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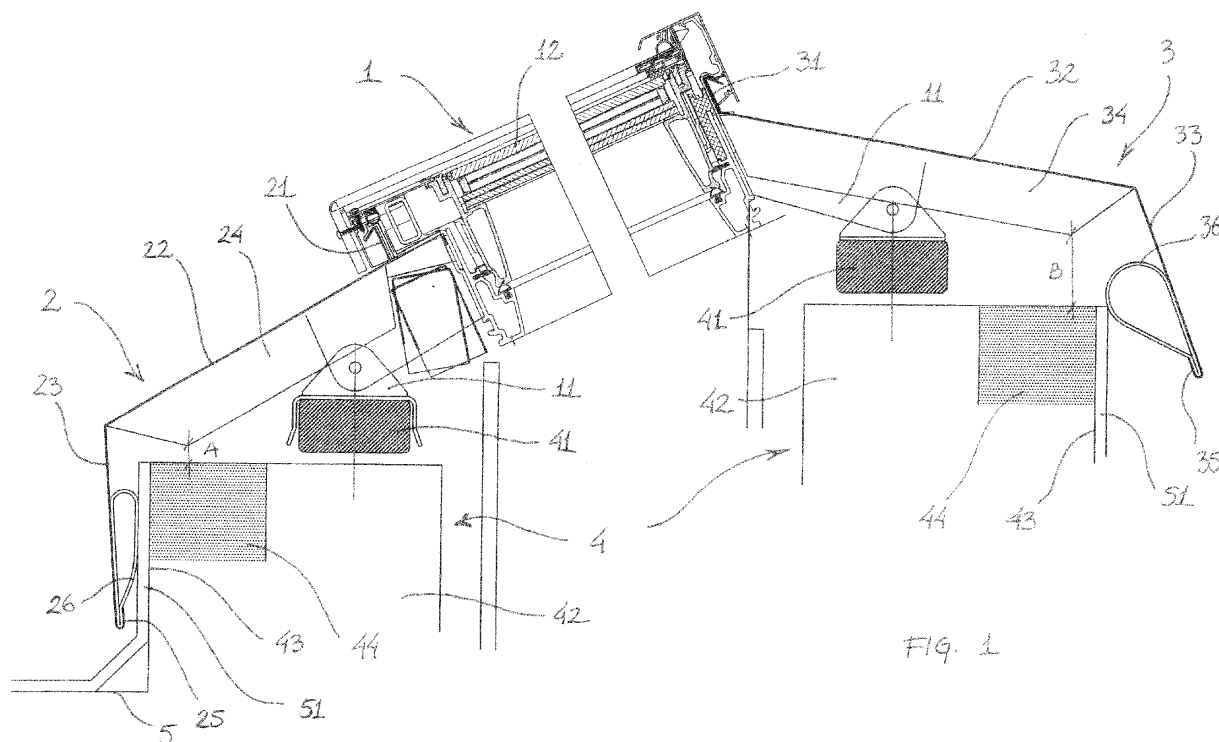
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(54) **A flashing member with a compensation member and a kit including such a flashing member**

(57) The invention relates to a flashing member for use with a roof window mounted on an upstand, said flashing member having at least one insulating member and a compensation member on the inner side. The compensation member, which allows use of one flashing member for different angles of the window, is preferably

compressible, expandable or provided with means, such as cutting lines, for allowing an easy removable of a part thereof as well as elastic. A kit including at least one such flashing member may include corner flashing members, gable flashing members, a ridge flashing members and/or supplementary insulating members.



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Description

[0001] The present invention relates to a flashing member for use with a roof window having a window frame and being mounted on an upstand, said flashing member having an outer side intended to face the exterior in the mounted state and an inner side intended to face the window and roof in the mounted state, and said flashing member comprising a first leg being intended for being arranged against the window frame and having an upper and a lower edge; a second leg being arranged at an angle with respect to the first leg so that it projects from the window frame and having a first edge and a second edge, said first edge being connected to the lower edge of the first leg; and at least one insulating member attached to the inner side. The invention also relates to a flashing kit comprising at least two such flashing members.

[0002] WO99/40272 describes a curb window for use on a flat roof, where an insulating member having a shell of a water proof material, which serves as a flashing, is arranged adjacent to the curb. The purpose is to insulate the structure and to help direct water away from the window and hence the opening in the roof. These insulating members are made to fit the height of the curb, the upper surface of which is either horizontal or having the same inclination as the roof. They therefore can not be used in different installation situations.

[0003] Structural skylights on the other hand are mounted on an upstand and the two sides of the upstand, on which the top and bottom of the window rest, have different heights, whereby defining the angle of the window. They may, however, also be mounted in a so-called ridge constellation, where two windows meet top-to-top resting on a beam and with the bottoms resting on opposite upstands.

[0004] Flashing members used with such skylights are typically tailor made or adjusted in-situ, since the angles between the surface of the upstand and the external side of the window frame depends on the angle of the window. That is, a decrease of the angle of mounting entails that the bottom flashing member is lifted away from the upstand, while the top flashing member comes closer and vice versa when the angle is increased.

[0005] It is of course also possible to provide a series of products each suited for a different angle, but since skylights are typically used in larger buildings of unique design, where there has not been much standardization.

[0006] It is therefore the object of the invention to provide a flashing member, which can be used for a structural skylight regardless of the angle of mounting.

[0007] This object is achieved with a flashing member, which comprises a compensation member arranged on the inner side.

