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(54) **SLIDE RAIL ASSEMBLY AND SHOWER ROOM**

GLEITSCHIENENANORDNUNG UND DUSCHRAUM

ENSEMBLE RAIL COULISSANT ET SALLE DE DOUCHE

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Description

Technical field

[0001] The present disclosure relates to the field of kitchen and bathroom technology, in particular to a slide rail assembly and a shower room.

Background

[0002] The existing shower room includes a slide rail assembly and a glass door. The slide rail assembly includes a slide rail and a pulley device, and a sliding chute having an upwardly opened notch protrudes from a side surface of the slide rail. The pulley device includes a pulley and a mounting seat. The pulley is mounted on the mounting seat, and the mounting seat is fixed on the upper portion of the glass door. The pulley is hung over the sliding chute and is movable along the sliding chute.

[0003] During the use of such shower room, if the pulley upwardly moves out of the sliding chute, there is a problem that the glass door falls and breaks, thus the safety of which is relatively poor when in use.

[0004] Document DE202009002713U discloses an example of a slide rail assembly for a shower room or a piece of furniture.

Summary

[0005] An embodiment of the present disclosure provides a slide rail assembly, and a pulley may not move out of a sliding chute. Thus, the slide rail assembly is applicable to a shower room, the safety of which is better when in use.

[0006] An embodiment of the present disclosure provides a shower room.

[0007] The slide rail assembly according to the present invention includes: a slide rail provided with a sliding chute having an upwardly opened notch and a stopper; a pulley device including a pulley and a mounting seat, the pulley being rotatably mounted on the mounting seat, and the pulley being hung over the sliding chute and movable along the sliding chute; and a limiter fixed on the mounting seat. The limiter is provided with a limiting portion, which is positioned below the stopper, and the stopper prevents the pulley from upwardly moving out of the sliding chute by limiting upward movement of the limiting portion.

[0008] The slide rail is further provided with a guiding and limiting groove, and the limiter is further provided with a guiding and limiting portion. The guiding and limiting portion extends into the guiding and limiting groove and is movable along the guiding and limiting groove, and a groove wall of the guiding and limiting groove limits the movement of the guiding and limiting portion along a width direction of the sliding chute.

[0009] The guiding and limiting groove is located at the top of the slide rail, the sliding chute and the stopper are

located on the same side of the slide rail, and the stopper is located above the sliding chute, the limiting portion and the guiding and limiting portion are both located on the same side of the limiter, and the limiting portion is located below the guiding and limiting portion.

[0010] In an exemplary embodiment, the slide rail assembly further includes a damper disposed at an end of the guiding and limiting groove and used for slowing down the guiding and limiting portion when the guiding and limiting portion moves to an end of a traveling distance.

[0011] In an exemplary embodiment, the damper includes: a body disposed at the end of the guiding and limiting groove, the body being provided with a sliding groove; and a damping slider disposed in the sliding groove and being movable along the sliding groove. The guiding and limiting portion pushes the damping slider to move along the sliding groove together when the guiding and limiting portion moves to the end of the traveling distance, and the friction force between the damping slider and the sliding groove slows down the guiding and limiting portion.

[0012] In an exemplary embodiment, the limiting portion is a horizontally arranged limiting plate, and the guiding and limiting portion includes a horizontally arranged connecting arm and a vertically disposed guiding and limiting arm. An upper end of the guiding and limiting arm is connected to a side surface of the limiter by the connecting arm, and a lower end of the guiding and limiting arm extends downward into the guiding and limiting groove.

[0013] In an exemplary embodiment, the mounting seat includes a pulley seat, the pulley being rotatably mounted at one side of the pulley seat; and a door body connecting seat. The pulley seat can be horizontally swingably mounted at one side of the door body connecting seat, and the door body connecting seat is used for assembling with the door body.

[0014] In an exemplary embodiment, the limiter and the pulley seat are assembled together by screws.

[0015] In an exemplary embodiment, the slide rail assembly further includes a buffer disposed on the limiting portion for preventing the stopper from colliding with the limiting portion rigidly.

[0016] The shower room provided by the present disclosure includes a door body and the slide rail assembly described in any of the above embodiments, and the mounting seat is assembled with the door body.

[0017] In the slide rail assembly provided by the embodiments of the present invention, the notch of the sliding chute in the slide rail faces upward, the pulley of the pulley device is hung over the sliding chute, the limiter is fixed on the mounting seat of the pulley device, and the limiting portion of the limiter is located below the stopper of the slide rail. The stopper limits the upward movement of the limiting portion, so that the pulley is prevented from upwardly moving out of the sliding chute from the notch of the sliding chute. The pulley may not upwardly move out of the sliding chute when moving along the sliding

chute. Therefore, the slide rail assembly is applied to the shower room without a problem that the glass door falls and breaks, and the shower room is safer when in use.

[0018] Other features and advantages of the present disclosure will be set forth in the following specification, and in part will be obvious from the specification, or may be learned by implementing the present disclosure. The objects and other advantages of the present disclosure can be realized and obtained by the structures particularly specified in the specification and drawings.

Brief Description of Drawings

[0019] The accompanying drawings are used to provide a further understanding of the technical schemes of the present invention, and constitute a part of the specification. The accompanying drawings are used together with the embodiments of the present application to explain the technical schemes of the present disclosure, and do not constitute a restriction on the technical schemes of the present disclosure.

FIG. 1 is a partial schematic diagram of the three-dimensional structure of a slide rail assembly according to Example 1 of the present invention;
 FIG. 2 is a right schematic structural diagram of the slide rail assembly shown in FIG. 1;
 FIG. 3 is a schematic diagram of the three-dimensional structure of a pulley device in FIG. 1;
 FIG. 4 is a schematic diagram of the three-dimensional structures of a limiter and a buffer in FIG. 1;
 FIG. 5 is a schematic diagram of the three-dimensional structure of a damper in FIG. 1;
 FIG. 6 is a schematic diagram of the three-dimensional structure of the pulley device, the limiter and the buffer in FIG. 1 after being assembled together; and
 FIG. 7 is a schematic exploded diagram of the structure of FIG. 6.

[0020] The correspondence between reference signs in FIGS. 1 to 7 and component names is as follows:
 100 slide rail, 110 sliding chute, 120 stopper, 130 guiding and limiting groove, 210 pulley, 220 mounting seat, 230 pulley seat, 240 door body connecting seat, 241 first connecting seat, 242 second connecting seat, 243 spacer, 244 decorative cover, 300 limiter, 310 limiting portion, 320 guiding and limiting portion, 400 buffer, 500 damper, 510 body, 511 sliding groove, 520 damping slider, 521 mating notch.

