LOUNGE FURNITURE HAVING ROTATABLY MOVABLE ARM RESTS

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This invention relates to body supports and more particularly to lounge furniture having arm rests which are pivotally movable from one position to another.

In accordance with the invention claimed a new and improved body support is provided comprising a body supporting member having a given outline. An arm rest member is arranged along at least one of the edges of the body supporting member. A pin is fixedly secured to one of the members and a receptacle is provided on the other member for receiving the pin. The arm rest member is rotatably movable on the pin to one of a plurality of positions wherein the arm rest member is arranged above or below the outline of the body supporting member or positioned to follow the outline of the body supporting member. The axis of rotation of the arm rest member may be varied by the outline of the receptacle serving as the bearing for the pin when the arm rest member is rotated.

It is one object of this invention to provide a new and improved body support having pivotally movable arm rests.

Another object of this invention is to provide a new and improved lounge chair having a foot rest, and on which the arm rests are movable so that older people especially may get in and out of the lounge chair without having to climb over or slide past the arm rests. A further object of this invention is to provide a new and improved chair in which the arm rests in one position may follow the outline of the body supporting member and when rotated to another position in a new and novel way may be positioned above the body supporting member to form arm supports and rests. A still further object of this invention is to provide a new and improved lounge chair in which the axes of rotation of the arm rests move relative to and away from the body supporting member during movement of the arm rests to another position.

Still further object of this invention is to provide a new and improved body support which serves as a lounge chair without arms in one condition and serves as a lounge chair with arms in another condition.

Other objects and advantages of this invention will become apparent from the following description when read in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view of a lounge chair with the arm rests arranged in the outline of the body supporting member and embodying the invention;

FIG. 2 is a perspective view similar to FIG. 1 with the arm rests arranged in arm supporting position;

FIG. 3 is a partial enlarged side view of the structure shown in FIG. 2 showing in dash lines the arm rest pivotal connecting means;

FIG. 4 is a partial cross sectional view of FIG. 3 taken along the line 4—4 illustrating a view of the slotted guiding means used for cooperation with the pin at the right end of the arm rest;

FIG. 5 is a side view of a slotted guiding plate; and

FIGS. 6a, 6b, 6c and 6d are sectional views taken along line 6 in FIG. 3 illustrating in interrupted lines different angular positions assumed by the arm rest and the manner in which the arm rest is moved.

Referring more particularly to the drawing by character of reference FIGS. 1 and 2 disclose a body support such as, for example, a lounge chair 15 having body supporting member 16 supported by a base 17 which is held at a predetermined distance off of the floor by four legs 18 (two of which are shown in FIGS. 1 and 2). The body supporting member 16 comprises a cushioned area 19 surrounded by a frame structure 20. The frame structure 20 forms the outline or periphery of body supporting member 16.

In accordance with the invention a pair of arm rests 21 and 22 are provided along the edges of supporting member 16 and when in the collapsed position as shown in FIG. 1 may form, for example, a part of the outline of the frame structure 20 of the supporting member 16. Arm rests 21 and 22 are each pivotally mounted on the upper and lower portions 23 and 24, respectively, of the supporting member 16. The pivotal connection of arm rests 21 and 22 to portions 23 and 24 is accomplished by two pairs of spacedly arranged pins 25 fixedly secured to the arm rests one at each end thereof to extend axially therefrom into the upper and lower portions 23 and 24 of supporting member 16 as shown in FIG. 3. Pins 25 are arranged in about the center of the cross sectional area of the arm rests and extend through slotted plates 26 or other slotted means arranged on supporting member 16 at each end of the arm rests 21 and 22. Each of the means 26 are provided with an elongated slot 27 for receiving the free ends of pins 25. Pins 25 are arranged one within each of the slots 27 in means 26 and form the pivot about which arm rests 21 and 22 rotate. Although pins 25 are shown fastened to the arm rests one at each end thereof and means such as plates 26 provided on the supporting member 16 in cooperation with pins 25, it is intended to be within the scope of this invention to mount the pins on the supporting members and the plates on the arm rests, if so desired.

In view of the outline of slots 27 in plate 26 it is readily noted that if arm rests 21 and 22 are moved in slots 27, they may be rotated around a plurality of axes spaced at different distances from the area 19 of the supporting member 16. By rotating the arm rests in an arcuate manner 180 degrees from the positions shown in FIG. 1 in the direction of the arrows they assume the arm supporting positions shown in FIG. 2.

FIG. 5 illustrates the plate 26 used at the right end of the arm rest shown in FIG. 3. The plate 26 used at the left end of arm rest shown in FIG. 3 is the mirror image of that shown at the right end of the arm rest. In this manner the slots in both of the plates are directed away from the body supporting member from the lowermost portion thereof to the uppermost portion thereof. It will be recognized that the slots in plates 26 associated with arm rest 22 at the right and left ends as shown in FIGS. 1 and 2 must be mirror images of the slots in plates 26 associated with arm rest 21 at the right and left ends, respectively, in order to rotate in the direction of the arrow associated with arm rest 22.

Referring to FIGS. 6a to 6d it will be noted that the arm rest can be rotated to three different positions. The position indicated in FIG. 6a corresponds to FIG. 2 where the arm rest is in raised position of use. The pin 25 is in the lowermost position in slot 27. In FIG. 6b the arm rest has been raised in order to permit swinging movement laterally and downwardly. The pivot pin 25 is in the uppermost position in the slot 27. In accordance with FIG. 6c the arm rest has been moved into laterally extending position with the pin 25 again returned to the lower end of the slot. In order to move the arm rest into the position indicated in FIG. 6d it is moved upwardly with the pin 25 to the upper end of slot 27 and it is then turned downwardly as indicated in FIG. 6d.

