CHAIR HAVING A SEAT WHOSE POSITION IS ADJUSTABLE

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Publication Classification

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<th>Int. Cl.</th>
<th>Classification</th>
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<td>A47C 1/023</td>
<td>(2006.01)</td>
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U.S. Cl. .................................................. 297/337

ABSTRACT

A chair includes a stand, a support base mounted on the stand, a backrest mounted on the support base, a fixed bracket pivotally mounted on the support base, a movable bracket movably mounted on the fixed bracket, and a seat mounted on the movable bracket to move with the movable bracket. Thus, when the movable bracket is unlocked from the fixed bracket, the movable bracket is movable relative to the fixed bracket so that the seat is movable relative to the stand and the backrest to adjust the position of the seat relative to the stand and the backrest according to a user's requirement, thereby providing a comfortable sensation to the user.
CHAIR HAVING A SEAT WHOSE POSITION IS ADJUSTABLE

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a chair and, more particularly, to a chair having a position adjustable function.

2. Description of the Related Art

A conventional chair comprises a stand, a plurality of support legs mounted on the lower end of the strand, a support base mounted on the upper end of the strand, a backrest mounted on the support base, and a seat mounted on the support base and perpendicular to the backrest. However, the seat and the backrest are fixed so that a user cannot adjust the position of the seat relative to the backrest according to the practical requirement, thereby easily causing an uncomfortable sensation to the user when the size of the chair is not suitable for the user’s stature.

BRIEF SUMMARY OF THE INVENTION

In accordance with the present invention, there is provided a chair comprising a stand, a support base mounted on the stand, a backrest mounted on the support base, a fixed bracket pivotally mounted on the support base, a movable bracket movably mounted on the fixed bracket, and a seat mounted on the movable bracket to move with the movable bracket.

The primary objective of the present invention is to provide a chair having a seat whose horizontal position is adjustable.

Another objective of the present invention is to provide a chair wherein when the movable bracket is unlocked from the fixed bracket, the movable bracket is movable relative to the fixed bracket so that the seat is movable relative to the stand and the backrest to adjust the position of the seat relative to the stand and the backrest according to a user’s requirement, thereby providing a comfortable sensation to the user.

A further objective of the present invention is to provide a chair wherein the user only needs to pull the holding portion of the control handle upward to adjust the position of the seat, so that the position of the seat is adjusted easily and quickly, thereby facilitating the user adjusting the position of the seat.

A further objective of the present invention is to provide a chair wherein the seat is fixed after the force applied on the holding portion of the control handle is removed, so that the user only needs to release the holding portion of the control handle to lock the seat automatically, thereby saving the user’s energy.

Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

FIG. 1 is a side view of a chair in accordance with the preferred embodiment of the present invention.

FIG. 2 is a perspective view of the chair in accordance with the preferred embodiment of the present invention.

FIG. 3 is a partially exploded perspective view of the chair as shown in FIG. 2.

FIG. 4 is a schematic operational view of the chair as shown in FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawings and initially to FIGS. 1-3, a chair 1 in accordance with the preferred embodiment of the present invention comprises a stand 12, a support base 40 mounted on the stand 12, a backrest 11 mounted on the support base 40, a fixed bracket 30 pivotally mounted on the support base 40, a movable bracket 20 movably mounted on the fixed bracket 30, and a seat 10 mounted on the movable bracket 20 to move with the movable bracket 20.

The fixed bracket 30 has a substantially inverted U-shaped cross-sectional profile. The fixed bracket 30 has two downward extending upright sidewalls 35 each formed with an elongated slideway 34 and a plurality of locking grooves 33 each connected to the slideway 34. The locking grooves 33 of the fixed bracket 30 are equally spaced from each other and are located above the slideway 34. Each of the sidewalls 35 of the fixed bracket 30 is pivotally mounted on the support base 40 by a bolt 32. The fixed bracket 30 has a top wall formed with a plurality of screw bores 31 located between the sidewalls 35.

The chair 1 further comprises a control handle 28 pivotally mounted on the movable bracket 20 to move with the movable bracket 20 and located between the movable bracket 20 and the fixed bracket 30. The control handle 28 has a substantially U-shaped cross-sectional profile.

The control handle 28 has a first end formed with two positioning portions 26 each movable in the slideway 34 of the fixed bracket 30 and each slidably inserted into and detachably locked in one of the locking grooves 33 of the fixed bracket 30 to lock the movable bracket 20 on the fixed bracket 30 temporarily. Each of the positioning portions 26 of the control handle 28 has a substantially L-shaped profile, and the positioning portions 26 of the control handle 28 are directed toward each other.

The control handle 28 is pivotally mounted on the movable bracket 20 by two pivot brackets 23 which are secured on a bottom of the movable bracket 20, and the chair 1 further comprises two torsion springs 24 each biased between the control handle 28 and a respective pivot bracket 23 to pivot the control handle 28 relative to the movable bracket 20 and the fixed bracket 30 and to move each of the positioning portions 26 of the control handle 28 toward one of the locking grooves 33 of the fixed bracket 30 to lock the movable bracket 20 on the fixed bracket 30 at a normal state.