Detailed Description

[0021] In order to make the purposes, technical schemes and advantages of the present disclosure clearer, embodiments of the present invention will be described in detail below with reference to the accompanying drawings. It is noted that the embodiments in the

present application and the features in the embodiments may be combined with each other arbitrarily if there is no conflict and as long as it falls under the scope of protection as defined by the claims.

Example 1:

[0022] A slide rail assembly according to an embodiment of the present invention, as shown in FIGS. 1 to 7, includes: a slide rail 100 provided with a sliding chute 110 having an upwardly opened notch and a stopper 120; a pulley device including a pulley 210 and a mounting seat 220, the pulley 210 being uprightly disposed and rotatably mounted on the mounting seat 220, and the pulley 210 being hung over the sliding chute 110 and being movable along a length direction of the sliding chute 110; and a limiter 300 fixed on the mounting seat 220, the limiter 300 being provided with a limiting portion 310 which is located below the stopper 120. The stopper 120 prevents the pulley 210 from upwardly moving out of the sliding chute 110 by limiting the upward movement of the limiting portion 310.

[0023] In the slide rail assembly, the notch of the sliding chute 110 in the slide rail 100 faces upward, the pulley 210 of the pulley device is hung over the sliding chute 110, and the limiter 300 is fixed on the mounting seat 220 of the pulley device. The limiting portion 310 of the limiter 300 is located below the stopper 120 of the slide rail 100, and the stopper 120 limits the upward movement of the limiting portion 310, so that the pulley 210 is prevented from upwardly moving out of the sliding chute 110 from the notch of the sliding chute 110. The pulley 210 may not upwardly move out of the sliding chute 110 when moving along the sliding chute 110. Therefore, the slide rail assembly is applied to a shower room without a problem that a glass door falls and breaks, and the shower room is safer when in use.

[0024] In an exemplary embodiment, as shown in FIGS. 4, 6 and 7, the slide rail assembly further includes a buffer 400 disposed on the limiting portion 310 to prevent the limiting portion 310 from colliding with the stopper 120 rigidly, so that the limiter 300 and the slide rail 100 are less likely to be damaged during use. The buffer 400 may be disposed as a buffer sleeve, and the buffer sleeve is sleeved on the limiting portion 310, so that the buffer sleeve is not easy to fall off during use.

[0025] As shown in FIGS. 1 and 2, the slide rail 100 is further provided with a guiding and limiting groove 130. The guiding and limiting groove 130 is parallel to the sliding chute 110 and has the same length as the sliding chute 110. The limiter 300 is further provided with a guiding and limiting portion 320 which extends into the guiding and limiting groove 130 and is movable along the guiding and limiting groove 130. A groove wall of the guiding and limiting portion 320 to move along a width direction of the sliding chute 110, so as to prevent the pulley 210 from swinging in the width direction of the sliding chute 110, and ensure that

the limiting portion 310 is always located just below the stopper 120, so that the pulley 210 is less likely to move out of the sliding chute 110 from the notch of the sliding chute 110, and the shake amount of the pulley device during use is also smaller.

[0026] In an exemplary embodiment, the slide rail assembly further includes two sets of dampers 500, which are fixed at two ends of the guiding and limiting groove 130 (understood with reference to FIGS. 1 and 2), respectively, and are used to slow down the guiding and limiting portion 320, that is, to slow down the pulley device when the guiding and limiting portion 320 moves to the end of the traveling distance (that is, each end of the guiding and limiting groove 130). The two sets of dampers 500 may be two dampers 500 or four dampers 500, which can be reasonably selected according to the number of movable glass doors.

[0027] In an example, as shown in FIG. 5, each damper 500 includes: a body 510 fixed at the end of the guiding and limiting groove 130, the body 510 being provided with a sliding groove 511; and a damping slider 520 disposed in the sliding groove 511 and movable along the sliding groove 511. The sliding groove 511 is parallel to the slide rail 100, and the length of the sliding groove 511 is far less than that of the slide rail 100. When the guiding and limiting portion 320 moves to the end of the traveling distance, the guiding and limiting portion 320 enters the sliding groove 511, and then pushes the damping slider 520 to move along the sliding groove 511 together, and the friction force between the damping slider 520 and the sliding groove 511 slows down the guiding and limiting portion 320. The body 510 can be fixed on a bottom wall of the guiding and limiting groove 130 by screws or fastening screws after the determination of its position at the end of the guiding and limiting groove 130 as required. The guiding and limiting groove 130 may be disposed as a T-shaped groove.

[0028] In an example, as shown in FIGS. 1 and 5, the damping slider 520 is provided with a mating notch 521. When the guiding and limiting portion 320 moves from the middle of the movement traveling distance towards the end of the movement traveling distance, the guiding and limiting portion 320 may enter the sliding groove 511 and then be snapped into the mating notch 521. When the guiding and limiting portion 320 moves from the end of the movement traveling distance towards the middle of the movement traveling distance, the guiding and limiting portion 320 may move out of the mating notch 521 and then slide out of the sliding groove 511, thus separating from the damper 500 and realizing quick door opening.

[0029] As shown in FIGS. 1 and 2, the guiding and limiting groove 130 is located at the top of the slide rail 100, with the notch facing upwards, and the notch of the sliding groove 511 also faces upwards. The sliding chute 110 and the stopper 120 are located at the same side of the slide rail 100, and the stopper 120 is located above the sliding chute 110. The stopper 310 and the guiding

and limiting portion 320 are both located at the same side of the limiter 300, and the limiting portion 310 is located below the guiding and limiting portion 320. Such structure is applied for a shower room to make the operation more simple and convenient for operators.

[0030] In an example, as shown in FIGS. 1, 2 and 4, the limiting portion 310 is a horizontally arranged limiting plate, which is located just below the stopper 120. The distance between the limiting plate and the stopper 120 is a, the depth of the pulley 210 sinking into the sliding chute 110 is b, wherein a is less than b. The length of the stopper 120 is the same as that of the sliding chute 110. Therefore, the pulley 210 may not upwardly move out of the sliding chute 110.

[0031] In an example, as shown in FIGS. 1, 2 and 4, the guiding and limiting portion 320 includes a horizontally arranged connecting arm and a vertically disposed guiding and limiting arm. An upper end of the guiding and limiting arm is connected to a side surface of the limiter 300 by the connecting arm, and a lower end of the guiding and limiting arm extends downward into the guiding and limiting groove 130.

