RECLINING TYPE LOUNGING CHAIR HAVING A RETRACTABLE DISAPPEARING HEADREST

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This invention relates to a reclining type lounging chair generally, and more particularly to a chair of this type having a retractable disappearing headrest.

Hitherto, reclining type lounging chairs were required to use back rests which are of somewhat greater height than conventional type upholstered chairs in order to provide support for the head when the chair was in reclining position. Such reclining type chairs have a somewhat different appearance than conventional chairs which have lower backrests and, accordingly, are generally deemed not to be in harmony with other upholstered pieces in a living room arrangement.

In accordance with our invention we provide a reclining type chair having a back of conventional chair height and of generally conventional appearance, the said back having a headrest portion which when the chair is in normal upright position is retracted within a cavity in the backrest and which when the chair is shifted to a reclining position is automatically shifted upwardly and slightly forwardly to afford an extension of the backrest, providing a comfortable support for the head of the user.

Another object of our invention is the provision of a chair construction of the foregoing character which is simple in construction, economical to manufacture and efficient to operate.

Other and further objects and advantages of our invention will become apparent from the following description when considered in connection with the accompanying drawings in which:

FIGURE 1 is a fragmentary side view of the chair partly in section and partly in elevation, with the seat and back cushions removed for purposes of clarity, and illustrates the chair in a partially reclined position.

FIGURE 2 is a view similar to FIGURE 1, illustrating the chair in upright position.

FIGURE 3 is a fragmentary plan view looking in the direction of the arrows 3—3 of FIGURE 2.

FIGURE 4 is a perspective view of the backrest with the upholstered and linkage arrangement removed to show details of construction.

FIGURE 5 is a view similar to that of FIGURE 1 and showing a modified embodiment of our invention, and

FIGURE 6 is a view similar to that of FIGURE 5 and showing the chair in upright position.

Referring to the drawings and more particularly to FIGURES 1 through 6, it will be seen that the chair includes a base or body structure 5, comprising a pair of side frame members 6 spaced apart by a pair of transverse members 7. Each of the side frame members 6 includes a rail member 8 which may be arranged as illustrated.

A combined seat and back unit 9 includes a seat 10 and a backrest 12 disposed between the side frame members 6 and arranged for adjustable positioning relative thereto. A pivotable bracket 13 is secured in depending relation to each side rail of the seat 11 and to the rail members 8 of the side members 6 to pivotally support the seat and back unit for tilting about axis 16. The seat preferably is provided with a leg rest supporting structure, which for the purpose of simplicity has not been illustrated, since it forms no part of the present invention.

The back rest 12, best shown in FIG. 4, comprises a frame composed of side and transverse members 17 and 18, respectively, affording a generally rectangular structure. Intermediate the side members 17 are two spaced parallel members 19 which extend downwardly from the top transverse member a distance of approximately one-third to one-half the height of the backrest. The space between the parallel members 19, 19 affords a cavity 21 for accommodating a retractable headrest 22 and operating linkage, as will be hereinafter described. It will be understood that the backrest 12 is covered with suitable upholstery material except at the top and back of the cavity 21.

The headrest 22 is of such form and dimensions as to fit easily within the cavity 21 and to be freely movable inwards and outwards therefrom. The lower end of the headrest 22 may be suitably contoured, as illustrated, to seat on correspondingly contoured shoulders 23 associated with the members 19, 19, the said shoulders affording a seat to limit the downward movement of the headrest 22 within the cavity 21.

Mounted on each inner side of each of the members 19, 19 are linkage arrangements which are identical in construction and, accordingly for purposes of simplicity, only one of such arrangements will be described.

A bracket 24 is suitably rigidly secured as at 30 to the member 19 and extends angularly upwardly, as illustrated in FIGS. 1, 2 and 4. Pivotally secured as at 32 and 34 to said bracket are upper and lower links 26 and 27, respectively, arranged in spaced relation to each other. The lower link 27 is of somewhat greater length than the link 26 and both of said links are pivotally connected as at 36 and 38 at their ends to a bracket 28 rigidly secured as at 40 to the headrest 22. An actuating link 29 is pivotally connected as at 42 at one end to the bracket 28 and mounted on the rail 8 of the frame and is pivotally connected as at 44 at the other end to link 27.

In normal upright position of the chair, the headrest 22 is retracted completely within the cavity 21 and the links assume the relationship illustrated in FIG. 2. It will be noted that the backrest 12 presents a conventional appearance and except for the delineation of the top of the cavity 21 by the adjacent edges of the cavity and headrest 22, one would not distinguish the chair of our invention on the basis of appearance from any other conventional chair.

