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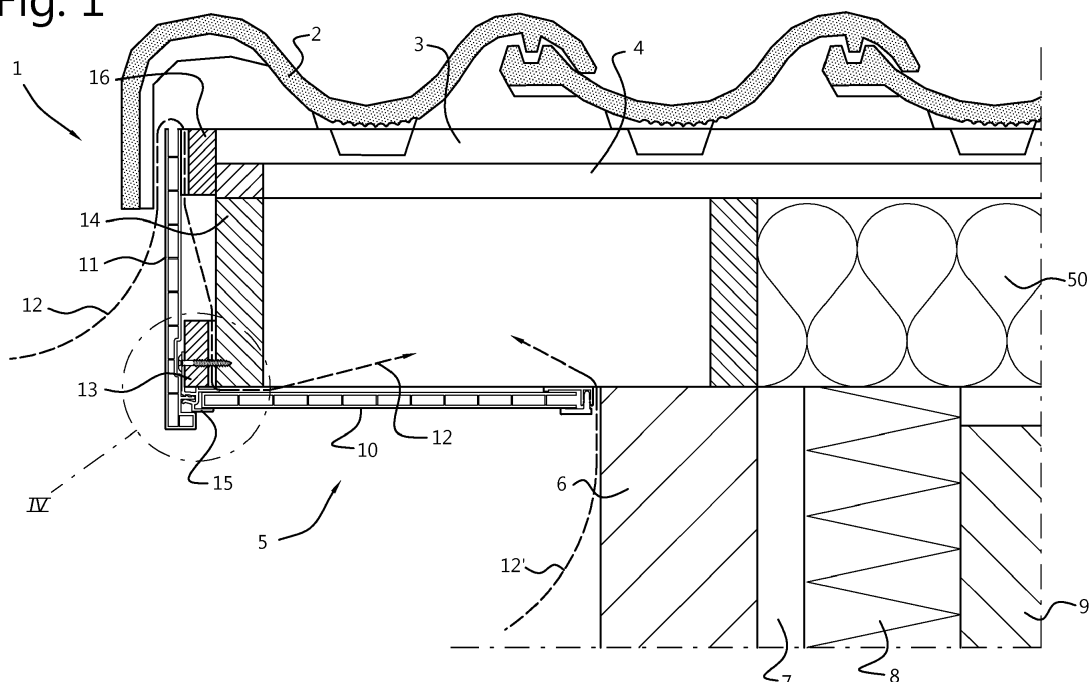
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(54) **Panel attachment assembly**

(57) The invention relates to a panel attachment assembly, in particular a roof edge board attachment assembly, comprising a panel, in particular for providing a fascia board or a batten board, which on a back surface is provided with a first panel attachment part, and a suspension profile with a longitudinal construction attachment flange for at one side providing an attachment surface for attachment to a building part, in particular for attachment to a roof edge, at the opposite side comprising

ing a panel abutment for providing an abutment against the back surface of the panel, said suspension profile further comprising an abutment ledge extending in longitudinal direction of said suspension profile for providing an abutment substantially perpendicular to the attachment surface, said suspension profile further comprising a second panel attachment part for in cooperation with said first panel attachment part allowing snap fitting said panel and said suspension profile to one another.

Fig. 1



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Description

BACKGROUND OF THE INVENTION

[0001] The invention relates to a panel attachment assembly, in particular for a roof edge.

[0002] In the state of the art different ways and means are known for attaching panels to buildings. In the embodiments the panels are for instance attached to battens, or used as fascia boards. Most known attachment systems are hard to use, especially on locations that are hard to reach such as eaves. The use in the outside air sometimes during cold weather conditions has not proved to be easy.

[0003] GB-2251004 for instance mentions various attachments and known synthetic snap systems for attaching a roof gutter. Such connections may be difficult to use when it is too cold or too hot.

[0004] WO94/19561 describes a panel provided with grooves and a profile provided with grooves, and an attachment member that is adapted for on the one hand extending into the grooves of the panel and on the other hand extending into the grooves of the profile. Detaching the panel after attaching does not seem to be easy.

[0005] FR2814184 shows assemblies of panels provided with undercut grooves, special fastening clips, and beams provided with grooves on the opposite sides and in which the fastening clips are able to clamp into with resilient legs. In addition the resilient legs extend around the beam. Permanent attachment depends on the (permanent) resilience of the resilient legs of the fastening clips.

[0006] JP60148421 U1 describes specific means for the attachment of a corrugated plate.

[0007] DE102004036328 describes an attachment member for cladding elements provided with a T-groove. The attachment members are provided with a head having swivelling arms which by means of resilient clamping can be brought into position in which they clamp in the T-groove. The resilient clamping is provided with a carrying bar which in case of clamping in a hole should drop into the supporting structure. In addition clamping is possible at positions of a hole in the supporting structure.

[0008] In EP2505738, the inventor disclosed a panel attachment assembly comprising a panel which on one side is provided with a panel rail that is continuous in the longitudinal direction, and a suspension assembly comprising a suspension rail and a suspension member, wherein the suspension member comprises a panel attachment end that is adapted for being accommodated in the panel rail, and a hook member adapted for being able to hook into a continuous rail hook on the suspension rail. In one embodiment the panel comprises a groove at an upper edge, which groove is continuous in longitudinal direction, and the assembly further comprise a retaining assembly having an attachment member and an attachment member, wherein the retaining member comprises a hook fitting in the groove.

[0009] There is room for improvement of this attachment of panels that has been known per se for a long time.

SUMMARY OF THE INVENTION

[0010] It is an object of the invention to provide an improved panel attachment assembly, in particular for attachment of panels or boards at roof edges.

[0011] It is a further or additional object of the invention to provide a panel assembly with which a panel can easily be mounted to a building, for instance in less-favourable weather conditions.

