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(54) DOOR OR WINDOW

TÜR ODER FENSTER

PORTE OU FENÊTRE

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Description

[0001] The present application claims priority from Prior Application CN201410300153.8 filed June 30th, 2014 before the SIPO, entitled "a door or window".

TECHNICAL FIELD OF THE INVENTION

[0002] The present invention relates to building doors or windows technical field, particularly to a door or a window.

TECHNICAL BACKGROUND OF THE INVENTION

[0003] For the existing doors or windows, in particular swinging doors or swinging windows, there is always a certain distance between the lower part of the door leaf and the floor or between the lower part of the window leaf and the windowsill, to ensure the door or window can be opened and closed without being blocked. However, a gap between the door leaf and the floor or between the window leaf and the windowsill is left as a result, which will result in poor sealing performance, and make it easy for the outdoor materials (such as sand, moisture, insects and the like) entering into the room. In order to solve the problem of sealing the swinging door or the swinging window tightly, those skilled in the art provides the following solutions:

The application entitled as "An automatic adjusting swinging art door" with the Publication Number CN201972566U records as below: the invention discloses an automatic adjusting swinging art door, comprising a door leaf, the bottom of the door leaf is provided with a shell; the shell is of symmetrical structure, and provided with a groove at the center of the shell; both sides of the shell are provided with a sliding groove; two ends of a U-shaped adjusting strip are respectively mounted in the sliding grooves; two adjusting hooks are respectively mounted onto both ends of the U-shaped adjusting strip, and the adjusting hooks are matched up with shell hooks at the bottom of the side wall of the shell, the shell hooks is provided inside the shell and outside the sealing strip groove; and the bottom of the U-shaped adjusting strip is provided with two sealing strips mounted inside the sealing strip groove, the bottoms of the sealing strips extend beyond the sealing strip groove.

[0004] That is to say, in the prior art, as the bottom of the door leaf is provided with a shell, and the shell is provided with a sliding groove, U-shaped adjusting strips and adjusting hooks, thus the distance between the door and the floor can be adjusted by utilizing the automatic sealing of the U-shaped adjusting strip and the structure of the adjusting hook. But this relies on the shell structure mounted at the bottom of the door leaf, and the adjusting strips and the adjusting hooks are easy to failure, resulting a short service life. Meanwhile, when the door leaf is opened or closed, the door leaf can be automatically adjusted up and down, thus the adjusting hook will hinder the opening and closing of the door leaf and impact the smooth opening and closing.

[0005] GB 440 060 A relates to draught-excluders for doors and windows, it discloses a swinging door which is hinged on the right hand and shuts against door jambs, which are rebated to form recesses; a strip or batten is the draught excluder at the bottom of the door, free to move in a vertical direction and attached to the door by screws which fit freely in slots; when the door is nearly closed, metal fittings A near the extremities of the strip are arranged to slide on bevelled surfaces, and to force the said strip to descend to the floor level to close the space below the door; an angular or rebated member is fitted upon outer doors as a protection when exposed to rain; when the door is nearly closed, one of the fittings being bevelled slides below a bevelled projection, causing said fitting upon the strips to be depressed until a rubber beading is in contact with the floor. However, the prior art cannot adjust the heights of the left and the right of the door leaf or the window leaf respectively.

[0006] Furthermore, as the floor or the windowsill is subjected to be of different heights from left to right, the floor or the windowsill is usually not as flat as it is supposed. And this fact requires even higher sealing performance of the swinging door or window. However, in the existing solutions, the sealing performance is obtained according to the highest point of the floor or the windowsill, there is no solution aiming to adjust the heights of the left and the right of the door leaf or the window leaf respectively, therefore the technical problem of complete sealing cannot be solved.

SUMMARY OF THE INVENTION

[0007] The present invention aims to provide a door or a window with a longer service life and better sealing performance, which can ensure smooth opening.

[0008] The technical problem to be solved by the present invention is to provide a door or a window with the heights of the left and the right of the door or the window can be adjusted respectively, so as to achieve complete sealing.

[0009] In order to solve the above technical problem, this present invention, as set out in the appended claims, provides a door or a window, comprising a door jamb or a window jamb, a door leaf or a window leaf and a sealing structure, the sealing structure comprising fixing pieces, flexible members and a sealing member;

the door jamb or the window jamb is provided with at least two said fixing pieces, the sealing member is installed at the bottom portion of the door leaf or the window leaf;

each fixing piece is provided with at least one inclined surface; each flexible member comprises a housing and a spring within the housing;

the sealing member comprises a sealing frame, plastic strips installed at the bottom portion of the sealing frame,

the door leaf or the window leaf is provided with at least two said flexible members, one said sealing member is connected below the at least two flexible members,

the sealing member comprises convex portions installed on the two ends of the top portion of the sealing frame; each convex portion is provided with at least one inclined surface matching the fixing piece and a guide rail for positioning the door leaf or the window leaf; the sealing member is connected with the springs via the convex portions,

the convex portions are connected with the springs so that the sealing frame moves up and down when the convex portions move relative to the fixing pieces.

[0010] As an improvement of the above scheme, each convex portion is provided with a connecting piece inside it; the connecting piece comprises a bolt and a nut, one end of the bolt is connected with the spring, the other end of the bolt passes through the convex portion, the sealing frame and is fixed to the nut.

[0011] As an improvement of the above scheme, one end of the spring is connected with the bolt of the convex portion; the other end of the spring is fixedly installed onto the door leaf or the window leaf.

[0012] As an improvement of the above scheme, the fixing piece is provided with at least one circular through-hole and at least one elliptical through-hole;

the elliptical through-hole is provided with a screw through it, so that the fixing piece can slide up and down along the door jamb or the window jamb;

the circular through-hole is provided with a screw through it, so that the fixing piece can be fixed onto the door jamb or the window jamb.

[0013] As an improvement of the above scheme, the sealing frame is provided with mounting grooves at its bottom portion, the mounting grooves are used to mount the plastic strips; the lower part of the mounting groove is provided with hooks protruding inwards.

[0014] As an improvement of the above scheme, the plastic strips are inverted Y-shaped, and made of Ethylene Propylene Diene Monomer.

[0015] As an improvement of the above scheme, the sealing frame is of a rectangular frame structure; the lengths of the sealing frame, the mounting groove, and the plastic strip, in the front direction of the door or the window are the same as the length of the bottom portion of the door leaf or the window leaf in the front direction of the door or the window.

