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(54) VAPOUR BARRIER FOR A ROOF WINDOW

DAMPFSPERRE FÜR EIN DACHFENSTER

BARRIÈRE DE VAPEUR POUR UNE FENÊTRE DE TOIT

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Description

[0001] The present invention relates to a vapour barrier for a roof window and in particular to a vapour barrier for a roof window which prevents the ingress of moisture into a window covering member.

[0002] The accumulation of condensation in and around windows of all varieties is a common problem obscuring the view and causing the buildup of moisture which can ultimately lead to the growth of mould in and around the window. To alleviate this problem it is a common practice for windows and in particular roof windows, to have ventilation flaps which can be opened to allow the warm air from the interior to dissipate into the exterior air, thus preventing the buildup of condensation on the window surface. However in cold weather with the vent flap open, the warm air flowing from the interior through this vent flap flows into the hood and some warm air flows underneath the frame c-channels which are generally aluminium roll formed members. Condensation forms on the underside of these c-channels of the window frame. Over time the presence of this moisture can lead to the collection of the moisture at undesirable locations within the roof window. The moisture ultimately makes its way into the decorative surfaces surrounding the window frame on the inside of the building. Furthermore, build up of mould readily occurs as the location of the condensation is in a hard to reach area. To access these areas requires an operator to remove the c-channels in order to effectively remove the moisture. Thus there exists a need for a solution which will prevent the accumulation of condensation on the interior surface of the c-channels covering the frame of windows, in particular roof windows.

[0003] The documents WO 99/51832 A1, EP 2 738 339 A1 and EP 2 317 026 A1 show prior art roof windows with a vent flap.

[0004] It is an object of the present invention to obviate the problem of the accumulation of condensation on interior surfaces of covering members of frames of windows.

[0005] Accordingly, the present invention provides a roof window according to claim 1, said roof window having a roof window frame, a sash frame and a covering member for weather proofing the roof window, the covering member, the roof window frame and sash frame defining a channel there between capable of communicating fluid, a vapour barrier means being disposed in the fluid communicating channel for preventing the flow of vapour along at least part of the fluid communicating channel.

[0006] The vapour barrier prevents the vapour in warm air passing into at least part of the fluid communicating channel and condensing on the underside of the covering member.

[0007] The roof window has a vent flap operable between a closed position for preventing the flow of air into or out of the building and a venting positon allowing air to flow into or out of the building and into or out of the fluid communicating channel below the covering member.

[0008] The covering member comprises a hood and at least one side frame cover member for covering the top member and one side member of the roof window frame and sash frame.

[0009] Preferably, the covering member comprises a hood and two side frame cover members for covering the top member and both side members of the frame and sash frame.

[0010] Ideally, the covering member comprises an inverted u-shaped cross sectional profile covering member for covering the top member and both side members of the frame and sash frame.

[0011] The vapour barrier means is disposed proximal to the joint between the hood and one or two side frame cover members.

[0012] Ideally, the covering member straddles the gap between the roof window external frame and the sash frame.

[0013] The fluid communicating channel comprises the fluid communicating conduit between the covering member and the frame and the fluid communicating gap between the external window frame and the sash frame.

[0014] The vapour barrier is disposed within the fluid communicating channel.

[0015] The vapour barrier seals the fluid communicating channel.

[0016] The vapour barrier compressibly seals the fluid communicating channel. Ideally, the vapour barrier comprises a two part component.

[0017] Preferably, the two part component has two separable component parts.

[0018] Ideally, the two separable component parts are formed for cooperating when the sash is in a closed position for sealing the fluid communicating channel.

[0019] Preferably, the two parts of the vapour barrier are mounted on mutually opposing locations of the external window frame and the sash frame.

[0020] Preferably, a first part of the vapour barrier is mounted on the external window frame and the second part is mounted on the sash frame.

[0021] Ideally, the first part and the second part of the vapour barrier are provided by wedges. It will of course be appreciated that although wedges are defined as the two part component, any configuration of two part component is envisaged within the scope of the invention where the two component parts may have stepped or convex/concave mating surfaces.

[0022] Preferably, the wedges are mounted on mutually opposing locations of the external window frame and the sash frame in the fluid communicating gap between the external window frame and the sash frame.

[0023] Ideally, the wedges are mounted so as to overlap and form a seal in the fluid communicating gap when the sash frame is in the closed position.

[0024] Preferably, the first part and the second part of

the vapour barrier are provided by wedges, the wedges being mounted on mutually opposing locations of the external window frame and the sash frame between the external roof window frame and the sash frame, the wedges being mounted so as to overlap and form a seal when the sash frame is in the closed position.

[0025] Preferably, the first part of the vapour barrier also comprises a head for sealing the fluid communicating conduit between the cover member and frame.

[0026] Ideally, the head of the first part of the vapour barrier extends from the wedge.

[0027] Preferably, the vapour barrier means comprises coupling means for attaching the vapour barrier means to the external frame.

[0028] Ideally, the vapour barrier means comprises coupling means for attaching the vapour barrier means to the covering member.

[0029] Ideally, the vapour barrier means comprises coupling means for attaching the vapour barrier means to the c-channel covering member.

[0030] Preferably, the vapour barrier means comprises coupling means for attaching the vapour barrier means to the sash frame.

[0031] It should be appreciated that the vapour barrier means may comprise multiple coupling members as described above; in any possible combination.

[0032] Preferably, the coupling members are existing components of the roof window, adapted for engaging the vapour barrier.

[0033] Ideally, the vapour barrier means is formed of but not limited to a plastic/composite/polymer/metallic material or any combination thereof.

[0034] Preferably, the vapour barrier means is formed of extruded or expanded polystyrene.

[0035] Ideally, the vapour barrier means is formed of rubber, such as but not limited to claytonrite.

[0036] Preferably, the vapour barrier means is formed of a foam.

[0037] Most preferably, the vapour barrier means is formed of a closed cell foam such as but not limited to polyurethane, ethylene propylene diene monomer rubber, polyethylene, polyvinyl chloride or any combination of these.

[0038] Ideally, the vapour barrier means comprises a single barrier member.

[0039] In an alternative embodiment, the vapour barrier means is mounted on only one of the external frame or the sash frame.

[0040] Ideally, the vapour barrier means is mounted on the external frame.

[0041] The vapour barrier means comprises a compressible foam or flexible seal. The compressible foam or flexible seal allows the vapour barrier means to form a compressible seal when the sash frame is moved into a closed position against the vapour barrier means. Ideally, the vapour barrier means comprising a non-permeable material.

[0042] Preferably, the vapour barrier means comprises a width of between 1mm and 50mm. By width we mean the distance between opposite facing external surfaces of the vapour barrier means traversing the fluid communicating channel and fluid communicating gap.

[0043] Preferably, the vapour barrier means being insertable at a single location along the fluid communicating conduit and fluid communicating gap. This means that it is not necessary to insert the barrier along all or a substantial part of the length of the fluid communication conduit between the covering member and the frame and along the fluid communicating gap.

[0044] Ideally, an alternative embodiment of vapour barrier is integrally formed with a component of a roof window.

[0045] Preferably, the component is a guide member for locating and securing part of the covering member.

[0046] Ideally, the vapour barrier is a sheet of flexible material formed to fill the gap defined by the fluid communicating channel.

[0047] Ideally, the guide member is a handed member formed for mounting on the side member of the frame.

[0048] Preferably, the guide member has a body having means for fixing the guide member onto the upwards facing surface of the frame of the roof window.

[0049] Ideally, the guide member has a downwardly depending skirt extending substantially orthogonally from the body with a plug protruding from the skirt for insertion into a bore formed in a lateral surface of the frame member for locating and securing the guide member in position.

[0050] Preferably, the skirt has an arrangement in the form of an elongate channel for retaining an elongate peripheral portion of the vapour barrier thereon and for locating the vapour barrier in a positon to seal the fluid communicating conduit and fluid communicating gap.

[0051] In an alternative embodiment, the vapour barrier is integrally formed with an existing component of the roof window.

[0052] In this embodiment, the existing component has a channel formed for locating and supporting a vapour barrier for sealing the fluid communicating conduit and fluid communicating gap.

[0053] Ideally, the component is a guide member for locating and securing part of the covering member namely the c-channel which covers the upper portion of the side members of the frame and sash.

[0054] A further embodiment of vapour barrier is integrally formed with a component of the roof window in an assembled configuration.

[0055] Ideally, the vapour barrier is mounted on the sash of a roof window.

[0056] In this embodiment the, the component comprises a body with a plug for engaging a bore on the outside lateral surface of the sash.

