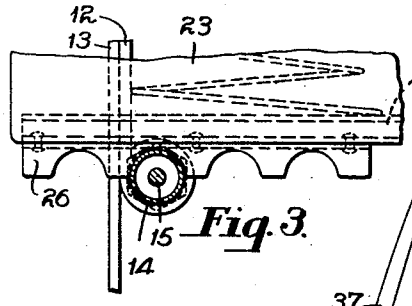


Fig. 3.

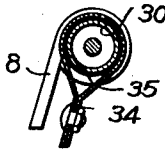
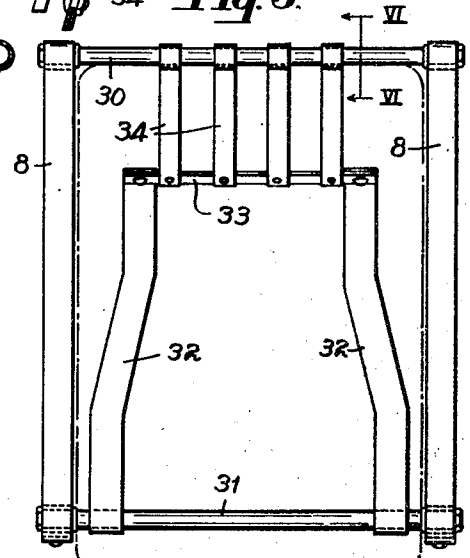


Fig. 6.

Fig. 5.

Fig. 4.



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UNITED STATES PATENT OFFICE

1,942,301

FURNITURE

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Application May 27, 1932. Serial No. 613,840

6 Claims. (Cl. 155—116)

My invention relates to furniture, and more particularly to chairs, settees, and the like.

One object of my invention is to provide an improved article of the easy chair type that is possessed of great resiliency, and the seat and back whereof can readily be given various degrees of inclination.

Another object of my invention is to provide a structure readily yieldable throughout its principal parts, to render it comfortable and restful to users; which will permit of a rocking motion by the user without the necessity of providing rockers, and wherein the back will yield readily to automatically provide the degree of inclination desired by the owner.

Still another object of my invention is to provide a seating structure of generally simplified and improved form.

Various forms embodying my invention are shown in the accompanying drawing wherein Figure 1 is a side elevational view of a chair; Fig. 2 is an inverted plan view thereof; Fig. 3 is a sectional view, on an enlarged scale, of a portion of the structure of Fig. 1; Fig. 4 is a view similar to that of Fig. 1, but showing a modification thereof; Fig. 5 is a plan view of the structure of Fig. 4, with the cushions removed, and Fig. 6 is an enlarged view taken on the line VI—VI of Fig. 5.

Various features of the structures shown in the drawing and described herein are described and claimed in my copending application No. 575,761, filed Nov. 18, 1931. The present case has embodied therein certain features not shown in the said application.

Referring first to Figs. 1 to 3, I show a chair having a frame that comprises a pair of side bars 8 that are curled at their upper ends to form eyes, and are connected by a tie bar 9 whose ends have threaded engagement with cap nuts 10 that bear against the outer edges of the bars 8, the nuts 10 having reduced portions extending into the ends of a tubular cross bar 11 that surrounds the tie rod 9, the cross bar being provided with beads 11*a* near its ends, against which the eyes of the side bars 8 are clamped by the heads of the nuts 10, as shown more clearly in my said application.

At their lower forward ends, the side bars 8 are connected to rear legs 12 and front legs 13, the forward ends of the legs 12 being extended and curled to form eyes that support a cross bar 14 within which a tie rod 15 is contained. Headed nuts 16 have threaded engagement with the ends of the tie bars and hold the parts in assembled relation in a manner similar to that in which the upper ends of the side bars 8 are connected. The lower portions of the legs 13 have rearwardly-extending portions 17 that are secured to the rear ends of the legs 12 by bolts or rivets 18. The extension 17 serves as a tie or brace to increase the stability of the structure, since the legs 12 and 13, as well as the side bars 8 are preferably of spring steel or the like. The extensions 17 are bowed upwardly intermediate their ends so that the chair may rest more smoothly on uneven surfaces.

A strip 20 of canvas, leather, or other suitable flexible material, is folded or wrapped at its ends around the bars 14 and 11, the extremities being stitched or otherwise fastened to the body of the material as indicated at 21 and 22. Seat and back cushions 23 and 24, respectively, are placed against the strip 20, as shown in Fig. 1.

The cushion 23 has a stiffened board or underframe 25 to which are secured a pair of notched bars 26 that engage the cross bar 14. The canvas 20 at its front end is cut away where it passes around the bar 14, so as not to interfere with the notched bars 26.