[0016] As an improvement of the above scheme, the door or the window comprises cover plates, the cover plates are mounted on sides of the sealing frame; the sealing frame is provided with mounting members on its inner surfaces, the mounting members are used to install the cover plates.

[0017] As an improvement of the above scheme, the mounting members are symmetrically installed on the inner surfaces of the sealing frame; the mounting members are C-shaped.

[0018] As an improvement of the above scheme, the door jamb or the window jamb is provided with two said fixing pieces; the door leaf or the window leaf is provided with two said flexible members; one said sealing member is connected below the two flexible members.

[0019] The implementation of the present invention has the following beneficial effects:

The present invention provides a swinging door or a swinging window. The door jamb or the window jamb is provided with at least two fixing pieces, and the door leaf or the window leaf is provided with at least two flexible members. At least one sealing member is connected below the at least two flexible members and the sealing member is mounted at the bottom portion of the door leaf or the window leaf. Wherein, each fixing piece is provided with at least one inclined surface; each flexible member comprises a housing and a spring within the housing. Each sealing member comprises a sealing frame, plastic strips mounted at the bottom portion of the sealing frame, and convex portions mounted on the two ends of the top of the sealing frame. Each convex portion is provided with at least one inclined surface matching one of said fixing piece and a guide rail for positioning the door leaf or the window leaf. The convex portions are connected with the springs so that the sealing frame can move up and down when the convex portions move relative to the fixing pieces. The door or the window has a long service life and good sealing performance, ensures smooth opening, and the heights of the left and the right of the door or the window can be adjusted respectively and thus is water-proof, moisture-proof, dust-proof, insect-proof and noise-proof, which will be revealed in detail as blow:

[0020] Firstly, the sealing member is connected with the springs via the convex portions, and thus the sealing member is lifted by the springs.

[0021] The sealing member will not touch the floor or the windowsill when the door or the window is opened. Only when the door leaf or the window leaf touches the door jamb or the window jamb, the sealing member will gradually move downwards, and on the moment the door or the window is closed completely, the sealing member will move downwards to the position fitting the floor or the windowsill tightly. Adopting the present structure, the opening and closing movement by rotating the swinging door or the swinging window will be smooth and easy and not be hindered. Furthermore, the flexible member and the sealing member do not function while the door

or the window is opened, which will reduce wear and prolong the service life.

[0022] Each sealing member comprises a sealing frame and plastic strips mounted at the bottom portion of the sealing frame. The plastic strips are inverted Y-shaped, and are preferably made of Ethylene Propylene Diene Monomer. Adopting the above-mentioned plastic strips, when the door or the window is closed, the plastic strips at the lower part of the door leaf or the window leaf can adjust the amount of compression according to the height of the floor or windowsill, and the amount of compression may extend to a maximum of 12 mm. Meanwhile, the left of the plastic strips and the right of the plastic strips can be adjusted respectively according to the different heights of the left or the right of the floor or the windowsill, enabling to effectively solve the problems of insufficient water resistance and poor sealing performance in the threshold-free swinging door or the threshold-free swinging window.

[0023] Secondly, the door jamb or the window jamb is provided with at least two fixing pieces, and the fixing pieces are mounted on the left side and the right side of the door jamb or the window jamb. The fixing piece is provided with at least one circular through-hole and at least one elliptical through-hole, wherein the elliptical through-hole is provided with a screw through it, in order that the fixing piece can slide up and down along the door jamb or the window jamb. And the circular through-hole is provided with a screw through it, in order that the fixing piece can be fixed onto the door jamb or the window jamb. Therefore, the present invention can respectively adjust the mounting height of the fixing piece on the left and the mounting height of the fixing piece on the right by the two elliptical through-holes on the left and on the right, so as to individually adjust the descending height of the left side of the sealing member and the descending height of the right side of the sealing member, and thus to meet the sealing requirements for the uneven floor or the uneven windowsill. And then the present invention makes use of the circular through-holes to fix the fixing pieces to the door jamb or the window jamb.

[0024] Thirdly, the sealing frame is provided with the mounting grooves for mounting the plastic strips at its bottom portion, and the lower part of the mounting groove is provided with hooks protruding inwards, which can effectively ensure the stability of the plastic strips mounted in the mounting grooves.

DESCRIPTION OF FIGURES OF THE INVENTION

[0025]

Fig. 1 is the schematic diagram of the door or the window of the present invention;

Fig. 2 is the right cutaway view of the door or the window of the present invention;

Fig. 3 is the plan cutaway view of the door or the window of the present invention;

Fig. 4 is the three-dimensional schematic diagram of the sealing structure of the door or the window as shown in Fig. 1;

Fig. 5 is the right cutaway view of the door or the window as shown in Fig. 4;

Fig. 6 is the schematic diagram of the sealing frame as shown in Fig. 4;

Fig. 7 is the working state schematic diagram of the sealing member shown in Fig. 4.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

[0026] In order to make the purpose, the technical scheme and the advantages of the present invention more clear, the present invention will be further described in detail with the combination of the figures.

[0027] As shown in Fig. 1, Fig. 2 and Fig. 3, the present invention provides a door or a window, the door or the window is a swinging door or a swinging window, comprising a door jamb or a window jamb 1, a door leaf or a window leaf 2 and a sealing structure 3; the sealing structure 3 comprises fixing pieces 31, flexible members 32 and a sealing member 33.

[0028] As shown in Fig. 4, the door jamb or the window jamb 1 is provided with at least two fixing pieces 31, and the door leaf 2 is provided with at least two flexible members 32, and at least one sealing member 33 is connected below the at least two flexible members 32, and the sealing member 33 is mounted at the bottom portion of the door leaf or the window leaf 2.

[0029] In this embodiment, the door jamb or the window jamb 1 is provided with two fixing pieces 31, and the door leaf or the window leaf 2 is provided with two flexible members 32, and one sealing member 33 is connected below the two flexible members 32, and the sealing member 33 is mounted at the bottom portion of the door leaf or the window leaf 2.

[0030] Wherein the fixing piece 31 is provided with at least one inclined surface 311, at least one elliptical through-hole 312 and at least one circular through-hole 313. In this embodiment, the fixing piece 31 is provided with one inclined surface 311, one elliptical through-hole 312 and one circular through-hole 313.