The control handle 28 has a second end formed with a holding portion 25, wherein a distance between the holding portion 25 of the control handle 28 and each of the pivot brackets 23 is greater than that between each of the positioning portions 26 of the control handle 28 and each of the pivot brackets 23 to facilitate a user pivoting the control handle 28. Thus, when the holding portion 25 of the control handle 28 is movable upward, the control handle 28 is pivotable relative to the movable bracket 20, and each of the positioning portions 26 of the control handle 28 is movable downward to detach from one of the locking grooves 33 of the fixed bracket 30 into the slideway 34 of the fixed bracket 30 and is movable in the slideway 34 of the fixed bracket 30.

The movable bracket 20 is formed with a plurality of guide slots 21 each aligning with a respective screw bore 31 of
the fixed bracket 30, and the chair 1 further comprises a plurality of guide screws 27 each extended through a respective guide slot 21 of the movable bracket 20 and each screwed into a respective screw bore 31 of the fixed bracket 30, and a plurality of bushings 22 located between a respective guide screw 27 and a respective guide slot 21 of the movable bracket 20. Thus, each of the guide screws 27 is movable in the respective guide slot 21 of the movable bracket 20 when the movable bracket 20 is movable relative to the fixed bracket 30 to guide movement of the movable bracket 20 relative to the fixed bracket 30.

Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claims or claims will cover such modifications and variations that fall within the true scope of the invention.

1. A chair comprising:
   a. a stand;
   b. a support base mounted on the stand;
   c. a backrest mounted on the support base;
   d. a fixed bracket pivotally mounted on the support base;
   e. a movable bracket movably mounted on the fixed bracket;
   f. a seat mounted on the movable bracket to move with the movable bracket.

2. The chair in accordance with claim 1, wherein:
   a. the movable bracket has two downward extending upright sidewalls each formed with an elongated slideway and a plurality of locking grooves each connected to the slideway;
   b. the chair further comprises a control handle pivotally mounted on the movable bracket to move with the movable bracket and having a first end formed with two positioning portions of each movable in the slideway of the fixed bracket and each slidably inserted into and detachably locked in one of the locking grooves of the fixed bracket to lock the movable bracket on the fixed bracket temporarily.

3. The chair in accordance with claim 2, wherein the locking grooves of the fixed bracket are equally spaced from each other.

4. The chair in accordance with claim 2, wherein the locking grooves of the fixed bracket are located above the slideway.

5. The chair in accordance with claim 2, wherein each of the positioning portions of the control handle is substantially L-shaped profile.

6. The chair in accordance with claim 2, wherein each of the positioning portions of the control handle are directed toward each other.

7. The chair in accordance with claim 2, wherein the control handle is pivotally mounted on the movable bracket by two pivot brackets.

8. The chair in accordance with claim 2, wherein:
   a. the control handle is pivotally mounted on the movable bracket by two pivot brackets;
   b. the chair further comprises two torsion springs which biased between the control handle and a respective pivot bracket to pivot the control handle relative to the movable bracket and the fixed bracket and to move each of the positioning portions of the control handle towards one of the locking grooves of the fixed bracket to lock the movable bracket on the fixed bracket at normal state.

9. The chair in accordance with claim 8, wherein the pivot brackets are secured on a bottom of the movable bracket.

10. The chair in accordance with claim 8, wherein the control handle has a second end formed with a holding portion.

11. The chair in accordance with claim 10, wherein a distance between the holding portion of the control handle and each of the pivot brackets is greater than that between each of the positioning portions of the control handle and each of the pivot brackets to facilitate a user pivoting the control handle.
12. The chair in accordance with claim 10, wherein when the holding portion of the control handle is movable upward, the control handle is pivotable relative to the movable bracket, and each of the positioning portions of the control handle is movable downward to detach from one of the locking grooves of the fixed bracket into the slideway of the fixed bracket and is movable in the slideway of the fixed bracket.

13. The chair in accordance with claim 2, wherein:
the fixed bracket has a top wall formed with a plurality of screw bores;
the movable bracket is formed with a plurality of guide slots each aligning with a respective screw bore of the fixed bracket;
the chair further comprises a plurality of guide screws each extended through a respective guide slot of the movable bracket and each screwed into a respective screw bore of the fixed bracket.

14. The chair in accordance with claim 13, wherein the screw bores of the fixed bracket is located between the side-walls.

15. The chair in accordance with claim 13, wherein each of the guide screws is movable in the respective guide slot of the movable bracket when the movable bracket is movable relative to the fixed bracket to guide movement of the movable bracket relative to the fixed bracket.

16. The chair in accordance with claim 13, further comprising a plurality of bushings located between a respective guide screw and a respective guide slot of the movable bracket.

17. The chair in accordance with claim 1, wherein the fixed bracket has a substantially inverted U-shaped cross-sectional profile.

18. The chair in accordance with claim 1, wherein the control handle is located between the movable bracket and the fixed bracket.

19. The chair in accordance with claim 1, wherein the control handle has a substantially U-shaped cross-sectional profile.

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