[0008] When the angle is changed, the compensation member compensates for the variations in the distance between the flashing member and the upstand described above, by being either compressed or expanded. This

means that one and the same flashing member may be used regardless of the angle and that the angle may be adjusted in-situ if necessary.

[0009] In a preferred embodiment the compensation member at a bottom flashing member is dimensioned to fill the space occurring when the angle is only 5 degrees and is made from a compressible material allowing it to yield if the angle is increased, and vice versa for a top flashing member. A similar, though irreversible effect may be achieved by providing means, such as cutting lines or like indications, for allowing an easy removable of an appropriate part of the compensation member. It is, however, also possible to increase the size of the compensation member, starting from the small size corresponding to a relatively large angle of the window. This may be done using an inflatable or otherwise expandable member.

[0010] To allow the compensation member to maintain a tight contact with the upstand regardless of the weather, i.e. temperature, atmospheric humidity, wind loads, snow loads etc., the compensation member is preferably elastic.

[0011] An example of a well-functioning compensation member is a tube made from a grid or perforated material, such as plastic or metal, which for a longer period of time is capable of withstanding the temperatures and humidities occurring on a roof. Such materials are known amongst other for use as leaf guards in gutters. The tube is squeezed flat at one side, giving it a drop-shape, and clamped in a folded back edge of the flashing material. The rounded side of the drop-shape has excellent elasticity and maintains a good contact with the upstand.

[0012] Using a grid or perforated material of course means, that the compensation member does not function as a sealing, which may be the case with other embodiments, but this also means that any condensation formed underneath the flashing member can be drained or ventilated off. If chosen appropriately the grid or perforated material will, on the other hand, prevent leaves and small animals for entering underneath the flashing and cause damage to the insulation and/or upstand.

[0013] Other ways of attaching the compensation member to the flashing member is by gluing, welding, screws, rivets or by part of the two members engaging each other, permanently or in a releasable manner.

[0014] To make the flashing member even more resistant to the impacts experienced on a roof, the insulating member is made from a dimensionally stable material, such as polystyrene foam. Such a material gives the flashing member, which is typically made from a relatively thin sheet of aluminium, increased strength and stiffness.

[0015] A flashing kit according to the invention may also include supplementary insulating members made from a compressible insulating material, such as mineral wool. Such an insulating member, which is typically laid out on the upper side of the upstand, will be able to adapt to the angle chosen by being compressed to fit the space available. In this way the supplementary insulation may

supplement the compensation member, and it is of course also possible to make the compensation member from an insulating material, such as elastic polyethylene foam.

[0016] The compensation member should be located on a section of the flashing member which is intended to be placed along the upstand in the mounted state. This could be on the second leg, in which case the compensation member will come into contact with the upper side of the upstand. Having only first and second legs and the compensation member, however, entails that the substantially horizontal joint between the compensation member and the upstand is exposed towards the exterior unless additional covering members are added. Depending on the details of the construction, this may be acceptable, but it is preferred that the flashing member also comprises a third leg having an upper and a lower edge, the upper edge being connected to the second edge of the second leg so that the third leg projects at an angle from the second leg in a direction opposite the first leg, the third leg being intended for being arranged along an external side of the upstand. This not only provides improved water-tightness, particularly over time, but may also improve the overall appearance of the window.

[0017] In this context the term "external" is used for surfaces facing away from the opening defined by the window frame, while the term "outer" is used to indicate that a surface faces the outside of the building.

[0018] When having a third leg the compensation member is preferably arranged at the lower edge of thereof, but it is of course also possible to provide two compensation members, one at the second and one at the third leg.

[0019] The angle between the first and second legs will depend on a number of factors such as the intended use of the flashing as upper or lower flashing member, the method of mounting the window and the construction of the upstand.

[0020] As described above the angle of the window is limited by the flashing which possibly abuts the upstand. Flashings are normally mounted so that the first leg is substantially perpendicular to the plane of the window pane and when using an upstand having a vertical external side, which limits the position of the third leg, this defines the angle between the first and third legs: In an upper flashing member the angle of the third leg in relation to the first leg will define the lower limit of the angle interval of the window and the angle of the third leg of the lower flashing member in relation to its first leg will define the upper limit.

[0021] In a preferred embodiment, the angle interval is 5 to 25 degrees, meaning that these angles are also found between the first and third legs. The lower limit is set to make sure that the structure can be made watertight and the upper limit to avoid having the third legs projecting too far from the upstand, which will put heavy demands on the compensation member and affect the looks of the mounted window negatively.

[0022] It will of course also be necessary to provide a waterproofing at the sides of the window and for this purpose a flashing kit may include a gable flashing member. This may include insulation and/or a compensation member as described above, but does not need to. As structural skylights are usually mounted in series of five or more close by each other, the number of gable flashing members needed is relatively limited. Accordingly, angle adaptation is not of paramount importance here and it therefore considered acceptable to use gable flashing members designed for a particular angle or a very narrow angle interval.

[0023] The gables members may include a section intended for covering the corner of the window and provide a transition to top and/or bottom flashing members, but it is of course also possible to provide separate corner members or specialised top and bottom flashing member for use at the ends of a row of windows. Furthermore, a gable member may including both corner members and top and/or bottom flashing members for the outermost window of the row.

[0024] Ridge mounting will of course demand gable and top flashing members specially designed for this mode of installation.

[0025] The interconnection of the different flashing members may be achieved in several different ways as is well known to the skilled person, but using connector elements as described in the applicants' co-pending application titled "A method for mounting a flashing for a roof window and a connector element for retaining a flashing member" and filed on the same day provides a number of advantages as explained therein.