[0031] The elliptical through-hole 312 is provided with a screw through it, in order that the fixing piece 31 can slide up and down along the door jamb or the window jamb 1; the circular through-hole 313 is provided with a screw through it, in order that the fixing piece 31 can be fixed onto the door jamb or the window jamb 1. Therefore, in the present invention, the mounting height of the fixing piece on the left and the mounting height of the fixing

piece on the right can be adjusted respectively by the two elliptical through-holes 312 on the left and on the right, so that the descending height of the left side of the sealing member and the descending height of the right side of the sealing member can be adjusted respectively, and thus to meet the sealing requirements for the uneven floor or the uneven windowsill. And then, in the present invention the circular through-holes 313 are used to fix the fixing pieces onto the door jamb or the window jamb 1.

[0032] The flexible member 32 comprises a housing 321 and a spring 322 within the housing 321.

[0033] As shown in Fig. 5, the sealing member 33 comprises a sealing frame 331, plastic strips 332 mounted at the bottom portion of the sealing frame 331, and convex portions 333 mounted on the two ends of the top of the sealing frame 331; the convex portion 333 is provided with at least one inclined surface 334 matching the fixing piece 31 and a guide rail 335 for positioning the door leaf or the window leaf 2; the convex portion 333 is connected with the spring 322 so that the sealing frame 331 can move up and down when the convex portions 333 move relative to the fixing pieces 31.

[0034] The convex portion 333 is provided with the guide rail 335, so that the sealing member 33 can be located onto the door leaf or the window leaf 2, and thus the sealing member 33 can move up and down more easily.

[0035] The convex portion 333 is provided with a connecting piece 336 inside it; the connecting piece 336 comprises a bolt 336A and a nut 336B; one end of the bolt 336A is connected with the spring 322, the other end of the bolt 336A passes through the convex portion 333, the sealing frame 331 and is fixed to the nut 336B. One end of the spring 322 is connected with the bolt 336A of the convex portion 333; the other end of the spring 322 is mounted on the door leaf or the window leaf 2. Specifically, the other end of the spring 322 can be mounted on the door leaf or the window leaf 2 through a screw; however it is not limited to this.

[0036] The sealing member 33 is connected with the spring 322 via the convex portion 333, and thus the sealing member 33 is lifted by the spring 322. The sealing member 33 will not touch the floor or the windowsill when the door or window is opened. Only when the door leaf or the window leaf 2 touches the door jamb or the window jamb, the sealing member 33 will gradually move downwards, and on the moment the door or the window is completely closed, the sealing member 33 will move downwards to the position fitting the floor or the windowsill tightly. Adopting the present structure, the opening and closing movement by rotating the swinging door or the swinging window will be smooth and easy and not be hindered. Furthermore, the flexible member 32 and the sealing member 33 do not function while the door or the window is opened, which will reduce wear and prolong the service life.

[0037] As shown in Fig. 6, the sealing frame 331 is provided with mounting grooves 337 at its bottom portion, and the mounting grooves 337 is used to mount the plastic strips; the lower part of the mounting groove 337 is provided with hooks 338 protruding inwards, which can effectively ensure the stability of the plastic strips mounted in the mounting grooves 337.

[0038] Preferably, the plastic strips 332 are inverted Y-shaped, and is are preferably made of Ethylene Propylene Diene Monomer. Adopting the above-mentioned plastic strips 332, when the door or the window is closed, the plastic strips at the lower part of the door leaf or the window leaf can adjust the amount of compression according to the height of the floor or the windowsill, and the amount of compression may extend to a maximum of 12 mm. Meanwhile, the left of the plastic strips and the right of the plastic strips can be adjusted respectively according to the different heights of the left and the right of the floor or the windowsill, enabling to effectively solve the problems of insufficient water resistance and poor sealing performance in the threshold-free swinging door or the threshold-free swinging window.

[0039] Preferentially, the sealing frame 331 is of a rectangular frame structure; the lengths of the sealing frame 331, the mounting groove 337 and the plastic strip 332, in the front direction of the door or the window, are the same as the length of the bottom of the door leaf or the window leaf in the front direction of the door or the window, which ensures the sealing performance of the door or the window even more effectively.

[0040] Furthermore, the door or the window comprises cover plates 339, the cover plates 339 are mounted on both sides of the sealing frame 331; the sealing frame 331 is further provided with mounting members 340 on the inner surfaces, the mounting members 340 are used to install the cover plates 339. The mounting members 340 are symmetrically mounted on the inner surfaces of the sealing frame 331. Preferentially, the mounting members 340 are C-shaped. The structure of the present invention is provided with cover plates 339, the mounting members 340 are mounted on the inner surfaces of the sealing frame 331, therefore the mounting members used for connection can be hided, which will ensure the aesthetic property of the door or the window.

[0041] As shown in Fig. 7, the present door or window may function as below:

When the door leaf or the window leaf 2 is opened, the sealing member 33 is lifted and does not touch the floor or the windowsill, as shown in Fig. 7 marked by A state;

When the door leaf or the window leaf 2 begins to be closed, the convex portion 333 mounted on the door leaf or the window leaf 1 comes close to the fixing pieces 31 mounted on the door jamb or the window jamb 1, and moves relative to the fixing piece 31, so that the sealing member 33 gradually moves downwards. On the moment the door leaf or the window leaf 2 is closed completely, the sealing member

33 moves downwards to the position fitting the floor or the windowsill tightly, as shown in Fig. 7 marked by B state.

[0042] In summary, the door or the window disclosed by the present invention has a long service life and good sealing performance, ensures smooth opening, the heights on the left and on the right can be adjusted respectively, and thus is water-proof, moisture-proof, dust-proof, insect-proof and noise-proof, etc.

[0043] The above disclosed solution is only the preferred embodiment of the present invention, it should be noted that for one skilled in the art, modifications and embellishes can also be made within the protection scope of the present invention as defined by the claims.

INDUSTRIAL APPLICABILITY OF THE INVENTION

[0044] The door or the window disclosed by the present invention has a long service life and good sealing performance, ensures smooth opening, the heights on the left and on the right can be adjusted respectively, and thus is water-proof, moisture-proof, dust-proof, insect-proof and noise- proof, etc.

