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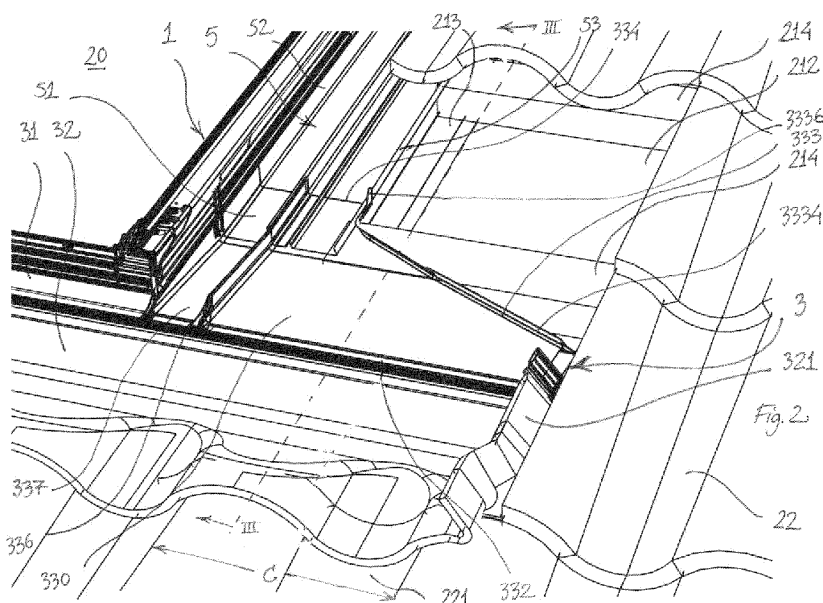
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(54) **A BOTTOM FLASHING ELEMENT FOR A ROOF PENETRATING STRUCTURE, A FLASHING ASSEMBLY, AND A ROOF WINDOW MOUNTED IN AN INCLINED ROOF**

(57) A bottom flashing element for a roof penetrating structure, such as a roof window, is disclosed. It comprises a rail member configured for being attached to a bottom member of a rectangular frame of the roof penetrating structure, a skirt member attached to the rail member, and two corner members extending away from the rail member in opposite directions. Each corner member has a first edge configured for extending along a side

member of the frame, a second edge attached to the skirt member, a third edge opposite the first edge and a fourth edge opposite the second edge. The width of each corner member measured along the second edge is larger than the length of the corner member measured along the first edge. The invention further relates to a flashing assembly including such a bottom flashing element and to roof window mounted using such a bottom flashing element.

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Description

Technical Field

[0001] The present invention relates to a bottom flashing element comprising a rail member configured for being attached to a bottom member of a rectangular frame of a roof penetrating structure mounted in an inclined roof; a skirt member attached to the rail member and configured for extending away from the bottom member of the roof penetrating structure and over a roof covering below the roof penetrating structure in a mounted state; and two corner members, each having a first edge configured for extending along a side member of the frame, a second edge attached to the skirt member, a third edge opposite the first edge and a fourth edge opposite the second edge, where the second edge is perpendicular to the first edge, said corner members extending away from the rail member in opposite directions and being configured for extending underneath a roof covering adjacent to the roof penetrating structure in a mounted state, and said corner members having an interior side configured for facing an interior of a building in a mounted state and an exterior side opposite the interior side, and each corner member comprising an edge projection extending along the third edge and projecting from the exterior side, away from the interior side.

Background Art

[0002] Such a bottom flashing element typically forms part of a flashing assembly used to seal the joint between a roof penetrating structure, such as a roof window, and the roof in which it is mounted. In the mounted state the bottom flashing element is arranged at the bottom member of the frame of the roof penetrating structure, side flashing elements are arranged along side members of the frame, and a top flashing element at the top member of the frame, so that the flashing elements together form a flashing frame surrounding the roof penetrating structure. The top flashing element overlaps the side flashing elements and the side flashing elements overlap the corner members of the bottom flashing element, so that water running down over the roof can cascade off one flashing element onto the next flashing element and eventually be directed onto the roof covering below the roof penetrating structure via the skirt member. The skirt member is typically configured for being deformed to match the shape of the roof covering elements, which may for example be tiles, undulated plates, or slate, so that a tight connection with the roof covering elements can be achieved. The top flashing element will typically also comprise corner members configured for overlapping with the side flashing elements, substantially in the same way as described with reference to the bottom flashing element.

[0003] The edge projections at the third edges of the corner members of the bottom flashing element serve to

deflect water entering sideways underneath the roof coverings elements, i.e. in a direction across the inclination direction of the roof, for example under the influence of wind. In this way the risk of water penetrating into the roof structure of the roof is considerably reduced.

[0004] An example of such a flashing assembly is disclosed in FR2916464, and today virtually all roof windows installed in inclined roofs in Europe are provided with such a flashing assembly.

[0005] Practice, however, has shown that in roofs with a relatively low inclination, particularly at inclinations lower than 15 degrees or where the roof is exposed to strong winds, water may still leak into the roof structure in spite of such a flashing assembly being installed.

Summary of Invention

[0006] With this background, it is therefore an object of the invention to provide a flashing assembly with improved weatherproofing abilities, particularly at roof inclinations lower than 15 degrees.

[0007] This and further objects are achieved with a bottom flashing element of the kind mentioned in the introduction which is furthermore characterised in that the width of each corner member measured along the second edge is larger than the length of the corner member measured along the first edge.

[0008] The big relative width of the corner member compared to traditional bottom flashing elements, where the width and length are substantially the same, allows water, which cascades off the roof covering and off the side flashing element, to spread out onto a larger area than what has been the case with the traditional bottom flashing elements. This results in a decrease in water velocity and in the amount of water per area unit of the corner member, and it may also lead to an advantageous change in the flow pattern, potentially leading to a decreased sensibility to wind.

[0009] In one embodiment the first edge and the third edge of each corner member are converging so that the primary width measures along the second edge is larger than a secondary width measured along the fourth edge and in parallel with the primary width. This provides a gradual increase of the area available for the water, which has been seen to result in less turbulence in the water on the corner member.

[0010] It is presently preferred that the primary width is at least twice the secondary width, more preferred at least three times the secondary width.

[0011] The third edge of each corner member preferably extends at an angle of 45-80 degrees in relation to the first edge, preferably at an angle of 50-75 degrees, still more preferred at an angle of approximately 60 degrees. In this context it is noted that the third edge may comprise two or more subsections, which are not extending in parallel.

[0012] In one embodiment the third edge comprises a main section extending at an angle to the first edge as

described above and a top section extending substantially in parallel to the first edge. Such a top section may facilitate the interconnection of the side flashing element and the bottom flashing element, particularly if the edge projection on the corner member is present at the top section, since the side flashing element may then be retained between the edge projection on the top section and the side member of the frame.

[0013] Each corner member may comprise a side section extending from the exterior side at the first edge and being configured for extending along the side member of the frame so that the corner member has an L-shape when seen from the second edge. In that case, the side flashing element may be retained between the edge projection on the top section and the side section. Alternatively, or as a supplement, the rail member may comprise side sections extending along the respective side members of the frame in the mounted state. The side flashing element will typically comprise a side section similar to the one of the corner member.

[0014] The third edge of the corner member may also or alternatively comprise a bottom section extending substantially in parallel with the first edge and in parallel with an end edge of the skirt member. If the edge projection on the corner member is present at the bottom section this may help guide water off the corner member and onto the skirt member by deflecting water running along the edge projection at the main section towards the first edge. The skirt member may comprise a similar edge projection extending in continuation of the edge projection of the corner member.