[0012] For that purpose the invention provides a panel attachment assembly, in particular a roof edge board attachment assembly, comprising a panel, in particular for providing a fascia board or a batten board, which on a back surface is provided with a first panel attachment part, and a suspension profile with a longitudinal construction attachment flange for at one side providing an attachment surface for attachment to a building part, in particular for attachment to a roof edge, at the opposite side comprising a panel abutment for providing an abutment against the back surface of the panel, said suspension profile further comprising an abutment ledge extending in longitudinal direction of said suspension profile for providing an abutment substantially perpendicular to the attachment surface, said suspension profile further comprising a second panel attachment part for in cooperation with said first panel attachment part allowing snap fitting said panel and said suspension profile to one another.

[0013] The suspension profile allows mounting to a building, providing a solid attachment provision. The attachment panel end easily engages the panel rail, and after that the locking can be done. Thus, it is easy to attach the panel for instance the outer surface of a building.

[0014] In this description, the words 'panel' and 'board' are used for indicating a substantially flat, and relatively thin part. It often is elongated, and in many case rectangular, in particular when used for instance as a fascia board, batten board, or other part for cladding a building. In the current invention, the board or panel can be an extrusion panel. Such a panel often has extending hollow chambers extending in longitudinal direction. This, weight and material is saved while maintaining structural strength and rigidity. A board may also comprise a foamed interior. The panel of board may comprise a core or bulk material from a first polymer material, often a thermoplastic material comprising a filler. The core material may be covered by a cladding foil providing colour, additional functionality, for instance photovoltaic properties by using PV foil, durability and an estatically pleasing look.

[0015] A 'profile' as used in the feature 'suspension profile', may also be referred to as a 'profile section', or an 'end of profile', or 'extrusion profile' in this respect may be an element that extend in one direction, referred to as a longitudinal direction, and has a cross section that

is substantially the same along that longitudinal direction. Often, a profile is produced in an extrusion process. In such a process, material, like aluminium or (reinforced) polymer is extruded through a die. Thus, a profile with a substantially fixed cross-section results.

[0016] In an embodiment, the longitudinal construction attachment flange at one side provides the attachment surface for attachment to a building part. At its opposite side, it comprises the panel abutment for providing an abutment against the back surface of the panel. The abutment may for instance comprise a ledge extending in longitudinal direction of the longitudinal construction attachment flange. The ledge engages the back surface of the panel. It may keep the panel surface at a distance from the flange surface.

[0017] In an embodiment, the first panel attachment part comprises one selected from an attachment rail and a panel attachment groove for receiving said attachment rail in a snap fitting manner, and the said suspension profile comprises the other one of the attachment rail and the panel attachment groove.

[0018] In an embodiment, the panel attachment part comprises the attachment rail that is continuous in the longitudinal direction and comprises a snap-fit ledge. In an embodiment, the longitudinal panel attachment part comprising said longitudinal panel attachment groove opening opposite to said attachment surface, said longitudinal panel attachment groove adapted for accommodated said attachment rail, and for snap-fitting with said snap-fit ledge.

[0019] In an embodiment, the panel attachment assembly further comprises a lower mounting beam having a face for engaging with said longitudinal construction attachment flange mounting said suspension profile. In an embodiment, the lower mounting beam further comprising at least one continuous ventilation channel that runs substantially cross with respect to a longitudinal direction of said lower mounting beam, for when mounted to a roof edge providing a substantially vertical ventilation channel

[0020] In an embodiment, the lower mounting beam is a substantially rectangular beam, substantially a cuboid, having a first face for engaging the longitudinal construction attachment flange of the suspension profile, a second, opposite face for engaging a building construction, and cut-outs or recesses providing ventilation channels that are that are substantially cross with respect to the first face.

[0021] In an embodiment, the suspension profile comprising a ventilation flange for engaging said lower mounting beam between said face for engaging with said longitudinal construction attachment flange and said ventilation channel.

[0022] In an embodiment, the longitudinal construction attachment flange of said suspension rail comprises a front surface for facing said back surface of said panel, and said longitudinal panel attachment groove has its opening substantially in-plane with said front surface of

said longitudinal construction attachment flange. In particular, said opening can be in plane.

In an embodiment, the suspension profile further comprises a longitudinal soffit flange extending away from said construction attachment flange. In an embodiment of said suspension profile provided with said ventilation flange, said longitudinal soffit flange comprising said ventilation flange for in a mounted state providing a spacing between said soffit flange and said mounting beam. In an embodiment providing a spacing of at least 1 mm.

[0023] In an embodiment, the suspension rail comprises a soffit board mounting groove for in use receiving an edge of a soffit panel. The soffit board mounting groove opens in opposite direction to said longitudinal panel attachment groove.

[0024] In an embodiment, the attachment rail further comprises a positioning ledge parallel at a distance away from said snap-fit ledge. In an embodiment, the attachment rail at the location of the positioning ledge is thinner that at the location of the snap-fit ledge.

[0025] The invention further relates to a panel, in particular for a panel attachment assembly described in this description, comprising an attachment rail at its back surface.

[0026] The invention further relates to a suspension profile, in particular for a panel attachment assembly described in this description, comprising a longitudinal attachment flange, for at one side providing an attachment surface for attachment to a building part, in particular for attachment to a roof edge, at the opposite side comprising an abutment for providing an abutment against a back surface of a panel, said suspension profile further comprising an abutment ledge extending in longitudinal direction of said suspension profile for providing an abutment substantially perpendicular to the attachment surface, said suspension profile further comprising an attachment groove opening in the direction of said opposite side and having its opening flush or removes from said abutment.

[0027] The invention further relates to a method for attaching a fascia board to a building, said method comprising providing the panel attachment assembly described in this description, attaching said suspension profile, and snapping said panel onto said suspension profile.

[0028] The invention further relates to a suspension profile and the use of a suspension profile intended and suitable for a roof board attachment assembly as described.

[0029] The invention further relates to the use of a suspension rail intended and suitable for a panel attachment assembly as described.

[0030] It will be clear that the various aspects mentioned in this patent application can be combined and each individually are eligible for a divisional patent application. The term "substantially" herein, like in "substantially consists", will be understood by and clear to a person skilled in the art. The term "substantially" may also include embodiments with "entirely", "completely", "all",

etc. Hence, in embodiments the adjective substantially may also be removed. Where applicable, the term "substantially" may also relate to 90% or higher, such as 95% or higher, especially 99% or higher, even more especially 99.5% or higher, including 100%. The term "comprise" includes also embodiments wherein the term "comprises" means "consists of".