[0032] In an exemplary embodiment, as shown in FIGS. 1, 2, 3, 6 and 7, the mounting seat 220 includes: a pulley seat 230, two sets of pulleys 210 spaced horizontally being both rotatably mounted on a side of the pulley seat 230 facing the slide rail 100; a door body connecting seat 240. The pulley seat 230 is located between the door body connecting seat 240 and the slide rail 100. The pulley seat 230 can be mounted at a side of the door body connecting seat 240 in a horizontally swinging manner by bolts, so that the angles of the two sets of pulleys 210 can be adjusted in a horizontal direction, which can better ensure the smooth movement of the two sets of pulleys 210 along the slide rail 100. The door body connecting seat 240 is used to be assembled with a door body to form a sliding door structure. The door body may be disposed as a glass door.

[0033] In the slide rail assembly, the pulley device is firstly hung over the slide rail 100, then the limiter 300 is mounted on the slide rail 100, and finally, the limiter 300 and the pulley seat 230 are fixed together by screws.

[0034] In an exemplary embodiment, as shown in FIGS. 6 and 7, the door body connecting seat 240 includes a first connecting seat 241, a second connecting seat 242, a spacer 243 and a decorative cover 244 and the like. After the first connecting seat 241, the second connecting seat 242 and the spacer 243 are mounted on the glass door, a screw is screwed on the first connecting seat 241 after passing through the second connecting seat 242, the spacer 243 and the glass door, and finally the decorative cover 244 is mounted on the second connecting seat 242.

55 Example 2:

[0035] A shower room (not shown in the figures) provided by the present invention includes a door body and

the slide rail assembly of any of aforementioned embodiments, and the mounting seat is assembled with the door body.

[0036] In an exemplary embodiment, the door body is provided as a glass door.

[0037] In conclusion, in the slide rail assembly provided by the embodiments of the present invention, the notch of the sliding chute in the slide rail faces upward, the pulley of the pulley device is hung over the sliding chute, the limiting portion of the limiter is located below the stopper of the slide rail, and the stopper limits the upward movement of the limiting portion, so that the pulley is prevented from upwardly moving out of the sliding chute from the notch of the sliding chute, and the pulley may not upwardly move out of the sliding chute when moving along the sliding chute. Therefore, the slide rail assembly is applied to the shower room without a problem that the glass door falls and breaks, and the shower room is safer when in use.

[0038] In the description of the present disclosure, it should be noted that the orientation or position relationships indicated by the terms "upper", "lower", "one side", "other side", "one end", "other end", "side", "relative", "four corners", "periphery" and "square structure" and the like are based on the orientation or position relationships shown in the drawings, which are only for convenience of describing the present disclosure and simplifying the description, rather than indicating or implying that the structure referred has the specific orientation, or is constructed and operated in the specific orientation, and thus cannot be interpreted as a limitation on the present disclosure.

[0039] In the description of the embodiments of the present disclosure, unless otherwise explicitly specified and limited, the terms "connection", "direct connection", "indirect connection", "fixed connection", "mounting" and "assembly" should be understood in a broad sense. For example, they may be fixed connection, detachable connection or integrated connection. The terms "mounting", "connection" and "fixed connection" may be direct connection, or indirect connection through an intermediary, or may be an internal communication between two elements. For those of ordinary skills in the art, the specific meanings of the above terms in the present disclosure can be understood according to specific situations.

[0040] Although implementations disclosed in the present disclosure are described above, the described contents are only implementations adopted for facilitating the understanding of the present disclosure, and are not intended to limit the present disclosure. Any person skilled in the art to which the present disclosure pertains may make any modifications and changes in the forms and details of implementations, but the scope of patent protection of the present disclosure shall still be defined by the appended claims.

Claims

1. A slide rail assembly, comprising:

5 a slide rail (100) provided with a sliding chute (110) having an upwardly opened notch and a stopper (120);
 a pulley device comprising a pulley (210) and a mounting seat (220), the pulley (210) being rotatably mounted on the mounting seat (220), and the pulley (210) being hung over the sliding chute (110) and movable along the sliding chute (110); and
 10 a limiter (300) fixed on the mounting seat (220), wherein the limiter (300) is provided with a limiting portion (310) which is located below the stopper (120), and the stopper (120) prevents the pulley (210) from upwardly moving out of the sliding chute (110) by limiting upward movement of the limiting portion (310);
 15 wherein the sliding chute (110) and the stopper (120) are located on the same side of the slide rail (100) and the stopper (120) is located above the sliding chute (110),
 20 **characterised in that** the slide rail (100) is further provided with a guiding and limiting groove (130), and the limiter (300) is further provided with a guiding and limiting portion (320), wherein the guiding and limiting portion (320) extends into the guiding and limiting groove (130) and is movable along the guiding and limiting groove (130), and a groove wall of the guiding and limiting groove (130) limits the movement of the guiding and limiting portion (320) along a width direction of the sliding chute (110); and
 25 **in that** the guiding and limiting groove (130) is located at the top of the slide rail (100), the limiting portion (310) and the guiding and limiting portion (320) are both located on the same side of the limiter (300), and the limiting portion (310) is located below the guiding and limiting portion (320).
 30

2. The slide rail assembly according to claim 1, further comprising:

45 a damper (500) disposed at an end of the guiding and limiting groove (130) and used for slowing down the guiding and limiting portion (320) when the guiding and limiting portion (320) moves to an end of a traveling distance.
 50

3. The slide rail assembly according to claim 2, wherein the damper (500) comprises:

55 a body (510) disposed at an end of the guiding and limiting groove (130), the body (510) being provided with a sliding groove (511); and
 a damping slider (520) disposed in the sliding

- groove (511) and movable along the sliding groove (511);
 wherein when the guiding and limiting portion (320) moves to the end of the traveling distance, the guiding and limiting portion (320) enters the sliding groove (511) and pushes the damping slider (520) to move along the sliding groove (511) together, and a friction force between the damping slider (520) and the sliding groove (511) slows down the guiding and limiting portion (320).
4. The slide rail assembly according to claim 1, wherein,
- the limiting portion (310) is a horizontally arranged limiting plate;
 the guiding and limiting portion (320) comprises a horizontally arranged connecting arm and a vertically disposed guiding and limiting arm, wherein an upper end of the guiding and limiting arm is connected to a side surface of the limiter (300) by the connecting arm, and a lower end of the guiding and limiting arm extends downward into the guiding and limiting groove (130).
5. The slide rail assembly according to any one of claims 1 to 4, wherein the mounting seat (220) comprises:
- a pulley seat (230), the pulley (210) being rotatably mounted at one side of the pulley seat (230);
 a door body connecting seat (240), wherein the pulley seat (230) is horizontally swingably mounted at one side of the door body connecting seat (240), and the door body connecting seat (240) is used for assembling with a door body.
6. The slide rail assembly according to claim 5, wherein the limiter (300) and the pulley seat (230) are assembled together by screws.
7. The slide rail assembly according to any one of claims 1 to 4, further comprising:
 a buffer (400) disposed on the limiting portion (310) for preventing rigid collision between the stopper (120) and the limiting portion (310).
8. A shower room comprising a door body and the slide rail assembly according to any one of claims 1 to 7, wherein the mounting seat (220) is assembled with the door body.