[0015] For use with roof coverings made from undulated or curved tiles it is presently preferred that the primary width of the corner member is 300-500 mm, preferably 350-450 mm, still more preferred 375-400 mm. The distance from one roof tile to the next across the direction of inclination of the roof, also known as the cover width of the tile, is typically 200-300 mm. By making the primary width of the corner member larger than the cover width of the tiles, water coming off the corner member will be distributed over parts of the skirt member resting on at least two tiles. This will reduce the risk of water damming up at the humps on the skirt member caused by it resting on the highs of the tiles, because the water will run off through the valleys or lows, i.e. the areas between the highs and hence make it easier for water to drain off the corner member. Each tile will typically comprise one high and one low, also referred to as summits and valleys, but it is also possible to use undulated tiles each having two highs and two lows or curved tiles, where every other tile is arranged with the convex side facing towards the exterior, thus forming the highs, and the tiles between them arranged with the concave side facing towards the exterior, forming the lows.

[0016] It is presently preferred that each corner member can accommodate 400-800 cm³ (cubic centimetres) of water, more preferred at least 600 cm³ of water and still more preferred 700 cm³ of water, not taking a possible

overlap with a side flashing element into account. In comparison the corner members of the applicants bottom flashing members presently on the market can accommodate approximately 280 cm³. The volume accommodated by a corner member is the volume defined by the height of the edge projection and the area available on the portion of the corner member extending substantially in parallel with the plane of the roof. Due to the flow of the water, the inclination of the roof and hence of the inclination of the corner member is of little or no consequence to the volume of water present when having normal rain conditions.

[0017] As is also known from the prior art, the bottom flashing element may further comprise a longitudinal projection on each corner member, said longitudinal projection extending substantially in parallel with the first edge and extending from the second edge to the fourth edge. Together with the first edge the longitudinal projection forms a flow drainage channel that guides at least some of the water coming off the side flashing element so that it does not spread out over the corner member but continues its path in the direction of inclination and is led straight out onto the skirt member. Usually the side flashing element will comprise a similar longitudinal projection.

[0018] The relative dimensions of the drainage channel thus delimited by the longitudinal projection and the main portion of the corner member located between the longitudinal projection and the edge projection is preferably such that the width of the main portion corresponds at least to the cover width of a roofing tile. This means that there will always be a row of the roofing tiles below the main portion of the corner member when seen in the direction of inclination and thus an unobstructed drainage path for water coming off the main portion of the corner member. In practice, this will typically mean that the distance from the first edge to the longitudinal projection measured in parallel with the second edge will be 40-100 mm, preferably 50-70 mm. The volume available for accommodating water as described above is preferably available on the main portion of the corner member, i.e. not including the volume available in the drainage channel.

[0019] In a flashing assembly comprising a bottom flashing element as described above and two side flashing elements configured for extending along side members of the frame, each of said side flashing elements will typically comprise an end section adapted for overlapping a corner member at the fourth edge in the mounted state. This reduces the risk of water penetrating into the roof structure at the joint between the side flashing element and the bottom flashing element.

[0020] To further reduce the risk of water-penetration in such flashing assemblies, a joint sealing strip may be provided on the exterior side of each corner member extending along the fourth edge and/or a joint sealing strip may be provided on an interior side of the end section of each side flashing element member, said joint sealing strip(s) being sandwiched between the respective corner

member and the respective side flashing element in the mounted state. The joint sealing strip(s), which is/are preferably elastic, for example made from a polymer foam, will compensate for possible unevenness and slight movements of the flashing elements in relation to each other, for example caused by thermal expansion.

[0021] As described above a side flashing element and the bottom flashing element may together form a drainage channel extending along the side member of the frame of the roof penetrating structure if both are provided with longitudinal projections extending in continuation of each other in the mounted state. A similar or supplemental drainage channel may be formed by each side flashing element comprising an edge projection extending in continuation of the edge projection of the corner member in the mounted state. If both longitudinal projections and edge projections are provided on both flashing elements, two drainage channels extending substantially in parallel with each other will be provided.

[0022] When an edge projection is present on the side flashing element, a lobe may advantageously be provided on the edge projection of each corner member adjacent to the fourth edge, said lobe being configured for being bent over the edge projection of the side flashing element. In this way a simply, yet reliable interconnection may be achieved so that the side flashing element is retained in relation to the bottom flashing element. The use of such bendable lobes is known, but the lobes have previously been provided next to the edge projection, extending from the main portion of the corner member in plane with the roof before being bended. By providing the lobe on the edge projection, the risk of water-penetration at the joint between the side flashing element and the bottom flashing element is reduced. This is particularly the case if the edge projection on the corner member is present on a top section extending substantially in parallel to the first edge and the lobe is provided on this top section.

Brief Description of Drawings

[0023] In the following description embodiments of the invention will be described with reference to the schematic drawings, in which

Fig. 1 is a perspective view of a frame of a roof window mounted in an inclined roof with a roof covering consisting of undulated tiles, where four tiles have been removed to show the corner member of the bottom flashing element;

Fig. 2 is a perspective view of the detail marked II in Fig. 1 seen from the angle indicated by the arrow in Fig. 1, but with the tile sealing strip removed;

Fig. 3 is a cross-sectional view along the line III-III in Fig. 2;

Fig. 4 shows right-hand end of the bottom flashing element, i.e. the part also visible in Fig. 2, still without the tile sealing strip, and the lower end of the right-

hand side flashing element arranged in the same mutual position as in Fig. 2;

Fig. 5 corresponds to Fig. 4 but includes the tile sealing strip;

Fig. 6 is a perspective view of the right-hand corner member of the bottom flashing element in Figs 1-4 from the angle indicated by the arrow VI in Fig. 4;

Fig. 7 is a perspective view of the right-hand corner member of the bottom flashing element in Figs 1-4 from the angle indicated by the arrow VII in Fig. 4;

Fig. 8 is a perspective view of the right-hand corner member of the bottom flashing element in Figs 1-4 and 6-7, but shown from a different angle and indicating water levels; and

Fig. 9 is a perspective view corresponding to Fig. 8, but showing a prior art corner member.

Description of Embodiments

[0024] Referring initially to Fig. 1, a frame 1 of a roof window is shown mounted in an opening 20 in an inclined roof 2 having a direction of inclination D and a width direction extending across the direction of inclination D.

[0025] The roof comprises a load-bearing structure 21 and a roof covering composed of undulated roof covering elements 22. In this embodiment the load-bearing structure is made up of rafters 211, underroof 212, counter-battens 213 and battens 214, and the roof covering elements are undulated tiles resting on the battens in a manner well known to the skilled person. Each roof covering element 22 has a cover width C, which is the distance covered by each tile in the width direction W. In the embodiment shown, the sides of neighbouring tiles are shown as abutting each other, but it is to be understood that neighbouring tiles will usually have an overlap in the width direction W, so that the cover width C will be somewhat smaller than the total width of each tile, said overlap typically being 2-4 cm.

[0026] The joint between roof window frame 1 and the roof 2 is covered by a flashing assembly comprising a bottom flashing element 3 arranged at a bottom member 11 of the frame, side flashing elements 4, 5 extending along side members 12, 13 of the frame, and a top flashing element 6 arranged at a top member 14 of the frame. Corner sections of top flashing element overlaps the side flashing elements and end sections of the side flashing elements overlap corner members 33 of the bottom flashing element in the mounted state so that water may cascade off the top flashing element onto the side flashing elements, from there onto the bottom flashing element, and finally onto the roof covering below the opening 20 in the roof structure.

