

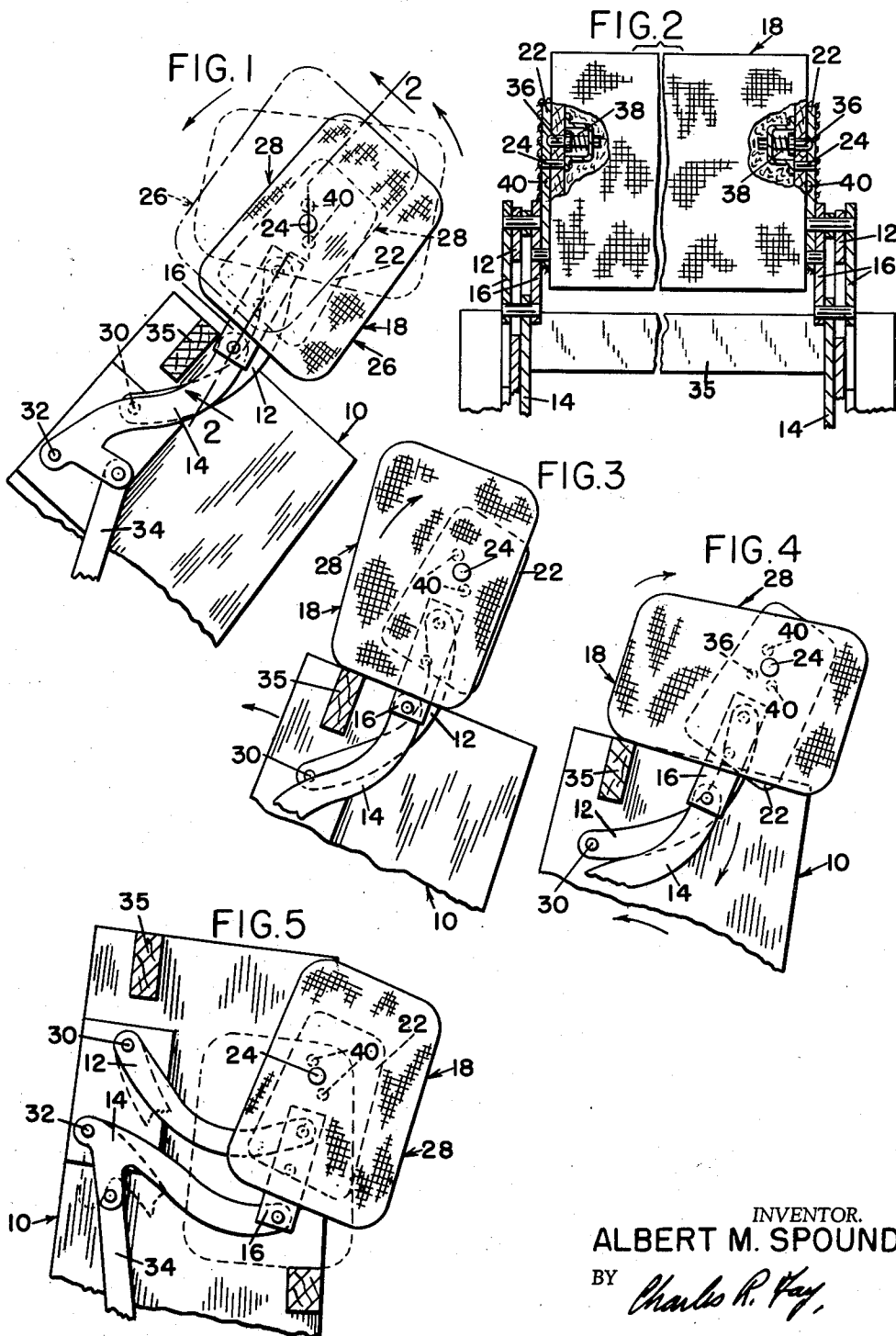
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ADJUSTABLE HEADREST FOR RECLINING CHAIRS

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ADJUSTABLE HEADREST FOR RECLINING CHAIRS

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This invention relates to a new and improved adjustable headrest for a reclining chair and reference is made to my copending application Serial No. 709,594, filed January 17, 1958, now Patent No. 2,884,992, granted May 5, 1959, showing various mechanisms for automatically projecting headrests for reclining chair constructions. The present invention has a projecting headrest mechanism which may be substantially like any of those shown in the prior case, and the principal object of the present invention resides in the provision of such a headrest which is adjustable manually after it has been fully projected to provide for two different positions thereof for resting the head according to the desires of the user.

