



(11) **EP 3 375 948 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
19.09.2018 Bulletin 2018/38

(51) Int Cl.:
E04B 2/74 (2006.01) E06B 3/42 (2006.01)

(21) Application number: **16863716.3**

(86) International application number:
PCT/ES2016/070789

(22) Date of filing: **07.11.2016**

(87) International publication number:
WO 2017/081342 (18.05.2017 Gazette 2017/20)

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
MA MD

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(30) Priority: **11.11.2015 ES 201531240 U**

(54) **ASSEMBLY OF PROFILES FOR CLADDING**

(57) The invention relates to an assembly of profiles that allows cladding to be formed by means of panels or windows that slide along upper and lower guides, the assembly comprising: a profile (1) for securing and retaining panels or windows (4) and a guide (2) through which the assembly formed by the profile (1) and the panel (4) passes. According to the invention, the profile (1) for securing the panels (4) comprises a lower part having a trapezoidal cross-section, and parallel arms (7) provided with means for improving the retention of the panels, while the guide (2) has a generally U-shaped configuration open from above and comprises openings (12) on both sides of the upper face thereof. The guide (2) further comprises a lower chamber (10) and an opening (18) that connects the inner space of the guide to the outside.

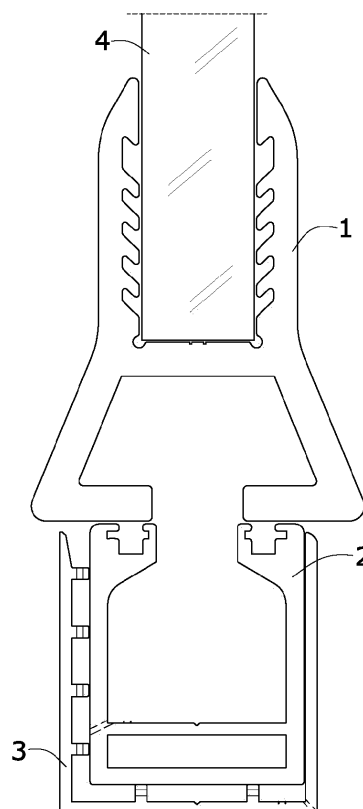


FIG.1

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Description

OBJECT OF THE INVENTION

[0001] The object of the present invention, as established by the title thereof is an assembly of profiles for cladding that allows a series of panels or cladding to be individually moved wherein the weight of each one of the panels uniformly rests along the lower rail.

[0002] The present invention is characterized by special constructive and design characteristics of each of the panels or cladding, specifically with regard to drainage, as well as means for achieving an improved grip of the panels on the profiles.

[0003] Thus, the present invention falls within the field of cladding by means of individual panels that are able to move along guides.

BACKGROUND OF THE INVENTION

[0004] Different cladding systems for spaces are known in the state of the art, such as that which is described in patent ES2324273, which describe a series of independent panels which longitudinally slide along an upper guide rail and another lower guide rail wherein the weight of each one of the panels uniformly and longitudinally rests along the lower rail. The structure proposed seeks to avoid areas where there is excessive pressure, as well as mechanical elements susceptible to failures caused by rolling.

[0005] Also known in the state of the art is a windbreak system such as the one described in patent ES 2365575, which is made up of a series of panels that also move along a lower guide and an upper guide, having elements or panels that are collapsible but not moveable.

[0006] However, there are aspects that can be improved in any of the cases described above, such as securing the windows to the profiles or the drainage, as well as solving assembly problems at the perpendicular connections of the guides.

[0007] Therefore, the present invention aims to overcome the previously described drawbacks by developing an assembly of profiles for cladding such as the one described below, the essence of which is established in the first claim.