[0027] The bottom flashing element 3 comprises a rail member 31, which is attached to the bottom member 11 of the frame 1 and a skirt member 32 attached to the rail member and extending away from the bottom frame member over the roof covering elements 22. The skirt member is made from a material, which is easily deform-

able and plastic, so that it can be given a shape matching the shape of the roof covering elements 22 during mounting and maintain this shape during the life time of the flashing assembly.

[0028] To hinder the ingress of water and dirt underneath the tiles 22, a tile sealing strip 7 made from a polymer foam extends along each side of the roof window frame 1. When the tiles are mounted, the tile sealing strip is compressed underneath the tiles so that it closes the gap between the tiles and the flashing elements and in Fig. 1 it is thus only visible at the lower right-hand corner of the frame, where four tiles have been removed. In the embodiment shown, the tile sealing strip is composed of a section 71 attached to the side flashing element and a section 72 attached to the bottom flashing element 3 as indicated in Fig. 5, and it is to be understood that a tile sealing strip is also present on the top flashing element, extending in continuation of the section 71 on the side flashing element. It is, however, also possible to mount one continuous tile sealing strip extending along the entire frame after the installation of the flashing assembly. Slits in the material of the tile sealing strip allows individual sections to be compressed independently.

[0029] Turning now also to Fig. 2, where the tile sealing strip has been removed, the overlap between the right-hand side flashing element 5 and the bottom flashing element 3 is shown more clearly. This particular place in the construction is particularly exposed to water, particularly during heavy wind, as water coming off the roof window (only frame 1 shown), water travelling down along the side of the frame on the side flashing element 5, and water coming off the roof covering extending along the side of the frame will all have to be led onto the skirt member 32 of the bottom flashing element. As modern roof windows are typically mounted relatively deep in the roof structure, this typically involves "lifting" the water, by making the parts of the flashing assembly closest to the skirt member with a lower inclination than the inclination of the roof, as shown by the angle A as is seen in the cross-sectional view in Fig. 3. This change in inclination may result in a slight reduction in water velocity, which may in turn result in an accumulation of water, and to accommodate this the bottom flashing element has been provided with corner members, which are somewhat wider than the side flashing elements when seen in the width direction W.

[0030] According to the present invention it has been realized that the width B of the corner members 33 measured that the second edge 332 as indicated in Fig. 4 relative to the cover width C of the roof covering elements 22 is of importance for the drainage capacity of the bottom flashing element 3. Particularly at low roof inclinations where the part of the flashing assembly closest to the skirt member 32 become almost horizontal in order to achieve the angle A.

[0031] In Fig. 3 the skirt member 32 is shown in its deformed state marked with reference number 32' and the inclination of the roof is 15 degrees. As may also be

seen in Fig. 3, the distance T from the roof window to the tile 22 is somewhat longer than what is usually the case for such roof window installation. This increased distance reduces the angle of the section 32" of the skirt extending from the corner member 33 to the high 222 of the tile 22, thereby facilitating drainage.

[0032] The right-hand corner member 33 of the bottom flashing is shown more clearly in Figs 6-7 showing only the corner member 33 from two different angles.

[0033] In the embodiment shown the corner member 33 comprises a main portion 330 extending substantially in plane with the roof. The main portion is delimited by a first edge 331 extending along a frame side member 13 and in parallel with the side flashing member 5, a second edge 332 attached to the skirt member 32, a third edge 333 opposite the first edge and a fourth edge 334 opposite the second edge. The second and fourth edges are perpendicular to the first edge, and the third edge is composed of a main section 3331 extending at an angle E to the first edge and a top section 3332 and a bottom section 3333 both extending substantially in parallel to the first edge. The function of the top section will be described in further detail below, but it is to be understood that the top and bottom sections are not strictly necessary in relation to the present invention.

[0034] The length L of the corner member measured along the first edge is usually 250-300 mm and corresponding approximately to the length of one roof covering element in the direction of inclination D. As the corner member serves to "lift" water as described above, the room for changing the length is limited.

[0035] In the embodiment shown, the width B of each corner member measured along the second edge, also called the primary width, is 40% larger than the length L of the corner member measured along the first edge. This results in a relatively large surface area on the corner member, where the water may distribute and come to rest before draining onto the skirt member 32.

[0036] When compared to the cover width C of the tiles 22, the width B of the corner member along the second edge is about 95% larger. This means that two lows 221 on the tiles will be present below each corner member, regardless how the roof window is arranged in relation to the grid of the roof covering elements 22, which improves the drainage capacity compared to when using traditional bottom flashing elements, where there will often only be one low 221 below at least one of the corner members.

[0037] An edge projection 3334 extends along the entire third edge 333 and projects away from the interior side of the corner member, i.e. away from the roof 2. In this embodiment the edge projection projects at an angle F as indicated in Fig. 6 of approximately 45 degrees in relation to the main portion 330 and projecting 20 mm above the exterior side, the height H of the edge projection being indicated in Fig. 3. These dimensions may vary depending on factors such as the size of the opening 20 in the roof and the climate zone in which the flashing

assembly is used. It is, however, preferred that the angle F is less than 90 degrees to make sure that the edge projection 3334 forms a drainage channel 3335 extending along the third edge 333, even if deformed by roof covering elements 22 arranged on top of the corner member as shown at the left-hand side in Fig. 1. As seen for example in Fig. 5 the skirt member 32 is here provided with a similar edge projection 321 so that the drainage channel 3335 continues along the entire end edge of the bottom flashing element 3.

[0038] At the top section 3332 of the third edge 333 the edge projection 3334 extend substantially in parallel to a similar edge projection 53 on the side flashing element 5, and at the first edge 331 a leg 335 extends perpendicular to the main portion 330. In the mounted state of the flashing assembly the leg 335 extends along an outer side of the side frame member 13 and in parallel with a similar leg 52 on the side flashing member. When the end section 51 of the side flashing element 5 overlaps the corner member 33 at the fourth edge thereof, the side flashing element becomes retained between the leg 335 at the first edge and the edge projection 3334 at the third edge. The portion of the corner member extending between the first edge 331 and the top section 3332 of the third edge is thus covered by the side flashing element in the mounted state and thus does not contribute to the water drainage capacity of the bottom flashing element.

[0039] A lobe 3336 is provided on the edge projection 3334 of each corner member adjacent to the fourth edge 334, said lobe being configured for being bent over edge projection 53 on the side flashing element 5 to fixate the bottom flashing element 3 in relation to the side flashing element.

[0040] In Figs 8 and 9 a corner member according to the invention is compared to a corresponding prior art corner member. As may be seen, the fact that the lobe 3336 extends from the edge projection 3334 rather than directly from the main portion 330 of the corner member as on the prior art corner member, entails that the edge projection can continue all the way up to the fourth edge 334 and that water can be accommodated on the entire surface of the main portion 330 of the corner member, the water being illustrated by the dotted surfaces and the wavy lines 8. On the prior art corner member, the lobe 3336' extends from the main portion 330 and an indentation 3337 is present between the lobe and the edge projection 3334', said indentation resulting from the corner member being made by drawing and folding. The absences of the edge projection 3334' closest to the fourth edge means that the water 8 can only be accommodated on the part of the main portion 330 of the prior art corner member extending between the second edge 332 and indentation 3337. This, in combination with the fact that the corner member in Fig. 8 is wider than the prior art corner member in Fig. 9 and that the edge projection 3334 is 20 mm high compared to 10 mm on the prior art corner member, means that the corner member in Fig. 8 accommodates 740 cm³ of water, whereas the

corner members in Fig. 9 accommodates approximately 280 cm³. These numbers reflect the volume of the corner member alone, not taking the overlap with the side flashing element into account. The risk of water penetrating into the roof at the lobe can be considerably reduced by providing a large overlap between the edge projections 53, 3334 on the side flashing element and the corner member, but such an overlap has been seen to be insufficient at roof inclinations below 15 degrees.