[0057] Ideally, the body has an arrangement in the form of an elongate channel for retaining an elongate peripheral portion of the vapour barrier thereon and for locating the vapour barrier in a positon to seal the fluid commu-

nicating conduit and fluid communicating gap.

[0058] Ideally, the vapour barrier comprises one or more sheets of flexible material extending from the elongate peripheral portion formed to fill the gap defined by the fluid communicating conduit and fluid communicating gap. The one or more sheets are deformable when they engage the corresponding surface of the frame as the sash is pivoted into a closed position.

[0059] In a further alternative embodiment, the vapour barrier means being a continuous component designed to extend along the entire fluid communicating channel.

[0060] Ideally, the vapour barrier means is located in the fluid communicating channel so as to prevent vapour in warm air flowing via a ventilation passage under the covering means and along the entire length of the covering member. The ventilation passage is from the inside to the outside of a building that the roof window is mounted in via an open ventilation flap.

[0061] The invention will now be described with reference to the accompanying drawings which show by way of example three embodiments of a vapour barrier for a roof window in accordance with the invention.

Figure 1 is a perspective sectional view of the vapour barrier inserted in situ in the window frame;

Figure 2 is a cross section elevation view of the vapour barrier inserted in situ in the window frame;

Figure 3 is a schematic view of the first part of the vapour barrier;

Figure 4 is a schematic view of the second part of the vapour barrier;

Figure 5 is a perspective view of the covering member;

Figure 6 is a perspective sectional view of the vapour barrier inserted in situ in the window frame connectable to the c-channel;

Figure 7 is a cross section elevation view of the vapour barrier inserted in situ in the window frame connectable to the c-channel, frame and sash;

Figure 8 is an exploded perspective view of an alternative embodiment of vapour barrier integrally formed with an existing component of the roof window;

Figure 9 is a perspective view of the embodiment of Figure 8 in an assembled configuration;

Figure 10 is an exploded perspective view of an alternative embodiment of vapour barrier integrally formed with an existing component of the roof window;

Figure 11 is a perspective view of the embodiment of Figure 10 in an assembled configuration;

Figure 12 is a perspective view of a further embodiment of vapour barrier integrally formed with an existing component of the roof window in an assembled configuration;

Figure 13 is a perspective view of the vapour barrier of Figure 12 mounted on the sash of a roof window.

[0062] Referring to the drawings generally, there is shown a roof window indicated generally by the reference numeral 1 having a roof window frame 2 and a covering member 3 for weather proofing the frame 2 from inclement weather. The covering member 3 and the frame 2 define a channel 4 there between capable of communicating fluids. The roof window 1 having a vent flap, see Figure 13 operable between a closed position for preventing the flow of air into or out of the building and a venting positon allowing air to flow into or out of the building and into or out of the fluid communicating channel 4 below the covering member 3. A vapour barrier 5 is disposed in the fluid communicating channel 4 for preventing the flow of vapour along at least part of the fluid communicating channel 4.

[0063] Advantageously, the vapour barrier 5 prevents the vapour in warm air passing into the fluid communicating channel 4 and condensing on the underside of the covering member 3. The covering member 3 comprises a hood 6 and two side frame cover members 38 for covering the top frame member and the side members of the frame 2; as shown in figures 5 and 6. The covering member 3 is a generally U-shaped covering member for covering the top frame member and both side members of the frame 2. The vapour barrier is disposed proximal to the joint between the hood 6 and one or two side frame cover members 38. The covering member 3 straddles the gap between the roof window external frame 7 and the sash frame 8. The fluid communicating channel 4 comprises the fluid communicating conduit 4 between the covering member 3 and the frame 2 and a fluid communicating gap 9 between the external window frame 7 and the sash frame 8. The vapour barrier 5 is disposed within the fluid communicating channel 4, 9. The vapour barrier 5 is designed to seal the fluid communicating channel 4, 9. The vapour barrier 5 compressibly seals the fluid communicating channel 4, 9.

[0064] The vapour barrier 5 comprises a two part component 10, 11. The two parts 10, 11 of the vapour barrier 5 are mounted on mutually opposing locations of the external window frame 7 and the sash frame 8. A first part 10 of the vapour barrier 5 is mounted on the external window frame 7 and the second part 11 is mounted on the sash frame 8. The first part 10 and the second part 11 of the vapour barrier 5 are provided by wedges. It will of course be appreciated that although wedges are defined as the two part component, any configuration of two part component is envisaged within the scope of the invention. The two component parts may have stepped or convex/concave mating surfaces for example.

[0065] The wedges 10, 11 are mounted on mutually opposing locations of the external window frame 7 and the sash frame 8 in the fluid communicating gap 9 between the external window frame 7 and the sash frame 8. The wedges 10, 11 are mounted so as to overlap and form a seal in the fluid communicating gap 9 when the sash frame 8 is in the closed position. The first part 10 of the vapour barrier 5 also comprises a head 14 for seal-

ing the fluid communicating conduit 4. The head 14 of the first part 10 of the vapour barrier 5 extends from the wedge section 10. The vapour barrier 5 comprising but not limited to a plastic/composite/polymer/metallic material. The vapour barrier 5 is manufactured from extruded/expanded polystyrene. Other materials may include rubber, such as claytonrite or closed cell foam such as polyurethane, ethylene propylene diene monomer rubber, polyethylene, polyvinyl chloride or any combination of such.

[0066] In an alternative embodiment not illustrated in the drawings, the vapour barrier comprising a one piece component. In this alternative embodiment, the vapour barrier comprising a compressible foam. The compressible foam allows the vapour barrier to form a compressible seal against the sash frame when the sash frame is moved into a closed position against the vapour barrier.

[0067] In any embodiment, the vapour barrier comprising a non-permeable material. The vapour barrier has a width of between 1mm and 50mm. By width we mean the distance between opposite facing external surfaces of the vapour barrier traversing the fluid communicating channel and fluid communicating gap. In use, the vapour barrier 5 is insertable at a single location along the fluid communicating channel and fluid communicating gap.

[0068] In a further alternative embodiment, the vapour barrier is a continuous component insertable along the entire length the fluid communicating channel and fluid communicating gap.

[0069] In a further alternative embodiments, the vapour barrier 5 may comprise a frame coupling member 15 to attach the vapour barrier 5 to the window frame 2, a sash coupling member 16 to attach the vapour barrier 5 to sash frame 8 or a c-channel coupling member (not shown) to attach the vapour barrier 5 to the c-channel covering member 38. It should also be appreciated that the vapour barrier 5 may maintain multiple coupling members as described above; in any combination.

[0070] Referring to the drawings and now to Figure 8 and Figure 9, there is shown an exploded perspective view and an assembled view of an alternative embodiment of vapour barrier 25 integrally formed with a component 26 of a roof window. The component 26 is a guide member 26 for locating and securing part of the covering member 3 namely the c-channel which covers the upper portion of the side members of the frame and sash. The guide member 26 is a right handed member formed for mounting on the right hand side member of the frame. The guide member 26 has a box member 29 having a screw hole 30 defined there through for fixing the guide member 26 onto the upwards facing surface of the frame of the roof window. The guide member 26 has a downwardly depending skirt 31 extending substantially orthogonally from the box member 29 with a plug 32 protruding from the skirt 31 for insertion into a bore formed in a lateral surface of the frame member for locating and securing the guide member 26 in position. The skirt 31 has an arrangement 33 in the form of an elongate channel for retaining an elongate peripheral portion 34 of the vapour barrier 25 thereon and for locating the vapour barrier 25 in a positon to seal the fluid communicating channel and fluid communicating gap. The vapour barrier 25 is a sheet of flexible material formed to fill the gap defined by the fluid communicating channel.

[0071] Figure 10 and Figure 11 is an exploded perspective view and an assembled view of an alternative embodiment of vapour barrier 35 integrally formed with an existing component 36 of the roof window. In this embodiment, the existing component 36 has an L-shaped channel 37 formed for locating and supporting an L-shaped vapour barrier 35 for sealing the fluid communicating channel and fluid communicating gap. The component 36 is a guide member 36 of the same type as the guide member 26 of Figures 8 and 9 for locating and securing part of the covering member 3 namely the c-channel which covers the upper portion of the side members of the frame and sash.