Patentansprüche

1. Eine Gleitschienenanordnung, die Folgendes beinhaltet:

eine Gleitschiene (100), die mit einer Gleitrinne (110) mit einer nach oben geöffneten Aussparung und einem Anschlag (120) versehen ist;
 eine Laufrollenvorrichtung, die eine Laufrolle (210) und eine Montageaufnahme (220) beinhaltet, wobei die Laufrolle (210) drehbar auf der Montageaufnahme (220) montiert ist und die Laufrolle (210) über die Gleitrinne (110) gehängt und entlang der Gleitrinne (110) bewegbar ist; und

einen auf der Montageaufnahme (220) befestigten Begrenzer (300), wobei der Begrenzer (300) mit einem Begrenzungsteil (310), das sich unter dem Anschlag (120) befindet, versehen ist und der Anschlag (120) durch das Begrenzen einer Aufwärtsbewegung des Begrenzungsteils (310) verhindert, dass die Laufrolle (210) sich nach oben aus der Gleitrinne (110) herausbewegt; wobei sich die Gleitrinne (110) und der Anschlag (120) auf derselben Seite der Gleitschiene (100) befinden und sich der Anschlag (120) über der Gleitrinne (110) befindet,

dadurch gekennzeichnet, dass die Gleitschiene (100) ferner mit einer Führungs- und Begrenzungsnut (130) versehen ist und der Begrenzer (300) ferner mit einem Führungs- und Begrenzungsteil (320) versehen ist, wobei sich das Führungs- und Begrenzungsteil (320) in die Führungs- und Begrenzungsnut (130) hineinerstreckt und entlang der Führungs- und Begrenzungsnut (130) bewegbar ist und eine Nutwand der Führungs- und Begrenzungsnut (130) die Bewegung des Führungs- und Begrenzungsteils (320) entlang einer Breitenrichtung der Gleitrinne (110) begrenzt, und dadurch, dass sich die Führungs- und Begrenzungsnut (130) an der Gleitschiene (100) oben befindet, sich das Begrenzungsteil (310) und das Führungs- und Begrenzungsteil (320) beide auf derselben Seite des Begrenzers (300) befinden und sich das Begrenzungsteil (310) unter dem Führungs- und Begrenzungsteil (320) befindet.

2. Gleitschienenanordnung gemäß Anspruch 1, die ferner Folgendes beinhaltet:

einen Dämpfer (500), der an einem Ende der Führungs- und Begrenzungsnut (130) positioniert ist und zum Abbremsen des Führungs- und Begrenzungsteils (320) genutzt wird, wenn sich das Führungs- und Begrenzungsteil (320) zu einem Ende einer Bewegungsstrecke hinbewegt.

3. Gleitschienenanordnung gemäß Anspruch 2, wobei der Dämpfer (500) Folgendes beinhaltet:

einen an einem Ende der Führungs- und Begrenzungsnut (130) positionierten Körper (510), wobei der Körper (510) mit einer Gleitnut (511)

- versehen ist; und
 ein Dämpfungsgleitstück (520), das in der Gleitnut (511) positioniert und entlang der Gleitnut (511) bewegbar ist;
 wobei das Führungs- und Begrenzungsteil (320), sobald sich das Führungs- und Begrenzungsteil (320) zu dem Ende der Bewegungstrecke hinbewegt, in die Gleitnut (511) eintritt und das Dämpfungsgleitstück (520) zu einer gemeinsamen Bewegung entlang der Gleitnut (511) anstößt und eine Reibungskraft zwischen dem Dämpfungsgleitstück (520) und der Gleitnut (511) das Führungs- und Begrenzungsteil (320) abbremst.
4. Gleitschienenanordnung gemäß Anspruch 1, wobei
- das Begrenzungsteil (310) eine horizontal angeordnete Begrenzungsplatte ist;
 das Führungs- und Begrenzungsteil (320) einen horizontal angeordneten Verbindungsarm und einen vertikal positionierten Führungs- und Begrenzungsarm beinhaltet, wobei ein oberes Ende des Führungs- und Begrenzungsarms über den Verbindungsarm mit einer Seitenoberfläche des Begrenzers (300) verbunden ist und sich ein unteres Ende des Führungs- und Begrenzungsarms nach unten in die Führungs- und Begrenzungsnut (130) hineinerstreckt.
5. Gleitschienenanordnung gemäß einem der Ansprüche 1 bis 4, wobei die Montageaufnahme (220) Folgendes beinhaltet:
- eine Laufrollenaufnahme (230), wobei die Laufrolle (210) drehbar an einer Seite der Laufrollenaufnahme (230) montiert ist;
 eine Türkörperverbindungsaufnahme (240), wobei die Laufrollenaufnahme (230) horizontal schwenkbar an einer Seite der Türkörperverbindungsaufnahme (240) montiert ist und die Türkörperverbindungsaufnahme (240) zum Zusammenfügen mit einem Türkörper genutzt wird.
6. Gleitschienenanordnung gemäß Anspruch 5, wobei der Begrenzer (300) und die Laufrollenaufnahme (230) durch Schrauben zusammengefügt sind.
7. Gleitschienenanordnung gemäß einem der Ansprüche 1 bis 4, die ferner Folgendes beinhaltet:
 einen auf dem Begrenzungsteil (310) positionierten Puffer (400) zum Verhindern einer harten Kollision zwischen dem Anschlag (120) und dem Begrenzungsteil (310).
8. Ein Duschraum, der einen Türkörper und die Gleitschienenanordnung gemäß einem der Ansprüche 1

bis 7 beinhaltet, wobei die Montageaufnahme (220) mit dem Türkörper zusammengefügt ist.