[0026] Such connector elements are preferably adapted for riding on mounting brackets attached at the corners of the window frame and to serve as drainage members leading water away from the side of the window. In this way the connector element serves a double purpose of connecting the flashing members and contributing to drainage, thereby providing both an efficient and reliable mounting and improved water-tightness.

[0027] In this, the flashing members have been described based on their cross-sectional shapes, their different parts being termed "legs". It is, however, to be understood that each of the flashing members described have a length corresponding to the length of the frame member of the window at which it is supposed to be mounted, or to a fraction thereof, typically half the length. As is well known to the skilled person, the risk of tightness increases with the number of joints and the number of different flashing members used for flashing a window should therefore be kept at a minimum. On the other hand, other consideration such as ease of handling might justify using three or more flashing members for flashing the joint at a particular window frame member.

[0028] In the following, the invention will be described with reference to the drawing in which:

Fig. 1 is a cross-sectional view of a window mounted

at an angle of 25 degrees,

Fig. 2 is a cross-sectional view of a window mounted at an angle of 5 degrees,

Fig. 3 is a perspective view of a gable and top flashing member, and

Fig. 4 is a perspective view of a connector element used for mounting a bottom flashing member.

[0029] An example of a window 1 in the form of a structural skylight and mounted with flashing members 2,3 according to the invention is shown in Fig. 1. As may be seen, the window is resting on an upstand 4 on the roof surface 5 via mounting brackets 11 engaging beams 41 on top of the upstand. In this, the mounting brackets are shown as having a pivot joint, but other types of brackets may of course also be employed, just as the beams may be left out and the brackets attached directly to the main body 42 of the upstand.

[0030] Both the bottom flashing member 2 and the top flashing member 3 comprises a first leg 21,31, a second leg 22,32 and third leg 23,33. The first legs 21,31 are arranged against an outer surface of the window 1 so that they are substantially perpendicular to the pane 12, the second legs 22,32 project from the window over the top of the upstand 4 and the third legs extend along the external side 43 of the upstand, where they overlap a roof flashing 51.

[0031] An insulating member 24,34 is provided on the inner side of the second leg 22,32 of each flashing member. It is preferred to use a dimensionally stable insulating material, such as expanded polystyrene or polyethylene foam for this purpose, since this will provide strength and stiffness to the flashing, which is usually made from a thin metal sheet. This will minimise the risk of the flashing member becoming dented during mounting and subsequent work on the roof or when being hit by hail or experiencing heavy snow loads.

[0032] At its free end the third leg 23,33 has a bend 25,35, which serves to secure a compensation member 26,36. In this embodiment the compensation member is formed from a tube-shaped material, a section of which has been compressed or pinched along the length axis so that it has assumed a drop-shape. The pinched section has then been clamped in the bend section so that the rounded section lies along the inner side of the third leg, abutting the upstand 4. To allow this, the compensation member must be made of an elastic or plastic material as will be elaborated below.

[0033] In the embodiment shown in Fig. 1, the height difference between the two sides of the upstand 4 means that the window is positioned at an angle of 25 degrees above horizontal. The third leg 23 of the bottom flashing member 2 is substantially parallel to the external side 43 of the upstand 4 and the compensation member 26 thereon is compressed almost to its maximum. The compensation member 36 on the top flashing member 3 on the other hand is just touching the upstand 4 and the third leg 33 projects at an angle of approximately 20 degrees

from the external side 43 of the upstand. If the angle of the window were to be increased, there would not be room for the third leg 23 of the bottom flashing member 2 and the compensation member 36 on the top flashing member 3 would not be able to reach the upstand 4.

[0034] The opposite situation, where the window 1 has been positioned with the smallest possible inclination, here 5 degrees, is shown in Fig. 2, which is otherwise identical to Fig. 1.

[0035] As may be seen, the bottom flashing 2 has now been lifted in relation to the upstand 4, while the top flashing 3 has come closer to it. This entails that it is now the third leg 33 of the top flashing, which is lying along the external 43 side of the upstand, while the compensation member 26 on the bottom flashing is just touching it.

[0036] If the window is positioned at any angle between these two extremes, in this case at an angle between 5 and 25 degrees, the compensation members 26,36 will adapt to the space available between the third legs 23,33 and the external side 43 of the upstand 4. For this purpose it will in principle be sufficient that the compensation member is plastic, so that it may be pressed into shape during mounting of the flashing member. This will, however, entail that the compensation member will have to be reshaped or replaced if the flashing member is for some reason pressed further down than its intended position of use and that it will not be able to compensate for any movement of the flashing member 23 and/or upstand 4 caused by for example by thermal expansion. It is therefore preferred, that the compensation member is made from an elastic material.

[0037] Preferred materials for use as the compensation members 26,36 are grids or perforated sheet materials of metal or plastic, which has the combined advantage of having excellent elasticity and allowing ventilation. Other examples of usable materials are soft plastic foams, such as polyethylene (PE), and mineral wool. In this regard it is to be understood that the compensation member does not have to be made from a tube shaped material. A folded sheet material may result in a drop-shape similar to that depicted in Figs. 1 and 2 and a block of foam or mineral wool may function in a similar manner.

[0038] Depending on the angle of the window, there will be a smaller or larger gap between the insulating members 24,34 on the inner sides of the flashing members 2,3 and the block of insulating material 44 forming the upper external corner of the upstand 4. These gaps are indicated as A and B, respectively in Fig. 1. When the gap is small it has virtually no considerable impact on the insulating properties, but when it is big it will have. It is therefore preferred to arrange a supplementary insulating member 6, shown as a block of mineral wool in Fig. 2, on top of the upstand. The insulating member 24 on the flashing member 2 compresses the supplementary insulating member 6 as shown by the broken line, but depending on the materials used it is of course also possible that the supplementary insulating member compresses the insulating member on the flashing member.