Claims

1. A door or a window, the door or the window being a swinging door or a swinging window, comprising a door jamb or a window jamb (1), a door leaf or a window leaf (2) and a sealing structure (3), the sealing structure (3) comprising fixing pieces (31), flexible members (32) and a sealing member (33); wherein

   the door jamb or the window jamb (1) is provided with at least two said fixing pieces (31), the sealing member (33) is installed at the bottom portion of the door leaf or the window leaf (2);
   each fixing piece (31) is provided with at least one inclined surface (311);
   each flexible member (32) comprises a housing (321) and a spring (322) within the housing (321);
   the sealing member (33) comprises a sealing frame (331),
   the door leaf or the window leaf (2) is provided with at least two said flexible members (32), one said sealing member (33) is connected below the at least two flexible members (32), wherein the sealing member (33) comprises convex portions (333) installed on the two ends of the top of the sealing frame (331); each convex portion (333) is provided with at least one inclined surface (334) matching one of said fixing pieces (31), wherein
   the convex portions (333) are connected with the springs (322) so that the sealing frame (331) moves up and down when the convex portions (333) move relative to the fixing pieces (31),
   characterized in that
   plastic strips (332) are installed at the bottom portion of the sealing frame (331);
   each convex portion (333) is provided with a guide rail (335) for positioning the door leaf or the window leaf (2), wherein the sealing member (33) is connected with the springs (322) via the convex portions (333).

2. A door or a window according to Claim 1, **characterized in that**, each convex portion (333) is provided with a connecting piece (336) inside it; the connecting piece (336) comprises a bolt (336A) and a nut (336B); one end of the bolt (336A) is connected with the spring (322); the other end of the bolt (336A) passes through the convex portion (333), the sealing frame (331) and is fixed to the nut (336B).

3. A door or a window according to Claim 2, **characterized in that**, one end of the spring (322) is connected with the bolt (336A) of the convex portion (333); the other end of the spring (322) is fixedly installed onto the door leaf or the window leaf (2).

4. A door or a window according to Claim 1, **characterized in that**, the fixing piece (31) is provided with at least one circular through-hole (313) and at least one elliptical through-hole (312);

   the elliptical through-hole (312) is provided with a screw through it, so that the fixing piece (31) can slide up and down along the door jamb or the window jamb (1);
   the circular through-hole (313) is provided with a screw through it, so that the fixing piece (31) can be fixed onto the door jamb or the window jamb (1).

5. A door or a window according to Claim 1, **characterized in that**, the sealing frame (331) is provided with mounting grooves (337) at its bottom portion, the mounting grooves (337) are used to mount the plastic strips (332); the lower part of the mounting groove (337) is provided with hooks (338) protruding inwards.

6. A door or a window according to Claim 5, **characterized in that**, the plastic strips (332) are inverted Y-shaped, and made of Ethylene Propylene Diene Monomer.

7. A door or a window according to any of Claims 1 to 6, **characterized in that**, the sealing frame (331) is of a rectangular frame structure; the lengths of the sealing frame (331), the mounting groove (337), and

the plastic strip (332), in the front direction of the door or the window are the same as the length of the bottom portion of the door leaf or the window leaf (2) in the front direction of the door or the window.

8. A door or a window according to Claim 1, **characterized in that**, the door or the window comprises cover plates (339), the cover plates (339) are mounted on sides of the sealing frame (331); the sealing frame (331) is provided with mounting members (340) on its inner surfaces, the mounting members (340) are used to install the cover plates (339).

9. A door or a window according to Claim 8, **characterized in that**, the mounting members (340) are symmetrically installed on the inner surfaces of the sealing frame (331); the mounting members (340) are C-shaped.

10. A door or a window according to Claim 1, **characterized in that**, the door jamb or the window jamb (1) is provided with two said fixing pieces (31); the leaf door or the window leaf (2) is provided with two said flexible members (32); one said sealing member (33) is connected below the two flexible members (32).

Patentansprüche

1. Tür oder Fenster, wobei die Tür oder das Fenster eine Schwingtür oder ein Schwingfenster ist, mit einem Türpfosten oder einem Fensterpfosten (1), einem Türflügel oder einem Fensterflügel (2) und einer Dichtungsstruktur (3), wobei die Dichtungsstruktur (3) Befestigungsstücke (31), flexible Elemente (32) und ein Dichtungselement (33) umfasst; wobei

der Türpfosten oder der Fensterpfosten (1) mit mindestens zwei der Befestigungsstücke (31) versehen ist, das Dichtungselement (33) am unteren Abschnitt des Tür- oder Fensterflügels (2) angebracht ist;
jedes Befestigungsstück (31) mit mindestens einer schrägen Fläche (311) versehen ist;
jedes flexible Element (32) ein Gehäuse (321) und eine Feder (322) innerhalb des Gehäuses (321) umfasst;
das Dichtungselement (33) einen Dichtungsrahmen (331) umfasst, der Türflügel oder der Fensterflügel (2) mit mindestens zwei der flexiblen Elemente (32) versehen ist, ein solches Dichtungselement (33) unter den mindestens zwei flexiblen Elementen (32) verbunden ist, wobei
das Dichtungselement (33) konvexe Abschnitte (333) umfasst, die an den beiden Enden des oberen Teils des Dichtungsrahmens (331) angebracht sind; jeder konvexe Abschnitt (333) mit mindestens einer schrägen Fläche (334) versehen ist, die zu einem der Befestigungsstücke (31) passt, wobei
die konvexen Abschnitte (333) mit den Federn (322) verbunden sind, so dass sich der Dichtungsrahmen (331) auf und ab bewegt, wenn sich die konvexen Abschnitte (333) relativ zu den Befestigungsstücken (31) bewegen,
dadurch gekennzeichnet, dass
Kunststoffstreifen (332) am unteren Abschnitt des Dichtungsrahmens (331) angebracht sind;
jeder konvexe Abschnitt (333) mit einer Führungsschiene (335) zur Positionierung des Türflügels oder des Fensterflügels (2) versehen ist,
wobei das Dichtungselement (33) über die konvexen Abschnitte (333) mit den Federn (322) verbunden ist.

2. Tür oder Fenster nach Anspruch 1, **dadurch gekennzeichnet, dass** jeder konvexe Abschnitt (333) im Inneren mit einem Verbindungsstück (336) versehen ist; das Verbindungsstück (336) einen Bolzen (336A) und einer Mutter (336B) umfasst; ein Ende des Bolzens (336A) mit der Feder (322) verbunden ist; und das andere Ende des Bolzens (336A) durch den konvexen Abschnitt (333) und den Dichtungsrahmen (331) geführt und an der Mutter (336B) befestigt ist.

3. Tür oder Fenster nach Anspruch 2, **dadurch gekennzeichnet, dass** ein Ende der Feder (322) mit dem Bolzen (336A) des konvexen Abschnitts (333) verbunden ist; und das andere Ende der Feder (322) fest mit dem Türflügel oder dem Fensterflügel (2) verbunden ist.