[0072] Figure 12 and 13 are perspective views of a further embodiment of vapour barrier 45 integrally formed with a component 46 of the roof window 48 in an assembled configuration. Figure 13 illustrates the vapour barrier 45 mounted on the sash 49 of a roof window 48 with the sash 49 in an open configuration. In this embodiment the component 46 comprises a body 51 with a plug 52 for engaging a bore on the outside lateral surface 53 of the sash 49. The body 51 has an arrangement 54 in the form of an elongate channel for retaining an elongate peripheral portion 55 of the vapour barrier 45 thereon and for locating the vapour barrier 45 in a positon to seal the fluid communicating channel and fluid communicating gap. The vapour barrier 45 comprises two sheets 56 of flexible material extending from the elongate peripheral portion 55 formed to fill the gap defined by the fluid communicating channel and fluid communicating gap. The two sheets 56 are deformable when they engage the corresponding surface of the frame as the sash 49 is pivoted into a closed position.

[0073] In the preceding discussion of the invention, unless stated to the contrary, the disclosure of alternative values for the upper or lower limit of the permitted range of a parameter, coupled with an indication that one of the said values is more highly preferred than the other, is to be construed as an implied statement that each intermediate value of said parameter, lying between the more preferred and the less preferred of said alternatives, is itself preferred to said less preferred value and also to each value lying between said less preferred value and said intermediate value.

Claims

1. A roof window (1) having a roof window frame (7) and sash frame (8) and a covering member (3) for weather proofing the roof window, the covering member (3) comprises a hood (6) for covering a top

member of the frame (7) and a side frame cover member (38) for covering at least one side member of the frame (7) and sash frame (8), the side frame cover member (38), the frame (7) and sash frame (8) defining a channel (4) there between capable of communicating fluid, the roof window (1) comprising a vent flap operable between a closed position for preventing the flow of air into or out of the building and a venting position allowing air to flow into or out of the building and into or out of the fluid communicating channel below the covering member, **characterised in that** the roof window (1) comprises a vapour barrier means (5) for preventing the flow of vapour along at least part of the fluid communicating channel (4) and condensing on the underside of the side frame cover member (38) when the vent flap is in the venting position, and wherein the vapour barrier means (5) compressibly seals the fluid communicating channel (4), wherein the vapour barrier means (5) comprises a compressible foam that allows the vapour barrier means (5) to form a compressible seal when the sash frame (8) is moved into a closed position against the vapour barrier means (5), and **in that** the vapour barrier means (5) is disposed in the fluid communicating channel (4) at a location proximal to a joint between the hood (6) and the side frame cover member (38).

2. A roof window (1) as claimed in claim 1, wherein the vapour barrier means (5) is formed of the compressible foam.

3. A roof window (1) as claimed in claim 1 or claim 2, wherein the covering member (3) comprises a generally inverted u-shaped cross sectional profile covering member for covering the top member and at least one side member of the roof window frame (7) and sash frame (8).

4. A roof window (1) as claimed in any one of the preceding claims, wherein the vapour barrier means (5) comprises a two part component (10, 11).

5. A roof window (1) as claimed in claim 4, wherein the two parts (10, 11) of the vapour barrier means (5) being mounted on mutually opposing locations of the external window frame (7) and the sash frame (8).

6. A roof window (1) as claimed in any one of the preceding claims, wherein the vapour barrier means (5) comprises coupling means (15, 16) for attaching the vapour barrier means (5) to the external frame and/or the sash frame and/or the covering member.

7. A roof window (1) as claimed in any one of the preceding claims, wherein the covering member straddles the gap between the roof window external frame (7) and the sash frame (8) and the fluid communicating channel (4) comprises a fluid communicating conduit (4) between the covering member and the frame and the fluid communicating gap (9) between the roof window external frame and the sash frame.

8. A roof window (1) as claimed in claim 4 or claims 5 to 7 when dependent on claim 4, wherein the first part and the second part of the vapour barrier are provided by wedges (10, 11), the wedges being mounted on mutually opposing locations of the external window frame and the sash frame between the external roof window frame and the sash frame, the wedges being mounted so as to overlap and form a seal when the sash frame is in the closed position.

9. A roof window (1) as claimed in any one of claims 1 to 3, 6 or 7, wherein the vapour barrier means comprises a single barrier member.

10. A roof window (1) as claimed in claim 9, wherein the vapour barrier means is mounted on only one of the external roof window frame or the sash frame.

11. A roof window (1) as claimed in any one of the preceding claims, wherein the vapour barrier means is integrally formed with a component of a roof window, the component being a guide member for locating and securing part of the covering member.

12. A roof window (1) as claimed in any one of the preceding claims, wherein the vapour barrier means is located in the fluid communicating channel so as to prevent vapour in warm air flowing via a ventilation passage under the covering means and along the entire length of the covering member.

Patentansprüche

1. Dachfenster (1) mit einem Dachfensterrahmen (7) und einem Flügelrahmen (8) und einem Abdeckelement (3) zum Schutz des Dachfensters vor Witterungseinflüssen, wobei das Abdeckelement (3) eine Haube (6) zum Abdecken eines oberen Elements des Rahmens (7) und ein Seitenrahmenabdeckelement (38) zum Abdecken mindestens eines Seitenelements des Rahmens (7) und des Flügelrahmens (8) umfasst, wobei das Seitenrahmenabdeckelement (38), der Rahmen (7) und der Flügelrahmen (8) zwischen sich einen Kanal (4) definieren, der in der Lage ist, ein Fluid zu übertragen, wobei das Dachfenster (1) eine Lüftungsklappe umfasst, die zwischen einer geschlossenen Stellung, in der der Luftstrom in das oder aus dem Gebäude verhindert wird, und einer Lüftungsstellung, in der Luft in das oder aus dem Gebäude und in den oder aus dem Fluidverbindungskanal unter dem Abdeckelement fließen kann, betätigbar ist, **dadurch gekennzeich-**

net, dass das Dachfenster (1) ein Dampfsperrmittel (5) umfasst, um den Fluss von Dampf entlang mindestens eines Teils des Fluidverbindungskanals (4) und die Kondensation auf der Unterseite des Seitenrahmenabdeckungselements (38) zu verhindern, wenn sich die Lüftungsklappe in der Lüftungsstellung befindet, und wobei das Dampfsperrmittel (5) den Fluidverbindungskanal (4) komprimierbar abdichtet, wobei das Dampfsperrmittel (5) einen komprimierbaren Schaumstoff umfasst, der es dem Dampfsperrmittel (5) ermöglicht, eine komprimierbare Dichtung zu bilden, wenn der Flügelrahmen (8) in eine geschlossene Stellung gegen das Dampfsperrmittel (5) bewegt wird, und dass das Dampfsperrmittel (5) in dem Fluidverbindungskanal (4) an einer Stelle nahe einer Verbindung zwischen der Haube (6) und dem Seitenrahmenabdeckelement (38) angeordnet ist.

2. Dachfenster (1) gemäß Anspruch 1, wobei das Dampfsperrmittel (5) aus dem komprimierbaren Schaumstoff gebildet ist.

3. Dachfenster (1) gemäß Anspruch 1 oder Anspruch 2, wobei das Abdeckelement (3) ein allgemein umgekehrtes U-förmiges Querschnittsprofilabdeckelement zum Abdecken des oberen Elements und mindestens eines Seitenelements des Dachfensterrahmens (7) und des Flügelrahmens (8) umfasst.

4. Dachfenster (1) gemäß einem der vorhergehenden Ansprüche, wobei das Dampfsperrmittel (5) eine zweiteilige Komponente (10, 11) umfasst.

5. Dachfenster (1) gemäß Anspruch 4, wobei die zwei Teile (10, 11) des Dampfsperrmittels (5) an einander gegenüberliegenden Stellen des äußeren Fensterrahmens (7) und des Flügelrahmens (8) angebracht sind.

6. Dachfenster (1) gemäß einem der vorhergehenden Ansprüche, wobei das Dampfsperrmittel (5) Kopplungsmittel (15, 16) zum Anbringen des Dampfsperrmittels (5) am Außenrahmen und/oder am Flügelrahmen und/oder am Abdeckelement umfasst.

7. Dachfenster (1) gemäß einem der vorhergehenden Ansprüche, wobei das Abdeckelement den Spalt zwischen dem Dachfensteraußenrahmen (7) und dem Flügelrahmen (8) überspannt und der Fluidverbindungskanal (4) eine Fluidverbindungsleitung (4) zwischen dem Abdeckelement und dem Rahmen und dem Fluidverbindungsspalt (9) zwischen dem Dachfensteraußenrahmen und dem Flügelrahmen umfasst.

8. Dachfenster (1) gemäß Anspruch 4 oder gemäß den von Anspruch 4 abhängigen Ansprüchen 5 bis 7, wobei der erste Teil und der zweite Teil der Dampfsperre durch Keile (10, 11) gebildet sind, die an einander gegenüberliegenden Stellen des äußeren Fensterrahmens und des Flügelrahmens zwischen dem äußeren Dachfensterrahmen und dem Flügelrahmen angebracht sind, wobei die Keile so angebracht sind, dass sie sich überlappen und eine Dichtung bilden, wenn sich der Flügelrahmen in der geschlossenen Stellung befindet.