[0031] The term "functionally", when used for instance in "functionally coupled" or "functionally direct communication", will be understood by and clear to a person skilled in the art. The term "substantially" may also include embodiments with "entirely", "completely", "all", etc. Hence, in embodiments the adjective substantially may also be removed.

[0032] Furthermore, the terms first, second, third and the like in the description and in the claims, are used for distinguishing between similar elements and not necessarily for describing a sequential or chronological order. It is to be understood that the terms so used are interchangeable under appropriate circumstances and that the embodiments of the invention described herein are capable of operation in other sequences than described or illustrated herein.

[0033] The devices or apparatus herein are amongst others described during operation. As will be clear to the person skilled in the art, the invention is not limited to methods of operation or devices in operation.

[0034] It should be noted that the above-mentioned embodiments illustrate rather than limit the invention, and that those skilled in the art will be able to design many alternative embodiments without departing from the scope of the appended claims. In the claims, any reference signs placed between parentheses shall not be construed as limiting the claim. Use of the verb "to comprise" and its conjugations does not exclude the presence of elements or steps other than those stated in a claim. The article "a" or "an" preceding an element does not exclude the presence of a plurality of such elements.

[0035] In the device or apparatus claims enumerating several means, several of these means may be embodied by one and the same item of hardware. The mere fact that certain measures are recited in mutually different dependent claims does not indicate that a combination of these measures cannot be used to advantage.

[0036] The invention further applies to an apparatus or device comprising one or more of the characterising features described in the description and/or shown in the attached drawings. The invention further pertains to a method or process comprising one or more of the characterising features described in the description and/or shown in the attached drawings.

[0037] The various aspects discussed in this patent can be combined in order to provide additional advantages. Furthermore, some of the features can form the basis for one or more divisional applications.

SHORT DESCRIPTION OF THE FIGURES

[0038] In the attached figures an embodiment of a panel attachment assembly according to the invention is shown in which:

- Figure 1 shows a cross section of an embodiment of a roof with a panel and a panel attachment rail;
- Figure 2 shows a view in perspective of the embodiment of figure 1, looking at the back surface of the panel;
- Figures 3-5 show a cross section of embodiments of the panel attachment rail of figures 1 and 2.

DESCRIPTION OF THE EMBODIMENTS

[0039] Figure 1 shows a cross section of an embodiment of a roof(part), in particular a soffit end 5 or oversail part of the roof with a panel assembly 1, such that the panel 11 forms the batten board. The panel assembly can also be attached to the eave of a roof. Thus, the panel 1 forms a fascia board for the roof. This roof section of figure 1 also shows an inner wall 9, an outer wall 6 with a cavity between them. Usually, the cavity is partially filled with an insulation layer, applied against the outside of the inner wall 9.

[0040] The cross section of figure 1 shows the roof tiles 2 in cross section and hooking behind a tile batten 3. Tile batten 3 is here fixed to a roof sheeting 4. The roof construction comprises a roof insulation layer 50. The roof edge soffit 5 (which, as explained, may also be the eave of the roof) has an outer roof truss 14.

[0041] In the panel assembly, panel 11 is snap-fit to suspension rail 15. To that end, in this embodiment panel 11 has an attachment rail 21 and the suspension rail 15 has a panel attachment groove that extends longitudinally along the suspension rail 15. A panel assembly 1 with panel 11 and suspension rail 15 may also be used in different applications.

[0042] In this embodiment, an upper mounting beam 16 and a lower mounting beam 13 are fixed to the outer roof truss 14. Fixed to the lower mounting beam 13 is a suspension profile 15. The panel 11 is snap-fit to the suspension profile 15.

[0043] In this embodiment, a soffit board 10 is attached to the roof soffit, along one longitudinal edge held by suspension profile 15, and along its opposite edge using a snap-fit mounting provision. The snap-fit mounting provision provides a ventilation channel 12' at the wall-directed edge of the soffit board 10.

[0044] The panel assembly 11 is further designed in such a way that in this roof application a ventilation channel 12 is created along the back surface of the panel 11. In figure a perspective view of part of the construction of figure 2 is shown in more detail. In this embodiment, the upper mounting beam 16 and the lower beam 13 com-

prise respective cut-outs (or grooves) 17, 18. The cut-outs run cross with respect to the longitudinal direction of the upper and lower beams 16, 13. In this way, a set of ventilation channels is provided, cross with respect to the back surface of the panel 15. It should be clear that the shape, depth and direction of the cut-outs may be optimised for easy production, optimal ventilation, and other reasons. Here, the cut-outs 17 of the upper mounting beam 16 are facing the back surface of panel 11, and the cut-outs of the lower mounting beam 13 are facing away from the panel 11. The cut-outs provide substantially vertical ventilation channels.

[0045] In figure 2, the mounting provision on the suspension profile 15 is clear to see. The suspension profile comprises a mounting groove 19 designed and dimensioned receiving an edge of soffit board 10. This soffit board mounting groove 19 opens opposite the panel 11.

[0046] The various details of the suspension profile 15 will be explained here. The suspension profile 15 has a longitudinal construction attachment flange 36, a flange that extends in longitudinal direction along the suspension profile 15. Here, the construction attachment flange 36 in fact is a single strip. The construction attachment flange 36 provides at one side an attachment surface. The suspension profile can be mounted to a building with this attachment surface applied against a construction part of a building. Here, first the lower beam is mounted against the outer roof truss 14. The suspension profile 15 is mounted against the face of the lower mounting beam 13 that faces away from the building. Its attachment surface 26 is in engagement with the lower mounting beam 13.