4. Tür oder Fenster nach Anspruch 1, **dadurch gekennzeichnet, dass**

das Befestigungsstück (31) mit mindestens einem kreisförmigen Durchgangsloch (313) und mindestens einem elliptischen Durchgangsloch (312) versehen ist;
das elliptische Durchgangsloch (312) hindurch mit einer Schraube versehen ist, so dass das Befestigungsstück (31) entlang des Türpfostens oder des Fensterpfostens (1) auf und ab gleiten kann;
und das kreisförmige Durchgangsloch (313) hindurch mit einer Schraube versehen ist, so dass das Befestigungsstück (31) an dem Türpfosten oder an dem Fensterpfosten (1) befestigt sein kann.

5. Tür oder Fenster nach Anspruch 1, **dadurch gekennzeichnet, dass** der Dichtungsrahmen (331) an seinem unteren Abschnitt mit Montagenuten (337) versehen ist, die Montagenuten (337) zur Befesti-

gung der Kunststoffstreifen (332) verwendet werden; und der untere Abschnitt der Befestigungsnut (337) mit nach innen ragenden Haken (338) versehen ist.

6. Tür oder Fenster nach Anspruch 5, **dadurch gekennzeichnet, dass** die Kunststoffstreifen (332) die Form eines umgekehrten Y haben und aus Ethylen-Propylen-Dien-Monomer bestehen.

7. Tür oder Fenster nach einem der Ansprüche 1 bis 6 , **dadurch gekennzeichnet, dass** der Dichtungsrahmen (331) eine Struktur eines rechteckigen Rahmens aufweist; und die Längen des Dichtungsrahmens (331), der Montagenut (337) und des Kunststoffstreifens (332) in der Frontrichtung der Tür oder des Fensters gleich der Länge des unteren Abschnitts des Türflügels oder des Fensterflügels (2) in der Frontrichtung der Tür oder des Fensters sind.

8. Tür oder Fenster nach Anspruch 1, **dadurch gekennzeichnet, dass** die Tür oder das Fenster Abdeckplatten (339) umfasst, die Abdeckplatten (339) an Seiten des Dichtungsrahmens (331) angebracht sind; der Dichtungsrahmen (331) an seinen Innenflächen mit Befestigungselementen (340) versehen ist, und die Befestigungselemente (340) zur Montage der Abdeckplatten (339) dienen.

9. Tür oder Fenster nach Anspruch 8, **dadurch gekennzeichnet, dass** die Befestigungselemente (340) symmetrisch an den Innenflächen des Dichtungsrahmens (331) angebracht sind; und die Befestigungselemente (340) C-förmig sind.

10. Tür oder Fenster nach Anspruch 1, **dadurch gekennzeichnet, dass** der Türpfosten oder der Fensterpfosten (1) mit zwei der Befestigungsstücke (31) versehen ist; die Flügeltür oder der Fensterflügel (2) mit zwei der flexiblen Elemente (32) versehen ist; und eines der Dichtungselemente (33) unter den beiden flexiblen Elementen (32) angebracht ist.

Revendications

1. Porte ou fenêtre, la porte ou la fenêtre étant une porte battante ou une fenêtre battante, comprenant un jambage de porte ou un jambage de fenêtre (1), un vantail de porte ou un vantail de fenêtre (2) et une structure d'étanchéité (3), la structure d'étanchéité (3) comprenant des pièces de fixation (31), des éléments flexibles (32) et un élément d'étanchéité (33) ; dans laquelle

le jambage de porte ou le jambage de fenêtre (1) est doté d'au moins deux desdites pièces de fixation (31), l'élément d'étanchéité (33) est installé au niveau de la portion de fond du vantail de porte ou du vantail de fenêtre (2) ;
chaque pièce de fixation (31) est dotée d'au moins une surface inclinée (311) ;
chaque élément flexible (32) comprend un boîtier (321) et un ressort (322) à l'intérieur du boîtier (321) ;
l'élément d'étanchéité (33) comprend un cadre d'étanchéité (331),
le vantail de porte ou le vantail de fenêtre (2) est doté d'au moins deux desdits éléments flexibles (32), ledit un élément d'étanchéité (33) est connecté en dessous desdits au moins deux éléments flexibles (32), dans laquelle
l'élément d'étanchéité (33) comprend des portions convexes (333) installées sur les deux extrémités du sommet du cadre d'étanchéité (331) ; chaque portion convexe (333) est dotée d'au moins une surface inclinée (334) s'accordant avec une desdites pièces de fixation (21), dans laquelle les portions convexes (333) sont connectées aux ressorts (322) de sorte que le cadre d'étanchéité (331) se déplace vers le haut et vers le bas quand les portions convexes (333) se déplacent relativement aux pièces de fixation (31),
caractérisée en ce que
des bandes en matière plastique (332) sont installées au niveau de la portion de fond du cadre d'étanchéité (331) ;
chaque portion convexe (333) est dotée d'un rail de guidage (335) destiné à positionner le vantail de porte ou le vantail de fenêtre (2), dans laquelle l'élément d'étanchéité (33) est connecté aux ressorts (322) via les portions convexes (333).

2. Porte ou fenêtre selon la revendication 1, **caractérisée en ce que**, chaque portion convexe (333) est dotée d'une pièce de connexion (336) à l'intérieur d'elle-même ; la pièce de connexion (336) comprend un boulon (336A) et un écrou (336B) ; une extrémité du boulon (336A) est connectée au ressort (322) ; l'autre extrémité du boulon (336A) passe à travers la portion convexe (333), le cadre d'étanchéité (313), et est fixée à l'écrou (336B).

3. Porte ou fenêtre selon la revendication 2, **caractérisée en ce que**, une extrémité du ressort (322) est connectée au boulon (336A) de la portion convexe (333) ; l'autre extrémité du ressort (322) est installée de manière fixe sur le vantail de porte ou le vantail de fenêtre (2).

4. Porte ou fenêtre selon la revendication 1, **caractérisée en ce que**, la pièce de fixation (31) est dotée d'au moins un trou traversant circulaire (313) et d'au moins un trou traversant elliptique (312) ;

le trou traversant elliptique (312) est doté d'une vis à travers lui-même, de sorte que la pièce de fixation (31) peut coulisser vers le haut et vers le bas le long du jambage de porte ou du jambage de fenêtre (1) ;
le trou traversant circulaire (313) est doté d'une vis à travers lui-même, de sorte que la pièce de fixation (31) peut être fixée sur le jambage de porte ou le jambage de fenêtre (1).