Moreover, supplementary insulating members may be provided at both sides and, as for the compensation member, the supplementary insulating member should preferably have some degree of elasticity.

[0039] It is also possible to use flashing members without the third legs 23,33, if the external side 43 of the upstand 4 is made from a weather-resistant material or if the roof flashing 51 is instead taken all the way up to the upper side of the upstand. In that case the compensation members would instead be positioned on the second legs of the flashing members, preferably approximately at the position of the supplementary insulating member in Fig. 2. In this respect it is noted, that use of compensation members 26,36 having relatively good insulating properties will be advantageous to maintain the insulating properties of the structure seen as a whole. Moreover, since the lack of the third leg results in an exposed horizontal joint between the flashing member 2,3 and upper side of the upstand 4, the compensation members 26,36 are preferably made with a closed surface, at least at the external side.

[0040] The changes described above in the distance and angle between the third leg 23,33 and the upstand 4, when the angle of the window is changed, of course also applies to the second leg 22,32 and hence to a compensation member (not shown) arranged thereon.

[0041] A flashing member having a third leg may also be provided with compensation members both on the third and on the second leg.

[0042] At the sides of the window, a change of the angle of the window has different consequences as will be readily apparent to the skilled person and the use of compensation members on side flashing members is therefore not obvious. Instead it is preferred to use one or more traditional flashing members as shown in Fig. 3, which depicts two side flashing members 71,72 and a top flashing member 3, interconnected by a corner flashing member 8. The side flashing members 71,72, which are preferably provided with insulating members (not shown) on the inner sides, are made to fit a certain mounting angle of the window, corresponding to the angle V in Fig. 3. If, however, it can be accepted that the lower side 73 is not in line with the upper surface of the roof, the side flashing may be used over a certain angle interval as long as the water-tightness is not jeopardized.

[0043] Here, the corner flashing member 8 is provided as a separate member, which may be embodied much as the top flashing member 3, but it is also possible to provide it as part of either the side flashing member 72 or the top flashing member 3. Likewise, a flashing of the lower corner may be achieved either with a separate flashing member (not shown) or by interconnecting the side flashing member 71 and the bottom flashing member 2 (not shown in Fig. 3) directly.

[0044] The attachment of the flashing members 2,3,71,72 may be achieved in the traditional way by driving screws 74 through the flashing members and into the window frame, but as for the top and bottom flashing

members an alternative is shown in Fig. 4.

[0045] Here, the bottom flashing member 2 is attached by means of a connector element 9 riding on the mounting bracket 11. As may be seen, the connector element has a substantially H-shaped cross-sectional shape, with the two lower legs lying on each side of the mounting bracket and the two upper legs forming a gutter 91. It is, however, to be understood that a connector element does not need to ride on the mounting bracket but may also be attached directly to the window frame.

[0046] In this embodiment, the second leg 22 of the flashing member 2 has a bent end edge 27, which engages a longitudinal edge of the gutter 91 formed in the upper surface of the connector element 9. This engagement keeps the flashing member 2 from moving away from the connector element 9 in the horizontal direction and at the centre of the gutter is a raised part 93, which prevents it from moving in the opposite direction. The gutter is open-ended at the end of the connector element, which is furthest from the window, to allow it to be used for drainage purposes as will be explained below, but if this is not the case, the flashing member will also be kept from moving away from the window.

[0047] The first leg 21 of the flashing member 2 is located underneath a projection 92 on the connector element 9 having the shape of an inverted J, which projects upwards. The height of the body of the J corresponds substantially to the height of the first leg 21, so that the upper edge of the first leg lies at the inner corner of the J, where the arm and body meets, the first leg abutting the body of the J. In this case, the first leg 21 has a bend edge 28 as is common to this kind of flashing members and the arm of the J corresponds in size and shape to this bend edge. The projection 92 may be elastic so that it can be bent slightly to ease the introduction of the flashing member 2.

[0048] The engagement between the flashing member 2 and the projection 92 prevents the flashing member from moving in the vertical direction and combined with the engagement between the bent end edge 27 and the gutter 91 the flashing member is thus fixated.

[0049] An even further fixation is achieved when a covering member (not shown) having substantially the same cross-sectional shape as the bottom flashing member 2 is subsequently attached to cover the gutter. This may be done using screws 94 penetrating the projection 92 and the raised part 93.

[0050] The attachment of the flashing member 2 to the connector element 9 will, under normal circumstances, be sufficient, which means that the need for penetrating the window frame for the purpose of attaching the flashing member can be eliminated entirely.

[0051] A further optimisation may be achieved by using the projection 92 to support covering and cladding members (not shown), including those used at the side of the window.

[0052] Fig. 4 shows only a single flashing member 2, but it is to be understood that a second flashing member,

such as the bottom flashing member of a neighbouring window, could be placed with a bent end edge engaging the opposite longitudinal edge of the gutter 91. Also the joint 83 between the top and corner flashing members in Fig. 3 could be made using a connector element of a similar design but with a larger angle between the projection 92 and the gutter 91.

[0053] Likewise, even though the use of the connector element 9 is been described primarily with reference to the securing of bottom flashing members, it to be understood that similar principles applies to the securing and interconnection of top flashing members.