[0047] At the other side, facing in opposite direction of the attachment surface 26, the suspension profile 15 abuts against the rear surface 25 of the panel 11. In an embodiment, the surface of the construction attachment flange 36 that is opposite of the attachment surface 26 may abut the rear surface 25 of the panel 11. In the embodiments of the suspension profile 15 that are shown in figures 3-5, a panel abutment 27 is provided for instance by means of a ledge extending in longitudinal direction along the suspension profile 15, and extending from the suspension profile 15 in transverse direction towards the rear or back surface of panel 11. In the designs shown in figures 1-5, the panel abutment 27 provides a distance between the construction attachment flange 36 and the rear surface 25 of the panel 11.

[0048] In this embodiment, the suspension profile 15 comprises a groove 20 as part of the snap-fit attachment provision that is provided on the suspension profile 15. This groove 20 furthermore extends in longitudinal direction along suspension profile 15, and is thus referred to as longitudinal panel attachment groove 20.

[0049] In this embodiment, panel 11 comprises an attachment rail 21 that is designed to snap-fit into the longitudinal panel attachment groove 20. The attachment rail of this embodiment may also be described as a flange that extends away, in particular perpendicular away, in

transverse direction, from the back surface 25 of panel 11. It furthermore extends in longitudinal direction along the back surface of panel 11.

[0050] In this embodiment, the attachment rail 21 is provided with a snap-fit ledge 29. This snap-fit ledge 29 here extends longitudinally on attachment rail 21. The longitudinal panel attachment groove 20 is furthermore provided internally with a groove snap-fit ledge 30 which is designed to cooperate with the snap-fit ledge 29 on the attachment rail 21 to snap-fit together when attachment rail 21 is pressed into longitudinal panel attachment groove 20. Groove snap-fit ledge 30 in fact reduced the width of the longitudinal panel attachment groove 20 near the groove opening. Furthermore, it is designed and positioned to provide, in cross-section, a barb, preventing removal of the attachment rail 21 in a direction more or less normal to the panel back surface 25. To that end, One or both walls of the longitudinal panel attachment groove 20 may be a little resilient. In this way, snapping the attachment rail 21 into the longitudinal panel attachment groove 20 while allowing the snap-fit ledge 29 to pass the groove snap-fit ledge 30 is possible. Here, the opening width of the longitudinal panel attachment groove 20 is a little less than the thickness of the attachment rail behind the snap-fit ledge.

[0051] Here, the opening of the longitudinal panel attachment groove 20 is flush or behind the panel abutment 27. The dimensions and distances of the snap-fit ledge 29, in particular its abutment surface, and the panel back surface 25 are selected with respect to the distance between the groove snap-fit ledge, in particular its abutment surface, and the panel abutment 27 to allow snap fitting with the panel abutment firmly abutting the panel abutment 27.

[0052] In this embodiment of the attachment rail 21, it is provided with a positioning ledge 28 that can best be seen in the cross sections of figures 3-5. At the location of this positioning ledge 28, the thickness of the attachment rail 21 is less than at the location of the snap-fit ledge 29. This provision allows the attachment rail 21 to be held in longitudinal panel attachment groove 20 temporarily. Thus, positioning ledge 28 snaps behind groove snap-fit ledge 30 first. The thinner part of the attachment rail 21 allows relatively easy removal of the panel 11. When the position can be fixed permanently, the panel 11 is pressed in the direction of the suspension profile 15 more firmly, such that snap-fit ledge 29 snaps behind groove snap-fit ledge 30.

[0053] In figure 3, an abutment ledge 23 is part of the upper surface of the upper wall of longitudinal panel attachment groove 20. It extends, however, not beyond ventilation channel 18 of the lower mounting beam 13 so that it does not interfere with or block the ventilation channels 12.

[0054] When a soffit board mounting groove 19 is provided like in the embodiments of figures 4 and 5, the upper wall of longitudinal panel attachment groove 20 can interfere with the ventilation passages of lower

mounting beam 13. To prevent this, an abutment ledge 23 is provided between the attachment surface 26 of the construction attachment flange 36 and the ventilation passage of lower mounting beam 13. This abutment ledge 23 provides an abutment of the suspension profile 15 in a direction cross to the attachment surface 26, more in particular perpendicular.

[0055] Thus, ventilation channel 18 of lower mounting beam 13 opens behind abutment ledge 23, when viewed . Thus, continuous ventilation channels are provided. These ventilation channels at one end open at the upper edge of the panel 11. The other ends of the ventilation channels open behind the panel 11 and above soffit board 10.

[0056] The figures 3-5 shows different embodiments of the suspension profile that may be used in different building or construction types. In figure 3, the panel assembly is used in a building having no or almost no soffit or oversail. Suspension profile 15 this extends along and near the outer wall 6. In this embodiment, care is taken to provide a small spacing between the suspension profile 15 and outer wall 6 to provide a ventilation slit.

[0057] In figure 4, an example of a panel assembly 1 is shown with can be used for relatively thin soffit boards 10. In figure 5, an embodiment is shown for relatively thick soffit boards 10.

[0058] For easy mounting, the rear surface 25 of panel 11 is provided with a recess 22 for providing space for mounting provisions 35 for the suspension profile 15. Here space is provided for the heads of screws 35.

[0059] As explained, the panel attachment assembly 1 comprises the suspension profile 15, from which the panel 11, in the attached condition, is actually hung. This suspension profile 15 is relatively rigid, providing a defined basis for attaching panel 11. Suspension profile 15 can be from metal of polymer material. In one embodiment the suspension profile 15 is for instance made of metal, for instance aluminium or stainless steel. Alternatively, the suspension profile may comprise polymer material, or fibre-reinforced polymer. In the current embodiment, the suspension profile is polymer extrusion profile. The object of a rigid profile such as suspension profile 15 is for providing a properly level basis to which panel 11 can be attached level.

[0060] The suspension assembly 1 with suspension profile 15 makes it possible to easily hang a panel such that positioning is possible. First, the attachment rail 21 is snapped into the attachment groove 20 slightly, with positioning snap ledge 28 snapping behind the groove snap ledge 30. Panel 11 can still be removed from the suspension profile 15 when desired. When the position is right, the position of panel 11 can be fixated by pushing panel 11 with its attachment rail 21 further into the panel attachment groove 20 such that the attachment rail snaps completely into that groove 20, now with groove snap ledge 30 hooking behind attachment rail snap-fit ledge 29. As the rail at that position is thicker than at the location of the positioning snap ledge 28, removal is no longer

possible in the direction cross to the longitudinal direction of the panel 11.