5. Porte ou fenêtre selon la revendication 1, **caractérisée en ce que**, le cadre d'étanchéité (331) est doté de rainures de montage (337) au niveau de sa portion de fond, les rainures de montage (337) sont utilisées pour monter les bandes en matière plastique (322) ; la partie inférieure de la rainure de montage (337) est dotée de crochets (338) se projetant vers l'intérieur.

6. Porte ou fenêtre selon la revendication 5, **caractérisée en ce que**, les bandes en matière plastique (332) sont en forme de Y inversé, et sont réalisées en monomère éthylène-propylène-diène.

7. Porte ou fenêtre selon l'une quelconque des revendications 1 à 6, **caractérisée en ce que**, le cadre d'étanchéité (331) est d'une structure à cadre rectangulaire ; les longueurs du cadre d'étanchéité (331), de la rainure de montage (337) et de la bande en matière plastique (332), dans la direction avant de la porte ou de la fenêtre, sont identiques à la longueur de la portion de fond du vantail de porte ou du vantail de fenêtre (2) dans la direction avant de la porte ou de la fenêtre.

8. Porte ou fenêtre selon la revendication 1, **caractérisée en ce que**, la porte ou la fenêtre comprend des plaques de couverture (339), les plaques de couverture (339) sont montées sur des côtés du cadre d'étanchéité (331) ; le cadre d'étanchéité (331) est doté d'éléments de montage (340) sur ses surfaces intérieures, les éléments de montage (340) sont utilisés pour installer les plaques de couverture (339).

9. Porte ou fenêtre selon la revendication 8, **caractérisée en ce que**, les éléments de montage (340) sont symétriquement installés sur les surfaces intérieures du cadre d'étanchéité (331) ; les éléments de montage (340) sont en forme de C.

10. Porte ou fenêtre selon la revendication 1, **caractérisée en ce que**, le jambage de porte ou le jambage de fenêtre (1) est doté de deux desdites pièces de fixation (31) ; le vantail de porte ou le vantail de fenêtre (2) est doté de deux desdits éléments flexibles (32) ; ledit un élément d'étanchéité (33) est connecté en dessous des deux éléments flexibles (32).