[0054] To ensure that two flashing members engaging the same connector element are aligned, the gutter is preferably of a rectangular shape, when seen from above in the mounted state. This also contributes to a narrow joint, which is advantageous both with regards to tightness and aesthetics. If, however, an angle is desired between neighbouring flashing members, this may be achieved by providing the longitudinal gutter edges at an angle to each other.

[0055] As explained above the connector element 9 in Fig. 4 is resting on the mounting bracket 11 used for interconnecting the window to the roof structure. The mounting bracket shown is substantially flush with the side member 14 of the window frame, which means that when mounting two windows side by side their mounting brackets will lie closely along each other. To allow the connector element to span both mounting brackets and thus come to lie at the centre of the joint between them, the space C between its two walls should be somewhat larger than twice the thickness of the body of the mounting bracket.

[0056] This centred position of the connector element 9 entails that the joint between neighbouring flashing members will also be centred which will lead to an aesthetical advantage, but it is of course also possible to provide a connector element at each mounting bracket. In that case a separate member will be needed for covering the space or joint between the two connector members of neighbouring windows, but this may be done by means of an extra-wide version of the covering member used for covering the gutter as described above.

[0057] As is well known to the skilled person, windows are often provided with a drainage channel (not shown) at the side members of the window frame for the purpose of collecting condensation as well as any water that might penetrate the system of cladding and covering members. The centred position of the connector element 9 allows it to be used for draining water collected by such drainage channels and possibly even for receiving water from covering members.

[0058] For this purpose the connector element has an extension 95 behind the projection 92 and the projection 92 has an opening 96 at the bottom. Water received from the drainage channel drips into the gutter 91, which extends into the extension 95 and which has a closed upper end. From here the water passes through the opening

96 in the projection and finally exits via the open lower end of the gutter, from where it is lead onto the roof flashing 51 (not shown in Fig. 4).

[0059] When the connector element 9 has a hollow design as shown in Fig. 4, it may be filled wholly or partially with an insulating material to minimize the risk of the connector element forming an undesirable thermal bridge. In the state of delivery the connector element may be filled substantially entirely with insulating material, which can then be removed wholly or partially to make room for mounting brackets or other means of attachment.

[0060] In the above, the invention has been explained with reference to a rectangular roof window, but it may also be used with windows having other shapes and with other types of roof penetrating structures such as solar panels.

Claims

1. A flashing member for use with a roof window having a window frame and being mounted on an upstand, said flashing member having an outer side intended to face the exterior in the mounted state and an inner side intended to face the window and roof in the mounted state, and said flashing member comprising
a first leg being intended for being arranged against the window frame and having an upper edge and a lower edge,
a second leg being arranged at an angle with respect to the first leg so that it comes to project from the window frame and having a first edge and a second edge, said first edge being connected to the lower edge of the first leg, and
at least one insulating member attached to the inner side,
characterized in that a compensation member is arranged on the inner side.
2. A flashing member according to claim 1, **characterized in that** the compensation member is compressible, expandable or provided with means, such as cutting lines, for allowing an easy removable of a part of the compensation member.
3. A flashing member according to claim 1 or 2, **characterized in that** the compensation member is elastic.
4. A flashing member according to any of the preceding claims, **characterized in that** the compensation member is a grid or perforated material having sheet or tube shape and preferably being made of plastic or metal.
5. A flashing member according to any of the preceding

claims, **characterized in that** the compensation member is attached to the flashing member by gluing, welding, clamping, screws, rivets or by part of the two members engaging each other, permanently or in a releasable manner.

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compressible insulating material, such as mineral wool.

6. A flashing member according to any of the preceding claims, **characterized in that** the insulating member is made from a dimensionally stable material, such as polystyrene foam. 10
7. A flashing member according to any of the preceding claims, **characterized in that** it further comprises a third leg having an upper and a lower edge, the upper edge being connected to the second edge of the second leg so that the third leg projects at an angle from the second leg in a direction opposite the first leg, the third leg being intended for being arranged along an external side of the upstand. 15
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8. A flashing member according to claim 7, **characterized in that** the compensation member is arranged at the lower edge of the third leg.
9. A flashing kit comprising at least two flashing member according to any of the preceding claims, **characterized in that** one flashing member is designed for use as a bottom flashing member. 25
10. A flashing kit according to claim 9, **characterized in that** it further comprises a top flashing member and/or a gable flashing member. 30
11. A flashing kit according to claim 9 or 10, **characterized in that** it further comprises one or more corner members, which may be integrated in the top, bottom and/or gable member(s). 35
12. A flashing kit according to claim 10 or 11, **characterized in that** the top flashing member is a ridge member designed to interconnect two windows mounted end to end at an angle to each other. 40
13. A flashing kit according to any of claims 9-12, **characterized in that** it further comprises one or more connector elements for connecting flashing members to the window frame. 45
14. A flashing kit according to claim 13, **characterized in that** the connector element(s) is/are adapted for riding on mounting brackets attached at the corners of the window frame and to serve as drainage member(s) leading water away from the side of the window. 50
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15. A flashing kit according to any of claims 9-14, **characterized in that** it further comprises at least one supplementary insulating member made from a