9. Dachfenster (1) gemäß einem der Ansprüche 1 bis 3, 6 oder 7, wobei das Dampfsperrmittel ein einzelnes Sperrelement umfasst.

10. Dachfenster (1) gemäß Anspruch 9, wobei das Dampfsperrmittel nur an einem aus dem äußeren Dachfensterrahmen oder dem Flügelrahmen angebracht ist.

11. Dachfenster (1) gemäß einem der vorhergehenden Ansprüche, wobei das Dampfsperrmittel einstückig mit einer Komponente eines Dachfensters ausgebildet ist, wobei die Komponente ein Führungselement zum Positionieren und Befestigen eines Teils des Abdeckelements ist.

12. Dachfenster (1) gemäß einem der vorhergehenden Ansprüche, wobei sich das Dampfsperrmittel in dem Fluidverbindungskanal befindet, um zu verhindern, dass Dampf in warmer Luft über einen Lüftungsdurchgang unter dem Abdeckmittel und entlang der gesamten Länge des Abdeckelements fließt.

Revendications

1. Fenêtre de toit (1), ayant un cadre de fenêtre de toit (7) et un cadre de châssis (8) et un élément de couverture (3) destiné à assurer la résistance aux intempéries de la fenêtre de toit, l'élément de couverture (3) comprend un capot (6) destiné à couvrir un élément supérieur du cadre (7) et un élément couvre-cadre latéral (38) destiné à couvrir au moins un élément latéral du cadre (7) et du cadre de châssis (8), l'élément couvre-cadre latéral (38), le cadre (7) et cadre de châssis (8) définissant une goulotte (4) entre ceux-ci capable d'effectuer une communication fluidique, la fenêtre de toit (1) comprenant un abattant de ventilation utilisable entre une position fermée destinée à empêcher l'écoulement d'air dans le bâtiment, ou hors de ce dernier, et une position de ventilation permettant à de l'air de s'écouler dans le bâtiment, ou hors de ce dernier, et dans ou hors de la goulotte de communication fluidique en dessous de l'élément de couverture, **caractérisée en ce que** la fenêtre de toit (1) comprend un moyen barrière pare-vapeur (5) destiné à empêcher de la vapeur de s'écouler le long d'au moins une partie de

la goulotte de communication fluidique (4) et de se condenser sur le dessous de l'élément couvre-cadre latéral (38) lorsque l'abattant de ventilation est dans la position de ventilation, et dans laquelle le moyen barrière pare-vapeur (5) étanchéise de façon compressible la goulotte de communication fluidique (4), dans laquelle le moyen barrière pare-vapeur (5) comprend une mousse compressible qui permet au moyen barrière pare-vapeur (5) de former une garniture d'étanchéité compressible lorsque le cadre de châssis (8) est mis dans une position fermée contre le moyen barrière pare-vapeur (5), et **en ce que** le moyen barrière pare-vapeur (5) est disposé dans la goulotte de communication fluidique (4) à un emplacement proximal à un joint entre le capot (6) et l'élément couvre-cadre latéral (38).

2. Fenêtre de toit (1) selon la revendication 1, dans laquelle le moyen barrière pare-vapeur (5) est formé de la mousse compressible.

3. Fenêtre de toit (1) selon la revendication 1 ou la revendication 2, dans laquelle l'élément de couverture (3) comprend un élément de couverture à profil de section transversale généralement en forme de U à l'envers, destiné à couvrir l'élément supérieur et au moins un élément latéral du cadre de fenêtre de toit (7) et du cadre de châssis (8).

4. Fenêtre de toit (1) selon l'une quelconque des revendications précédentes, dans laquelle le moyen barrière pare-vapeur (5) comprend un composant à deux parties (10, 11).

5. Fenêtre de toit (1) selon la revendication 4, dans laquelle les deux parties (10, 11) du moyen barrière pare-vapeur (5) sont montées sur des emplacements mutuellement opposés du cadre externe de fenêtre (7) et du cadre de châssis (8).

6. Fenêtre de toit (1) selon l'une quelconque des revendications précédentes, dans laquelle le moyen barrière pare-vapeur (5) comprend des moyens d'accouplement (15, 16) destinés à attacher le moyen barrière pare-vapeur (5) au cadre externe et/ou au cadre de châssis et/ou à l'élément de couverture.

7. Fenêtre de toit (1) selon l'une quelconque des revendications précédentes, dans laquelle l'élément de couverture enjambe l'espace entre le cadre externe de fenêtre de toit (7) et le cadre de châssis (8) et la goulotte de communication fluidique (4) comprend un conduit de communication fluidique (4) entre l'élément de couverture et le cadre et l'espace de communication fluidique (9) entre le cadre externe de fenêtre de toit et le cadre de châssis.

8. Fenêtre de toit (1) selon la revendication 4 ou les revendications 5 à 7 lorsqu'elles dépendent de la revendication 4, dans laquelle la première partie et la seconde partie du moyen barrière pare-vapeur sont fournies par des cales (10, 11), les cales étant montées sur des emplacements mutuellement opposés du cadre externe de fenêtre et du cadre de châssis entre le cadre externe de fenêtre de toit et le cadre de châssis, les cales étant montées afin de se chevaucher et de former une garniture d'étanchéité lorsque le cadre de châssis est dans la position fermée.

9. Fenêtre de toit (1) selon l'une quelconque des revendications 1 à 3, 6 ou 7, dans laquelle le moyen barrière pare-vapeur comprend un élément barrière unique.

10. Fenêtre de toit (1) selon la revendication 9, dans laquelle le moyen barrière pare-vapeur est monté sur seulement un du cadre externe de fenêtre de toit ou du cadre de châssis.

11. Fenêtre de toit (1) selon l'une quelconque des revendications précédentes, dans laquelle le moyen barrière pare-vapeur est formé de façon monobloc avec un composant d'une fenêtre de toit, le composant étant un élément de guidage destiné à placer et fixer une partie de l'élément de couverture.

12. Fenêtre de toit (1) selon l'une quelconque des revendications précédentes, dans laquelle le moyen barrière pare-vapeur est placé dans la goulotte de communication fluidique afin d'empêcher de la vapeur dans de l'air chaud de s'écouler par l'intermédiaire d'un passage de ventilation sous le moyen de couverture et le long de la longueur entière de l'élément de couverture.

