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(54) UPHOLSTERED CHAIR

(71) We, LA-Z-BOY CHAIR COMPANY, a Company organized and existing under the laws of the State of Michigan, United States of America, of 1284 N. Telegraph Road, Monroe, Michigan, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to an improved upholstered chair which is preferably of the overstuffed type and which has a back which is movable relative to the seat.

According to the invention there is provided an upholstered chair comprising a chair frame having a central seating area and an arm at each side, a supporting base, a back separate from said chair frame, a pair of brackets attached to the chair frame, a pair of brackets secured to the back, and a pair of rods supported at one end by the frame brackets and at the opposite end receiving said back brackets to support the back for deflection relative to the chair frame when rearward pressure is applied thereto, the rods being hidden by the back and the arms. The seat brackets conveniently may each have a lanced out finger at the bottom which prevents the rod received therein from moving therebelow while the brackets on the back each have a lanced out finger at the top which limits the downward movement of the back on the top ends of the rods. This arrangement permits the back to be lifted from the top ends of the rods so that is can be placed upon the seat and thereby substantially reduce the shipping volume of the chair. The deflection of the back with the two rods, which are preferably of spring tempered steel, permits the back and a cushion thereon to be thinner than usual with an overstuffed chair so as to encompass the occupant's back when applying pressure to the back even though the set of springs usually employed in the back of an overstuffed chair is eliminated. When the chair is mounted on a base with a rocking

mechanism, the application of pressure to the back extends the rocking distance and cushions the effort of rocking the chair.

The invention will be further described, by way of example, with reference to the accompanying drawing, wherein:

Figure 1 is a broken view in side elevation of a swivel rocking chair embodying features of the present invention;

Figure 2 is an enlarged view of a supporting bracket on the chair frame, as viewed in the circle 2 of Figure 1;

Figure 3 is a sectional view of the structure illustrated in Figure 2, taken on the line 3—3 thereof; and

Figure 4 is an enlarged broken view of the structure illustrated in Figure 1 as viewed with the circle 4 thereof.

Referring to the drawing, an overstuffed upholstered chair 11 has a seat frame 12, a back 13, an arm rest 14 and a seat cushion 15 forming a central seating area between the arms, said seat frame being secured by a swivel rocking device 16 on a supporting base 17. A skirt 18 hides the device 16 and base 17 from view. The device 16 comprises a downwardly presenting channel element 19 secured by screws 21 to the underside of the seat frame 12. An upwardly presenting channel element 22 is secured to a swivel mechanism 23 which is secured to the base 17. The channel elements 19 and 22 are secured together by pivots 24 disposed transversely of the seat frame 12 to permit the chair to rock forwardly and rearwardly against the pressure of the sets of springs 25 and 26. The swivel mechanism 23 comprises a pair of circular plates pivoted together at the centre with a set of ball bearings in facing annular grooves about the pivot which is conventional construction.

Each side of the chair frame 12 at the rear thereof has a bracket 27 secured thereto by screws 28. The bracket 27 has a central loop 29 therein in which a spring rod 31 is supported. Lanced out tongues 32 position the rods within the brackets. Similar brackets 33 are secured to the sides of the back above the brackets 27 by the screws

28. The central loops 29 of the brackets 33 each have a struck out tongue 32 at the top which limits the downward movement of the brackets and back relative to the top ends of the rods 31. This arrangement permits the back to be lifted off of the rods for compact shipment by placing it on the cushion 15 between the arms 14.

The back has wings 34 at each side which extend over the rear ends of the arms 14 in position to move rearwardly and forwardly relatively thereto, the rods, as shown, being hidden by the back and the arms. The downwardly extending portion 35 of the back is disposed within an area defined by the rear wall 36 of the chair frame in which it is freely movable. The back has a cushion 37 secured forwardly of the back frame section 38 provided an enveloping back rest with a concave arcuate cross-section, an occupant's back being deeply embedded therein during use of the chair to permit the heavy spring assembly normally used in the back to be eliminated as adequate spring comfort is obtained from the movement of the back on the rods 31.