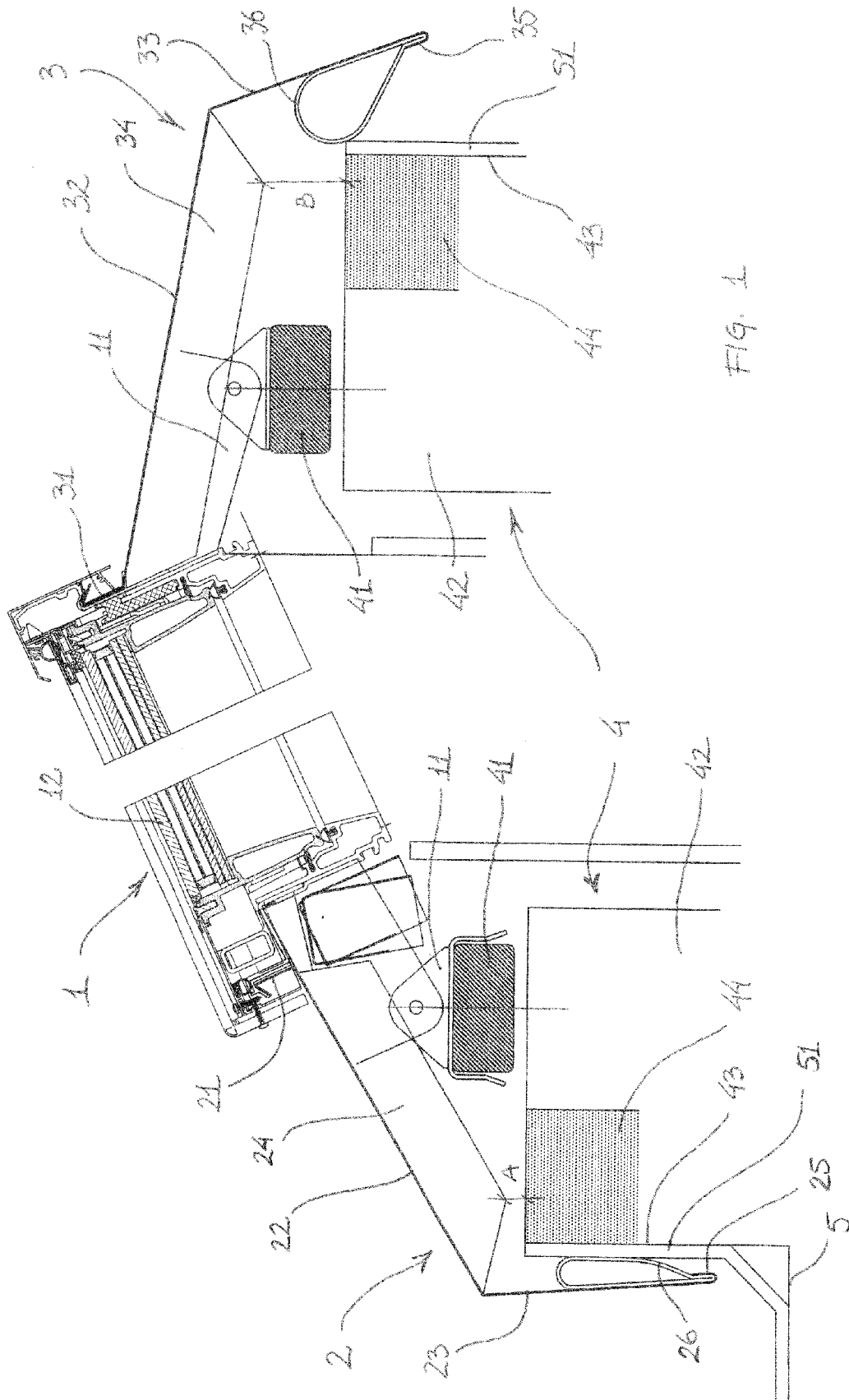
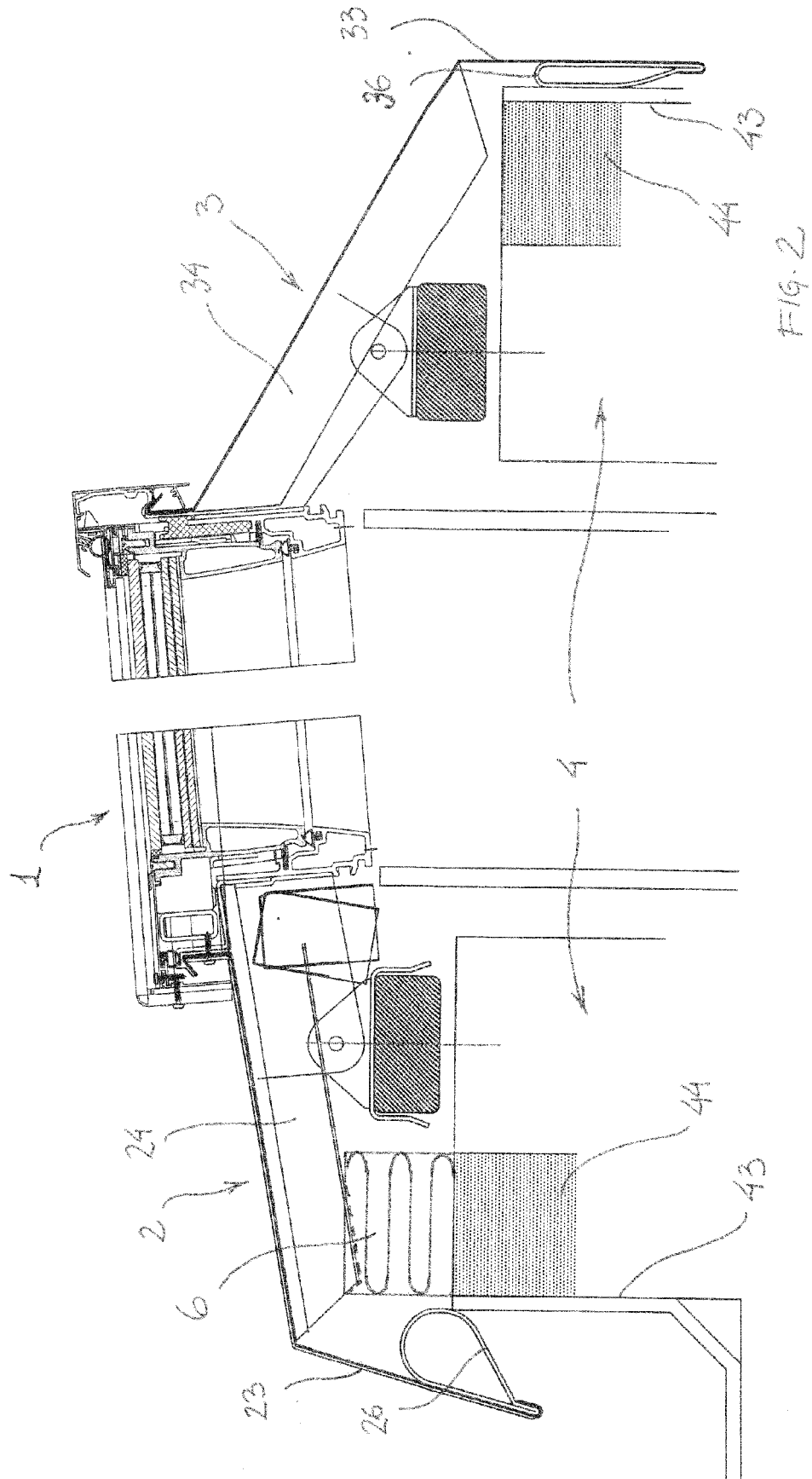
