



A Kind of Improved Connecting Rod Linkage Applicable for Window

Technical Field

This utility model refers to the technical field of connecting rod linkage, particularly a kind of improved connecting rod linkage applicable for window.

Background Art

The existing windows are opened and closed in two modes, namely lateral moving mode and opening mode. Herein, the opening mode is to regard one side (top bottom, right or left) of window sash as fulcrum and to push or pull the opposite side, so as to open outwards or close inwards.

For opening mode window, a connecting rod linkage is installed between window frame and window sash. Generally, the connecting rod linkage is composed of a fixing strip fixed on window frame and a movable strip fixed on window sash. The fixing strip has a C-shape guide way. The C-shape guide way is equipped with a slide block which can slide linearly. Fixing strip, movable strip and slide block connect together through corresponding connecting rods. The existing slide block of the connecting rod linkage is a separate plastic block. While pushing or pulling window sash, the slide block slides along with the C-shape guide way and is worn constantly, which results in decreasing of friction coefficient between slide block and C-shape guide way. In windy days, the opening window sash is easy to close automatically and be broken. That problem is more common for big size window. Besides, due to hard friction of slide block and C-shape guide way, the slide block is worn quickly.

In response to the defect of the existing technology, it's necessary to further improve the existing connecting rod linkage.

Disclosure of the Invention

This utility model intends to provide a kind of improved connecting rod linkage applicable for window, so as to eliminate the defect of the existing technology. In the connecting rod linkage, the slide block rubs against flexibly the fixing strip, so its service life is longer.

In order to achieve the above aim, this utility model adopts the following technical solutions.

A kind of improved connecting rod linkage applicable for window is composed of a fixing strip fixed on window frame and a movable strip fixed on window sash. The fixing strip has a C-shape guide way. The C-shape guide way is equipped with a slide block which can slide linearly. Fixing strip and movable strip are connected with a long connecting rod. Fixing strip and slide block are connected with the 1st short connecting rod. Long connecting rod and slide block are connected with the 2nd short connecting rod. There is a mounting hole at the bottom of slide block, and an elastic pressing device is embedded in the mounting hole. The elastic pressing device is composed of elastic part and plastic sheet lapped in order from top to bottom. The elastic part presses against the plastic sheet, so that the plastic sheet can touch the bottom of the C-shape guide way.



Herein, the above mentioned elastic part is an elastic slice; middle of the elastic slice tilts downwards and is embedded in the mounting hole; both ends of the elastic slice connect with corresponding side walls of mounting hole; the plastic sheet is attached to lower surface of the elastic slice.

Herein, the above mentioned slide block is composed of sheet metal and adhesive tape; adhesive tape wraps and fixes all round of sheet metal, touches and connects inner wall of the C-shape guide way; the 1st short connecting rod and the 2nd short connecting rod hinge with sheet metal respectively.

Herein, the above mentioned mounting hole is molded at the bottom of sheet metal.

Herein, the above mentioned sheet metal and adhesive tape form the mounting hole.

Beneficial effects of the utility model: the improved connecting rod linkage applicable for window as referred to in the utility model includes a fixing strip with C-shape guide way. The C-shape guide way is equipped with a slide block which can slide linearly. There is a mounting hole at the bottom of the slide block. An elastic pressing device is embedded in the mounting hole. The elastic pressing device is composed of elastic part and plastic sheet lapped in order from top to bottom. The elastic part presses against the plastic sheet, so that the plastic sheet can touch the bottom of the C-shape guide way. When the utility model is in operation, the plastic sheet, under the pressing of the elastic part, rubs against flexibly the bottom of the C-shape guide way so as to further improve abrasive resistance of the plastic sheet. Comparing with hard friction between slide block and C-shape guide way in the existing technology, this utility model is advantageous in high stability and long service life.

Brief Description of Drawings

The utility model will be further described with reference to the accompanying drawings, but those appended drawings shall not be construed as limiting the utility model.

Fig. 1 is structure diagram of the utility model.

Fig. 2 is diagrammatic sectional drawing of the utility model.

Fig. 3 is structure diagram of the slide block of the utility model.

Fig. 4 is diagrammatic cross-section of the slide block of the utility model.

Fig. 1~ Fig. 4 include:

- | | |
|-----------------------|---|
| 1. Fixing strip | 33. Adhesive tape |
| 11. C-shape guide way | 4. Long connecting rod |
| 2. Movable strip | 5. The 1 st short connecting rod |
| 3. Slide block | 6. The 2 nd short connecting rod |
| 31. Mounting hole | 7. Elastic pressing device |
| 32. Sheet metal | 71. Elastic part |
| 72. Plastic sheet | |

Best Mode for Carrying out the Invention

The utility model will be further described with reference to the preferred embodiments.

Embodiment 1, as shown in Fig. 1~ Fig. 4, a kind of improved connecting rod linkage applicable for window is composed of fixing strip (1) fixed on window frame and movable strip (2) fixed on window sash. The fixing strip (1) includes molding C-shape guide way (11). The C-shape guide way (11) is equipped with slide block (3) which can slide linearly. Fixing strip (1) and movable strip (2) are connected with long connecting rod (4). Fixing strip (1) and slide block (3) are connected with the 1st short connecting rod (5). Long connecting rod (4) and slide block (3) are connected with the 2nd short connecting rod (6). There is a mounting hole (31) at the bottom of slide block (3). An elastic pressing device (7) is embedded in the mounting hole. The elastic pressing device (7) is composed of elastic part and plastic sheet lapped in order from top to bottom. The elastic part (71) presses against the plastic sheet (72), so that the plastic sheet (72) can touch the bottom of the C-shape guide way (11).

