Claims

1. An energy-saving method by using windows, which adjusts the sunlight coming into a room by changing the position of a window main body, the window main body being extended outside of the wall in winter so that the space of the window illuminated by sunlight is turned into an indoor space for the purpose of lightening and warming, while the window main body being retracted inside of the wall in summer so that the space of the window illuminated by strong sunlight is turned into an outdoor space for the purpose of shadowing and avoiding sunlight exposure.

2. An energy-saving window applying the energy saving method according to claim 1, characterized in that the energy-saving window comprises a window frame and a window main body, the window frame being provided thereon with vertical shafts or guide rails, the vertical shafts or guide rails being in fixed connection with the window frame while in movable connection with the window main body, the window main body rotating via the vertical shafts or moving via the guide rails to change the position thereof.

3. The energy-saving window according to claim 2, characterized in that the vertical shafts are located in the middle of the window frame, and the window main body is of an arched structure formed of a polyhedron, with upper and lower end faces of the window main body being rotatably connected with the vertical shafts.

4. The energy-saving window according to claim 3, characterized in that the window main body is trapezoidal.

5. The energy-saving window according to claim 3, characterized in that the window main body is drum-shaped.

6. The energy-saving window according to claim 3, 4 or 5, characterized in that there are one to six window main bodies.

7. The energy-saving window according to claim 6, characterized in that each of the vertical shafts is of a half-shaft structure fixed on the upper and lower end faces of the window frame and extended outward.

8. The energy-saving window according to claim 2, characterized in that the window main body is of a planar structure, to which the guide rails are vertical.

9. The energy-saving window according to claim 2, characterized in that the window main body is of a drum-shaped structure, the planar window main body in the middle of the drum-shape being corresponding to the guide rails vertical to the window main body, while the arc window main body on two sides of the drum-shape being fitted with the arc guide rails.

10. The energy-saving window according to claim 2, characterized in that the window main body is of a trapezoidal structure, the planar window main body in the middle of the trapezoid being fitted with the guide rails vertical to the window main body, vertical shafts being provided on the insides of two ends of the window frame, respectively, two side surfaces of the trapezoidal window main body being hinged with the vertical shafts.

11. The energy-saving window according to claim 8, 9 or 10, characterized in that there are one to six planar window main bodies.

Claims

1. An energy-saving method of utilizing windows: the window adjusts the sunlight coming into a room by changing the position of the window main body. During winter or cold season, the window main body being extended outside of the wall so that the window space illuminated by sunlight is turned into an indoor space for absorbing more solar heat gain. During summer or hot season, with the main window body being retracted inside of the wall, the window space illuminated by sunlight is turned into outdoor space so that the direct sunlight into indoor space can be reduced for the purpose of minimizing solar heat gain. The energy-saving window comprises a window frame and a window main body. The window frame is provided with vertical shafts or guide rails. The vertical shafts or guide rails are in fixed connection with window frame, while in movable connection with window main body. The window main body can be either rotated via the vertical shafts or moved via the guide rails to change the position.

2. An energy-saving window stated in claim 1 is characterized in that vertical shaft is located in the middle of window frame, and the window body is made up of a polyhedron in a drum-shape and it can be rotated via the vertical shaft.

3. An energy-saving window stated in claim 2 is characterized in that the window body is drum-shaped or trapezoidal form.

4. An energy-saving window as stated in claim 2 or 3 is characterized in that window main body can be comprised of 1-6 small window panels.

5. An energy-saving window as stated in claim 4 is characterized in that vertical shaft is of a half-shaft structure fixed on the upper and lower end surface of window frame.

6. An energy-saving window as stated in claim 1 is characterized in that the window body is planar structure, where the window panels are perpendicular to the guide rails.

7. An energy-saving window as stated in claim 1 is characterized in that the window body is a drum-shaped structure. The window panel in the middle portion of drum-shape is moved through the straight guide rails which are perpendicular to the window panel. For the window panels on the two side arc portions of drum-shape, they are moved through the arcuate guide rails.

8. An energy-saving window as stated in claim 1 is characterized in that the window body is a trapezoidal structure. The window panel in the middle portion of trapezoidal-shape is moved through the straight guide rails which are perpendicular to the window panel. The window panels on two side of trapezoidal-shape can be hinged with the vertical shafts.

9. An energy-saving window as stated in claim 6, 7, or 8 is characterized in that the window body is made up of 1-6 window panels.