DESCRIPTION OF THE INVENTION

[0008] The object of the present invention is an assembly of profiles that allow cladding to be formed by means of panels or windows that slide along upper and lower guides and, therefore, has a profile for securing and retaining the panels, the most notable constructive characteristic being the fact that the parallel arms facing one another which define an inner space wherein the edge of the panels is housed have means on the face facing the other for improving the adherence and collection of excess polymers, having inclined spears or projections

for said task in a parallel arrangement, or a succession of slits and protrusions.

[0009] The assembly of profiles also has a guide profile, which is the profile through which the profiles to which the panels have been secured pass, having a generally U-shaped configuration with a top central opening and which on the lower part of the arms has openings in which rubber pieces are housed, also having on the lower part thereof a closed rectangular chamber that improves the joint and connection of the profiles in an angular way. In one constructive variant, the guide can have a water collector in one of the faces thereof formed by an oblique arm that defines a concavity, the base of which has an opening.

[0010] Lastly, and in a complementary way, it can have a compensator profile that has a generally U-shaped constructive form with a series of projections on one of the vertical side faces thereof and on the base thereof which are provided with openings that pass through said projections such that they allow the water that accumulates to flow to a drainage opening.

[0011] Except when indicated otherwise, all of the technical and scientific elements used in this specification have the meaning commonly understood by one with average skill in the art to which this invention belongs. When this invention is put into practice, methods and materials may be used that are similar or equivalent to the ones described in this specification.

[0012] Throughout the description and claims, the word "comprise" and its variants are not intended to exclude other technical characteristics, additions, components or steps. For those skilled in the art, other objects, advantages and characteristics of the invention may be deduced from both the description and the practical use of the invention.

EXPLANATION OF THE FIGURES

[0013] As a complement to the present description, and for the purpose of helping to make the characteristics of the invention more readily understandable, in accordance with a preferred practical exemplary embodiment thereof, said description is accompanied by a set of drawings constituting an integral part of the same, which by way of illustration and not limitation represent the following.

Figure 1 shows a general representation of the assembly of profiles that make up part of the object of the invention.

Figures 2 and 3 show detailed views of two different isolated embodiments of the profile for securing the cladding panels.

Figures 4 and 5 show two different embodiments of the guides through which the cladding passes.

Figure 6 shows the compensator profile in which the guide is housed.

PREFERRED EMBODIMENT OF THE INVENTION

[0014] With reference to the figures, a preferred embodiment of the invention proposed is described below.

[0015] Figure 1 shows a representation of one end of the cladding panel which, as can be seen, comprises a profile (1) for securing and retaining the panels or windows (4); a guide (2), through which the assembly formed by the profile (1) and panel (4) passes, and lastly, in a complementary way, it can have a compensator profile (3), the inside of which houses the guide profile (2).

[0016] Figure 2 shows how the profile (1) for securing the panels (4) has a lower part that has a hollow trapezoidal cross-section and with lower access through an opening (6), and parallel arms (7) that define an upper U-shaped space in which the inner faces have means for improving the retention of the panels, and in the example shown consists of inclined spear-shaped projections (8), these means allowing for an improved adherence and collection of excess polymers.

[0017] Figure 3 shows another alternative embodiment of the profile (1) which has a succession of slits and projections (9) as a means for improving and retaining the panels.

[0018] Figure 4 shows an embodiment of the guide (2) which has a generally U-shaped configuration open from above by a centered access (11), and has openings (12) on both sides of the upper face thereof for housing Teflon strips or similar, and furthermore, as the most noteworthy characteristic, has a lower chamber (10) that allows the miter joint at the angular connection of the guides to be improved, further having the possibility of an opening (18) that connects the lower space of the guide to the outside with the aim of being able to drain the water that may accumulate inside.

[0019] Figure 5 shows the same embodiment as that of figure 4, but wherein the guide (2) also has a water collector (13) formed by an arm arranged in an oblique and projecting way forming a cavity (19) which on the base thereof has an opening (14) at some point along the length thereof that connects to the outside.