5 Revendications

1. Un ensemble rail de coulissement, comprenant :

un rail de coulissement (100) pourvu d'une glissière de coulissement (110) ayant une fente ouverte vers le haut et d'un butoir (120) ;
 un dispositif à galet comprenant un galet (210) et un siège de montage (220), le galet (210) étant monté de manière rotative sur le siège de montage (220), et le galet (210) étant appuyé sur la glissière de coulissement (110) et mobile le long de la glissière de coulissement (110) ; et un limiteur (300) fixé sur le siège de montage (220), le limiteur (300) étant pourvu d'une portion de limitation (310) qui est située au-dessous du butoir (120), et le butoir (120) empêchant le galet (210) de sortir par le haut de la glissière de coulissement (110) par limitation du mouvement vers le haut de la portion de limitation (310) ;
 la glissière de coulissement (110) et le butoir (120) étant situés sur le même côté du rail de coulissement (100) et le butoir (120) étant situé au-dessus de la glissière de coulissement (110), **caractérisé en ce que** le rail de coulissement (100) est en outre pourvu d'une rainure de guidage et de limitation (130), et le limiteur (300) est en outre pourvu d'une portion de guidage et de limitation (320), la portion de guidage et de limitation (320) s'étendant jusque dans la rainure de guidage et de limitation (130) et étant mobile le long de la rainure de guidage et de limitation (130), et une paroi de rainure de la rainure de guidage et de limitation (130) limitant le mouvement de la portion de guidage et de limitation (320) le long d'une direction de largeur de la glissière de coulissement (110) ; et **en ce que** la rainure de guidage et de limitation (130) est située en haut du rail de coulissement (100), la portion de limitation (310) et la portion de guidage et de limitation (320) sont toutes les deux situées sur le même côté du limiteur (300), et la portion de limitation (310) est située au-dessous de la portion de guidage et de limitation (320).

2. L'ensemble rail de coulissement selon la revendication 1, comprenant en outre :
 un amortisseur (500) disposé à une extrémité de la rainure de guidage et de limitation (130) et utilisé pour ralentir la portion de guidage et de limitation (320) lorsque la portion de guidage et de limitation (320) se meut jusqu'à une extrémité d'une distance

- de course.
3. L'ensemble rail de coulissement selon la revendication 2, dans lequel l'amortisseur (500) comprend :
- un corps (510) disposé à une extrémité de la rainure de guidage et de limitation (130), le corps (510) étant pourvu d'une rainure de coulissement (511) ; et
- un coulisseau d'amortissement (520) disposé dans la rainure de coulissement (511) et mobile le long de la rainure de coulissement (511) ; dans lequel lorsque la portion de guidage et de limitation (320) se meut jusqu'à l'extrémité de la distance de course, la portion de guidage et de limitation (320) pénètre dans la rainure de coulissement (511) et pousse le coulisseau d'amortissement (520) pour qu'ils se meuvent ensemble le long de la rainure de coulissement (511), et une force de frottement entre le coulisseau d'amortissement (520) et la rainure de coulissement (511) ralentit la portion de guidage et de limitation (320).
4. L'ensemble rail de coulissement selon la revendication 1, dans lequel,
- la portion de limitation (310) est une plaque de limitation agencée horizontalement ;
- la portion de guidage et de limitation (320) comprend un bras de liaison agencé horizontalement et un bras de guidage et de limitation disposé verticalement, une extrémité supérieure du bras de guidage et de limitation étant reliée à une surface latérale du limiteur (300) par le bras de liaison, et une extrémité inférieure du bras de guidage et de limitation s'étendant vers le bas jusque dans la rainure de guidage et de limitation (130).
5. L'ensemble rail de coulissement selon l'une quelconque des revendications 1 à 4, dans lequel le siège de montage (220) comprend :
- un siège de galet (230), le galet (210) étant monté de manière rotative d'un côté du siège de galet (230) ;
- un siège de liaison de corps de porte (240), le siège de galet (230) étant monté de manière horizontalement pivotante d'un côté du siège de liaison de corps de porte (240), et le siège de liaison de corps de porte (240) étant utilisé pour l'assemblage à un corps de porte.
6. L'ensemble rail de coulissement selon la revendication 5, dans lequel le limiteur (300) et le siège de galet (230) sont assemblés ensemble par des vis.
7. L'ensemble rail de coulissement selon l'une quelconque des revendications 1 à 4, comprenant en outre :
- un tampon (400) disposé sur la portion de limitation (310) pour empêcher une collision rigide entre le butoir (120) et la portion de limitation (310).
8. Une cabine de douche comprenant un corps de porte et l'ensemble rail de coulissement selon l'une quelconque des revendications 1 à 7, dans laquelle le siège de montage (220) est assemblé au corps de porte.