[0061] The upper mounting beam 16 and the lower mounting beam 13 may be simple wooden beams having for instance rectangular, transverse slits. Alternatively, these beams may be from a polymer material. The may comprise a foamed core.

[0062] It will be clear that the above description is included to illustrate the working of preferred embodiments, and not to limit the scope of the invention. Starting from the above explanation many variations that fall within the spirit and scope of the present invention will be evident to an expert.

15 Part list

[0063]

1	Panel attachment assembly
2	roof tile
3	tile batten
4	roof sheeting
5	roof soffit or roof oversail
6	outer wall
7	cavity
8	cavity Insulation layer
9	inner/internal wall
10	soffit panel or soffit board
11	fascia board/batten board
12	fascia/batten ventilation channel
12'	(soffit) ventilation channel
13	lower mounting beam
14	roof truss
15	suspension profile
16	upper mounting beam
17	ventilation passage
18	ventilation passage
19	soffit board mounting groove
20	longitudinal panel attachment groove
21	attachment rail
22	rear panel surface recess
23	abutment ledge
25	Panel back/rear surface
26	attachment surface
27	panel abutment ledge
28	positioning snap ledge
29	snap-fit ledge
30	groove snap-fit ledge
33	lower groove wall
34	mounting groove upper wall or longitudinal soffit flange
35	attachment means
36	suspension profile longitudinal construction attachment flange
50	50 roof insulation layer

Claims

1. A panel attachment assembly, in particular a roof edge board attachment assembly (1), comprising:

- a panel (11), in particular for providing a fascia board or a batten board, which on a back surface (25) is provided with a first panel attachment part (21), and
- a suspension profile (15) with a longitudinal construction attachment flange (36) for at one side providing an attachment surface (26) for attachment to a building part, in particular for attachment to a roof edge, at the opposite side comprising a panel abutment (27) for providing an abutment against the back surface (25) of the panel (11), said suspension profile (15) further comprising an abutment ledge (23) extending in longitudinal direction of said suspension profile (15) for providing an abutment substantially perpendicular to the attachment surface (26), said suspension profile (15) further comprising a second panel attachment part (20) for in cooperation with said first panel attachment part (21) allowing snap fitting said panel (11) and said suspension profile (15) to one another.

2. The panel attachment assembly (1) of claim 1, wherein

- said first panel attachment part comprises one selected from an attachment rail (21) and a panel attachment groove (25) for receiving said attachment rail (21) in a snap fitting manner, and
- said suspension profile (15) comprises the other one of the attachment rail (21) and the panel attachment groove (25).

3. The panel attachment assembly (1) of claim 2, wherein

- said panel attachment part comprises the attachment rail (21) that is continuous in the longitudinal direction and comprises a snap-fit ledge (29);
- said longitudinal panel attachment part comprising said longitudinal panel attachment groove (25) opening opposite to said attachment surface, said longitudinal panel attachment groove (25) adapted for accommodated said attachment rail (21), and for snap-fitting with said snap-fit ledge (29).

4. The panel attachment assembly (1) of any one of the preceding claims, further comprising a lower mounting beam (13) having a face for engaging with said longitudinal construction attachment flange mounting said suspension profile, said lower mount-

ing beam further comprising at least one continuous ventilation channel that runs substantially cross with respect to a longitudinal direction of said lower mounting beam, for when mounted to a roof edge providing a substantially vertical ventilation channel (12).

5. The panel attachment assembly (1) of claim 4, wherein said lower mounting beam is a substantially rectangular beam, substantially a cuboid, having a first face for engaging the longitudinal construction attachment flange of the suspension profile, a second, opposite face for engaging a building construction, and cut-outs or recesses providing ventilation channels that are that are substantially cross with respect to the first face.

6. The panel attachment assembly (1) of any one of the preceding claims 4 or 5, wherein said abutment ledge (23) of said suspension profile comprising a ventilation flange (23) for engaging said lower mounting beam (13) between said face for engaging with said longitudinal construction attachment flange and said ventilation channel (12).

7. The panel attachment assembly of claim 1, wherein said longitudinal construction attachment flange (36) of said suspension rail (15) comprises a front surface for facing said back surface (25) of said panel (1), and said longitudinal panel attachment groove (25) having its opening substantially in-plane with said front surface of said longitudinal construction attachment flange (36), in particular said opening is in plane.

9. The panel attachment assembly according to one or more of the preceding claims, wherein said suspension profile (15) further comprises a longitudinal soffit flange (34) extending away from said construction attachment flange (36), in an embodiment of said suspension profile (15) provided with said ventilation flange (23) said longitudinal soffit flange (34) comprising said ventilation flange (23) for in a mounted state providing a spacing between said soffit flange (34) and said mounting beam (13), in an embodiment providing a spacing of at least 1 mm.

10. The panel attachment assembly according to one or more of the preceding claims, wherein said suspension rail (15) comprises a soffit board mounting groove (19) for in use receiving an edge of a soffit panel (10), said soffit board mounting groove (19) opening in opposite direction to said longitudinal panel attachment groove (25).

11. The panel attachment assembly according to any one of the preceding claims, wherein said attachment rail (21) further comprises a positioning ledge

(28) parallel at a distance away from said snap-fit ledge (29), in an embodiment said attachment rail (21) at the location of the positioning ledge is thinner than at the location of the snap-fit ledge (29).

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12. A panel (11), in particular for a panel attachment assembly according to any one of the preceding claims, comprising an attachment rail (21) at its back surface (25).