[0041] In the embodiment shown both the side flashing element and the corner member have longitudinal projections 56, 336 formed as narrow U-shaped bends on the sheet material from which they are made. The longitudinal projection 56 on the side flashing element fits over the longitudinal projection 336 on the corner member thereby contributing to retaining the side flashing element. The longitudinal projections also contribute to guiding water, as a channel 337 is formed between them and the legs 52, 335 extending along the outer side of the side frame member 13 and preventing it from being forced sideways over the corner member under the influence of wind. It is considered advantageous if the maximum width G of the corner member measured from the longitudinal projection 336 to the third edge 333, i.e. excluding the channel 337 formed between the longitudinal projection and the leg 335, is larger than the length L of the corner member measured along the first edge. In the embodiment shown, the width G is 22% larger than the length, whereas the it is approximately 20% shorter with the prior art corner members. When compared to the cover width C of the tiles, the width G , is about 65% larger.

[0042] It is noted that the relative dimension of the channel 337 formed between the longitudinal projection 336 and the leg 335 compared to the main portion 330 does not need to be as shown in the drawing and that the relative dimensions of the main portion to the cover width of the tiles may therefore be different. In the embodiment shown, the width of the channel 337 is approximately 50 mm.

[0043] It is noted that the amounts of water, which can be accommodated on the corner members as described with reference to Figs 8 and 9, have been calculated based on the volume available between the longitudinal projection 336 and the edge projections 3334, 3334'. The volume available in the channel 337 formed between the longitudinal projection 336 and the leg 335 will be substantially the same of the two corner members and has therefore not been taken into account.

[0044] In the drawing, only a corner member 33 where the first edge 331 and the third edge 333 are converging so that the primary width B measures along the second edge 332 is larger than a secondary width S measured along the fourth edge is shown. This shape allows the water to gradually spread out over the main portion 330 of the corner member. It is, however, to be understood that the corner member can be rectangular so that the first and third edges are substantially parallel. Likewise, it is to be understood that the angle E of the third edge,

which is 60 degrees in the drawing, can be different from what is shown, and that a change in this angle may result in a different primary and/or secondary width. The presence or not of a top section 3332 and/or a bottom section 3333 of the third edge and its/their length may also influence on the primary and/or secondary width.

List of reference numerals

[0045]

1	Frame of roof window
11	Frame bottom member
12	Frame side member
13	Frame side member
14	Frame top member
2	Roof
20	Opening in roof
21	Load-bearing structure
211	Rafter
212	Underroof
213	Counter-batten
214	Batten
22	Roof covering elements
221	Low
222	High
3	Bottom flashing element
31	Rail member
32	Skirt member
32'	Deformed state
32"	Skirt extending to high of tile
321	Edge projection
33	Corner member
330	Main portion
331	First edge
332	Second edge
333	Third edge
3331	Main section
3332	Top section
3333	Bottom section
3334	Edge projection
3334'	Prior art edge projection
3335	Drainage channel
3336	Lobe
3336'	Prior art lobe
3337	Indentation at prior art lobe
334	Fourth edge
335	Leg
336	Longitudinal projection
337	Channel
4	Side flashing element
5	Side flashing element
51	End section
52	Leg
53	Edge projection
56	Longitudinal projection
6	Top flashing element

7	Tile sealing strip
71	Section attached to side flashing element
72	Section attached to the bottom flashing
8	Water surface
5 A	Angle of parts of flashing assembly closest to skirt member relative to side flashing element
B	Width of corner member measured along second edge
C	Cover width of roof covering elements
10 D	Direction of inclination
E	Angle of main section of third edge relative to first edge
F	Angle of edge projection relative to main portion
G	Width of corner member measured from the longitudinal projection to third edge
15 H	Height of edge projection
L	Length of corner member measured along first edge
S	Secondary width measured along fourth edge
20 T	Distance from roof window to tile
W	Width direction

Claims

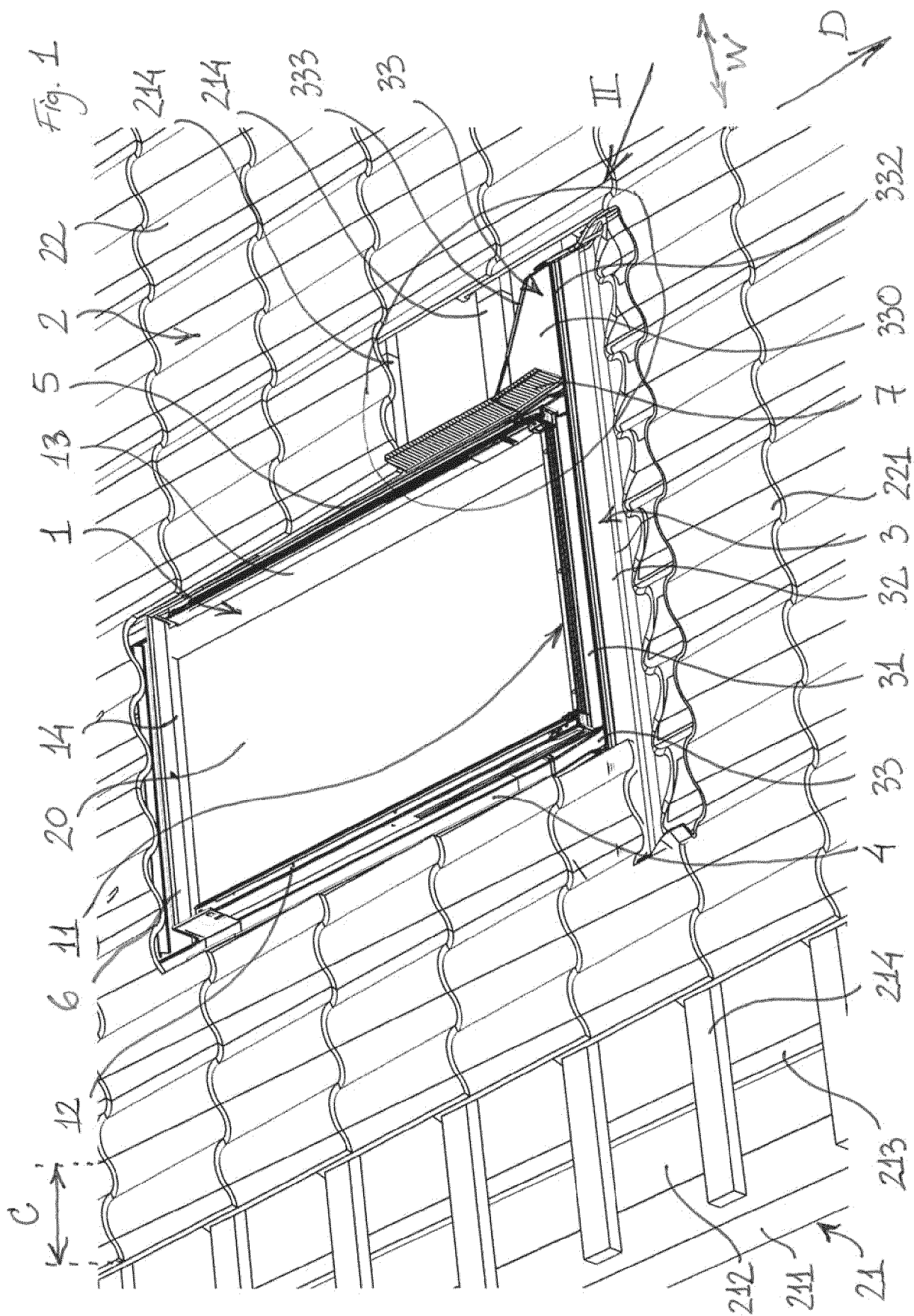
25	1. A bottom flashing element (3) comprising
30	a rail member (31) configured for being attached to a bottom member (11) of a rectangular frame (1) of a roof penetrating structure mounted in an inclined roof (2),
35	a skirt member (32) attached to the rail member (31) and configured for extending away from the bottom member (11) of the roof penetrating structure and over a roof covering below the roof penetrating structure in a mounted state, and
40	two corner members (33), each having a first edge (331) configured for extending along a side member of the frame (1), a second edge (332) attached to the skirt member (32), a third edge (333) opposite the first edge and a fourth edge (334) opposite the second edge, where the second edge is perpendicular to the first edge, said corner members extending away from the rail member (31) in opposite directions and being configured for extending underneath a roof covering adjacent to the roof penetrating structure in a mounted state, and said corner members having an interior side configured for facing an interior of a building in a mounted state and an exterior side opposite the interior side, and each corner member comprising an edge projection (3334) extending along the third edge (333) and projecting from the exterior side, away from the interior side,
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55	characterized in that the width of each corner member (33) measured along the second edge (332) is larger than the