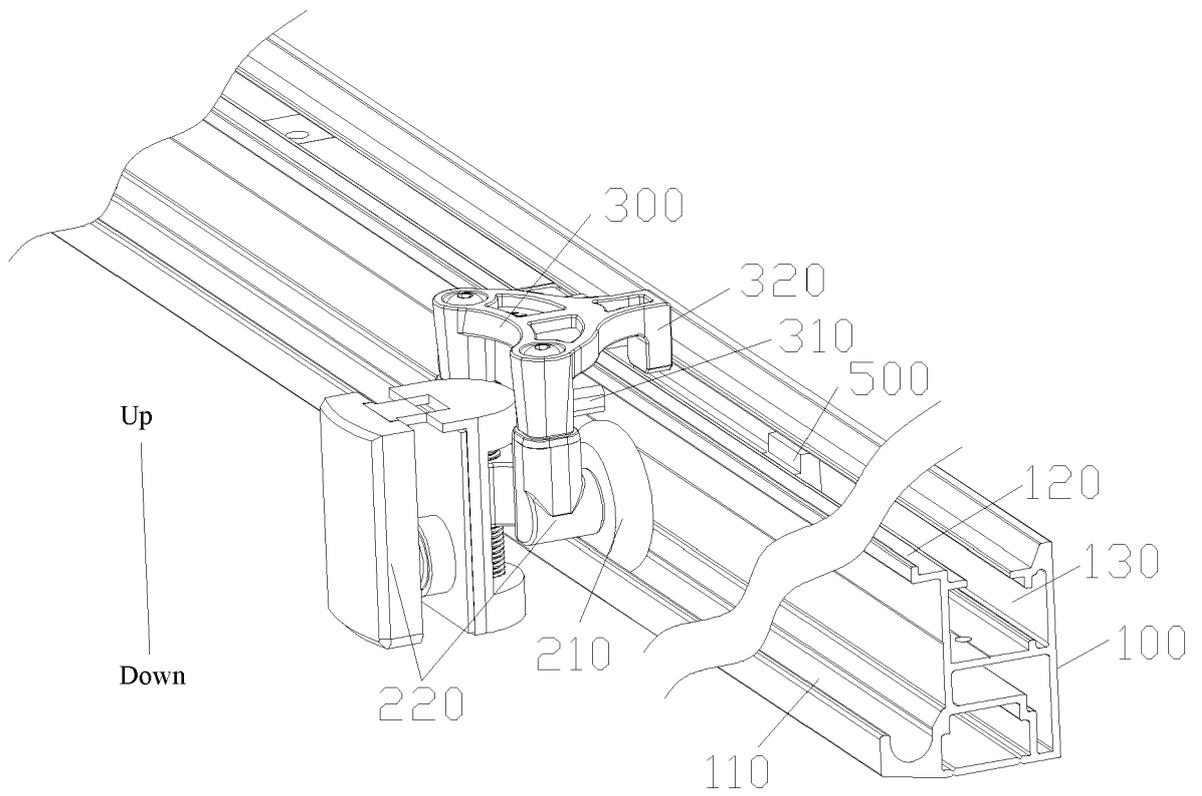


FIG. 1

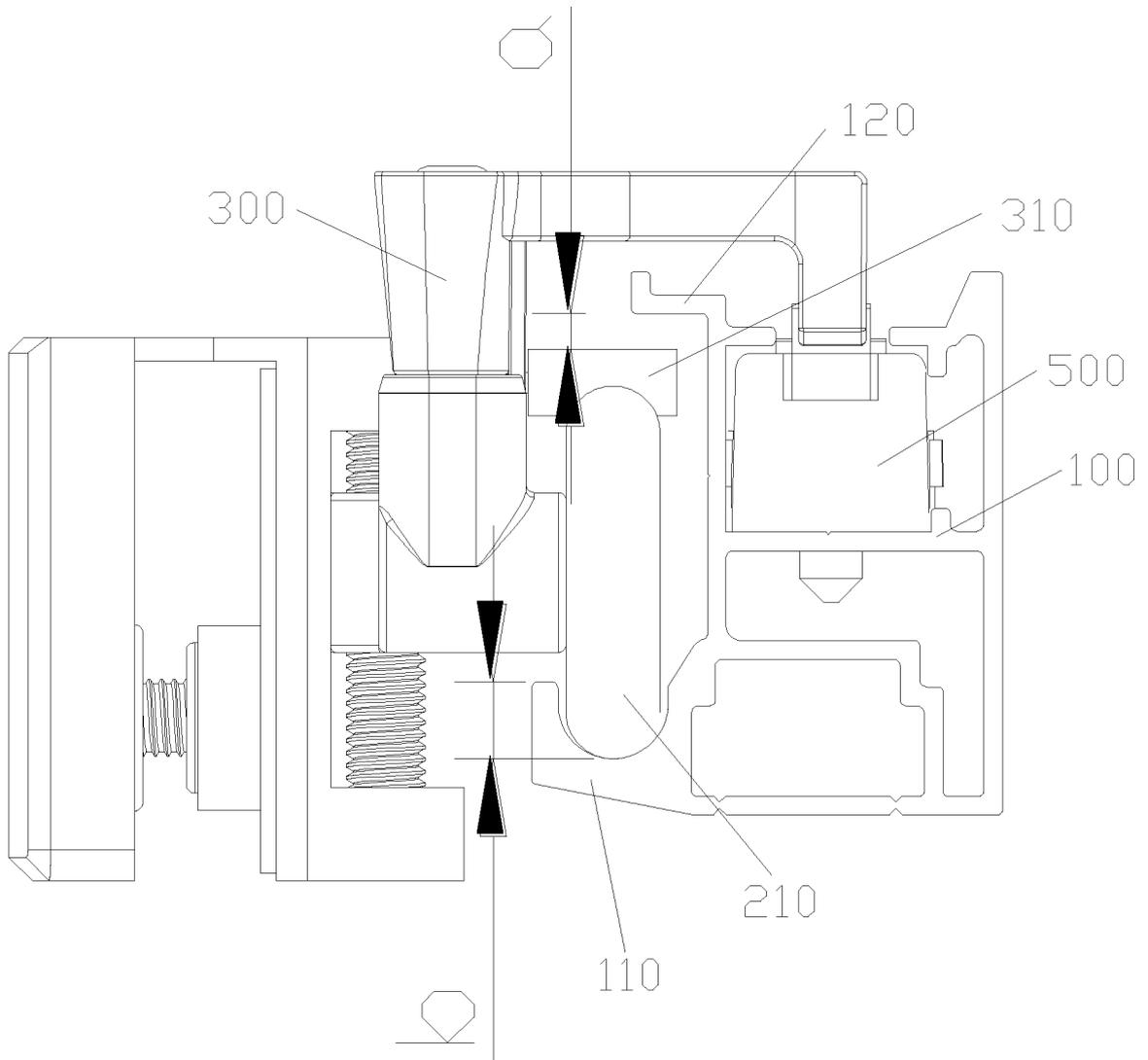


FIG. 2

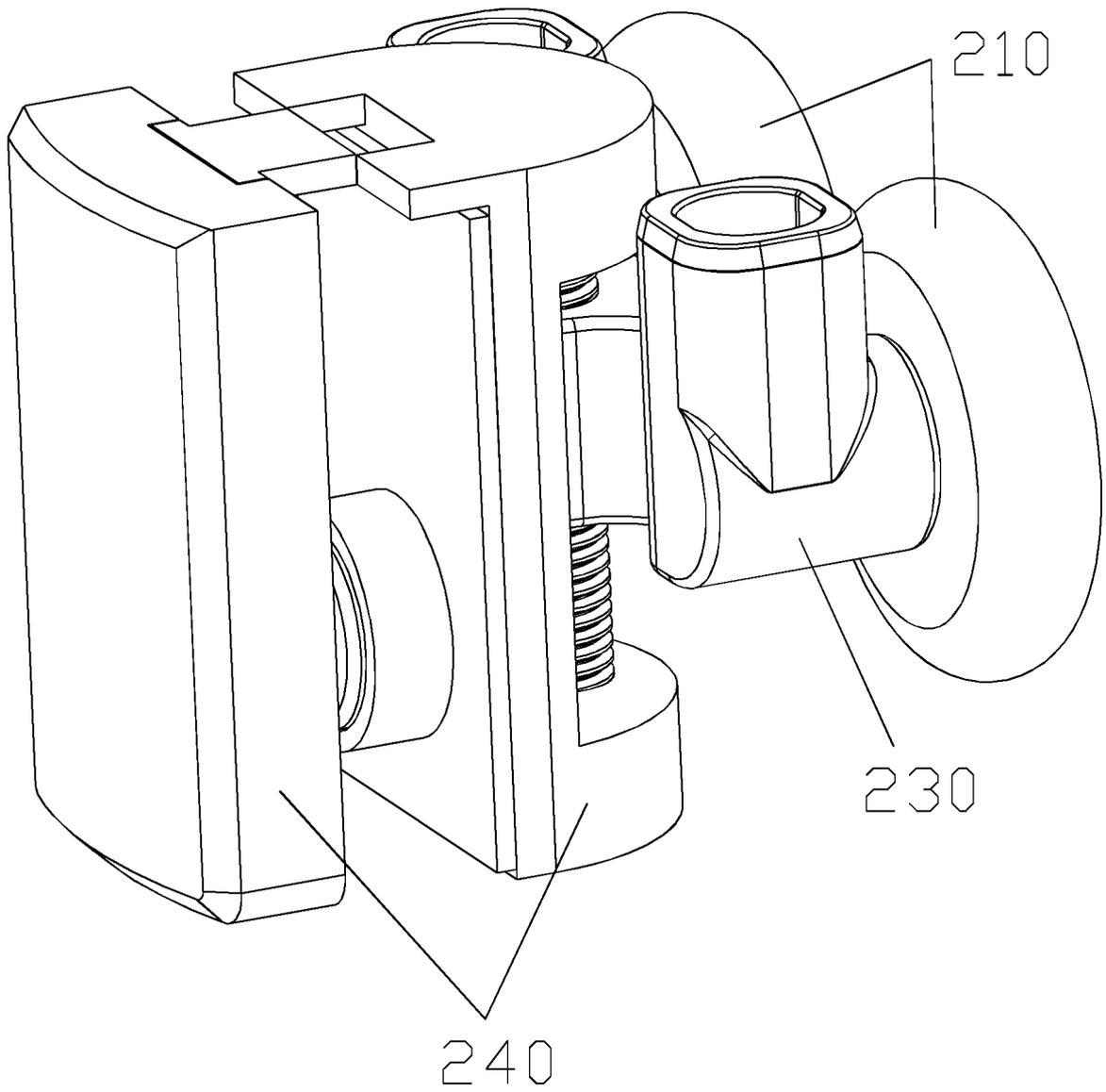


FIG. 3

