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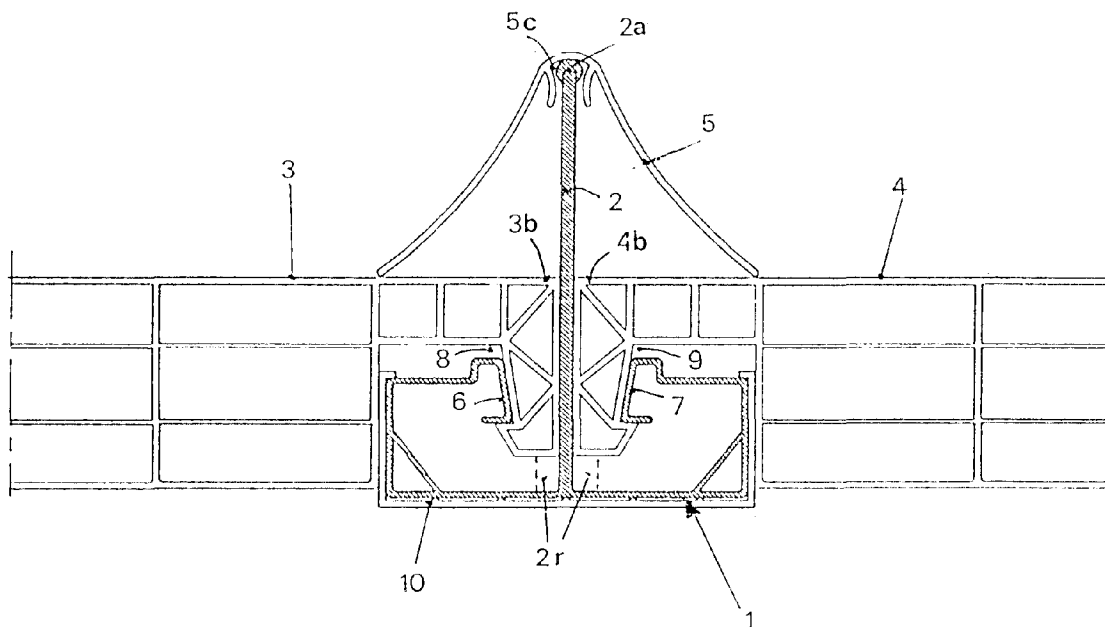
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(54) **Member for joining two elements which is equipped with a perpendicularly projecting partition**

(57) Joining member (1) which connects two elements (3, 4) along one side (3b, 4b) has means (6, 7) which allow it to be attached to meeting edges (3b, 4b)

of both these elements (3, 4), and it comprises partition (2) projecting to a predetermined perpendicular degree therefrom and as a result is interposed between two elements (3, 4) to be connected.



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Description

This invention relates to a joining member used in the area of construction to connect two flat sheets or panels along that side where they meet.

These panels or sheets can be made of various materials, such as for example aluminum, polycarbonate, or another synthetic resin, and are generally used to build roof and buffer structures or the like.

Generally, the joining members, for example in the case of a roofing structure, are connected to a supporting structure which bears the weight of the roofing panels or sheets and whatever is placed on top of them: the joining members therefore perform the active function of supporting the entire load and distributing it over the bearing structure.

As is known, within the framework of construction and its management, it is the engineer's task to find solutions which enable the least possible weight for all the various bearing components while keeping the total weight acting on them unchanged.

It was this requirement which led the inventor to conceive a new type of joining member in which the strength section has a shape which is optimal for resistance to bending, for which reason -- as those skilled in the art will know -- the area of the aforementioned strength section must be as far as possible from the neutral bending axis.

To achieve this, the inventor has conceived the object of this invention which is a joining member for connecting two flat sheets or panels along that side where they meet, said joining member being equipped with means which allow it to be attached to the meeting edges of both these elements, wherein it comprises a partition projecting to a predetermined perpendicular degree therefrom and as a result is interposed between the side edges of both these elements connected by this joining member.