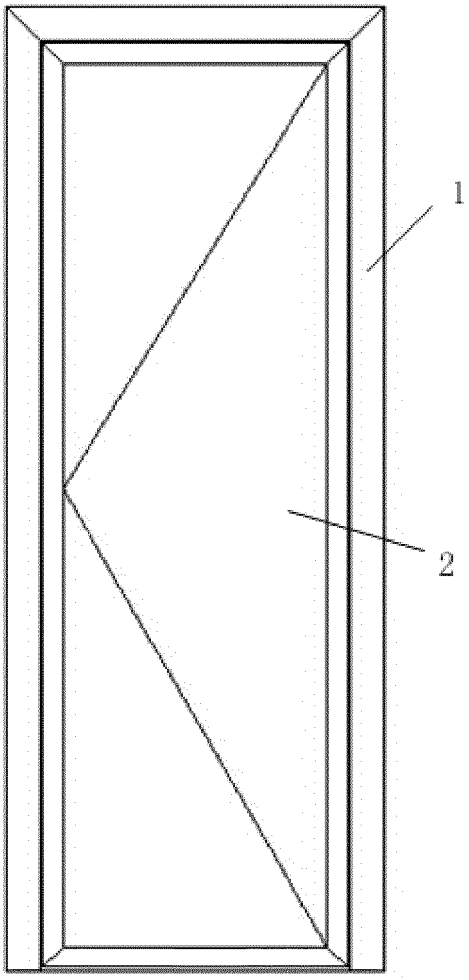


Fig. 1

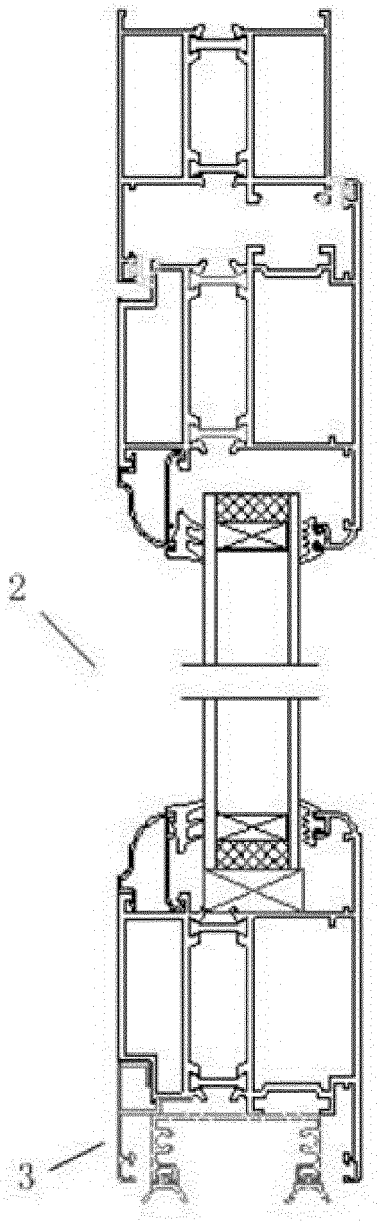


Fig. 2

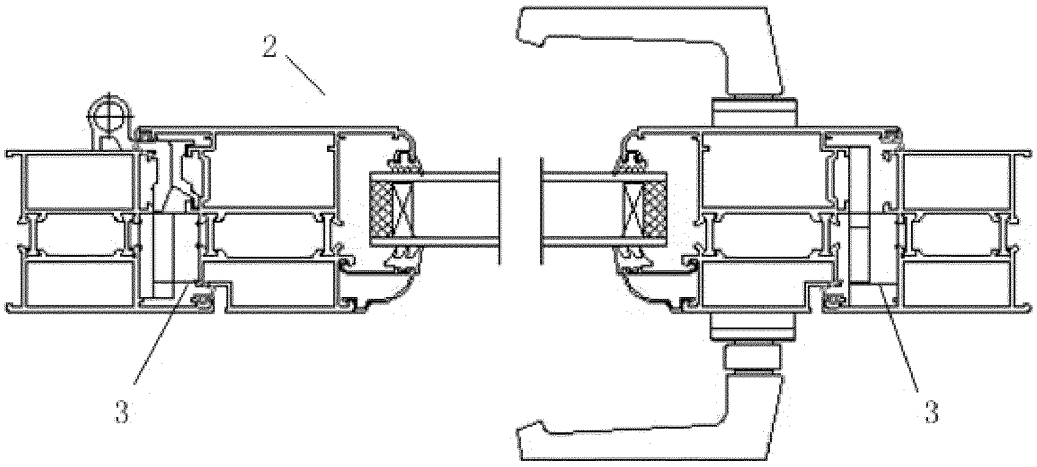


Fig. 3

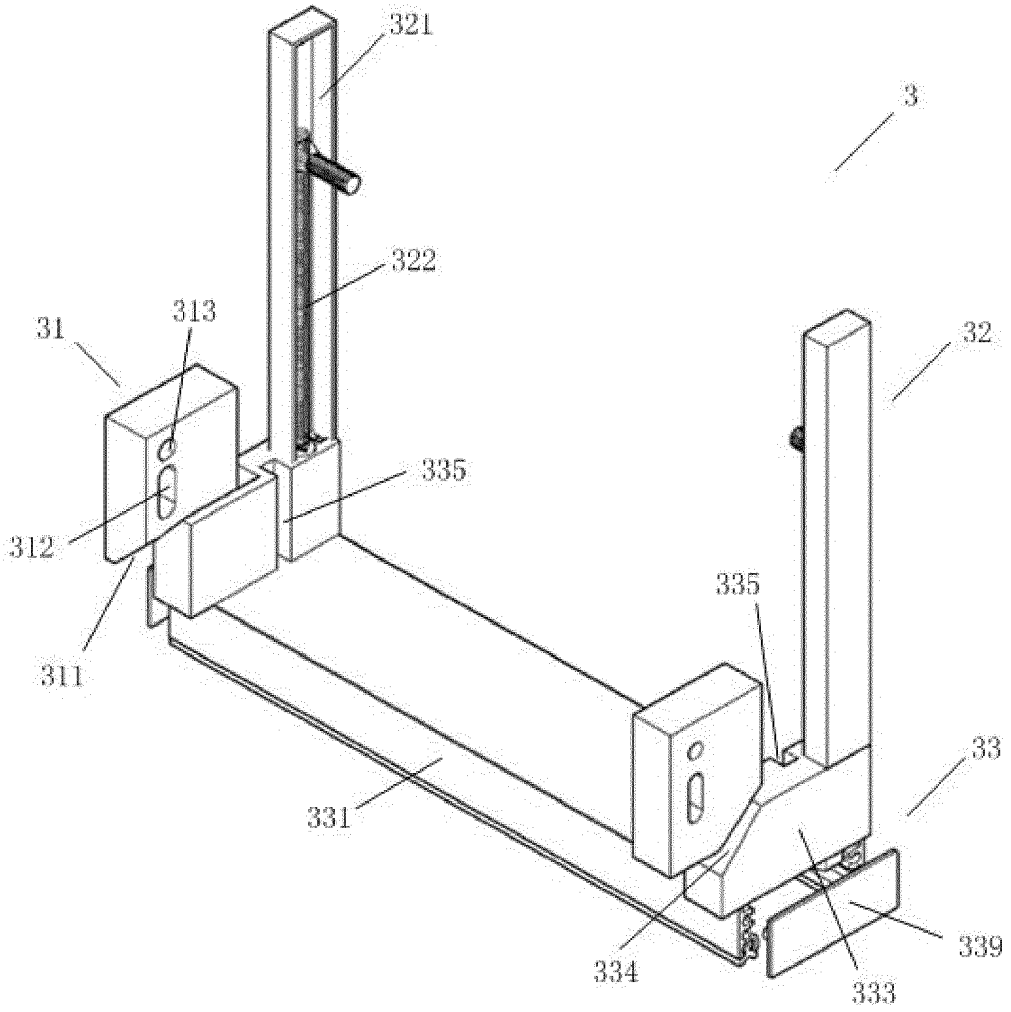
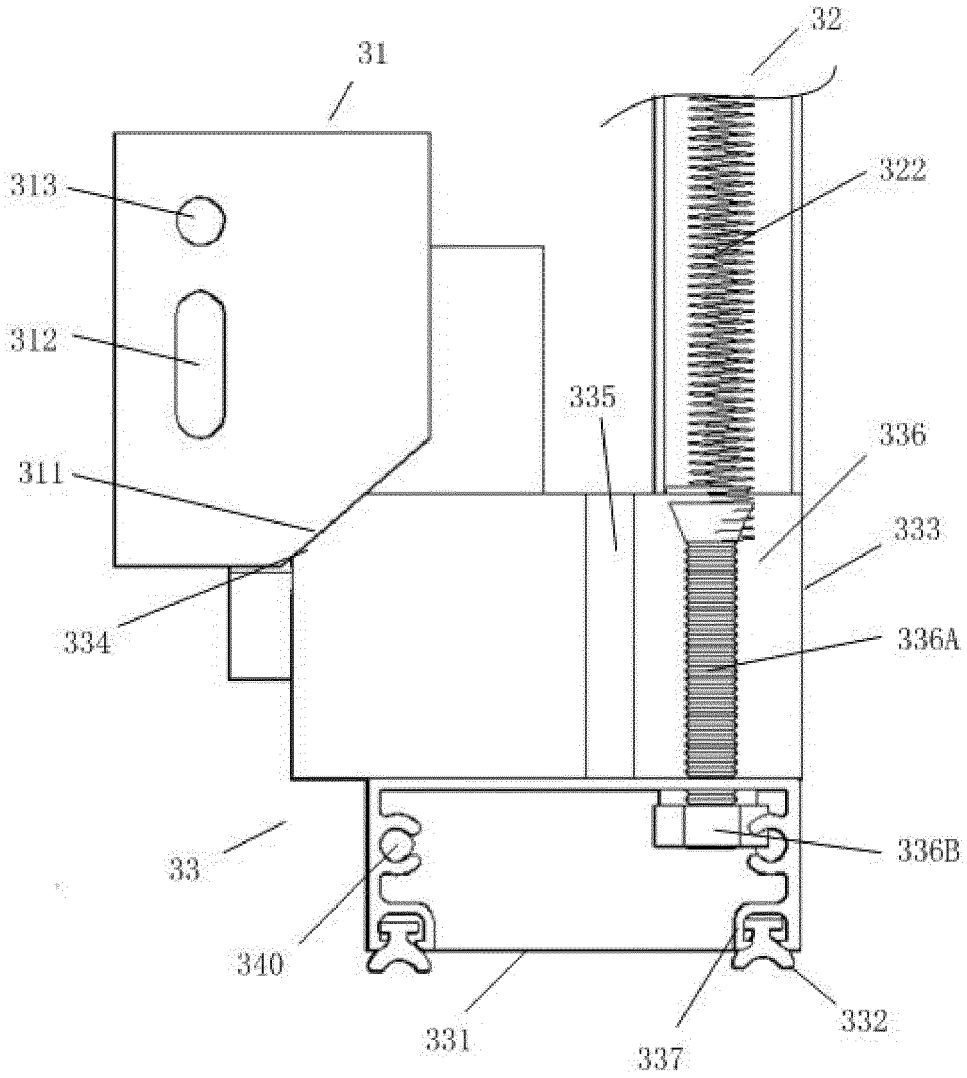