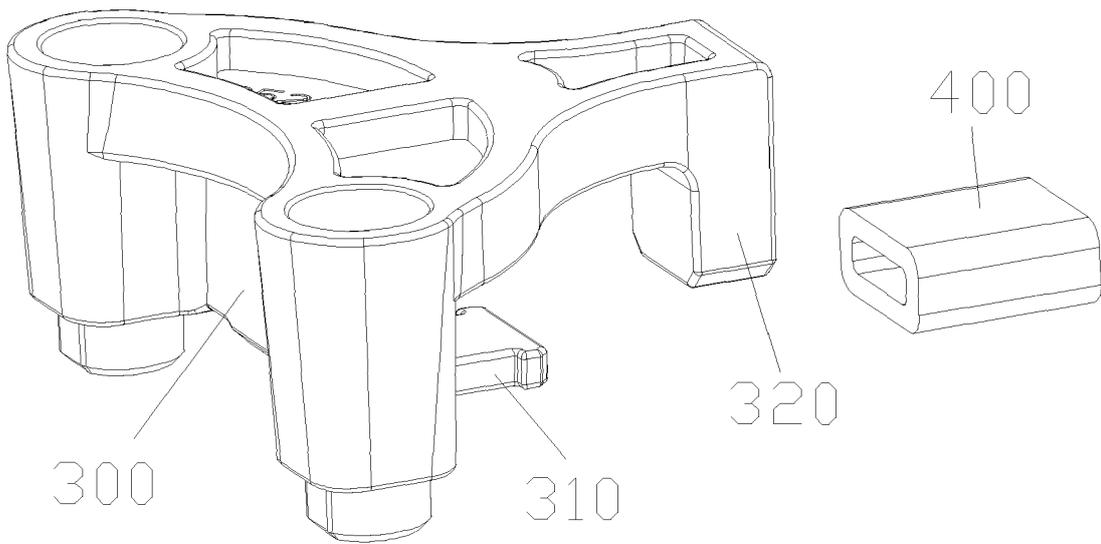


FIG. 4

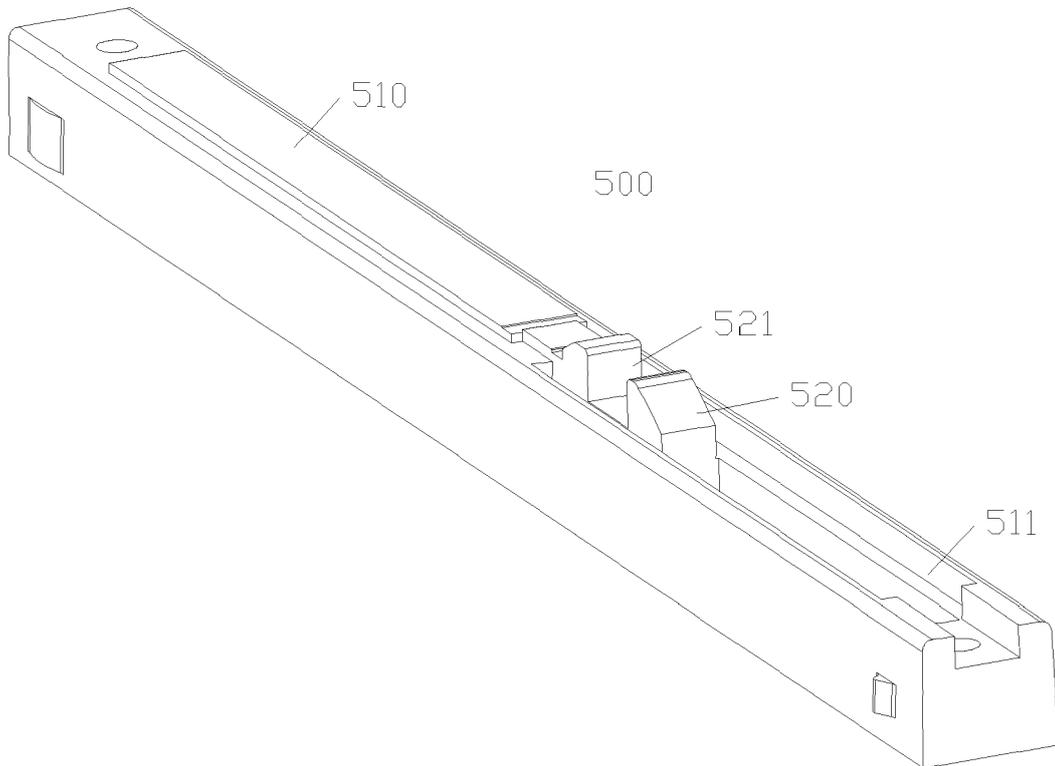


FIG. 5

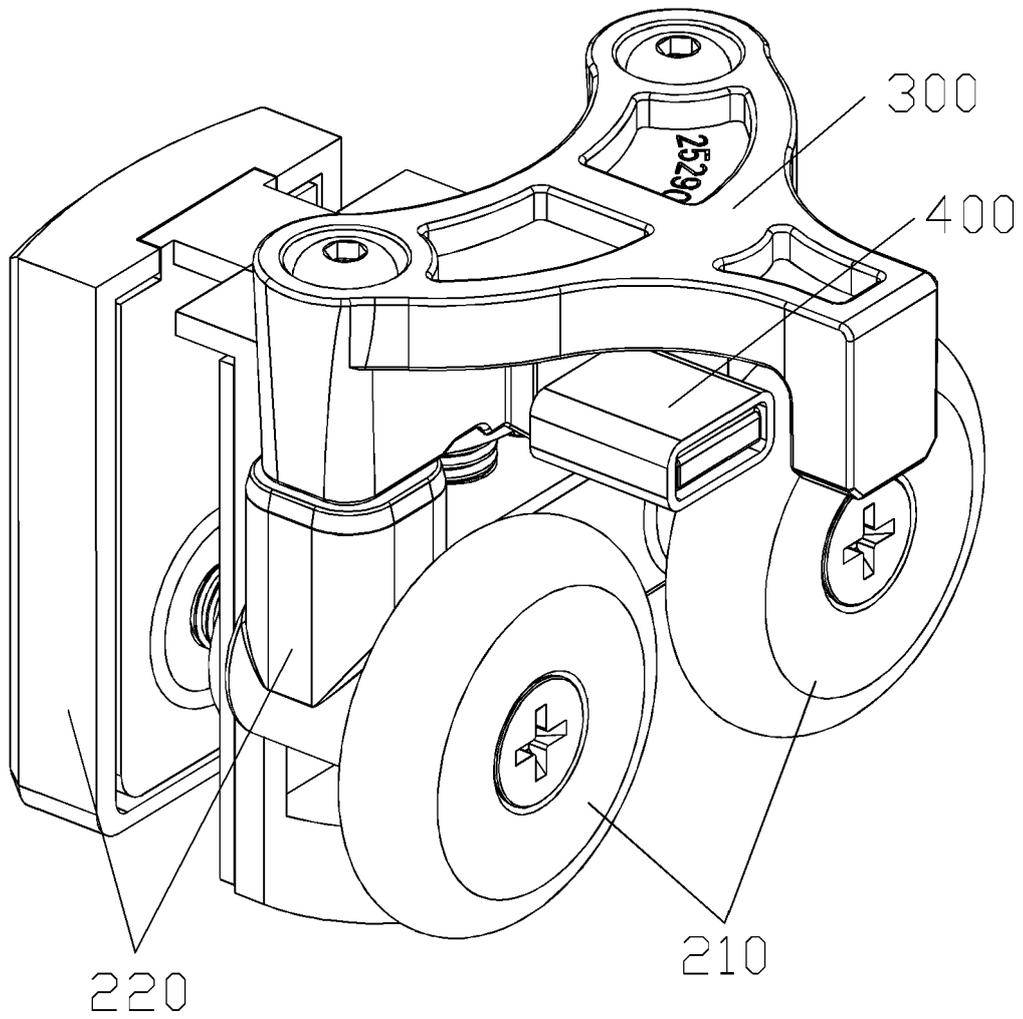


FIG. 6