A more detailed description of the joining member which is the object of this invention follows with reference to the attached drawing which shows the transverse cross-section of one embodiment of aforementioned joining member 1, suitable for connecting two profiled panels 3, 4 produced by extrusion.

Each of the two panels 3, 4 to be connected -- which are coplanar and meet along one side 3b, 4b -- have cavity 8, 9 into which one of projecting parts 6, 7 fits in a manner complementary to that provided by joining member 1.

The transverse cross-section of the joining member also has partition 2 which projects perpendicularly to it and which -- once the two panels 3, 4 are connected -- is interposed between meeting edges 3b, 4b of these two panels 3, 4.

It is immediately obvious that this partition 2, which can be made to project in any desired way in relation to the outer surface of panels 3, 4 which bear the load, can have a thickness -- and therefore a weight per unit of

length -- which is limited due to its height and consequently to the high moment of inertia of its area with respect to a neutral bending axis positioned in any way perpendicular to it.

The partition in question can also advantageously have at its base within joining member 1 two symmetrical pads 2r, on which can rest edges 3b, 4b of connected panels 3, 4, in such a way that a bending moment of significant value does not have an effect on the other parts of the section of said member 1.

These symmetrical pads 2r are shown in the figure by broken lines.

Farthest end 2a of partition 2 can be shaped in such a way as to fit into cavity 5c located inside member 5 for covering and protecting the joint, said covering member 5 can be shaped in each case in a manner suitable for performing its function, which is primarily to protect the joint against infiltration of rain.

In the example shown covering member 5 is shaped like an inverted V with both legs facing joining member 1.

Said joining member 1, in order to prevent infiltration of dirt or humidity, can have gasket 10 which is made of an elastic material applied to it and which as a result is interposed between joining member 1 and the two panels 3, 4.

Partition 2 can also be extended along the entire length of joining member 1, and can, as described, have different heights according to the type of panels to be connected and/or the total load acting on it, with the result that it is extremely versatile in its application and offers high resistance to bending with a very small weight per unit of length.

The shape of joining member 1 obviously can be modified as desired, depending on the type of connecting means on the panels it is designed to connect, and according to the type of load it is intended to bear, etc.

Other different embodiments are possible without departing from the idea of the invention as claimed in the claims and therefore are protected by this patent.

Claims

1. Joining member (1) for connecting two elements (3, 4) such as flat sheets or panels (3, 4) along that side where they meet (3b, 4b), said joining member (1) being equipped with means (6, 7) which allow it to be attached to meeting edges (3b, 4b) of both these elements (3, 4), characterized in that it comprises partition (2) projecting to a predetermined perpendicular degree therefrom and as a result is interposed between side edges (3b, 4b) of both these elements (3, 4) connected by this joining member (1).
2. Joining member as claimed in claim 1, wherein it consists of an extruded structural shape, the cross-section of which has part (6, 7) which can be joined

to corresponding part (8, 9) on each of sides (3b, 4b) of two elements (3, 4) to be connected.

3. Joining member as claimed in one of the preceding claims, wherein this partition (2) is shaped in such a way as to project to a predetermined degree from these two elements (3, 4) when they are interconnected. 5
4. Joining member as claimed in one of the preceding claims, wherein said partition (2) has two pads (2r) shaped and designed in such a way as to allow them to support at least one part of these edges (3b, 4b) of two elements (3, 4) to be connected. 10
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5. Joining member as claimed in one of claims 2 or 3, wherein farthest end (2a) of partition (2) has means to enable its attachment to another shaped member (5) capable of covering the joint. 20
6. Joining member as claimed in claim 5, wherein end (2a) of partition (2) is shaped in such a way as to fit into cavity (5c) located inside said covering member (5), which is shaped like an inverted V with both legs facing joining member (1). 25
7. Joining member as claimed in any of the preceding claims, wherein this projecting partition (2) has a length equal to that of said joining member (1). 30

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