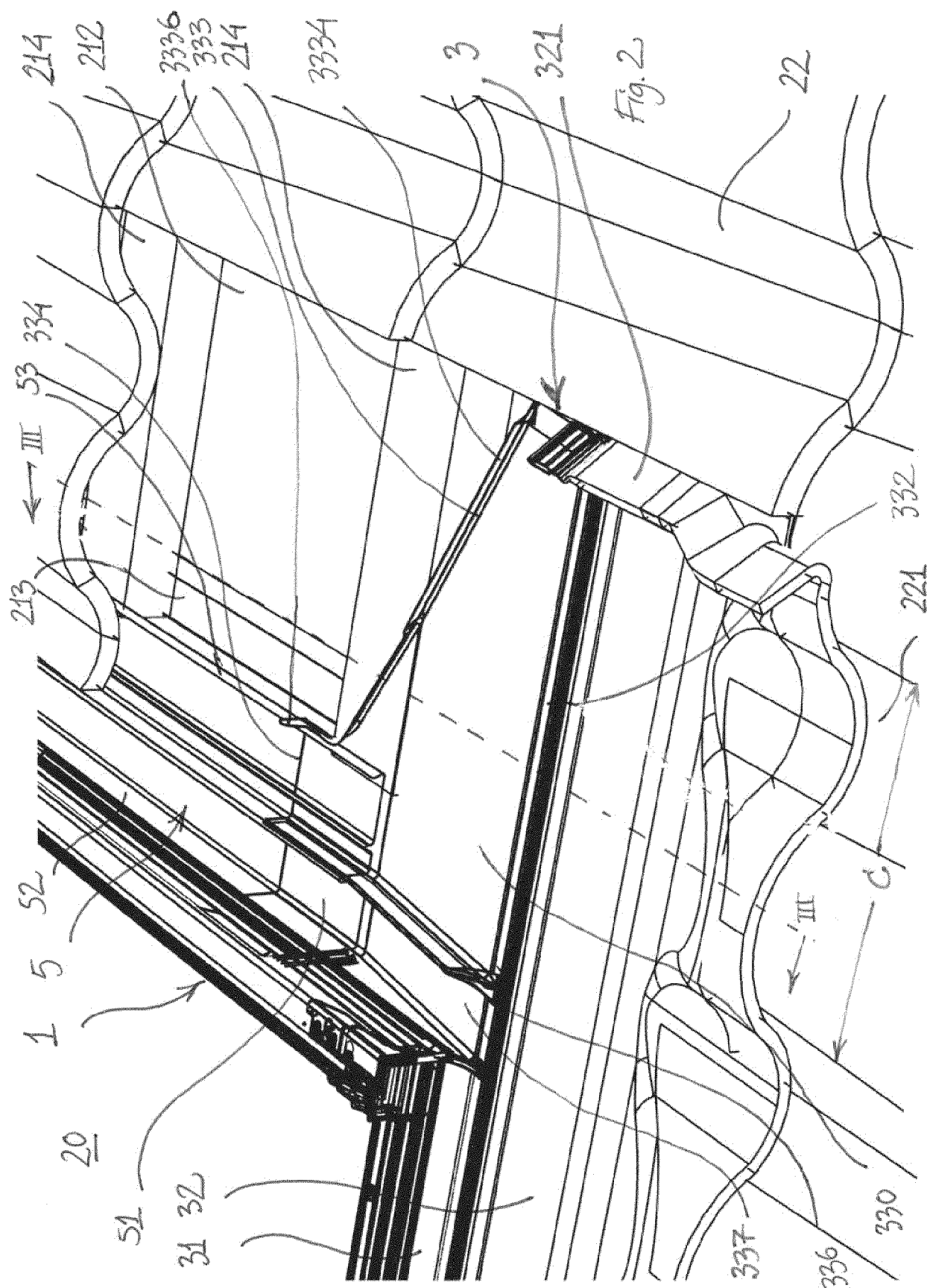
length of the corner member measured along the first edge (331).