It can be seen that in the positions indicated in FIG. 6a
where the arm rest is in the upper position, in FIG. 6c where it is laterally extended at an angle of 90° with respect to position 6d and in FIG. 1, where it is in the lower position, the arm rest is firmly held in position by its own weight and by the adjacent wall portions of the frame of the chair cooperating with the pin 25 in lowermost position in the slot 27.

The reason for the upwardly and outwardly curved slots 27 is so that the diagonal of the square shaped cross section of the arm rest ends can pass in rotation the frame of the body supporting member 16. Further, when the arm rest has been rotated to the desired position the pins 25 can drop back to their position shown in FIG. 4 at the bottom of the slot where the sides of body supporting member 19 hold the arm rest firmly in any one of the three positions of use. Thus, gravity and geometry are used to accomplish this purpose.

The rotation of arm rest 22 from the position shown in FIG. 1 to the position shown in FIG. 2 occurs in the direction of the arrow shown in FIG. 1 associated therewith. The left and right plates 26 associated with arm rests 22 have slots the outlines of which are the mirror images of the left and right slots in the plates associated with arm rest 21.

In accordance with the invention claimed a new and improved lounge chair is provided wherein the arm rests may be pivotally moved or folded to a position below or at the same level as the body supporting member. In this position it is easy for older people to climb into the chair, particularly if the chair has attached foot rests. Further, the arm rests may be moved to one of three positions depending on the intended use.

Although but one embodiment of the present invention has been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claims.

What is claimed is:

1. A body support comprising a body supporting member having a given outline, an arm rest arranged along one edge of said member and forming a part of the periphery of said body supporting member, said arm rest being pivotally mounted on said member and rotatably movable from a position wherein said arm rest forms a part of said outline of said member to a raised position of use as an arm rest.

2. A lounge chair comprising a body supporting member, an arm rest member arranged along one edge of said body supporting member and forming a part of the periphery of said body supporting member, pin means mounted on one of said members, a receptacle for said pin means mounted on the other of said members, said arm rest member being rotatably movable through an arcuate path from one position to another to eliminate the obstruction in the path of the user moving into and out of said chair.

3. A body support comprising a body supporting member having a given outline, an arm rest arranged along one edge of said member and forming a part of the periphery of said member, a pin fixedly secured to said arm rest, a plate mounted on said member and defining a pin guiding slot, said pin being arranged in said slot for pivotally mounting said arm rest in one of a plurality of positions relative to said member, said arm rest being rotatably movable from a position wherein said arm rest forms a part of said outline of said member to a position of use as an arm rest.

4. A body support comprising a body supporting member having a given outline, an arm rest member arranged along one edge of said body supporting member and forming a part of the periphery of said body supporting member, pin means mounted on one of said members, means defining a pin guiding slot mounted on the other of said members for cooperating with said pin means, said arm rest member being pivotally movable through an arcuate path from a position wherein said arm rest member forms a part of said outline of said body supporting member to an arm rest supporting position.

5. A body support comprising a body supporting member having a given outline, an arm rest arranged along one edge of said member and forming a part of the periphery of said body supporting member, a pair of spacedly arranged pins fixedly secured in each end of said arm rests, a pair of plates, one plate being mounted at each end of said arm rests on said member, each of said plates defining a pin guiding slot for cooperating with one of said pins, said arm rests being pivotally mounted on said member and movable from a position wherein said arm rests form a part of the periphery of said body supporting member to a position of use as arm rests, and means for varying the positions of the axes of said arm rests as they are moved from one position to another.

6. A lounge chair comprising a body supporting member, a pair of arm rests one arranged on each side of said member and forming a part of the periphery of said member, said arm rests being pivotally mounted on said member and movable from a position wherein said arm rests form a part of the periphery of said body supporting member to a position of use as arm rests, the axes of rotation of said arm rests moving relative to said member in accordance with the contour of said slot as said arm rest is rotated.

7. A lounge chair comprising a body supporting member, a pair of arm rests one arranged on each side of said member and forming a part of the periphery of said member, two pairs of spacedly arranged pins, one pin being fixedly secured at each end of said arm rests, a pair of plates, one plate being mounted at each end of said arm rests on said member, each of said plates defining a pin guiding slot for cooperating with one of said pins, said arm rests being pivotally mounted on said pins and movable from a position wherein said arm rests form a part of the periphery of said body supporting member to a position of use as arm rests, the axes of rotation of said arm rests moving in said slots relative to said member as said arm rests are rotated.

8. A body support comprising a body supporting member having a given outline, an arm rest arranged along one edge of said member and forming a part of the periphery of said member, a pair of spacedly arranged pins fixedly secured to said arm rest, a pair of plates mounted at each end of said arm rest on said supporting member and each defining a pin guiding slot for cooperating with one of said pins, said arm rest being rotatably movable on said pins from a position wherein said arm rest forms a part of said outline of said supporting member to an arm rest supporting position, the axes of rotation of said arm rest moving relative to said member in accordance with the contour of said slot as said arm rest is rotated, said arm rest being firmly supported by said supporting member in any position of use where said pins are in the lowermost position in their respective said slots.

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