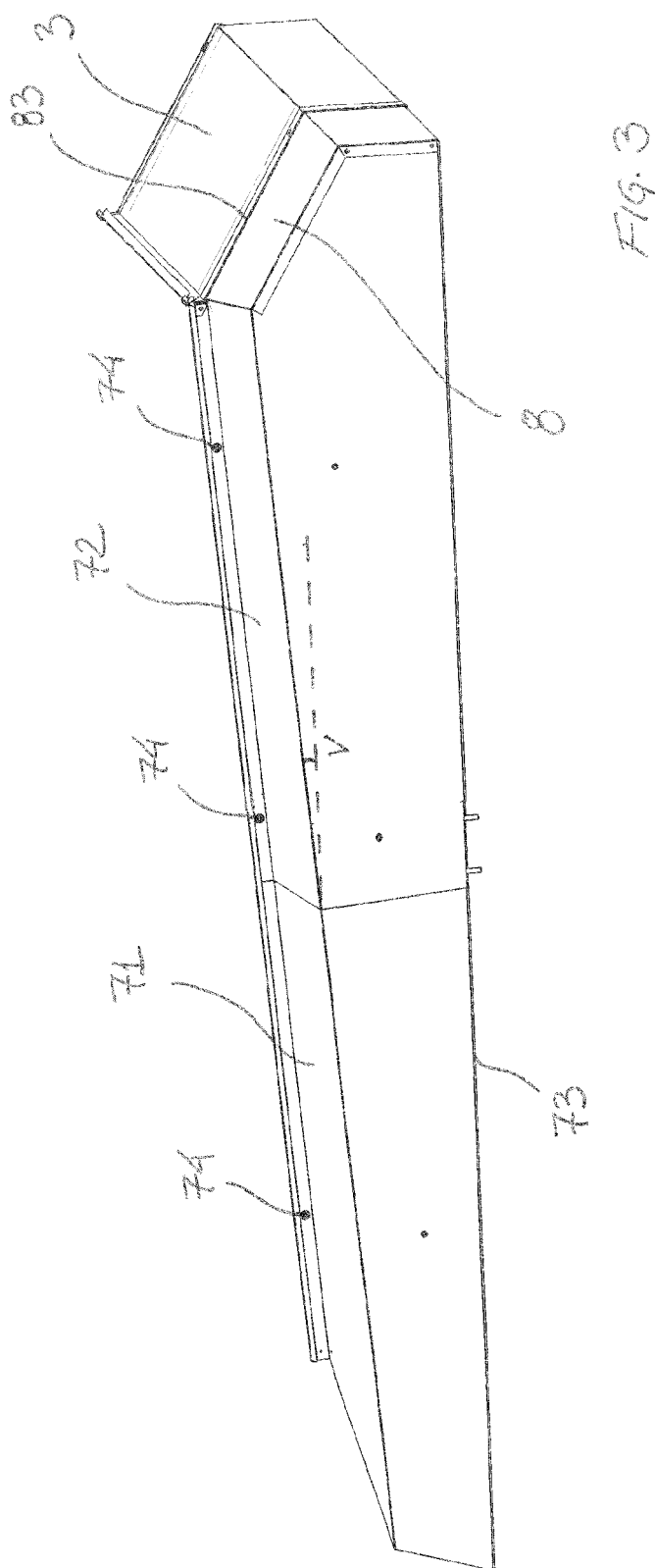