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13. A suspension profile (15), in particular for a panel attachment assembly according to any one of the preceding claims, comprising a longitudinal attachment flange (36), for at one side providing an attachment surface (26) for attachment to a building part, in particular for attachment to a roof edge, at the opposite side comprising an abutment (27) for providing an abutment against a back surface (25) of a panel (11), said suspension profile (15) further comprising an abutment ledge (23) extending in longitudinal direction of said suspension profile (15) for providing an abutment substantially perpendicular to the attachment surface (26), said suspension profile (15) further comprising an attachment groove (20) opening in the direction of said opposite side and having its opening flush or removes from said abutment (27).

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14. A method for attaching a facia board to a building, said method comprising providing the panel attachment assembly of any one of the preceding claims, attaching said suspension profile (15), and snapping said panel (11) onto said suspension profile (15).

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Fig. 1

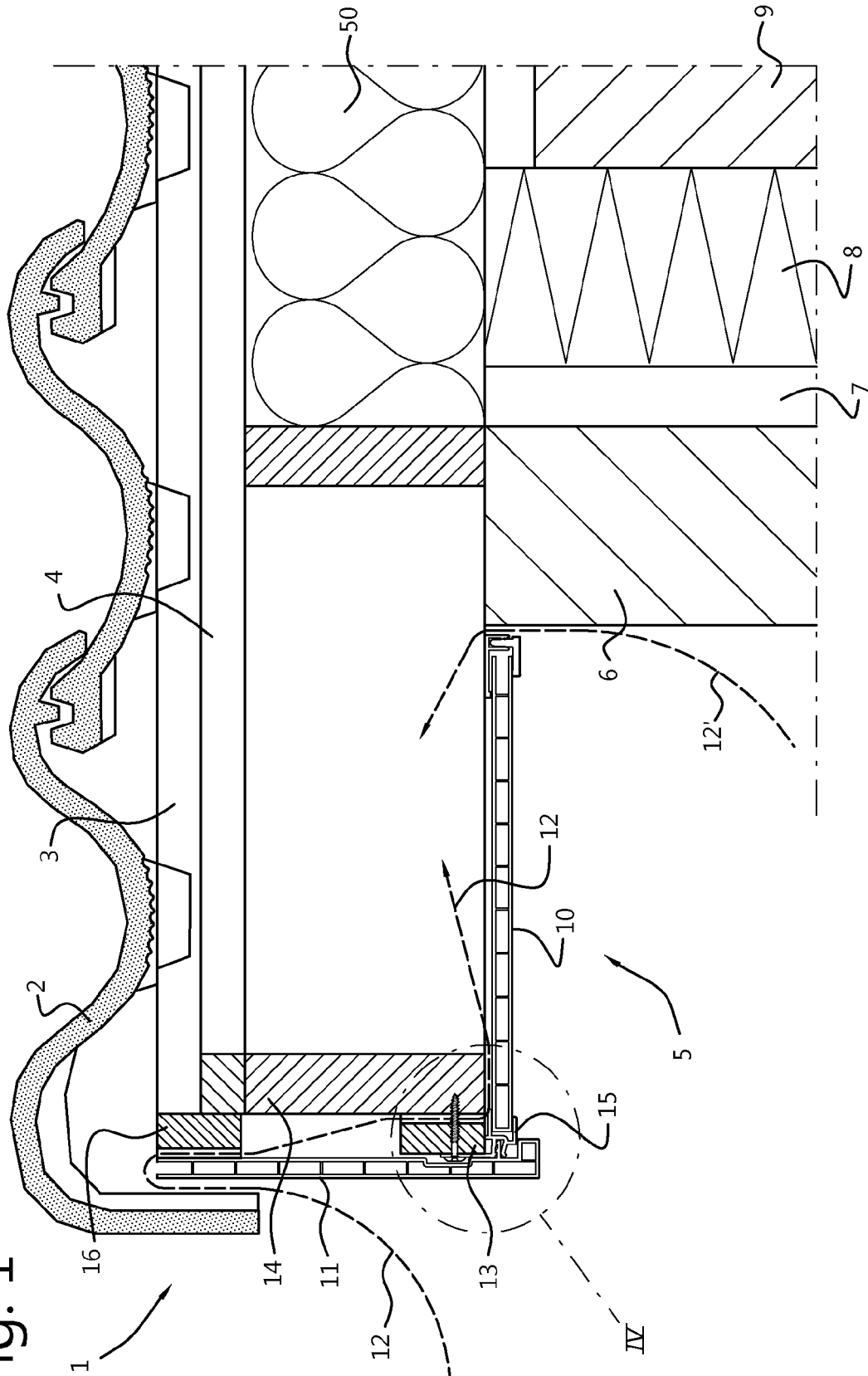


Fig. 2

