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(54) ROOF EDGE PROFILE MEMBER AND CONSTRUCTION

(57) The invention proposes a new type of roof edge profile with innovative technical design features, wherein two equidistanced horizontal flange plates, connected to a vertical front plate, are lengthwise extending in the form of a laid-down U-shape, which can shoved over the projecting edge portion of a roof structure. Hereby a roof edge/wall closure finishing connection of improved quality and better decorative aspect can be realized, without risk of provoking local moisture staining and discoloration markings on the roof edge structure and on crepi or plaster cladding of adjacent wall parts in the presence heavy rainfall.

By adaptively shaping the bottom side of the vertical front plate as a kind of rail track or slide gutter it becomes possible to connect adjoining roof edge profile members with one another by means of coupling profile elements of similar cross-section, said coupling profiles being slidably received in the congruent open cavities of the roof edge profile members. In this way the quality and appearance of the roof edge finishing is further improved due to the absence of open seams and potential moisture drip-off spots.

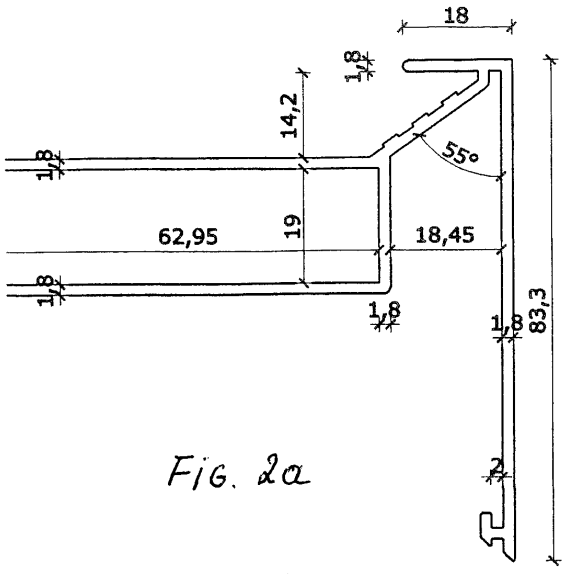

Fig. 2a

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Description

[0001] The present invention pertains to profile members such as cladding, corner and edging frame members, which are used in the building sector, namely in the field of roof edge finishing with closure linkage to house fronts and walls, over which more often a plastering is applied, more frequently house fronts provided with ornamental plastering or "crepi" and multilayer insulating crepi plastering.

[0002] More in particular the invention concerns a new type of profile member that is very suitable for use as roof edge profile in the finishing of edging parts of roof constructions, in particular of flat roofs, and which enables a perfect closure or connection of said roof constructions with house fronts or wall elements from brick or other building material, which may be provided with a plaster coating or with any other exterior cladding.

[0003] The invention also encompasses assemblies consisting of plural profile members according to the invention, which form a coherent integrated unit and allow the provision of a smooth connective or edge closure construction of desired length between roof edge and (plastered) façade walls.

[0004] In these profile assemblies of variable length it is preferable to employ special profile coupling elements and furthermore corner profile members to achieve a seamless finishing of the joining closure between roof edge and front wall.

[0005] The profile members known and used up to now in the finishing of roof edges and their closure linkage with plastered exterior house walls present different drawbacks: they cannot be mounted in a way to display a seamless appearance, their assembly seldom enables the achievement of a perfectly waterproof roof edge finishing/closure, such that water soaking-in and trickling down, especially with downpouring rain, cannot be avoided and causes in the long term persistent local moisture spots or stains on wall plaster and roof edge members, which impairs durability and appearance of roof edge and façade. Moreover the aesthetic appearance of a conventional roof edge finishing/closure construction with front wall linkage is not optimal due to the presence of seams or joints and resulting differences in colour markings.

[0006] An object of the present invention is to overcome the above mentioned problems and shortcomings of known roof edge profile members, and to provide for this purpose a profile base member with innovative design features. Moreover it is a further object of the invention to provide adapted coupling members suitable for seamless mounting of the roof edge profile base members of this invention and to obtain a roof edge closure finishing which is improved in quality and durability.

[0007] A profile member according to the invention comprises a vertically oriented platelike flange element (front plate), which can form a closure connection at the height of a roof edge and extends flush or parallel with a wall or façade, said front plate having an upper panel forming an inverted L-shape therewith, and further comprises a horizontally extending platelike flange member, possibly disposed in another angled relationship towards the vertically oriented front plate, whereby said horizontal flange plate is joined with said front plate by means of an integral flange element extending in angled fashion upwardly and ending into the underside of the upper panel of the vertical front plate, characterized in that the horizontally oriented flange member comprises two plate elements extending in spaced, parallel relation to one another in the form of a lay-down U, whereby the gap distance between the upper leg and lower leg of the U-shape is sufficiently large for being adapted to receive roof edge panels or boarding.