In the chair illustrated, the occupant may swivel in either direction and rock backwardly and forwardly. When applying rocking pressure, the seat back moves rearwardly an amount conforming to the applied pressure. A certain percentage of the applied pressure will tilt the seat frame 12 backwardly on the base 17 while the remainder will tilt the back 13 relative to the seat frame 14. This will extend the rocking distance and cushion the pressure as it is applied due to the deflection of the seat frame 12 on the base 17 while the back 13 is deflecting relative to the seat frame. As the pressure is applied by the occupant's back, the concave chair back used with the cushion will permit the back of the occupant to be encompassed by the cushion and provide extra comfort therefor. In this manner, the back will flex and adjust to the applied pressure by the occupant. The heavy spring tempered rods control the deflection of the back and permit the back removal so that it can be compactly stored for shipment. The described back with the cushion on the front face provides the same or greater comfort to the occupant as one employing a spring unit due to the depth of the back and the encompassing effect of the cushion. This comfort is provided when the seat frame 12 is fixed to the base eliminating the swivelling and rocking features while retaining the deflecting feature to the back.

WHAT WE CLAIM IS:—

1. An upholstered chair comprising a chair frame having a central seating area and an arm at each side, a supporting base, a back separate from each chair frame, a pair of brackets attached to the chair frame, a pair of brackets secured to the back, and a pair of rods supported at one end by the frame brackets and at the opposite end receiving said back brackets to support the back for deflection relative to the chair frame when rearward pressure is applied thereto, the rods being hidden by the back and the arms.

2. A chair as claimed in claim 1, wherein said back is removable from the top ends of said rods to permit it being nested over the central seating area between the arms for compact shipment.

3. A chair as claimed in claim 1 or 2, wherein said rods are cylindrical in cross-section and made of spring tempered steel.

4. A chair as claimed in claim 1, 2 or 3, wherein the rocking unit is mounted between the seat frame and the supporting base.

5. A chair as claimed in any preceding claim, wherein a swivel device is mounted between the seat frame and the supporting base.

6. A chair as claimed in any preceding claim, wherein said back has a concave arcuate cross-section receiving a cushion of fabric material therewithin for nesting the occupant's back when the occupant's back applies pressure thereto for rocking the chair and deflecting said back.

7. A chair as claimed in any preceding claim, wherein said brackets on the chair frame each have a loop for receiving one of the rods, a lanced out tongue extending within each loop at the bottom for limiting the downward movement of the rod therein.

8. A chair as claimed in any preceding claim, wherein the brackets on the back each have a loop for receiving one of the rods, a lanced out tongue extending within each loop at the top for limiting the downward movement of the bracket relative thereto.

9. A chair according to any preceding claim, which is overstuffed.

10. An upholstered chair constructed and arranged substantially as herein described with reference to and as shown in the accompanying drawings.

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28. The central loops 29 of the brackets 33 each have a struck out tongue 32 at the top which limits the downward movement of the brackets and back relative to the top ends of the rods 31. This arrangement permits the back to be lifted off of the rods for compact shipment by placing it on the cushion 15 between the arms 14.

The back has wings 34 at each side which extend over the rear ends of the arms 14 in position to move rearwardly and forwardly relatively thereto, the rods, as shown, being hidden by the back and the arms. The downwardly extending portion 35 of the back is disposed within an area defined by the rear wall 36 of the chair frame in which it is freely movable. The back has a cushion 37 secured forwardly of the back frame section 38 provided an enveloping back rest with a concave arcuate cross-section, an occupant's back being deeply embedded therein during use of the chair to permit the heavy spring assembly normally used in the back to be eliminated as adequate spring comfort is obtained from the movement of the back on the rods 31.

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2. A chair as claimed in claim 1, wherein said back is removable from the top ends of said rods to permit it being nested over the central seating area between the arms for compact shipment.

3. A chair as claimed in claim 1 or 2, wherein said rods are cylindrical in cross-section and made of spring tempered steel.

4. A chair as claimed in claim 1, 2 or 3, wherein the rocking unit is mounted between the seat frame and the supporting base.

5. A chair as claimed in any preceding claim, wherein a swivel device is mounted between the seat frame and the supporting base.

6. A chair as claimed in any preceding claim, wherein said back has a concave arcuate cross-section receiving a cushion of fabric material therewithin for nesting the occupant's back when the occupant's back applies pressure thereto for rocking the chair and deflecting said back.

7. A chair as claimed in any preceding claim, wherein said brackets on the chair frame each have a loop for receiving one of the rods, a lanced out tongue extending within each loop at the bottom for limiting the downward movement of the rod therein.

8. A chair as claimed in any preceding claim, wherein the brackets on the back each have a loop for receiving one of the rods, a lanced out tongue extending within each loop at the top for limiting the downward movement of the bracket relative thereto.

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