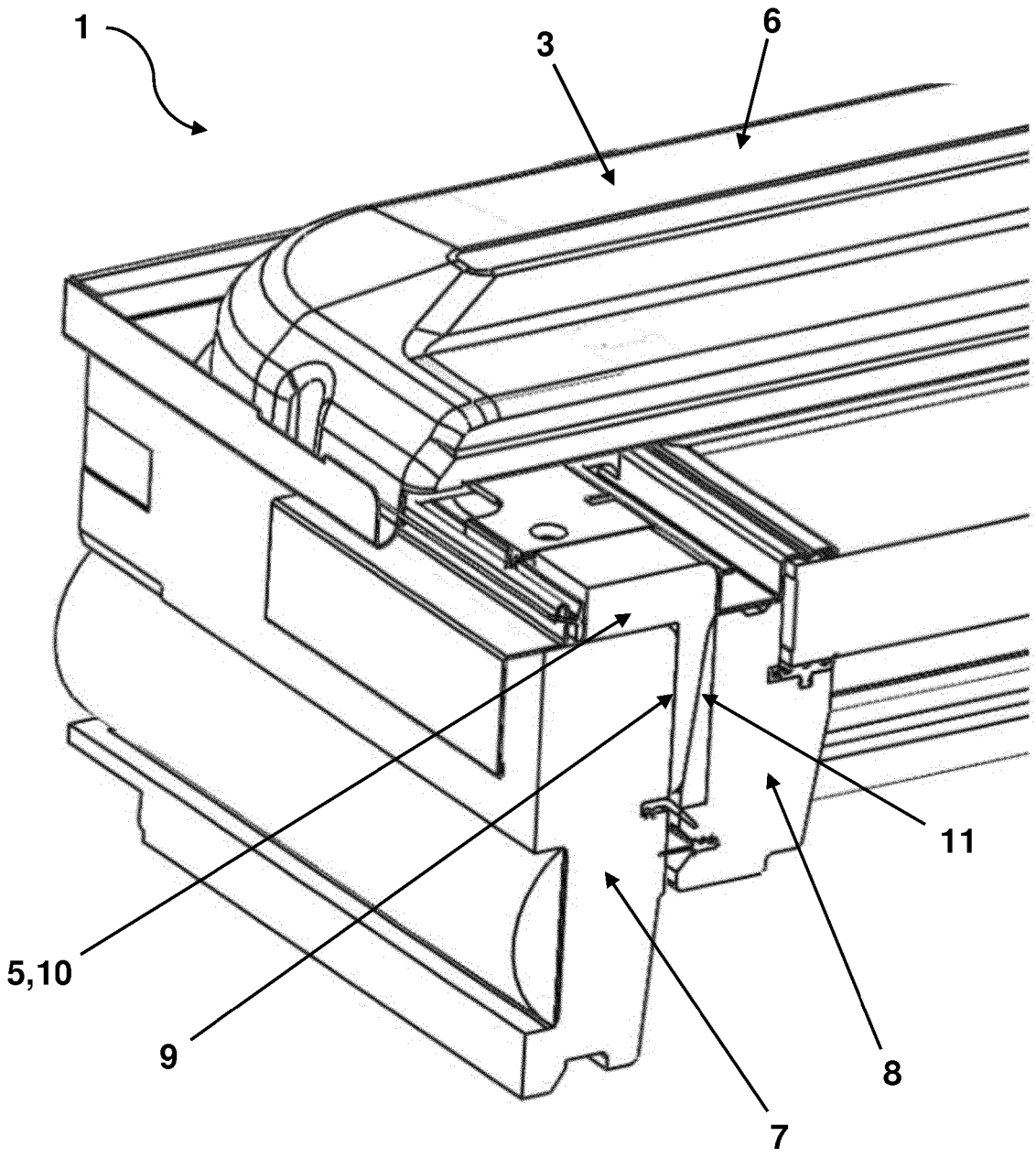


Figure 1

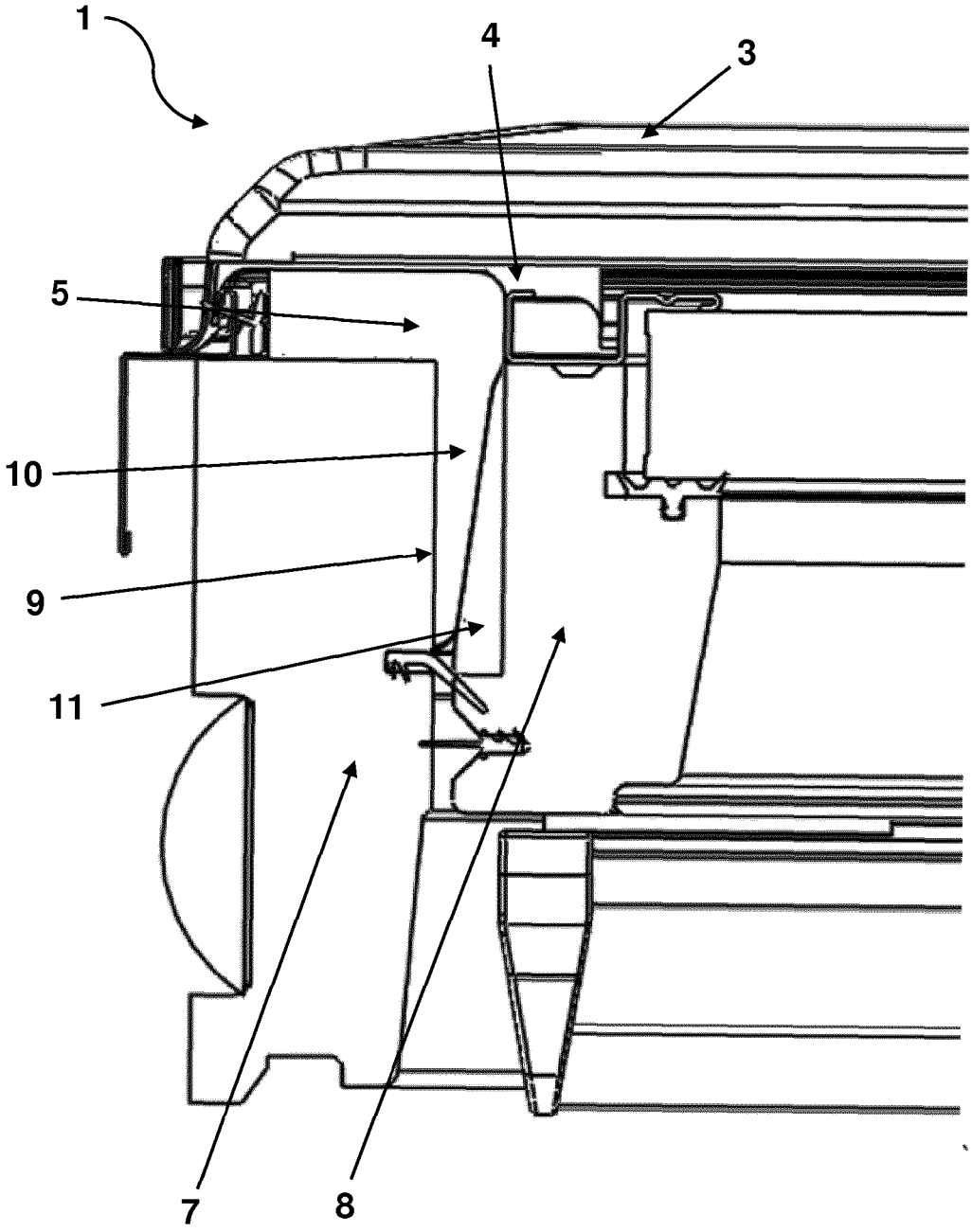


Figure 2

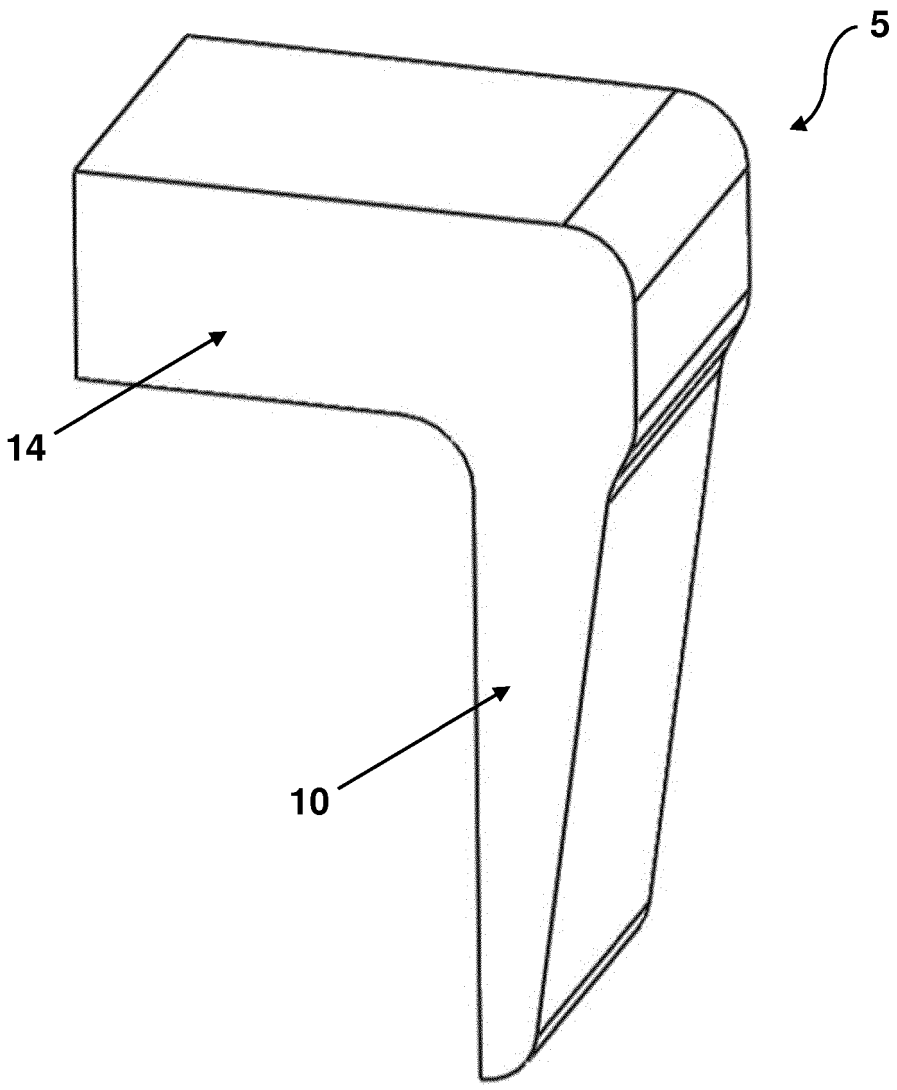


Figure 3

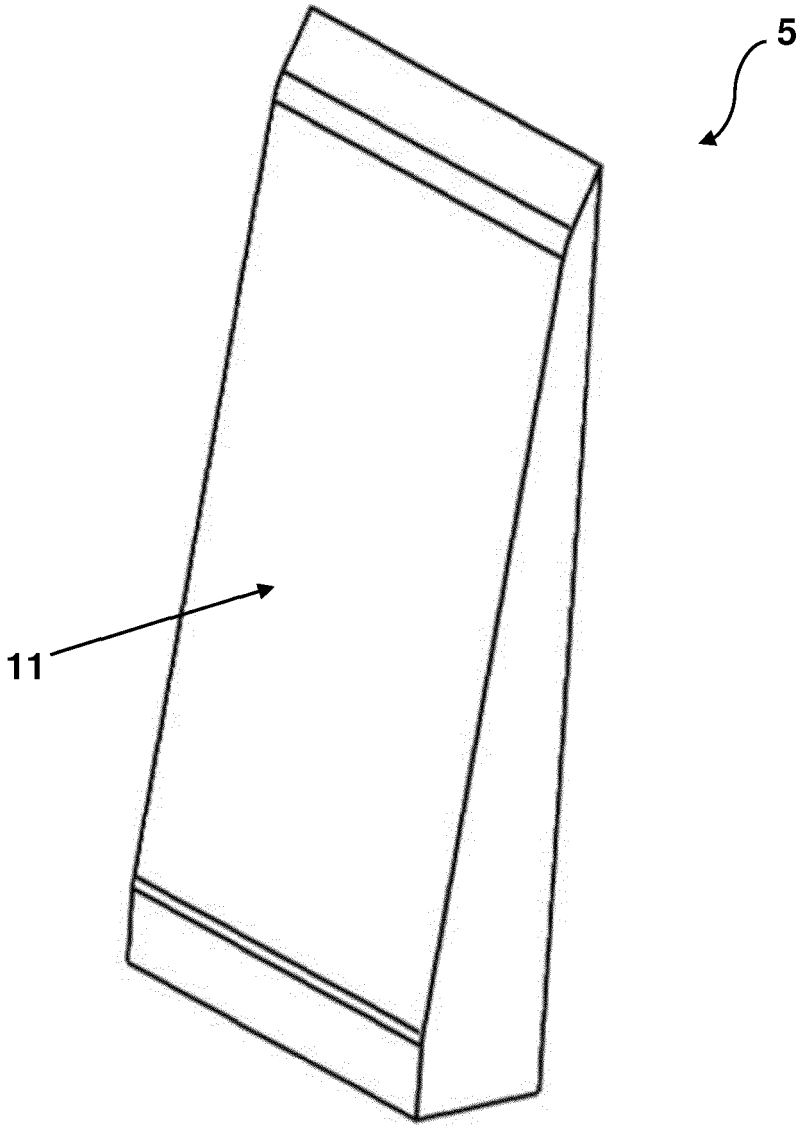


Figure 4