Fig. 4


32
31
322
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335
336
311
333
334
336A
33
336B
340
331
337
332

Fig. 5

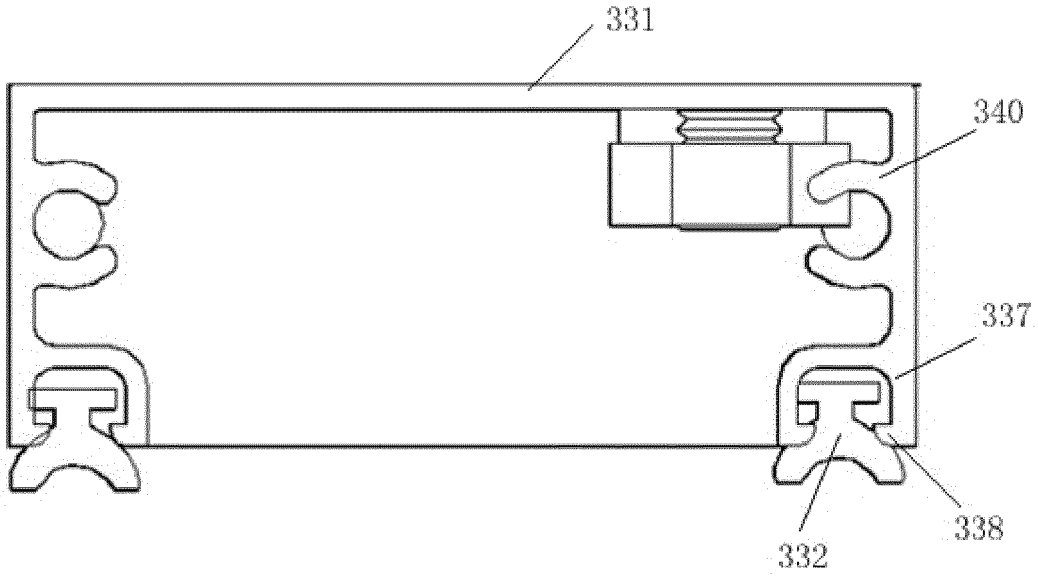

Fig. 6

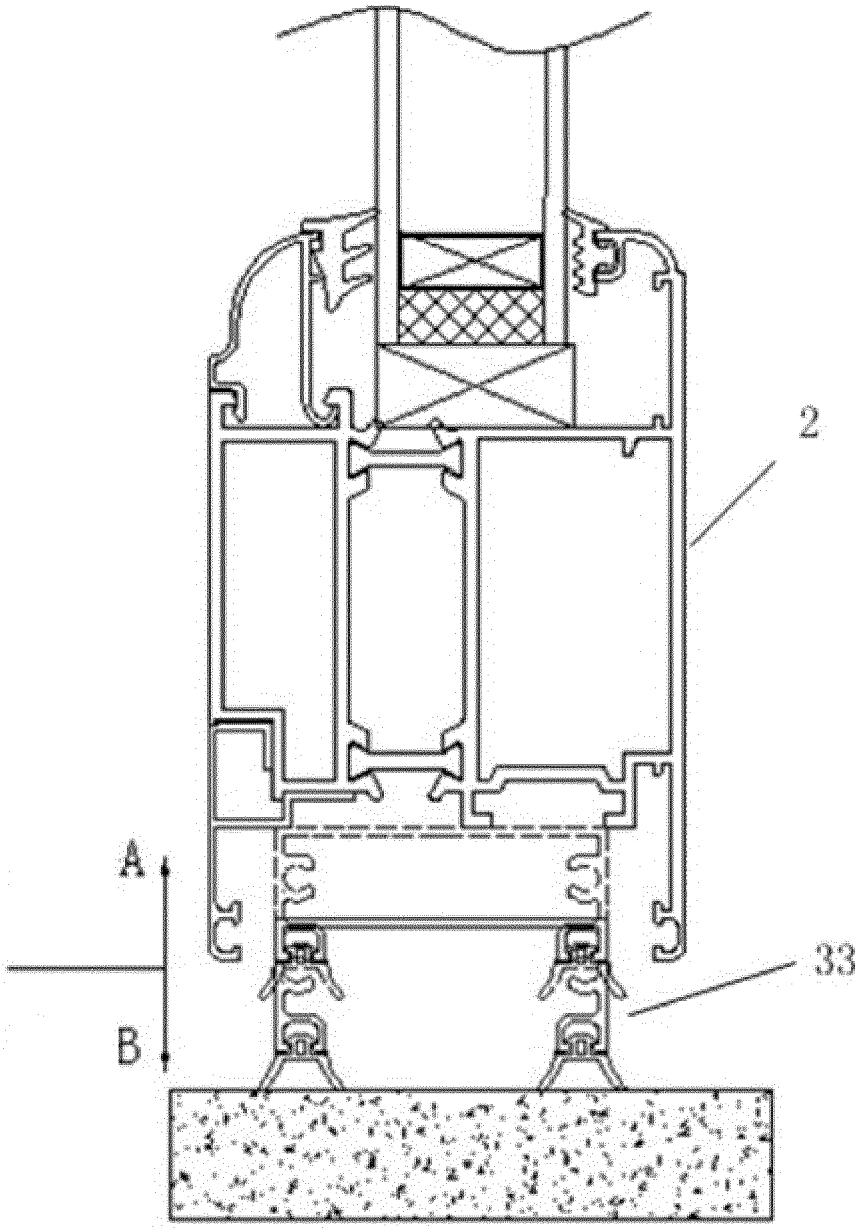

Fig. 7

REFERENCES CITED IN THE DESCRIPTION

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