One of said positions provides the headrest in a more or less close relationship to the plane of the backrest of the chair for reclining with the occupant's head lying in a comfortable stretched-out position for sleep or mere relaxation; and the other position provides for the headrest to be moved somewhat forwardly so as to support the head a little more upright, allowing the occupant of the chair to read, view television, or to carry on a conversation with others while reclining in the chair but with the head supported in a somewhat elevated position in the manner of the provision of a pillow, cushion or the like.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which

FIG. 1 is a view showing the top portion of a chair backrest, together with the new headrest illustrated in its different positions in solid and broken lines;

FIG. 2 is a sectional view on line 2—2 of FIG. 1;

FIG. 3 is a view similar to FIG. 1 but illustrating the headrest starting downwardly toward its retracted position in the backrest;

FIG. 4 illustrates the action thereof at a further point in the progress of the linkage, moving the headrest down; and

FIG. 5 illustrates the headrest in almost housed position in the backrest of the chair in full lines and shown housed in dotted lines.

In carrying out the present invention, any kind of reclining chair construction may be utilized in order to support the headrest, which is the principal subject matter of the present invention. In the present case, the drawing has been simplified by the omission of conventional portions of the chair including upholstery, etc.; and for more detail concerning the operation of the automatically projected headrest construction, reference is made to my copending patent application above identified.

In any event, the backrest of the chair in this case is generally indicated at 10. This backrest is pivotally or swingably mounted on some kind of a base or seat and may be moved from a generally substantially upright position which is called the "sitting" position, into a reclining position more or less on the angle illustrated in FIG. 1 with reference to a horizontal. This angle may vary, depending on the construction of the chair.

The backrest 10 has provided therein a linkage at 12 and 14 which may be referred to as a parallel bar linkage or the like and which supports at its upper ends as

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by brackets 16 the headrest proper generally indicated by the reference numeral 18. This headrest is preferably stuffed, padded, cushioned and upholstered, and provides a cushion-like head support for the occupant of the chair.

It is to be particularly brought out that in the construction herein, the top of the backrest 10 is generally of a height comparable to an ordinary non-adjustable upholstered living-room chair or the like, and the general purpose of course of the headrest is to be concealed when the occupant of the chair is sitting up and to be projected into head-supporting position when the occupant wishes to recline.

Between the padded headrest and the bracket 16, there are mounted a pair of side plates indicated at 22 which are fixed with relation to bracket 16 and swivelly mount between the same the padded headrest 18 as by means of swivel-pins 24, 24, which are perhaps best seen in FIG. 2.

The two swivel-pins 24, 24 are axially aligned so as to provide for the cushioned headrest 18 to be swivelly mounted thereon at an axis generally parallel to the backrest in a transverse direction with relation to the chair. This axis is offset from the center of the swivelled headrest as is clearly shown in the drawings, so that the headrest may be adjusted to provide at least two useful positions.

In one of these positions, as shown in solid lines in FIG. 1, the headrest forms a substantial continuation of the general plane of the backrest, and this is used as described above for a relaxed reclining position for sleep or rest. It is pointed out that in ordinary practice, the headrest 18 would be tilted slightly forwardly because even in the relaxed position, the head should be supported slightly forwardly of the plane of the backrest, but for clarity of illustration of the present invention, this relationship has been shown as substantially coplanar. For instance, the cushion 18 could be tilted slightly forwardly as mounted on the bracket and the position desired.

In any event, with the cushion as shown in FIG. 1, in solid lines, it may be easily grasped manually and pivoted as for instance in a counter-clockwise direction 180° to provide for the surface at 26 now appearing at the front rather than the surface 28. This of course provides that the headrest is located well in advance of its former position as is illustrated in FIG. 1 in broken lines, and in this position the head is supported in a more upright condition even though the backrest 10 is not moved and remains in its reclining position as it was previously. In this position of the device, the occupant of the chair may recline at ease while still reading or carrying on a conversation or looking at the TV screen with his head pillowed and comfortably supported.

With the headrest in its forward position as shown in broken lines in FIG. 1, and it being desired to cause the backrest to move forwardly to sitting position, the linkage 12 and 18 will start to descend as for instance about the respective pivots at 30 and 32, under influence of the driving bar 34, as fully explained in my copending application above identified. These levers come down relatively to the backrest in a clockwise direction, and as they do so, the cushion 18 being in its forwardly extended position as in broken lines in FIG. 1, strikes the backrest portion at 35, see FIG. 3. Continued downward motion of the linkages 12 and 14 will obviously cause the headrest portion 18 to be pivoted in a clockwise direction, see FIG. 4 which shows a continuation of this action. As the linkage continues downwardly, the headrest 18 is caused to execute a complete 180° turn to the FIG. 5 position which shows the same just before it is

fully housed in the backrest as described in my copending application.

In view of the above, it will be seen that whenever the headrest is projected under influence of the linkage and driving rod 34, that is, when the backrest is moved toward a reclining position, the headrest will always and invariably be in the solid line position in FIG. 1 when projected, and therefore it is only necessary for the occupant of the chair to reach up behind his head, grasp the top of the headrest 18 and move it around 180° to the forwardly projected position as shown in broken lines in FIG. 1. This action is illustrated by the dotted line position in FIG. 1 also, and it is brought out that if desired, limiting means may be provided to stop the headrest in any rotative position.