[0020] Figure 6 shows a compensator profile (3), which is complementary and serves for housing the guides (2), said compensator profile having a generally U-shaped form, which on one of the vertical faces of the inside thereof there is a series of projections perpendicular to the wall of the profile and which show openings (15) that pass through said projections in order to facilitate the flow of water due to gravity towards the base of the profile, where there are also other projections provided with openings (16) that allow for the passage of water to a final drainage opening (17) arranged on one of the corners of the profile base.

[0021] Having thus adequately described the nature of the present invention, as well as how to put it into practice, it must be noted that, within its essential nature, the invention may be carried out according to other embodiments differing in detail from that set out by way of ex-

ample, which the protection sought would equally cover, provided that the fundamental principle thereof is not altered, changed or modified.

Claims

1. An assembly of profiles for cladding comprising:

- a profile (1) for securing and retaining panels or windows (4);
- a guide (2) through which the assembly formed by the profile (1) and panel (4) passes,

characterized in that:

- the profile (1) for securing the panels (4) has a lower part that has a hollow trapezoidal cross-section with lower access through an opening (6) and parallel arms (7) that define an upper U-shaped space in which the inner faces have means for improving the retention of the panels.
- the guide (2) which has a generally U-shaped configuration open from above by a centered access (11) and has openings (12) on both sides of the upper face thereof for housing Teflon strips or similar, and furthermore has a lower chamber (10) that allows the miter joint at the angular connection of the guides to be improved, the guide having an opening (18) that connects the lower space of the guide to the outside with the aim of being able to drain the water that may accumulate inside.

2. The assembly of profiles for cladding according to claim 1, **characterized in that** the means for improving the retention of the panels in the space defined between the parallel arms (7) consist of inclined spear-shaped projections (8).

3. The assembly of profiles for cladding according to claim 1, **characterized in that** the means for improving the retention of the panels in the space defined between the parallel arms (7) consist of a succession of slits and projections (9) arranged along the length of the arms.

4. The assembly of profiles for cladding according to any of claims 2 or 3, **characterized in that** the guide (2) has a water collector (13) formed by an arm arranged in an oblique and projecting way, forming a cavity (19) which on the base thereof has an opening (14) at some point along the length thereof that connects to the outside.

5. The assembly of profiles for cladding according to any of the preceding claims, **characterized in that** it additionally has a compensator profile (3), which

is complementary and serves for housing the guides (2), said compensator profile having a generally U-shaped form, which on one of the vertical faces of the inside thereof there is a series of projections perpendicular to the wall of the profile and which show openings (15) that pass through said projections in order to facilitate the flow of water due to gravity towards the base of the profile, where there are also other projections provided with openings (16) that allow for the passage of water to a final drainage opening (17) arranged on one of the corners of the profile base.

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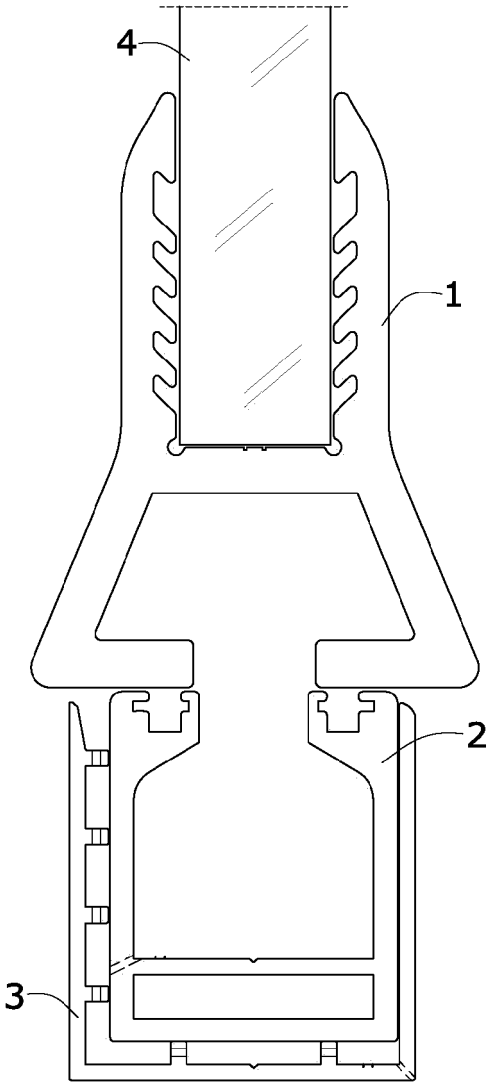