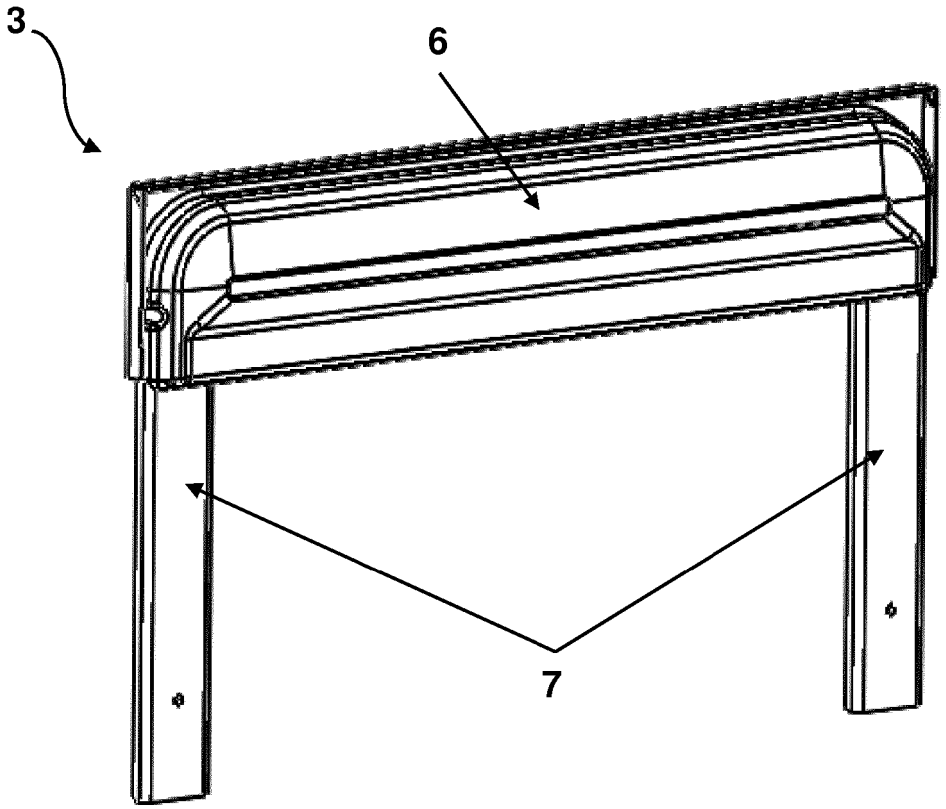


Figure 5

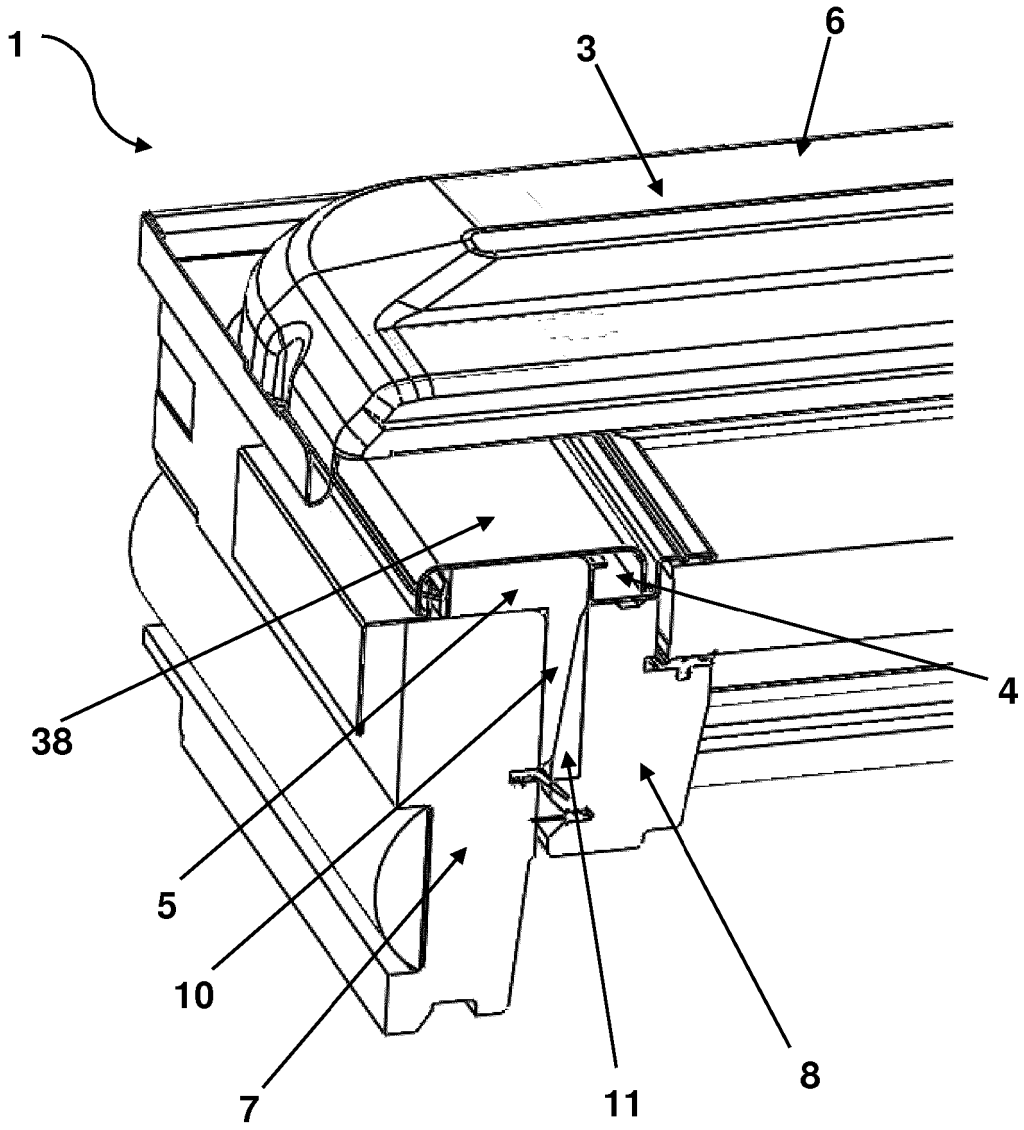


Figure 6

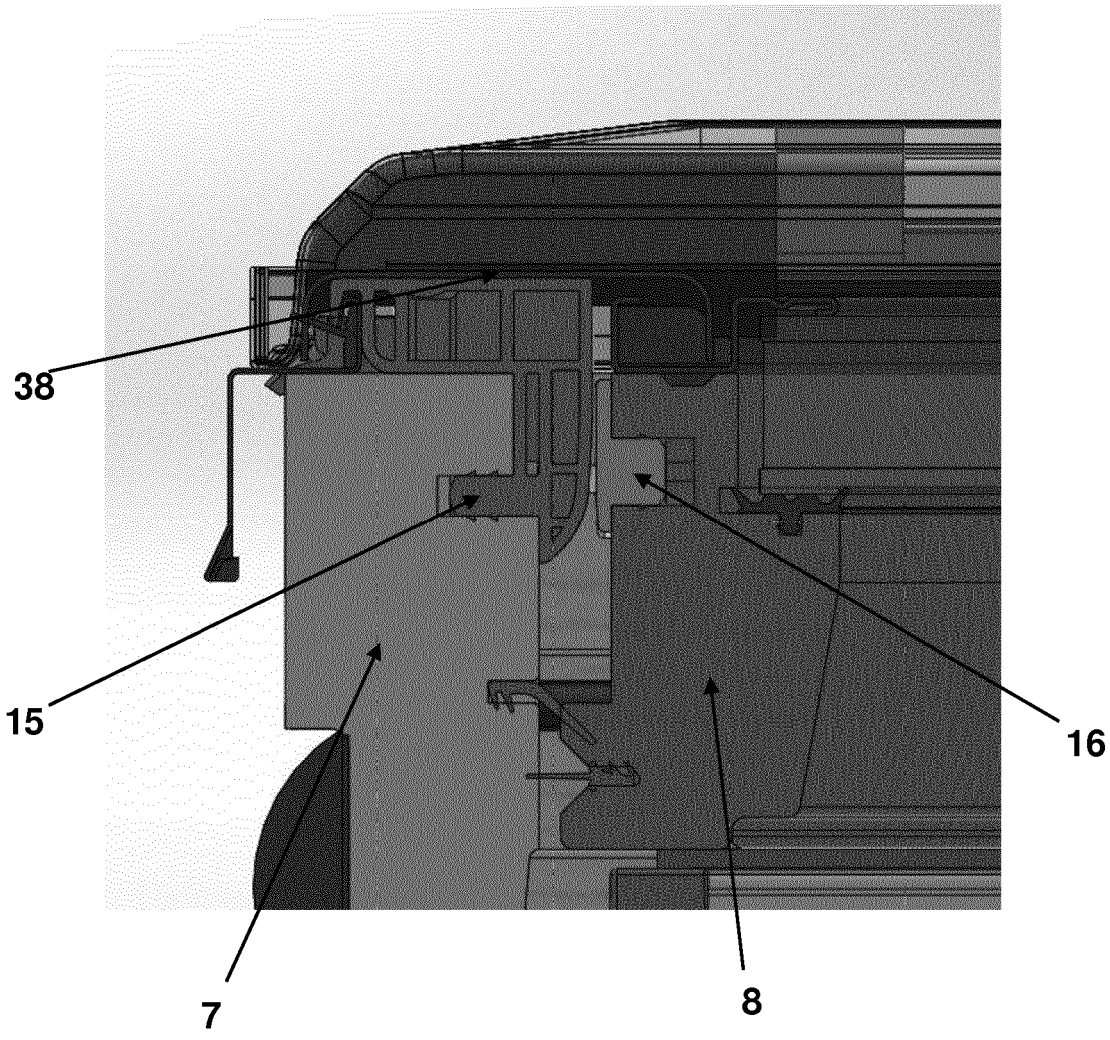


Figure 7

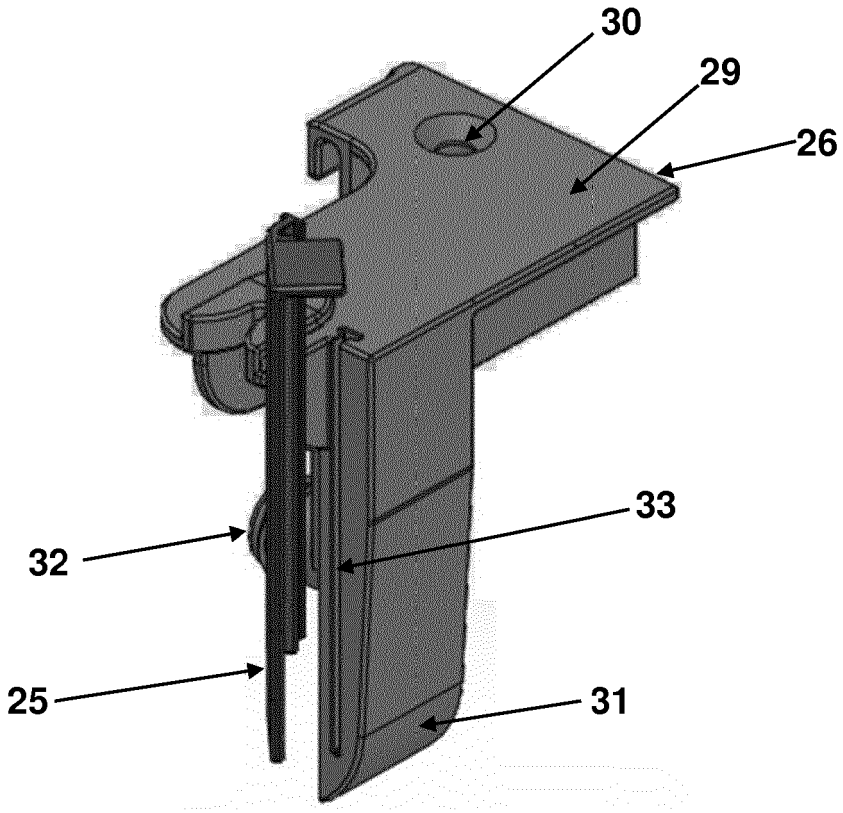


Figure 8

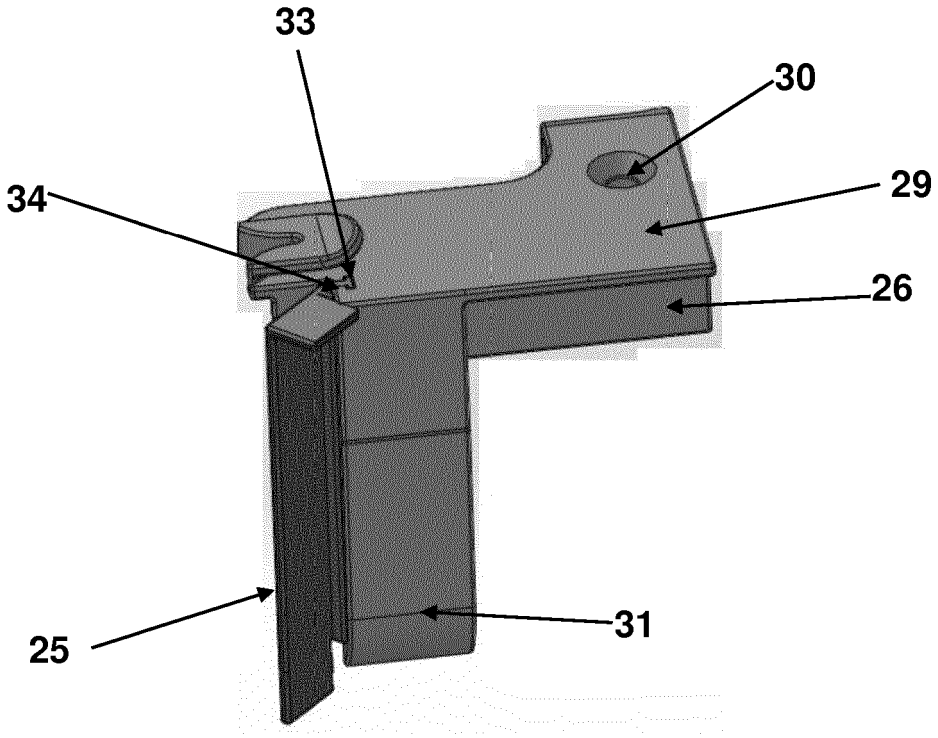