The bars 26 permit of adjusting the seat cushion 23 forwardly and rearwardly. Thereby the angularity of the seat cushion 23 with respect to the back cushion 24, and with respect to the frame of the chair may conveniently be varied to suit the user. When the seat is adjusted forwardly, the angle between it and the back cushion 24 will be greater, while if the seat is set back as far as it will go, the back cushion can be caused to occupy nearly a vertical position. Again, the adjustment of the seat cushion 23 has the effect of changing the distribution of weight of a user upon the chair. Thus, if the seat is brought forwardly, the user's weight will be imposed on the bar 14 to a greater extent than if the seat is positioned farther back. With the seat further back, greater weight is imposed upon the upper extremities of the side bars 8, and the bars will therefore be flexed to a greater extent by the weight of the person sitting in the chair.

Referring now to Figs. 4, 5 and 6, I show a frame which may be of approximately the form shown in Figs. 1 and 2, and having an upper cross bar 30 and a lower cross bar 31. The seat-cushion frame, composed of relatively stiff bars 32, is secured to the cross bar 31 by bending the ends of the bars 32 around the cross bar, pieces of fabric being interposed between the members 31 and 32, if it is desired to avoid danger of squeaking through rubbing of the metal mem-

bers together. The bars 32 may be either of spring metal, or inflexible.

The rear ends of the bars 32 are upturned and fastened to a cross bar 33. Back strips 34 of metal or other suitable flexible material are secured at their lower ends to the cross bar 33, and have their upper ends bent around the cross bar 30, and riveted or bolted to the bodies of the strips. Canvas strips or patches 35 may be interposed between the loops of the straps 34 and the bar 30. A seat cushion 36 and a back cushion 37 are placed on the bars 32, and straps 34, respectively. When only two bars 32 are employed, the cushion 36 will have to be provided with a stiffening board to prevent it being forced between the bars. With a greater number of bars, the cushion need not be stiffened.

In the structure of Fig. 4 also, adjustment may be secured by drawing the cushion 36 outwardly to vary the angularity between the cushions 36 and 37, and to effect change in distribution of the weight upon the frame of the chair.

I claim as my invention:—

1. Chair structure comprising leg members, a cross bar disposed near the front of the structure and connecting the legs at one side with the legs at the other side, side bars of spring material extending backwardly and upwardly, means connecting the forward portions of the side bars to the legs, a cross bar connecting the rear ends of the side bars, a flexible strip connected at its ends to the said cross bars, a seat cushion disposed on the forward portion of the said strip, and a forwardly and rearwardly adjustable connection between the cushion and the front cross bar.

2. Chair structure comprising leg members, a cross bar disposed near the front of the structure and connecting the legs at one side with the legs at the other side, side bars of spring material extending backwardly and upwardly, means connecting the forward portions of the side bars to the legs, a cross bar connecting the rear ends of the side bars, a flexible strip connected at its ends to the said cross bars, a seat cushion disposed on the forward portion of the said strip, and a forwardly and rearwardly adjustable connection between the cushion and the front cross bar, the forward portions of the side bars being located in a plane above the said cushion and serving as arm rests.

3. Chair structure comprising leg members, a cross bar disposed near the front of the structure and connecting the legs at one side with the legs at the other side, side bars of spring material extending backwardly and upwardly, means connecting the forward portions of the side bars to the legs, a cross bar connecting the rear ends of the side bars, a flexible strip connected at its rear end to the last-named cross bar, means for connecting the other end of the strip to the other cross bar, a seat cushion supported at its rear edge by said strip and at its forward edge by the front cross bar, and a forwardly and rearwardly adjustable connection between the seat and the front cross bar.

4. Chair structure comprising leg members at each side, side bars of spring material connected at their front ends to the leg members and extending rearwardly and upwardly, a seat cushion disposed below the side bars, flexible means for supporting the rear edge of the cushion from the rear ends of the side bars and leg members, and a forwardly and rearwardly adjustable connection between the front part of the cushion and the leg members.

5. Chair structure comprising leg members at each side, side bars of spring material connected at their front ends to the leg members and extending rearwardly and upwardly, a seat cushion disposed below the side bars, flexible means for supporting the rear edge of the cushion from the rear ends of the side bars, and a forwardly and rearwardly adjustable connection between the front part of the cushion and the leg members, the leg members being disposed beneath the side bars and extending to points above the upper plane of the cushion.

6. Chair structure comprising leg members, a cross bar disposed near the front of the structure and connecting the legs at one side with the legs at the other side, side bars of spring material extending backwardly and upwardly, means connecting the forward portions of the side bars to the legs, a cross bar connecting the rear ends of the side bars, a flexible strip connected at its ends to the said cross bars, and a seat cushion disposed on the forward portion of the said strip and movable forwardly and rearwardly with respect to the front cross bar.

WILLIAM R. McGOWEN.