[0008] In a preferred embodiment of a profile member according to the invention the vertical flange element or front plate has a track-forming salient portion at the plate bottom, which is suitable to function as a supporting slide-runner/guide for a coupling part by means of which two adjacent roof edge profile members are connectable to one another in a seamless manner.

[0009] For a fuller understanding of the nature of the present invention reference is made to the following drawings and detailed examples, which should not be construed as restricting the invention to said illustrated examples.

[0010] Figures 1a to 1d illustrate three-dimensional perspective views of respectively a roof edge profile of the invention with matching coupling part belonging to it (fig. 1a), a roof edge profile with slidingly pushed in coupling part (fig. 1b), a corner profile element for closure finishing an exterior corner of roof edges (fig. 1c), and a corner profile element for finishing an inwardly oriented corner of roof edges (fig. 1d).

[0011] Figure 2a shows a cross-sectional view of a roof edge profile element of the invention together with indication of particular dimensions for a specific practice example. Said dimensions, however, are not to be considered limitative for the profile element of the present invention.

[0012] Figure 2b depicts a cross-sectional view of a profiled coupling member adapted for the connective assembly of two rof edge profile elements as shown in figure 2a.

[0013] Figure 3 illustrates a photographic view of a roof edge closure of a flat roof with associated crepi plastered façade wall, being finished with roof edge profile members according to the invention.

[0014] From the figures 1 and 2 taken in combination with figure 3 it can be clearly gathered how the application of roof edge profile elements with horizontally extending twin parallel flange panels according to the present invention enables to closure finish the roof edges of a flat roof in a manner that is aesthetically sound and waterproof, whereby the wooden understructure of the flat roof is enclosed between the horizontal flange planes of the roof edge profile members.

[0015] Seeping in of moisture and dripping off of rain

water from roof and roof edge towards the wall plastering is excluded such that appearance of moisture staining and discolorations is prevented. Both the fact that the roof edge plate is protectively encapsulated in a U-shaped gap of the newly designed profile element, and furthermore that the application of profile coupling parts according to the invention excludes the presence of open seams or visible joints, contribute to the lasting durability of the roof edge construction as well as to its improved ornamental aspect which is preserved in the long term.

[0016] The profile members in accordance with the present invention are suitable for the closure finishing of roof edges in combination with several types of façade walls (bricks, concrete, wainscotting etc.), in particular ornamentally plastered, and also crepi plaster on top of wall insulation layers of variable thicknesses.

[0017] The profile members according to the invention are typically manufactured from extruded aluminium. Obviously the invention is not restricted to aluminium as base material therefor. Other possibly suitable materials are i.a. steel, stainless steel, zinc, copper and several types of plastics as generally known in the building inustry (PVC, etc.) for producing window-frames, wall claddings and roof-gutters. All the above-mentioned materials may be applied in a desired colour (lacquered, in-coloured, colour coating or plastics film).

[0018] The present invention also implicitly comprises an improved method for closure finishing roof edges in association with plastered façade or house walls, including also an improved method of mounting or assembling roof edge profile members. For this purpose profile members as shown in figures 1 and 2, possibly incl. suitable corner profiles for finishing roof edge corners, are joined to one another in a seamless manner by slidably pushing in coupling members having a congruent slide-in shape and a horizontal plate support leg, which slide-in shape fits into the space cavity at the underside of novel profile velement of the invention.

Claims

1. Profile element for use in the building sector, typically for finishing of roof edges, more in particular for forming an edge finishing/joining construction between roof edges of preferably flat roofs and façades or walls, preferably cladded with ornamental plaster (crepi), comprising
   a one-piece integrally shaped, typically extruded oblong article of metal or plastics material having lengthwise a constant cross-section and comprising interconnected coherent flat platelike profile parts, said cross-section comprising a vertically extending flange part or front plate provided with a L-shape forming upper flange leg, further comprising a horizontally extending flange member which is connected, by means of an upwardly extending and angularly disposed flange panel part, with the underside of said L-shaped upper flange leg, "characterized in that" said horizontally extending flange member comprises two parallel flange legs which are interconnected with one another in the form of a laid-down U-shape, wherein the upper leg of the horizontal U-shaped flange member is connected, at the height of the U-shape base, with said angularly disposed upwardly oriented flange panel part.

2. Roof edge profile member as defined in claim 1, **characterized in that** the lower edge of the vertically oriented front plate flange member is provided with a projecting or protuberant bottom portion forming a track or slide-way adapted for slidably push-in receipt of a coupling piece having a cross-section essentially congruent with the cross-section part of the roof edge profile member at the height of their common slide-connection planes, by which two adjacent roof edge profile members are joinable in an almost seamless fashion.