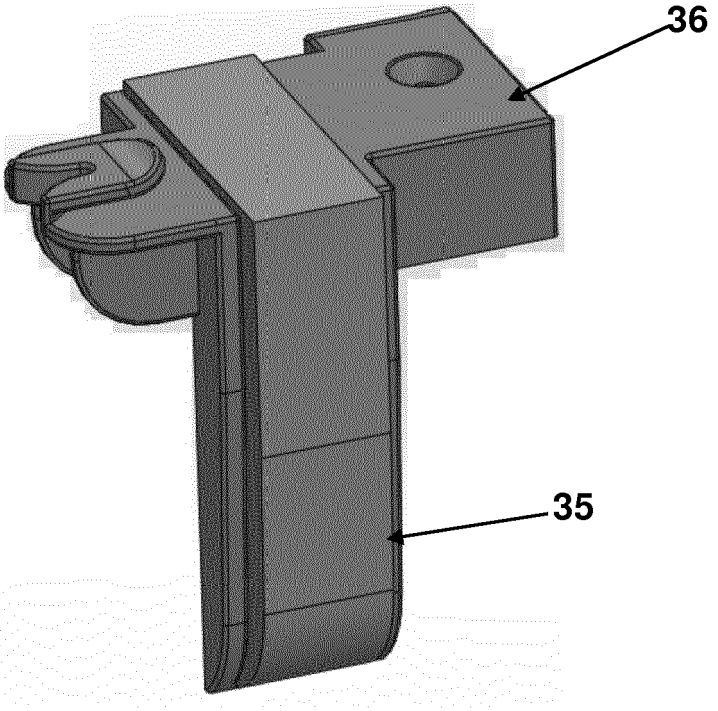


Figure 9



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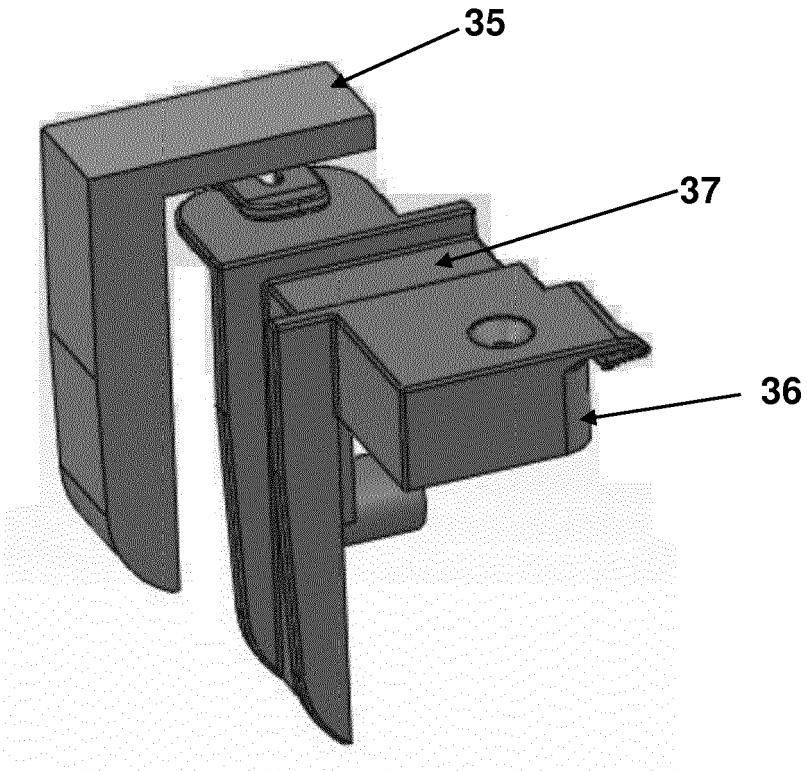

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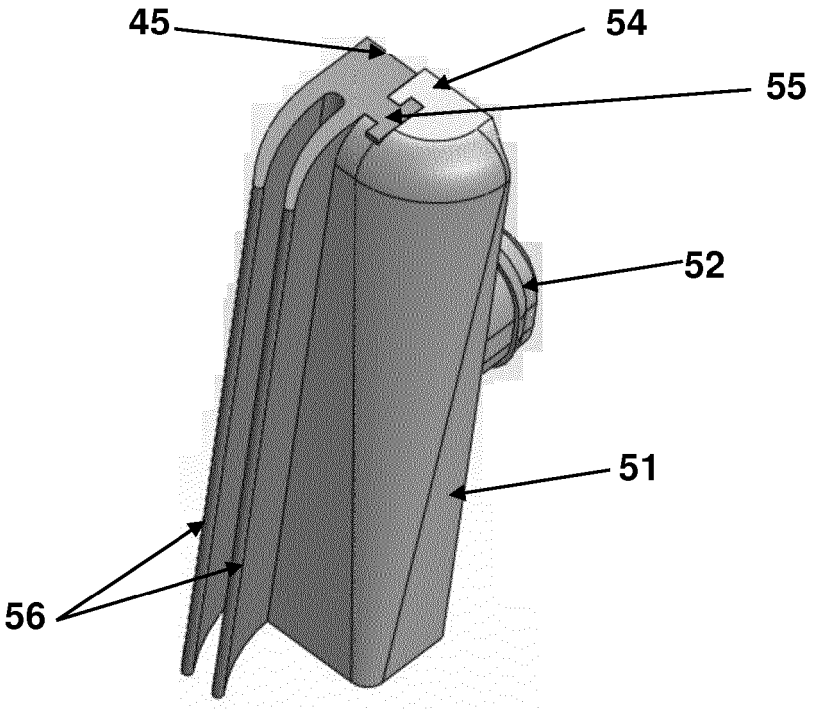