Fig. 1





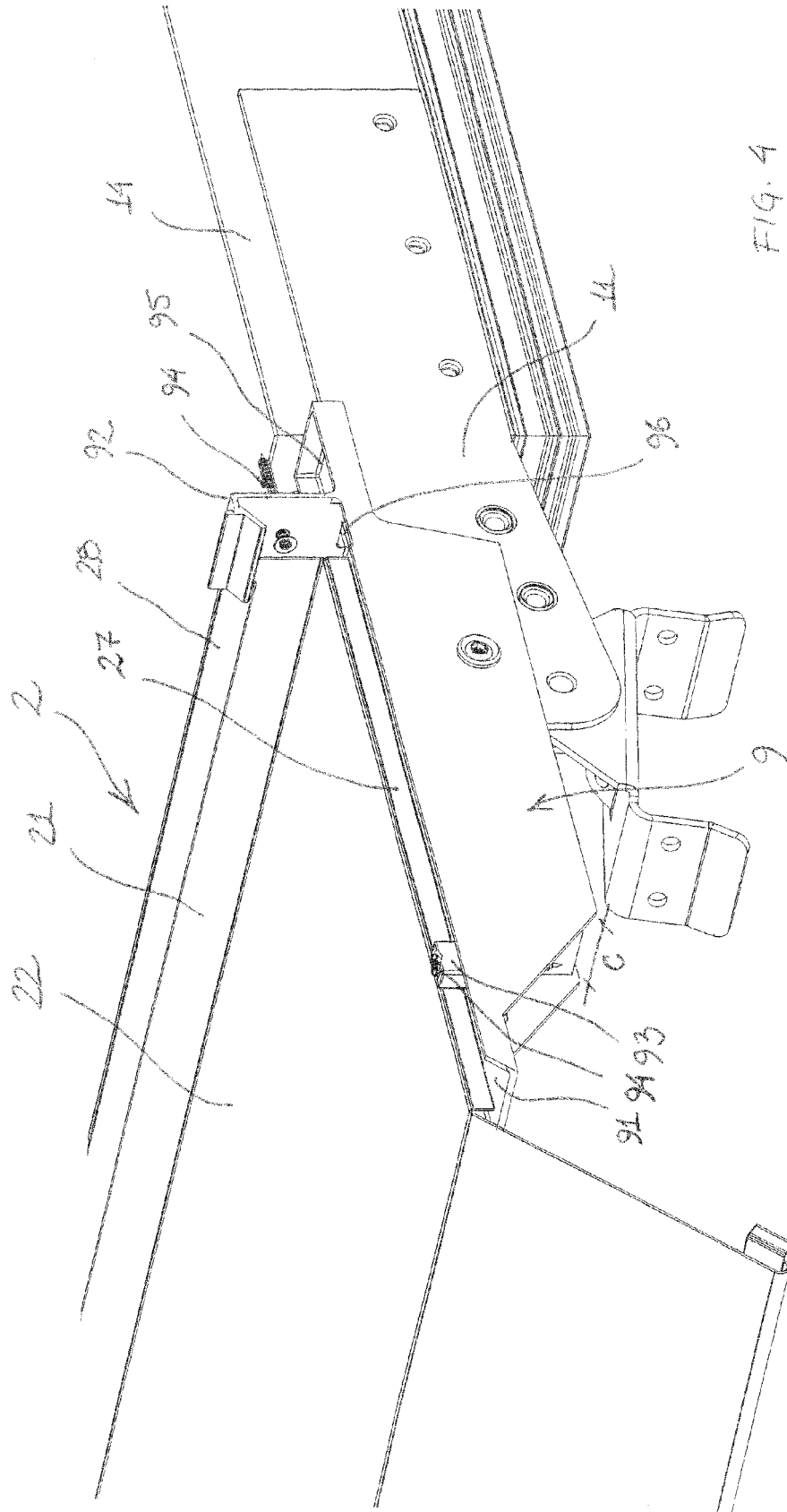


FIG. 4

Application Number
EP 10 19 7236

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 79 20 893 U1 (BLEFA GMBH [D]) 13 November 1986 (1986-11-13)	1-6	INV. E04D13/03 E04D13/147
Y	* figure 6 *	7-12	
Y	----- DE 21 42 733 A1 (HOESCH AG) 15 March 1973 (1973-03-15) * figures 1-3 *	7-12	
A	----- US 2 968 263 A (HUSTON SANFORD K ET AL) 17 January 1961 (1961-01-17) * figure 1 *	1-5	
A	----- DE 196 00 509 C1 (BAROCKE HARALD [DE]) 3 April 1997 (1997-04-03) * figure 1 *	1-12	
A	----- DE 201 20 837 U1 (FASERVERSTAERKTE KUNSTSTOFFE G [DE]) 4 April 2002 (2002-04-04) * figures 3, 4 *	1-12	TECHNICAL FIELDS SEARCHED (IPC) E04D
A	----- EP 0 296 340 A1 (EBERSPAECHER J [DE]) 28 December 1988 (1988-12-28) * figures 1, 2 *	1-12	
----- The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 6 June 2011	Examiner Bauer, Josef
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	



Application Number

EP 10 19 7236

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-12

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 10 19 7236

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-12

A flashing member with a compensation member and a kit including such a flashing member

2. claims: 1, 9, 13-15

Connector element for connecting a flashing member to a window frame

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 19 7236

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-06-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 7920893	U1	13-11-1986	NONE
DE 2142733	A1	15-03-1973	NONE
US 2968263	A	17-01-1961	NONE
DE 19600509	C1	03-04-1997	NONE
DE 20120837	U1	04-04-2002	NONE
EP 0296340	A1	28-12-1988	DE 3720778 A1 05-01-1989 DK 326888 A 25-12-1988 NO 882661 A 27-12-1988

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 9940272 A [0002]