FIG.1

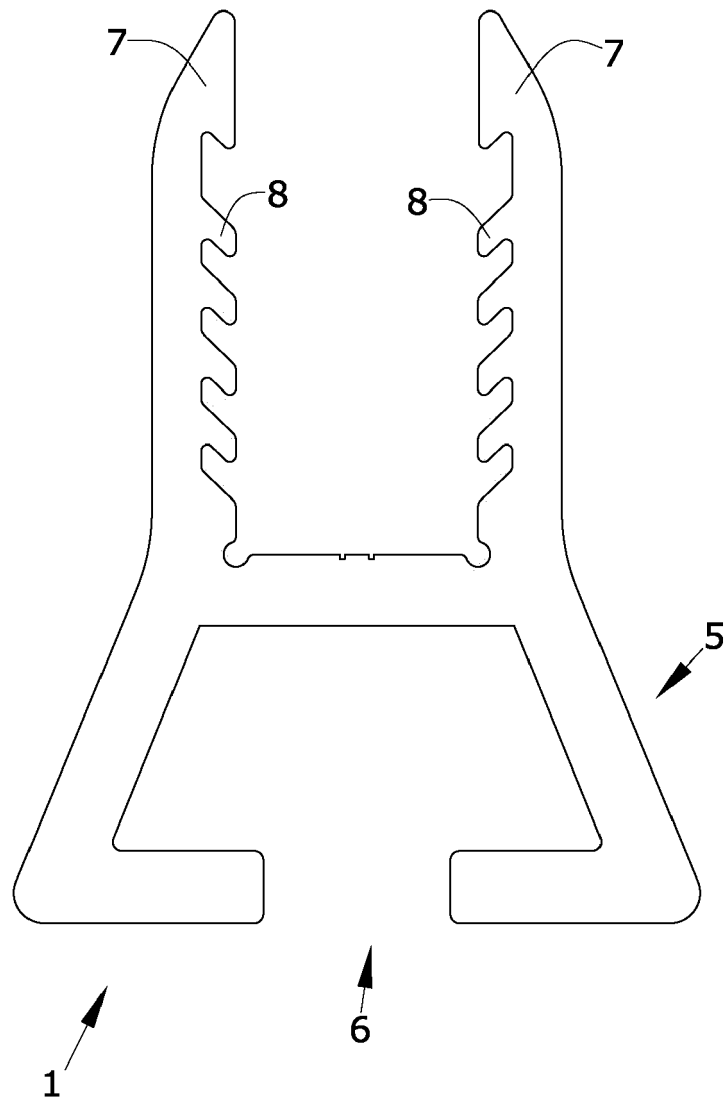


FIG.2

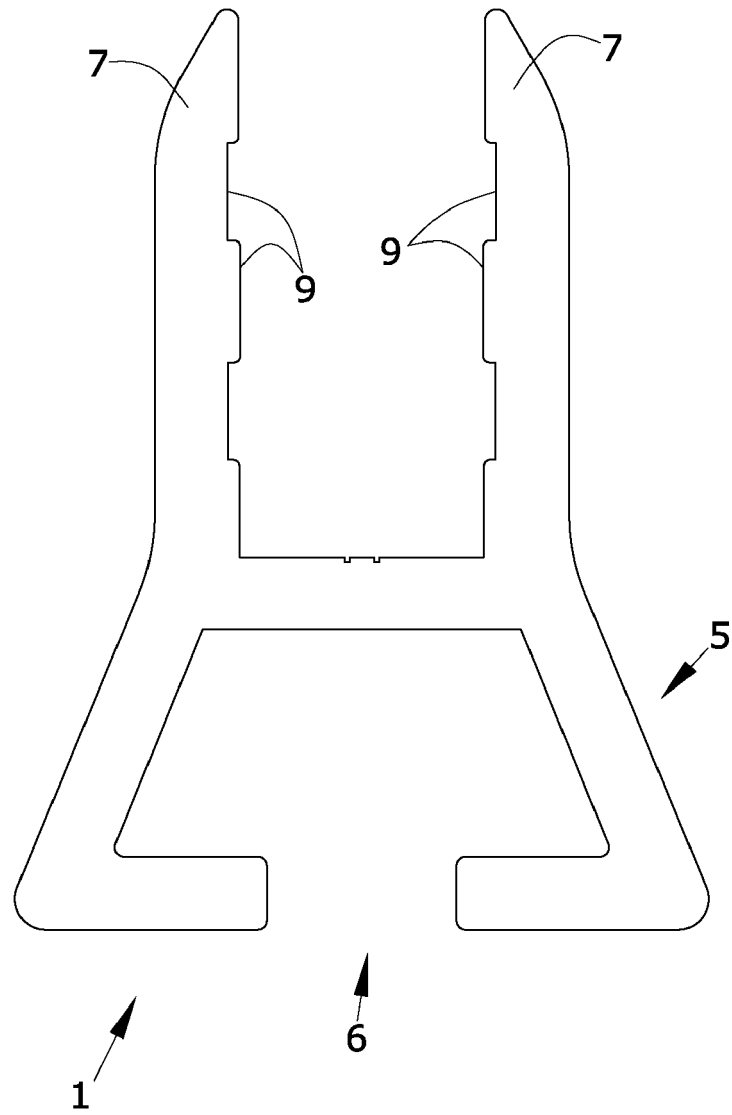