Figure 12

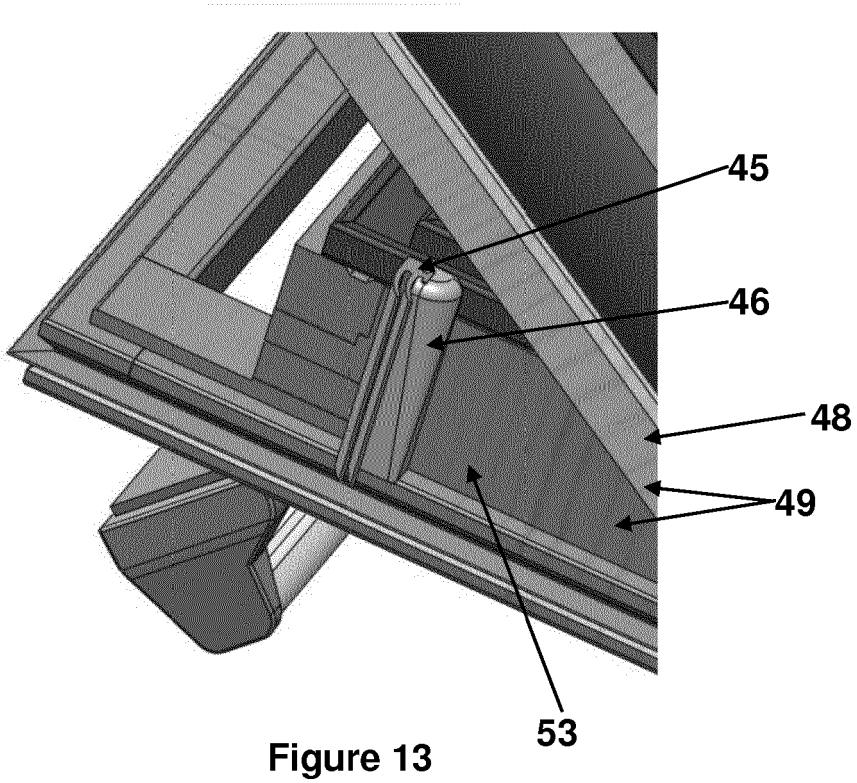

Figure 13

REFERENCES CITED IN THE DESCRIPTION

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- EP 2738339 A1 **[0003]**
- EP 2317026 A1 **[0003]**