As shown in Fig. 1, fixing strip (1) hinges with one end of long connecting rod (4), and the other end of long connecting rod (4) hinges with movable strip (2); one end of movable strip (2) hinges with the 1st short connecting rod (5), and the other end of the 1st short connecting rod (5) hinges with slide block (3); one end of the 2nd short connecting rod (5) hinges with middle of long connecting rod (4), and its other end hinges with slide block (3); herein, the above hinging positions are connected together by rivets. As shown in Fig. 4, the elastic part (71) in embodiment 1 is an elastic slice. Particularly, middle of the elastic slice tilts downwards and is embedded in mounting hole (31), and both ends of the elastic slice connect with corresponding side walls of mounting hole (31); plastic sheet (72) is attached to lower surface of the elastic slice. More specifically, plastic sheet (72) of embodiment 1 is made of wearable nylon fiber and will not be worn even after being pushed and pulled for tens of thousands to hundreds of thousands times. Besides, there is no special restrict to quantity of elastic slice in embodiment 1. During production of the product, elastic slice can be treated according to executive standards of the buying areas or countries; for example, its thickness, width or quantity can increase.

Operation procedure of embodiment 1 will be further described with reference to Fig. 4. Specifically, when slide block (3) is installed in C-shape guide way (11) of fixing strip (1), both elastic slice and plastic sheet (72) are clamped at the bottom of mounting groove and C-shape guide way (11); while pushing or pulling window sash, both elastic slice and plastic sheet (72) move along with slide block (3); under the pressing of the elastic part, plastic sheet (72) leans and rubs flexibly against the bottom of C-shape guide way (11); this mode of friction improves abrasive resistance of plastic sheet (72) and extend service live of embodiment 1 accordingly. To sum up, connecting rod linkage of the embodiment 1 is advantageous in high stability and long service life.

Embodiment 2: difference between embodiment 1 and embodiment 2: slide block (3) is composed of sheet metal (32) and adhesive tape (33); adhesive tape (33) touches and connects inner wall of C-shape guide way (11); the 1st short connecting rod (5) and the 2nd short connecting rod (6) hinge with sheet metal (32) respectively. As to the slide block (3) with the above structure, mounting hole (31) of embodiment 2 can be molded directly at the bottom of sheet metal (32) or be formed by sheet metal (32) and adhesive tape (33). Herein, sheet metal (32) may be sheet metal;

adhesive tape (33) may be plastic part made of nylon. More specifically, in embodiment 2, sheet metal (32) is regarded as core of the whole slide block (3), so as to improve strength and rigidity of the whole slide block (3) and enhance hinging strength of slide block (3) to the 1st short connecting rod (5) and the 2nd short connecting rod (6).

The above contents are just preferred embodiment of the utility model. Common technicians of the field may change operation mode and application scope according to idea of the utility model. This Specification shall not be constructed as limiting the utility model.

5
CLAIMS

1. A kind of improved connecting rod linkage applicable for window is composed of fixing strip (1) for fixing window frame and movable strip (2) for fixing window sash. The fixing strip (1) includes C-shape guide way (11). The C-shape guide way (11) is equipped with slide block (3) which can slide linearly. Fixing strip (1) and movable strip (2) are connected with long connecting rod (4). Fixing strip (1) and slide block (3) are connected with the 1st short connecting rod (5). Long connecting rod (4) and slide block (3) are connected with the 2nd short connecting rod (6). It is featured in: there is a mounting hole (31) at the bottom of slide block (3); an elastic pressing device (7) is embedded in the mounting hole; the elastic pressing device (7) is composed of elastic part and plastic sheet lapped in order from top to bottom; the elastic part (71) presses against the plastic sheet (72), so that the plastic sheet (72) can touch the bottom of the C-shape guide way (11).
2. According to claim 1, the improved connecting rod linkage applicable for window is featured in: the above mentioned elastic part (71) is an elastic slice; middle of the elastic slice tilts downwards and is embedded in mounting hole (31), and both ends of the elastic slice connect with corresponding side walls of mounting hole (31); plastic sheet (72) is attached to lower surface of the elastic slice.
3. According to claim 2, the improved connecting rod linkage applicable for window is featured in: the above mentioned slide block (3) is composed of sheet metal (32) and adhesive tape (33); adhesive tape (33) wraps and fixes all round of sheet metal (32); adhesive tape (33) touches and connects inner wall of C-shape guide way (11); the 1st short connecting rod (5) and the 2nd short connecting rod (6) hinge with sheet metal (32) respectively.
4. According to claim 3, the improved connecting rod linkage applicable for window is featured in: mounting hole (31) is molded at the bottom of sheet metal (32).
5. According to claim 3, the improved connecting rod linkage applicable for window is featured in: both sheet metal (32) and adhesive tape (33) form the above mentioned mounting hole (31).