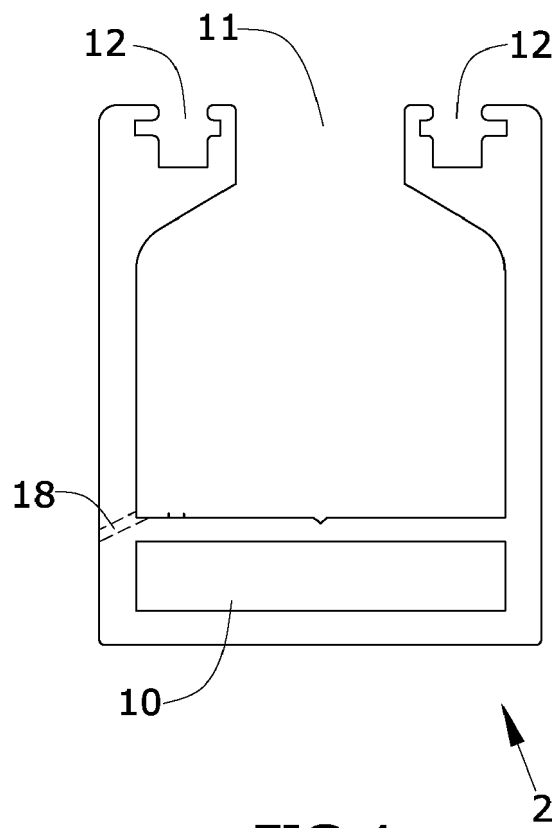
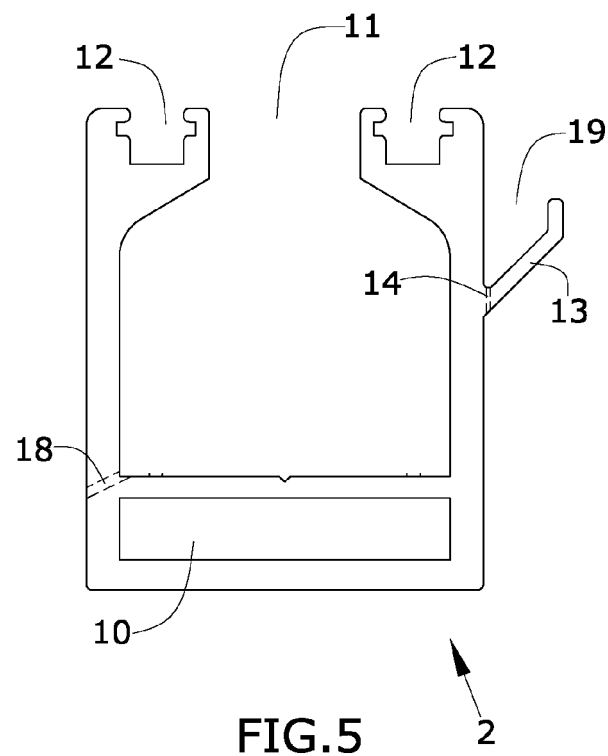