In order to carry out this purpose, there may be provided spring pins 36, 36 which are continuously thrust outwardly from within the padded headrest by the springs at 38, 38 and various indentations may be provided in plates 22 as at 40 for the purpose of receiving the rounded ends of the pins 36 to yieldingly latch the headrest in any rotative position which may be provided for by the particular indents.

In the present case, there have been shown two positions of latching, and these positions are as described above; however, any number of detents could of course be provided arranged in a circle about the axis of the pins 24 so as to provide for yieldingly holding the headrest in any position which the occupant of the chair may desire.

The spring action of the plungers 36 is relatively light so that the headrest may be manually manipulated as described above without much resistance and also the action of the headrest in pivoting in the clockwise direction as illustrated in FIGS. 3, 4 and 5 is easily yieldingly accomplished without resistance to the operation of the chair back in moving forwardly from the reclining position of FIG. 1 substantially to the sitting position which is illustrated in FIG. 5.

It will be seen that this invention provides a relatively simple, easily actuated but extremely useful and comfortable headrest device of the class described which may be provided with two or more positions of use. The reclining chair may be used to relax, for sleeping, or for social purposes such as reading, viewing, etc., with the head, however, firmly and comfortably supported in the forward position as described, and the manipulation of the device may be done by the occupant of the chair as he sits therein merely by reaching up behind him and moving the headrest in either direction from the forward to the rear or from the rear forwardly. Also, the headrest is always housed in a single predetermined position as illustrated in FIGS. 3, 4 and 5 and therefore whenever the occupant leans back in the chair to make the backrest recline, he knows where the headrest will be when it is projected.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. A reclining chair comprising a backrest movable for disposition between a sitting position and a reclining position, a headrest movably mounted within said backrest, said headrest having at least two head-supporting surfaces generally normal to each other, a support for the headrest, means for projecting said headrest from said backrest, and means swivelly mounting said headrest on its support, said headrest being mounted on said support on an eccentric axis relative to the center of the headrest, said axis being within the headrest.

2. A reclining chair comprising a backrest swingably mounted for disposition between a sitting position and a

reclining position, a headrest movably mounted within said backrest, said headrest having a plurality of contiguous head-supporting surfaces, means for projecting said headrest from said backrest, means mounting said headrest on a swivel axis, said headrest being mounted on said means eccentrically with respect to the center of the headrest, but within the headrest, whereby one side of the headrest will project variably relative to another side when the headrest is rotated.

3. A reclining chair comprising a backrest swingably mounted for disposition between a sitting position and a reclining position, a headrest movably mounted within said backrest, said headrest having a plurality of contiguous head-supporting sides, means for projecting said headrest from said backrest, means mounting said headrest on a swivel axis, said headrest being mounted on said means eccentrically with respect to the center of the headrest, whereby one side of the headrest will project variably relative to another side with respect to the backrest when the headrest is rotated, and means yieldably holding the headrest in selected adjusted position.

4. A seat construction comprising a frame, a seat on the frame, a backrest pivotally mounted with respect to said seat and frame for movement between sitting and reclining conditions of the backrest, a headrest having a plurality of adjacent supporting surfaces, means mounting said headrest on the backrest for projection of said headrest from a position generally to the rear and below the top portion of the backrest where the headrest is inoperative to a position above the top portion of the backrest with the headrest closely adjacent to the backrest, said headrest being freely swingable on the headrest mounting means on an axis generally in the plane of the backrest and extending transversely thereto, said headrest presenting a surface in general continuation of the back-supporting surface of the backrest.

5. The seat construction of claim 4 wherein the means to project the headrest includes parallel bars.

6. A seat construction comprising a frame, a seat on the frame, a backrest pivotally mounted with respect to said seat and frame for movement between sitting and reclining conditions of the backrest, a headrest, means mounting said headrest on the backrest for projection of said headrest from a position generally to the rear and below the top portion of the backrest where the headrest is inoperative to a position above the top portion of the backrest with the headrest closely adjacent to the backrest, said headrest being freely swingable on the headrest mounting means on an axis generally in the plane of the backrest and extending transversely thereto, said headrest presenting a surface in general continuation of the back-supporting surface of the backrest, said headrest pivot axis being located adjacent one side of the headrest so that the headrest when projected fails to extend beyond the supporting surface of the backrest but upon being pivoted presents a surface projected somewhat beyond the supporting surface of the backrest.

7. The seat construction of claim 6 wherein the means to project the headrest includes swing bars.

References Cited in the file of this patent

UNITED STATES PATENTS

231,631	Taggart	Aug. 24, 1880
339,477	Scharritt	Apr. 6, 1886
534,582	Sargent	Feb. 19, 1895
2,466,553	McDonald	Apr. 5, 1949
2,843,184	Lorenz	July 15, 1958
2,869,619	Petersen	Jan. 20, 1959
2,884,992	Spound et al.	May 5, 1959