3. Roof edge construction assembly built up with profile members as defined in claim 2, which are interconnected by means of slidably receivable coupling members of congruent shape.

4. Roof edge construction according to claim 4, wherein corner building profile members consisting of two interconnected profile members as defined in claim 2, preferably joined at right angles to one another, are utilized for closure finishing of roof edge corners in association with meeting walls.

5. Roof edge profile **characterized by** having a shape and a cross section as depicted in figure 1 and / or figure 2.

6. Use of a profile member as defined in claims 1 or 2 for the finishing of roof edges, in particular of flat roofs, and for achieving an aesthetically sound closure connection between roof edge structure and façade and wall constructions.

7. Coupling part for the interconnecting of profile members according to claim 2, comprising an extruded profile consisting of a vertical flange plate provided with upper panel element that is angularly disposed towards said vertical flange plate and downwardly extending into an integral connection with a vertically oriented leg of a L-shaped horizontal flange plate, wherein the shape of the extruded coupling profile and the dimensions of vertical flange plate, upper panel element and horizontal flange plate are selected in such a matching way, that the coupling part may be slidably entered into said roof edge profile member so as to form therewith a solid self-supporting slide connection.

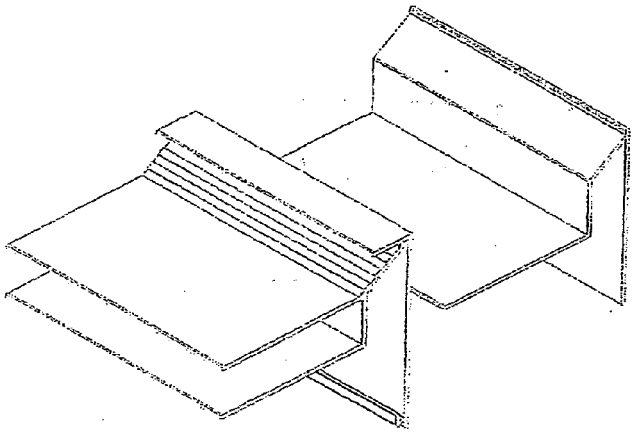

Fig. 1a

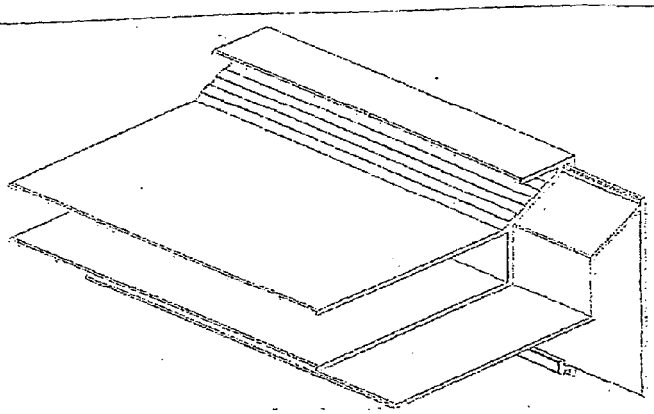

Fig. 1b

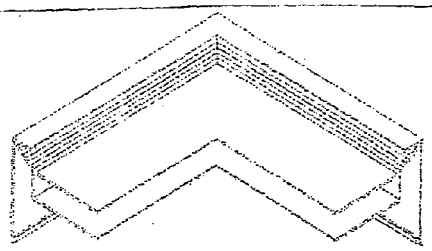

Fig. 1c

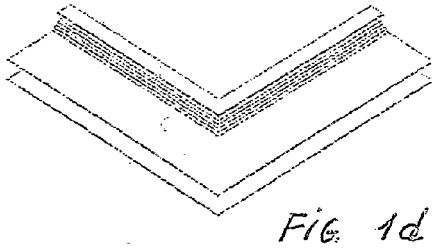

Fig. 1d

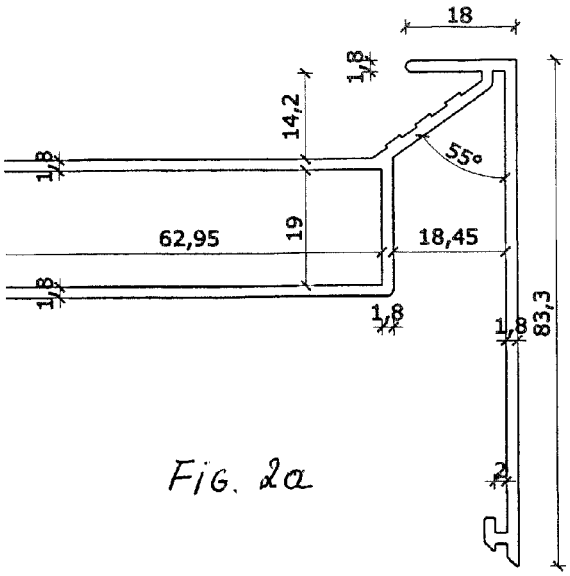

Fig. 2a

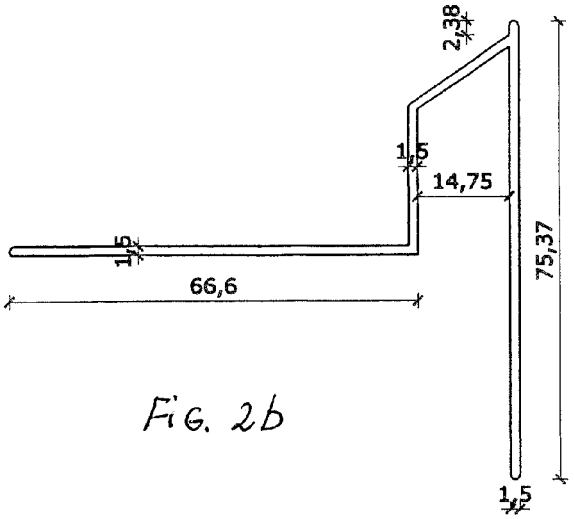

Fig. 2b

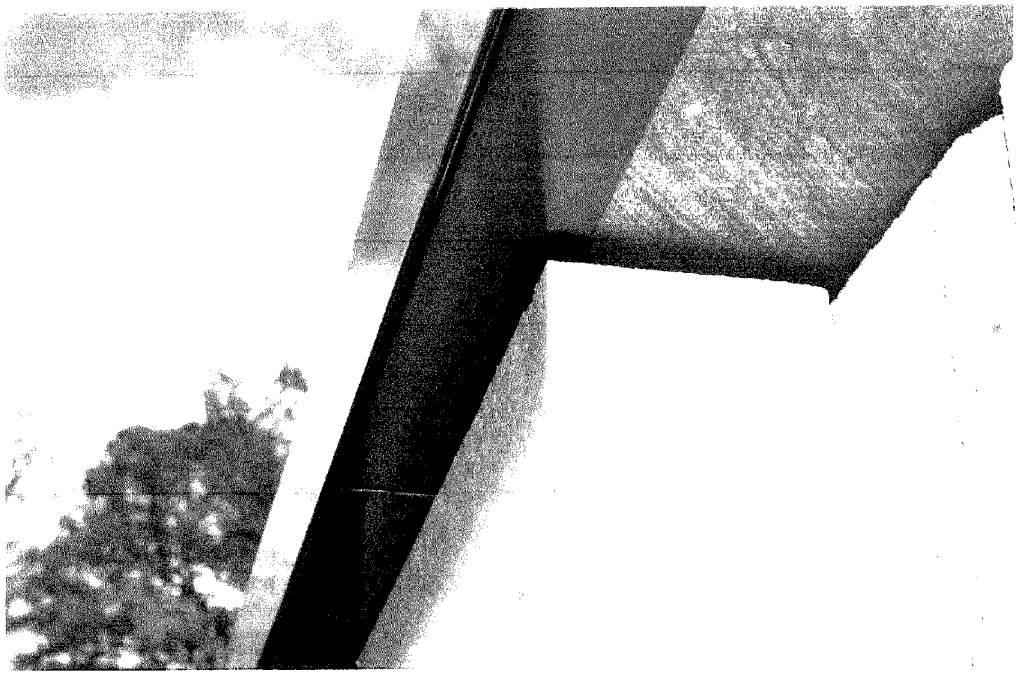

Fig. 3

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EUROPEAN SEARCH REPORT

Application Number
EP 15 07 5019

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 4 662 129 A (HICKMAN JOHN B [US]) 5 May 1987 (1987-05-05) * figures 1-3 *	7	INV. E04D13/15
A	DE 31 10 404 A1 (HORCH GUENTER DIPL WIRTSCH ING) 14 October 1982 (1982-10-14) * figure 3 *	7	
A	US 2002/178671 A1 (GEMBALA HENRY [US]) 5 December 2002 (2002-12-05) * figures 4-5 *	1	
A	DE 23 33 959 A1 (HALFENEISEN GMBH & CO KG) 16 January 1975 (1975-01-16) * figure 1 *	1	
A	US 3 365 847 A (ALEXANDER JOSEK) 30 January 1968 (1968-01-30) * figure 14 *	1-7	
			TECHNICAL FIELDS SEARCHED (IPC) E04D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	18 November 2015	Demeester, Jan

CATEGORY OF CITED DOCUMENTS

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 15 07 5019

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
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18-11-2015

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82