FIG.3





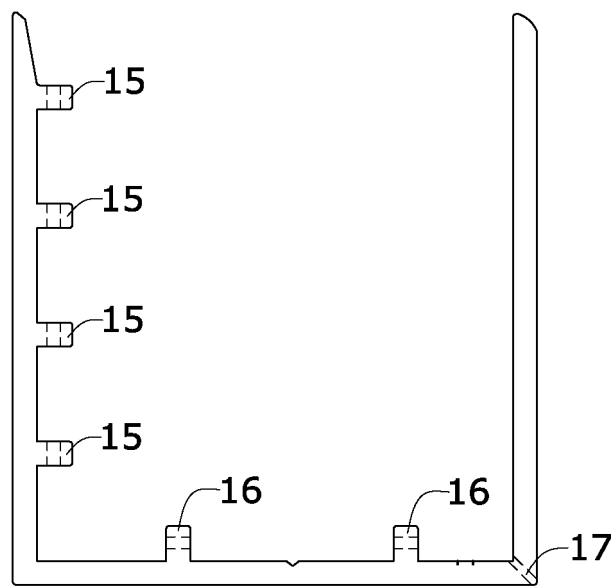


FIG.6



INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2016/070789

A. CLASSIFICATION OF SUBJECT MATTER

E04B2/74 (2006.01)

E06B3/42 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
E04B, E06B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2012175754 A1 (ALLGLASS CONFORT SYSTEMS S L ET AL.) 27/12/2012, page 13, line 5 - page 17, line 26; figures 1 - 3, 34, 51.	1-5
X	ES 2365575 A1 (ALLGLASS CONFORT SYSTEMS S L) 07/10/2011, column 7, line 28 - column 12, line 59; figures 1, 17, 18.	1-4
A	GB 1210410 A (PETERS HEINRICH WALTER) 28/10/1970, page 1, line 79 - page 5, line 40; column 2, line 79 - column 1, line 40; figure 1, 8.	1-4
A	CN 2467737Y Y (GUANGDONG WEIXIONG GROUP CO LT) 26/12/2001, the whole document. figure 7,	1-3

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search
23/01/2017Date of mailing of the international search report
(06/02/2017)

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2016/070789

C (continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of documents, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ES 1061624U U (BEREDAS JIMENEZ RAFAEL ET AL.) 01/03/2006, column 3, line 39 - column 6, line 3; figure 12,	1-5
A	ES 2324273 A1 (CLEAR GLASS CURTAINS S L) 03/08/2009, page 5, line 46 - page 8, line 10; figures 3 - 8.	1

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International application No.

Information on patent family members

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- ES 2324273 [0004]
- ES 2365575 [0005]