In operation, when a user tilts the seat and back unit rearwardly or to the right, as viewed in FIG. 1, the reaction of the actuating link 29 on the linkage arrangement effects displacement of the same to move the headrest 22 in the direction illustrated in FIG. 1. Since the link 27 is longer than link 26 the headrest 22 will move in an arcuate path and in fully extended position will assume a position above the backrest and inclined slightly forwardly, as illustrated in FIG. 1.

When the seat and backrest unit are tilted forwardly toward sitting position, the headrest 22 is caused to be returned to the cavity 21 and to be received therein and be concealed from view.

Referring to the modified embodiment illustrated in FIGS. 5 and 6, a double armed bracket 124 is rigidly secured as at 130 to member 119 and extends upwardly and slightly forwardly, as illustrated. A substantially L-shaped upper link 126 is pivotally secured as at 132 at one end to the upper end of bracket 124, the opposite end of said link being pivotally connected as at 136 to the headrest 122. A lower link 127 is pivotally connected as at 134 at one end to bracket 124 in close proximity to the juncture of the arm thereof and is similarly pivotally connected as at 138 at the other end to the headrest 122 at a point spaced from the pivotal connection of link 126 with the headrest. A double arm actuating link 129
is pivotally connected as at 142 at its lower end to bracket 131 and at its upper end as at 144 to link 127. As in the first described embodiment, the headrest 122 is caused to assume the operative position illustrated in FIG. 5 when the headrest is in reclining position. In such operative position the headrest 122 is fully extended and is forwardly inclined, thereby affording effective and desirable support to the head and body of the user. In upright position, as illustrated in FIG. 6, the headrest is fully retracted within the cavity of the backrest.

It will be apparent from the foregoing that we have provided a chair construction having a retractive headrest which affords a conventional appearance when the same is disposed in upright sitting position, the said headrest being automatically moved to extended position when the back is tilted to reclining position.

It will be understood that various changes and modifications may be made from the foregoing without departing from the spirit and scope of the appended claims.

We claim:

1. In a reclining type chair, a frame, a backrest pivotally supported in relation to said frame, said backrest having in the top portion a recess rearwardly thereof, a headrest receivable entirely within said recess, a pair of spaced links pivotally connected at one end to each side of said headrest and at the other end to a corresponding side wall of said recess, an actuating link directly pivotally connected at one end to said first mentioned links and at the other end to said frame, the tilting of said backrest in a rearward direction effecting elevation of said headrest from said recess to a position above said backrest.

2. In a reclining type chair, a frame, a backrest pivotally supported in relation to said frame, said backrest having a recess open at the top and rear, a headrest receivable entirely within said recess, a pair of links pivotally connected at one end to each side of said headrest and at the other end to corresponding side walls of said recess, an actuating link directly connected at one end to one of said first mentioned links and at the other end to said frame, the tilting of said backrest in a rearward direction effecting displacement of said headrest from within said recess to a position above said backrest and substantially in coplanar relationship therewith.

3. In a reclining chair, a frame, a backrest pivotally supported in relation to said frame, a headrest, a pair of links on each side of said headrest pivotally connecting said headrest to said backrest whereby said headrest is movable from a position below the top and rearwardly of said backrest to a position above and substantially co-planar with said backrest, a rigid actuating link directly pivotally connected at one end to one of said first mentioned links and at the other end to said frame, the rearward tilting of said backrest effecting elevation of said headrest from a position behind said backrest to a position above said backrest.

4. The invention as defined in claim 1 wherein one of each of said pairs of links is of greater length than the other so that when the headrest is in elevated position it is caused to be tilted forwardly of the plane of the backrest.

5. In a reclining type chair, a frame, a backrest pivotally supported in relation to said frame, said backrest having in the top portion a recess rearwardly thereof, a headrest receivable within said recess, a pair of vertically spaced upper and lower links each pivotally connected at one end to each side of said headrest and at the other end to a corresponding side wall of said recess, the upper of said links being substantially L-shaped, an actuating link directly pivotally connected at one end to said lower link and at the other end to said frame substantially in close proximity to the bottom thereof, the tilting of said backrest in a rearward direction effecting elevation of said headrest from said recess to a position above said backrest and inclined forwardly of the plane thereof.

6. In a reclining type chair, a frame, a backrest pivotally supported in relation to said frame, a headrest, a pair of vertically spaced upper and lower links on each side of said headrest pivotally connecting said headrest to said backrest whereby said headrest is movable from a position below the top and rearwardly of said backrest to a position above and substantially coplanar with said backrest, the upper of said links being double-armed, a rigid actuating link directly pivotally connected at one end to one of said first mentioned links and at the other end to said frame, the rearward tilting of said backrest effecting elevation of said headrest from a position behind said backrest to a position above said backrest.

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