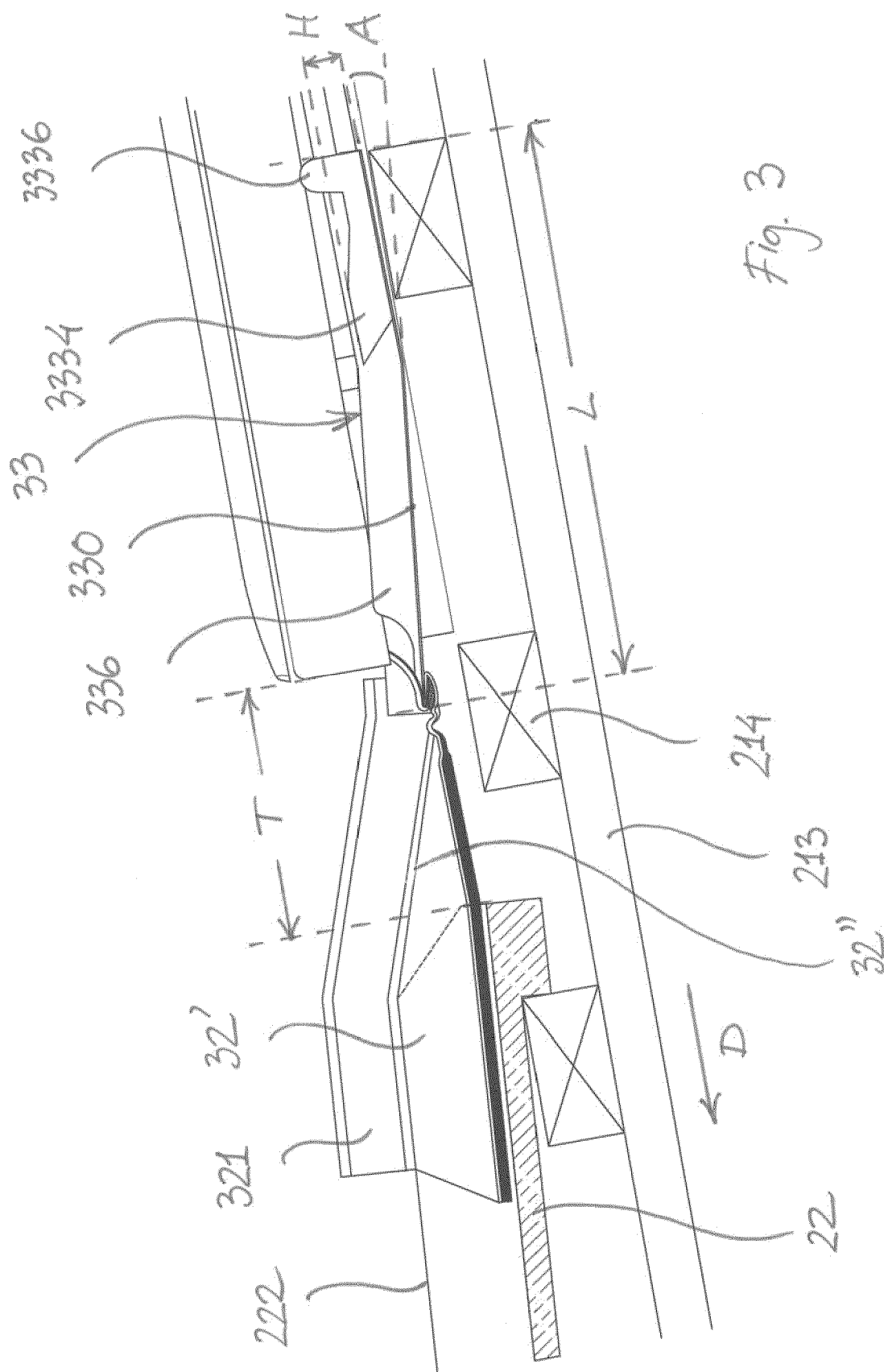
2. A bottom flashing element (3) according to claim 1, where the first edge (331) and the third edge (333) of each corner member (33) are converging so that the primary width (B) measured along the second edge (332) is larger than a secondary width (S) measured along the fourth edge (334) and in parallel with the primary width, said primary width preferably being at least twice the secondary width, more preferred at least three times the secondary width. 5
3. A bottom flashing element (3) according to claim 2, where the third edge (333) of each corner member (33) extends at an angle of 45-80 degrees in relation to the first edge (331), preferably at an angle of 50-75 degrees, still more preferred at an angle of approximately 60 degrees. 10
4. A bottom flashing element (3) according to one or more of the preceding claims, where the primary width (B) is 300-500 mm, preferably 350-450 mm, still more preferred 375-400 mm. 15
5. A bottom flashing element (3) according to one or more of the preceding claims, where each corner member (33) can accommodate 400-800 cm³ (cubic centimetres) of water, more preferred at least 600 cm³ of water and still more preferred 700 cm³ of water. 20
6. A bottom flashing element (3) according to one or more of the preceding claims, further comprising a longitudinal projection (336) on each corner member (33), said longitudinal projection extending substantially in parallel with the first edge (331) and from the second edge (332) to the fourth edge (334), where the distance from the first edge to the longitudinal projection measured in parallel with the second edge is 40-100 mm, preferably 50-70 mm. 25
7. A flashing assembly comprising a bottom flashing element (3) according to one or more of the preceding claims and two side flashing elements (5) configured for extending along side members (12, 13) of the frame (1), said side flashing elements each comprising an end section (51) adapted for overlapping a corner member (33) at the fourth edge (334) in the mounted state. 30
8. A flashing assembly according to claim 7, where a joint sealing strip is provided on the exterior side of each corner member (33) extending along the fourth edge (334) and/or where a joint sealing strip is provided on an interior side of the end section (51) of each side flashing element (5), said joint sealing strip(s) being sandwiched between the respective 35

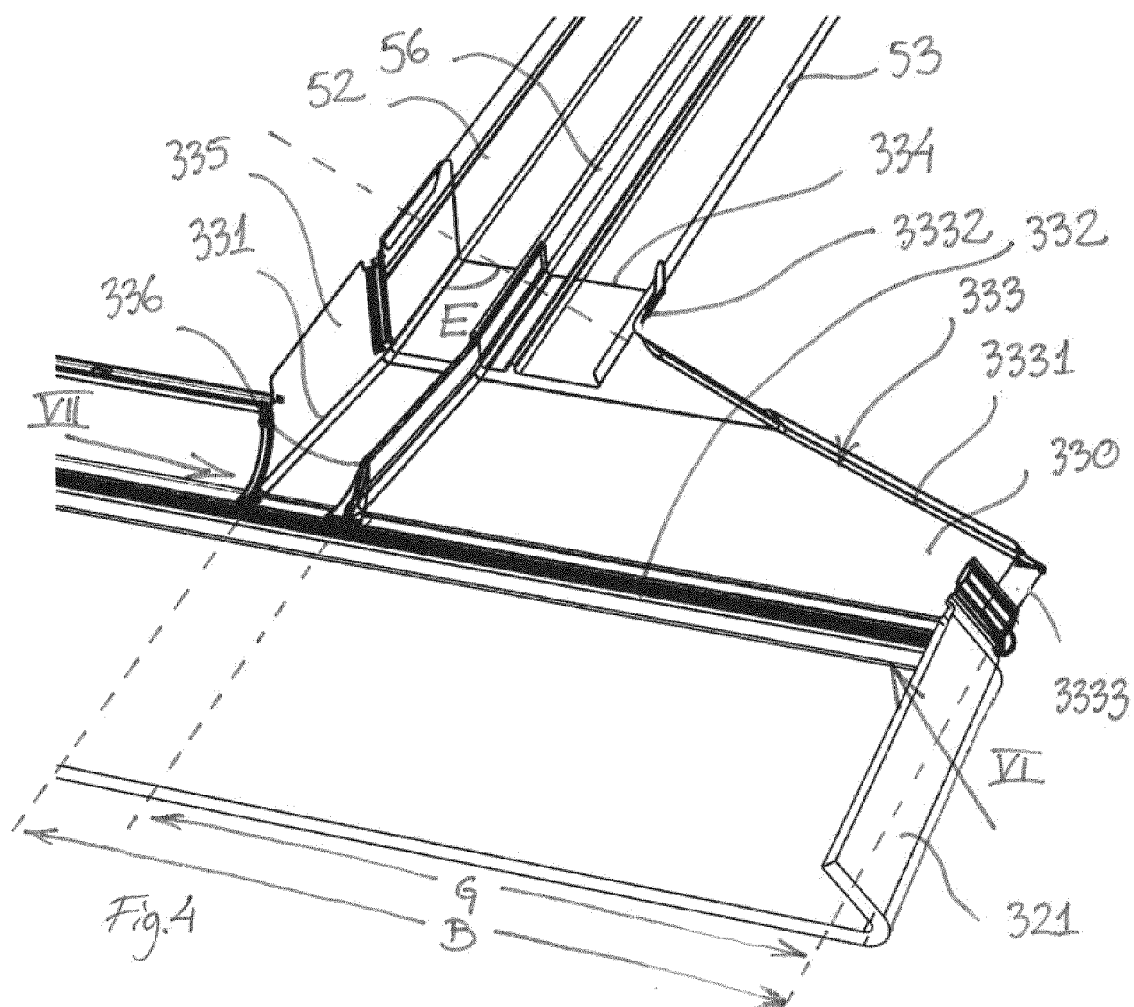
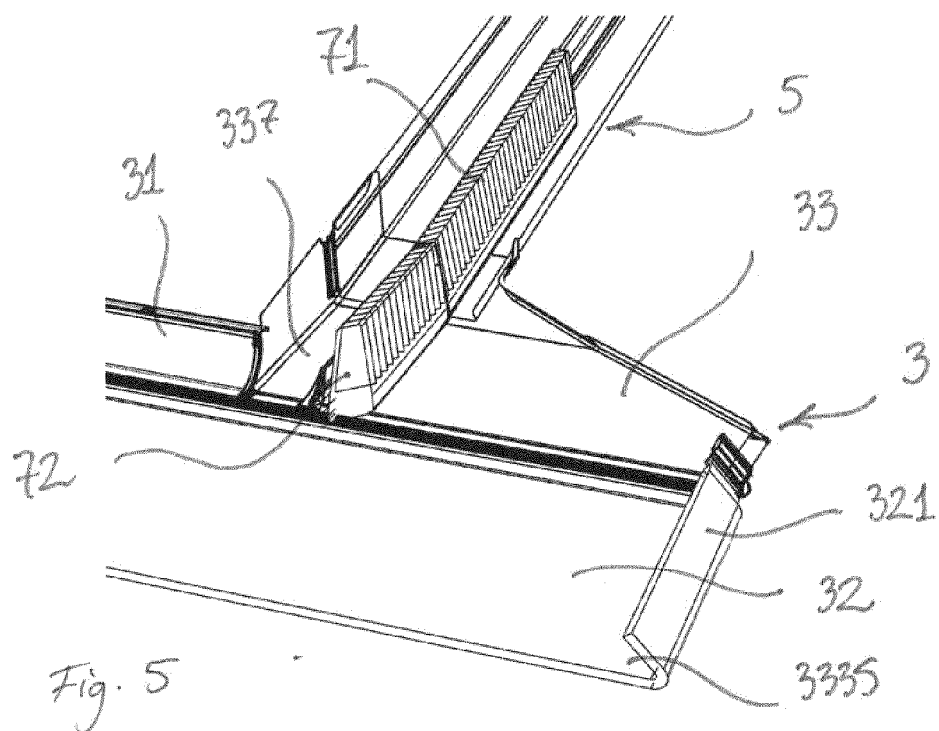
corner member and the respective side flashing element in the mounted state.