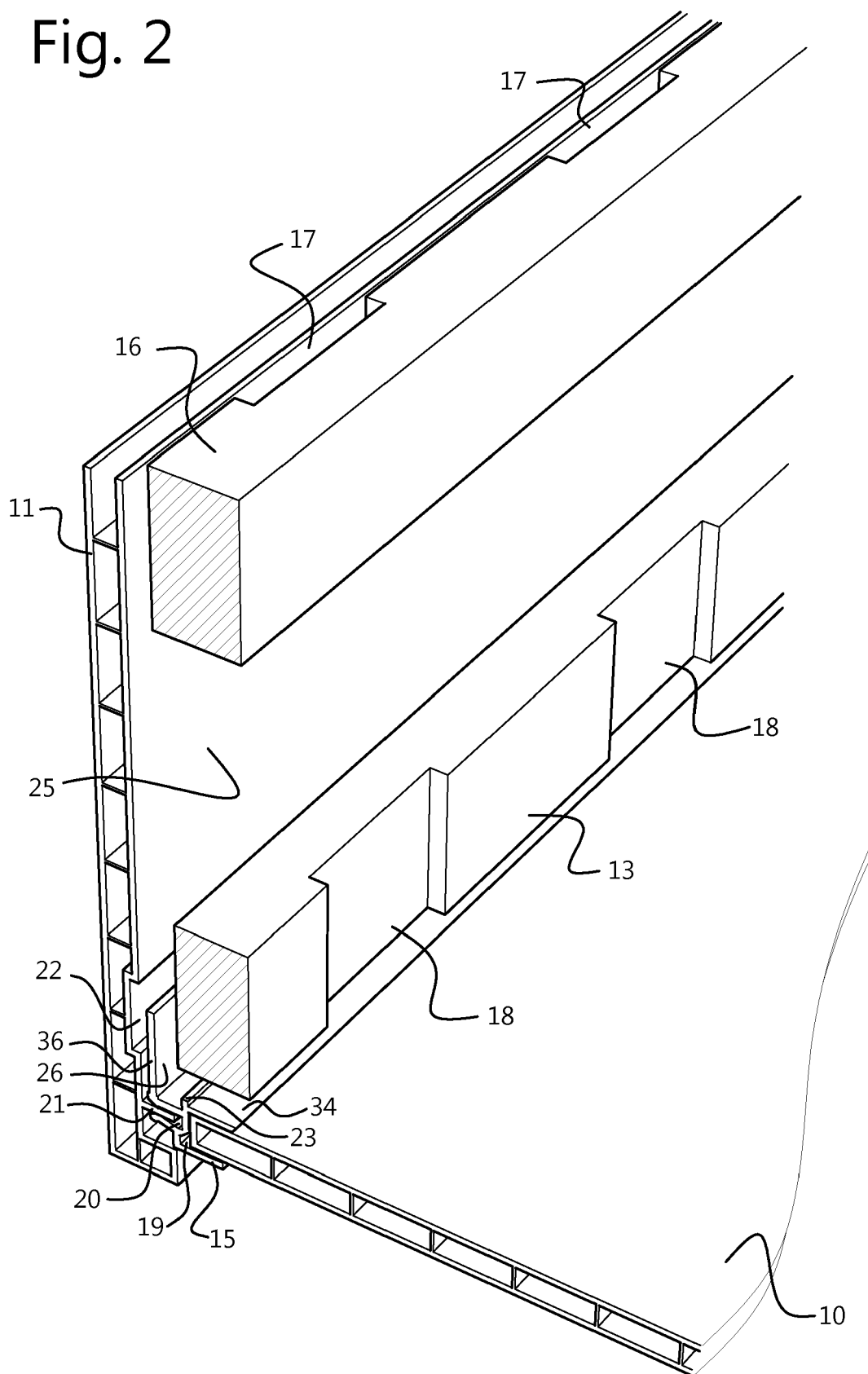


Fig. 3

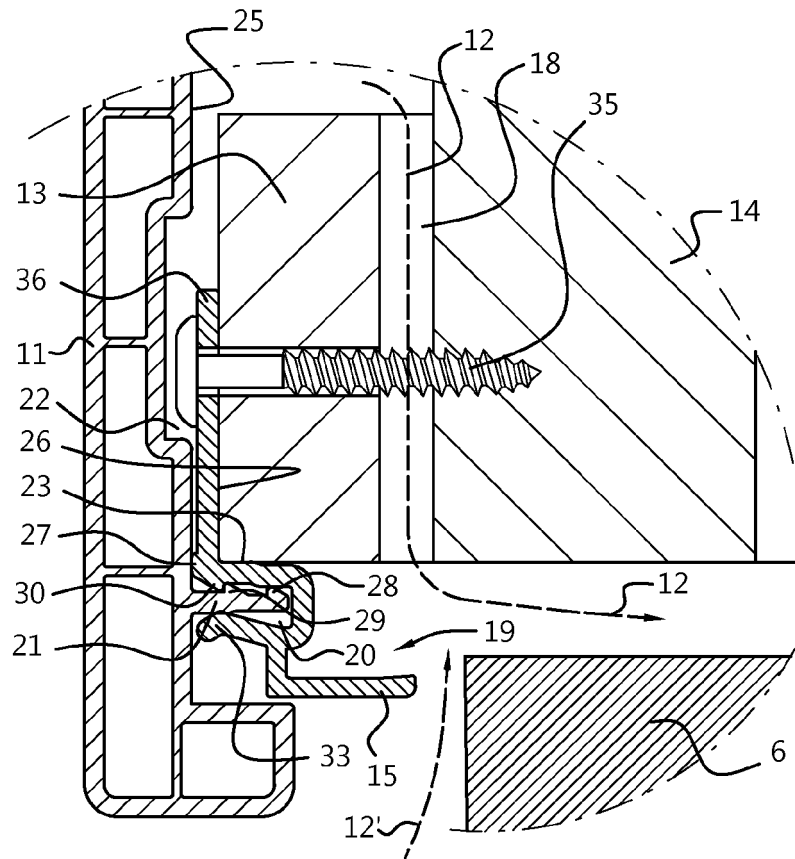


Fig. 4

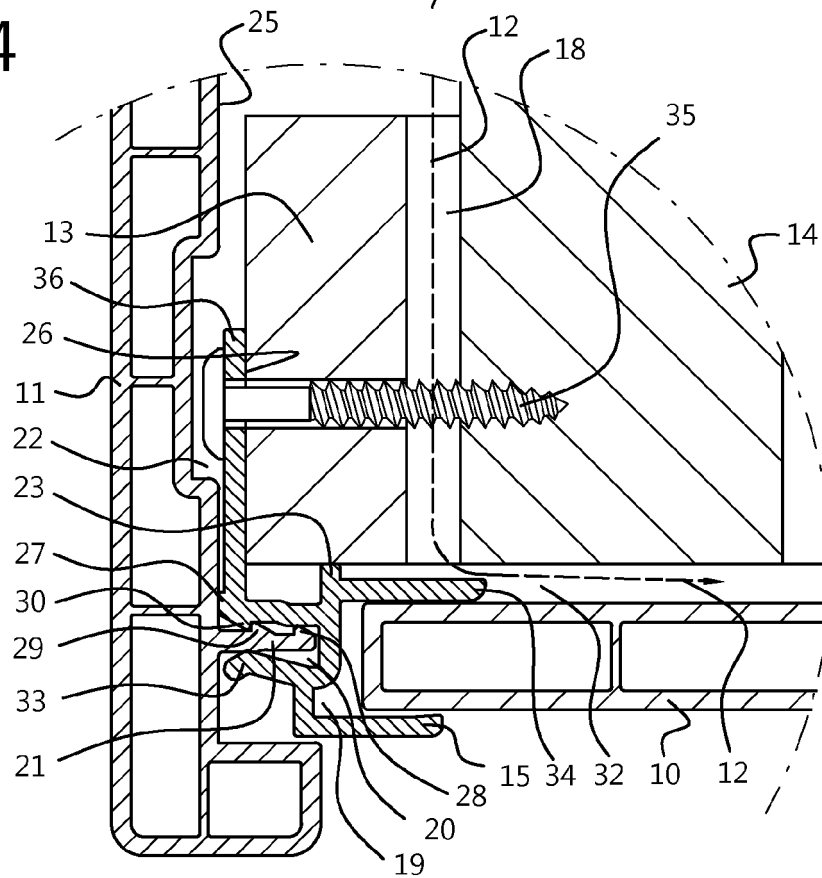
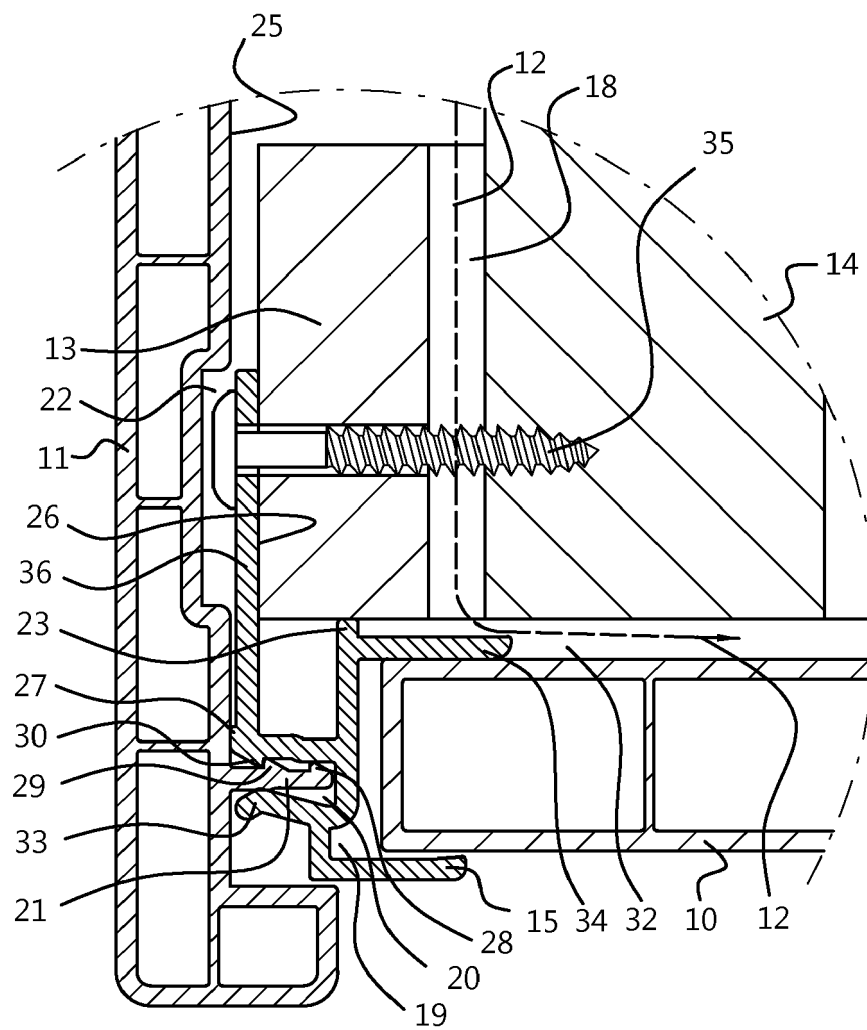


Fig. 5



**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

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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	US 4 461 128 A (KNOEBL EMMERICH [US]) 24 July 1984 (1984-07-24) * figures 3-5 *	1-3,7, 11,14	INV. E04D13/08 F03B13/00 E04D13/152 E04D13/158
X	US 2005/005551 A1 (GRAHAM BRAD R [US] ET AL) 13 January 2005 (2005-01-13) * figures 5, 7, 8, 10 *	1-3,11, 14	
X	CA 2 751 992 A1 (5N1 LLC [US]) 13 March 2013 (2013-03-13) * figures 3, 7, 8 *	1-3, 9-11,14	
A	US 2010/043312 A1 (CHICH ADEM [US] ET AL) 25 February 2010 (2010-02-25) * figure 1- *	4	
			TECHNICAL FIELDS SEARCHED (IPC)
			E04D F03B
INCOMPLETE SEARCH			
The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search		Date of completion of the search	Examiner
The Hague		4 February 2015	Demeester, Jan
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			

EPO FORM 1503 03 82 (P04E07)



INCOMPLETE SEARCH SHEET C

Application Number

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Claim(s) completely searchable:
1-11, 14

Claim(s) not searched:
12, 13

Reason for the limitation of the search:

1 In reply to the Rule 62a(1) EPC - invitation of 07.11.2014 to indicate the claims on which the search is to be based, the applicant failed to supply the requested indication in due time.

2 Therefore, the search report has been drawn up on the basis of the first independent claim of each category (Rule 62a(1) EPC). Thus only the following claims have been searched: Claims 1-7, 9-11 and 14 . (Remark: Claim 8 is missing in the original set of claims).

3 The applicant's attention is drawn to the fact that the application will be further prosecuted on the basis of subject-matter for which a search has been carried out. Therefore, claims 12 and 13 should be deleted at a later stage of the proceedings (Rule 62a(2) EPC), i.e. when entering examination.

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

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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.

04-02-2015

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US 2005005551 A1	13-01-2005	CA 2472947 A1 US 2005005551 A1 US 2006080900 A1	07-01-2005 13-01-2005 20-04-2006
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US 2010043312 A1	25-02-2010	NONE	

REFERENCES CITED IN THE DESCRIPTION

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- WO 9419561 A [0004]
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