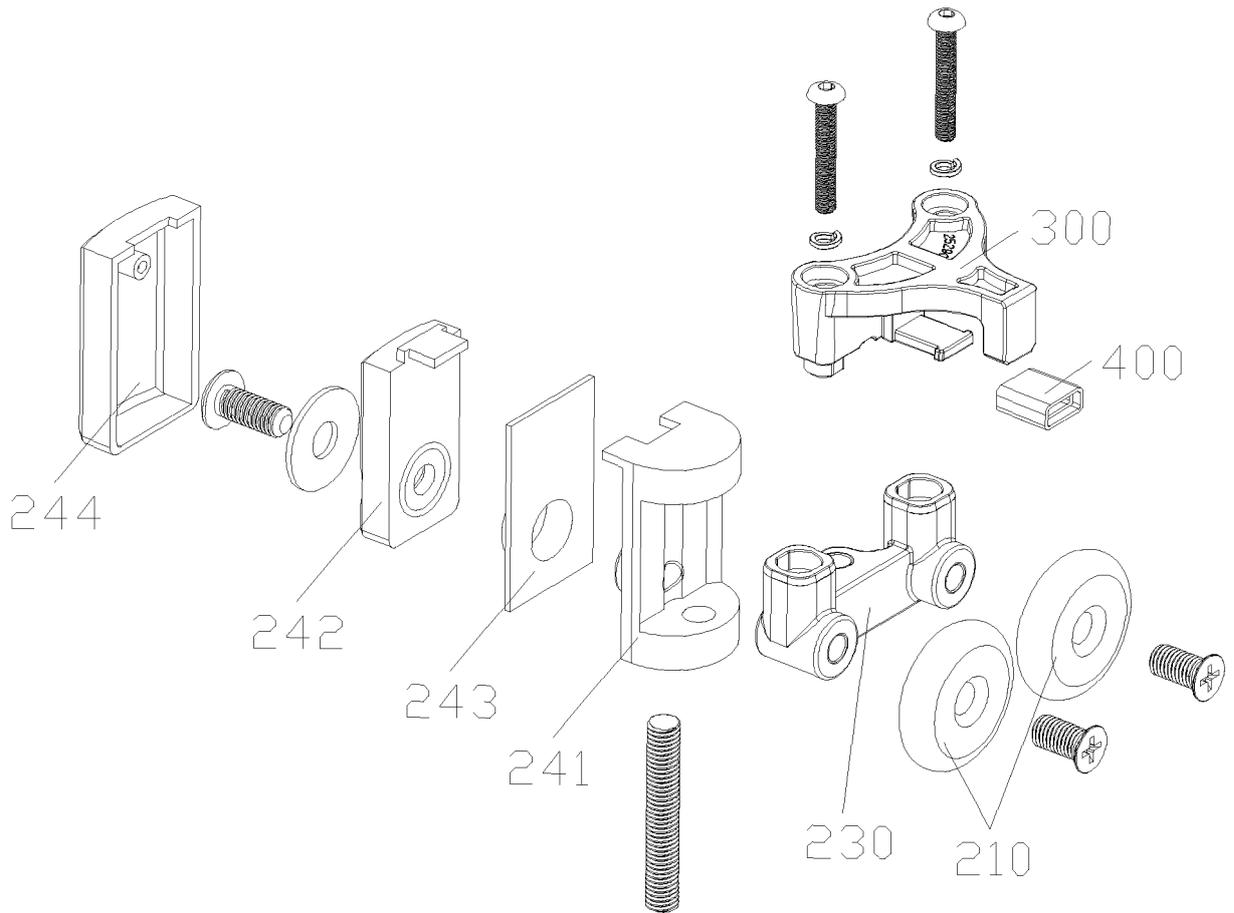


FIG. 7

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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