9. A flashing assembly according to claim 7 or 8, where each side flashing element (5) comprises an edge projection (53) extending in continuation of the edge projection (3334) of the corner member (33) in the mounted state, and where a lobe (3336) is provided on the edge projection of each corner member adjacent to the fourth edge (334), said lobe being configured for being bent over the edge projection (53) of the side flashing element. 40
10. A roof window mounted in an inclined roof (2) having an direction of inclination (D) and a roof covering comprising undulated roof covering elements (22), where the joint between the roof window and the roof is covered by a flashing assembly according to one or more of claims 7-9, where side members (12, 13) of a frame (1) of the roof window extend in parallel with the direction of inclination of the roof and a bottom member (11) of the frame extends across the direction of inclination, and where each roof covering element has a cover width (C) in parallel with the bottom member of the frame, **characterized in that** the primary width (B) of each corner member (33) of the bottom flashing element (3) is larger than the cover width (C) of the roof covering elements (22) arranged below it in the direction of inclination (D). 45









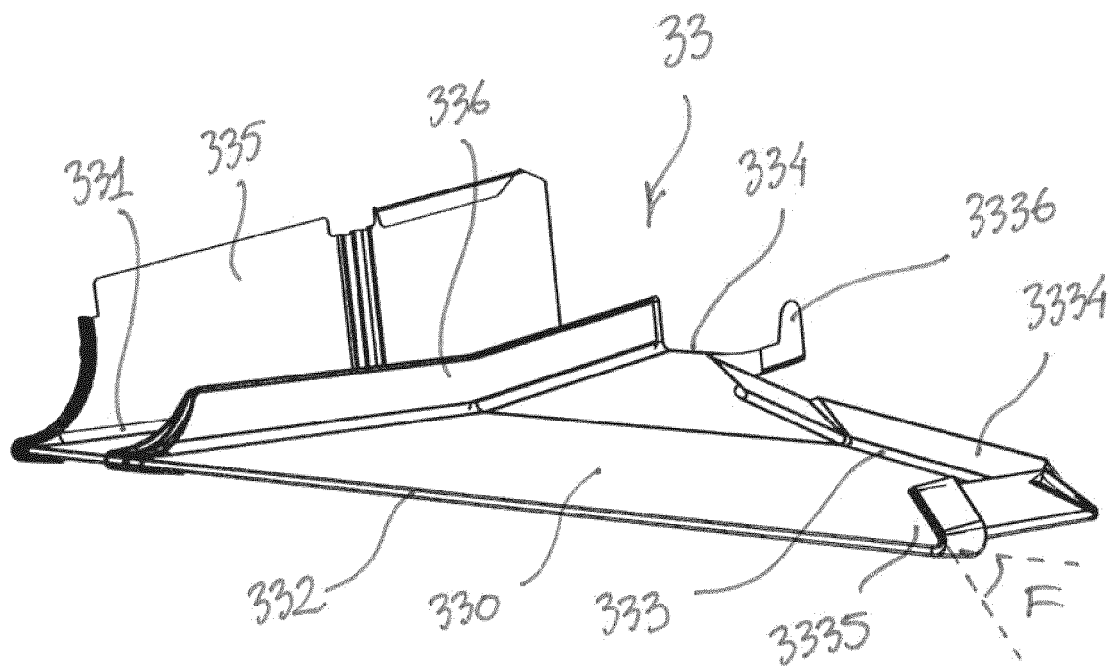


Fig. 6

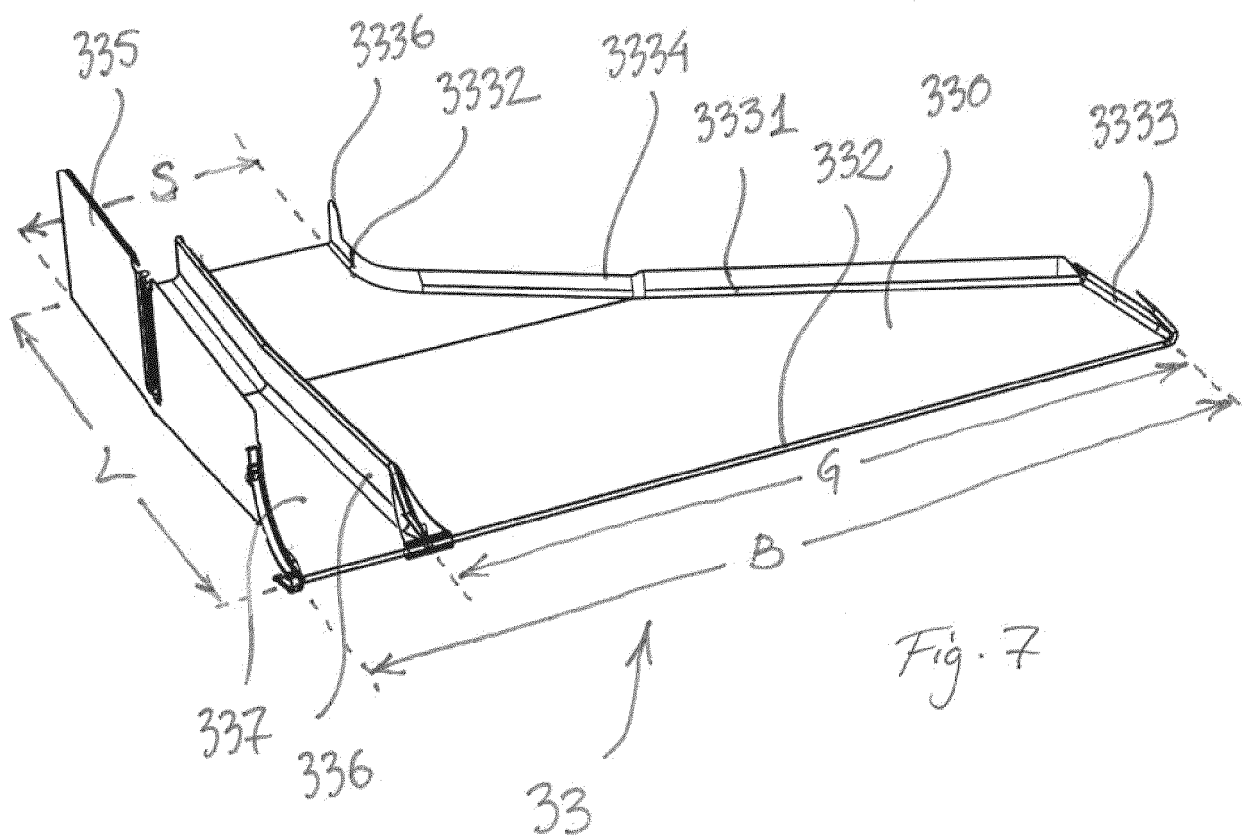
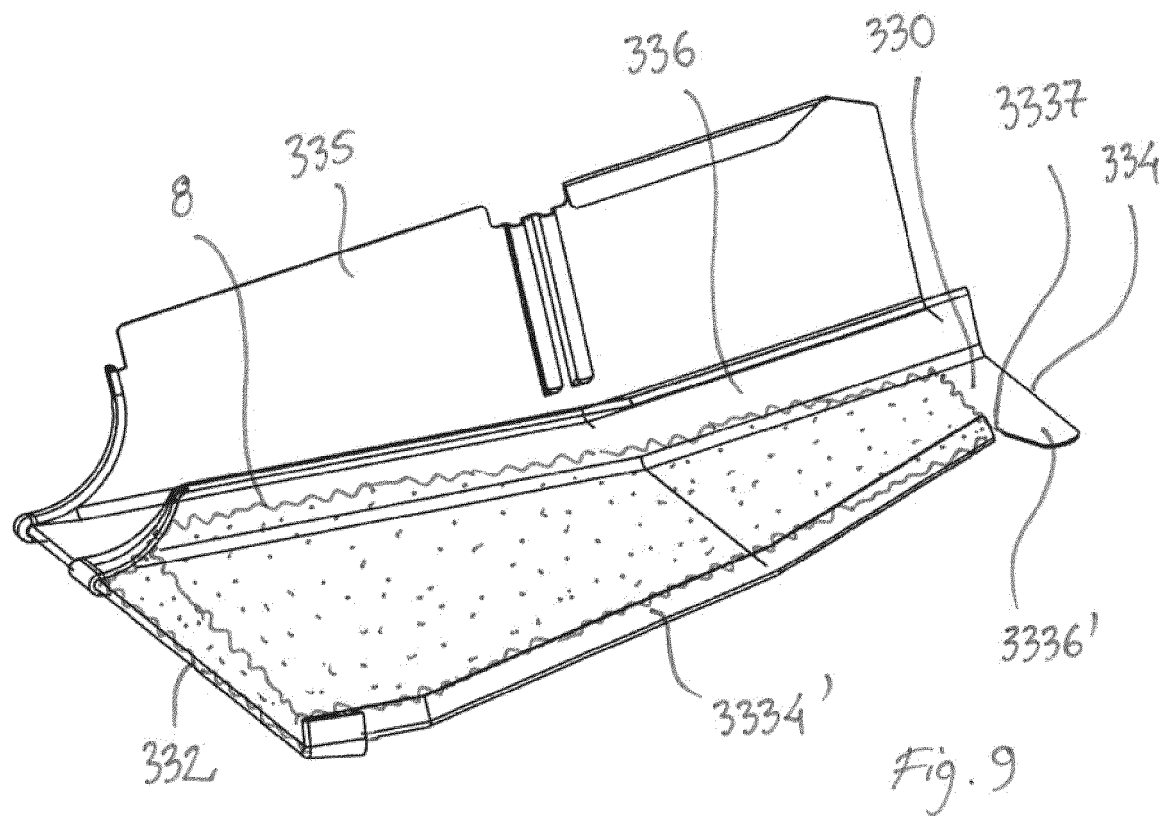
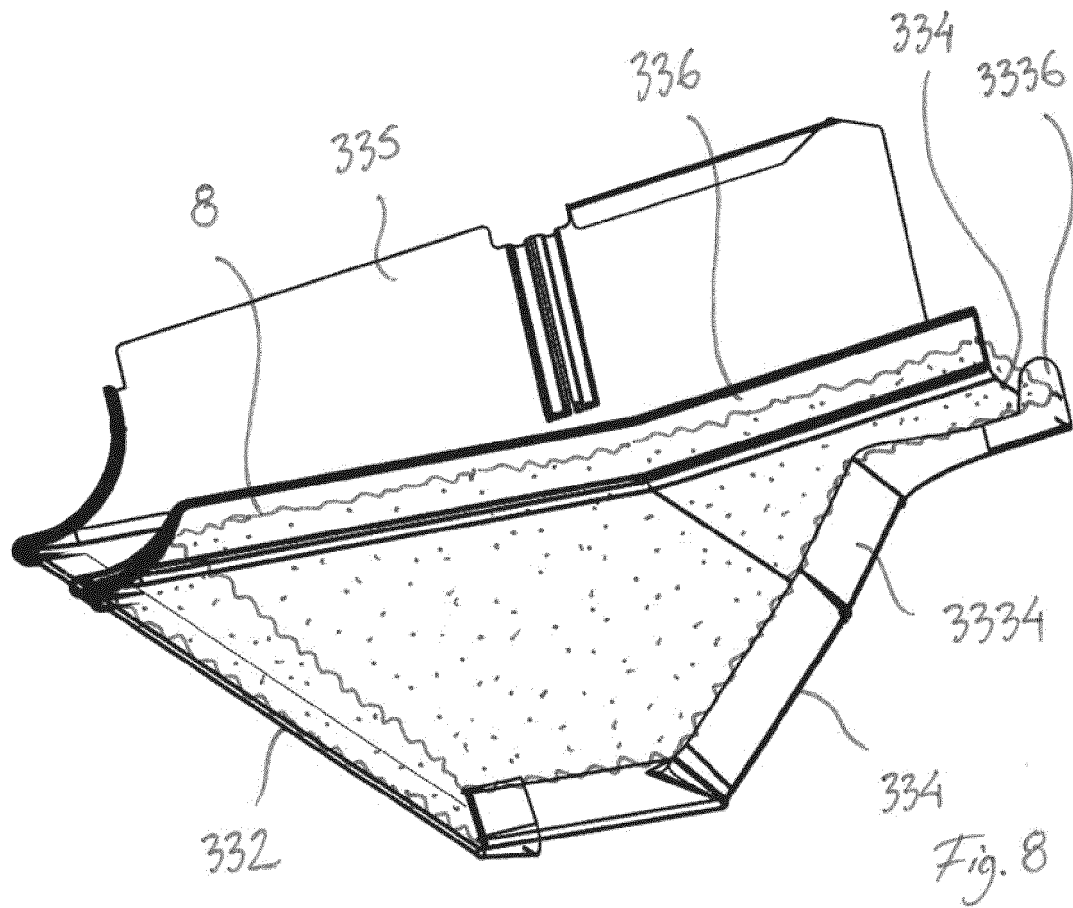


Fig. 7





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