



(11) **EP 2 243 897 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
27.10.2010 Bulletin 2010/43

(51) Int Cl.:
E04F 15/10^(2006.01) E04F 13/18^(2006.01)

(21) Application number: **10160747.1**

(22) Date of filing: **22.04.2010**

(84) Designated Contracting States:
**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 SE SI SK SM TR**
Designated Extension States:
AL BA ME RS

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(30) Priority: **22.04.2009 BE 200900251**

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(54) **Profiled strip for wall or ceiling covering**

(57) This invention relates to a profiled strip comprising a viewing side (2A) provided with a visible band (3) extending below the face of the viewing side substantially parallel to the face of the profiled strip (1), the profiled strip further comprising a lip which protrudes from the

elongate face and forms part of the visible band, as a result of which no differing visual effects occur at the level of the connecting seam when two profiles are not perfectly joined together. The profiled strip according to the invention also allows the width of the elongate (longitudinal) connecting seam to be set.

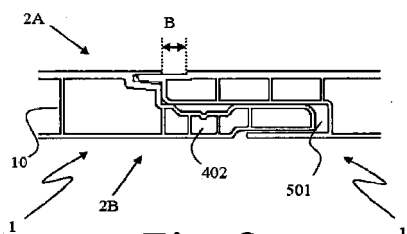


Fig. 3

EP 2 243 897 A1

Description

[0001] This invention relates to a profiled strip comprising a viewing side provided with a visible band which extends below the face of the viewing side substantially parallel to the face of the profiled strip and the upper face of which is recessed with respect to the face of the viewing side, a first longitudinal side provided with male connecting means and a second longitudinal side which is located opposite the first longitudinal side and provided with female connecting means, which connecting means are suitable to join together the longitudinal sides of adjoining profiled strips by engagement of the male connecting means in the female connecting means.

[0002] Profiled strips of this type are usually made from a suitable polymer by means of a processing method suitable for this purpose. The most common and appropriate processing method is extrusion, the profiled strips being manufactured substantially continuously in great length, and subsequently being sawn to length. The profiled strips obtained in this way are used to decorate walls and ceilings, for example, by joining together a number of them along their sides by means of suitable connecting means.

[0003] It is important in this regard that the assembly of profiled strips forms an aesthetic overall entity; after all, the profiled strips are primarily intended as decoration. The aesthetics of the overall entity are determined in particular by the manner in which the profiled strips are connected because the connection usually imparts a differing visual effect and is as a result eye-catching.

[0004] In particular, it is important to embody the assembly of the profiled strips in such a way that mutual visual differences between the profiled strips are as minimal as possible at the level of the connections. This ensures a calm visual effect and gives the viewer of the decorative wall or ceiling an impression of quality.

[0005] In order to ensure that the mutual visual differences between profiled strips at the level of their longitudinal connections are restricted to a minimum, it is known from French patent publication FR 2 832 470 to connect the male connecting means to the viewing side of the profiled strip via an intermediate zone, this intermediate zone being provided with a visible band which is recessed with respect to the face of the viewing side, while the aforementioned male connecting means are in turn recessed with respect to this visible band. Since the edge of the visible band abuts against an adjoining analogous profiled strip, only the visible band is visible as a joint when the longitudinal sides of two analogous profiled strips are connected.

[0006] However, the profiled strip described in FR 2 832 470 has the drawback that a highly differing visual effect occurs when, during positioning of profiled strips of this type, two profiles do not abut perfectly against each other, as a result of which some of the male connecting means remain visible as a sort of "dark gap".

[0007] The effect described hereinbefore, wherein a

visible opening is formed between two panels which do not perfectly fit together, can inter alia occur in the following cases:

- 5 - during fitting, the fitter has pressed two panels positioned next to each other insufficiently together before he fastens them, preferably via a nail connection, to a substrate;
- 10 - the panels described in FR 2 832 470 should be "nailed down" to a substrate with the side which is not responsible for the "gap formation"; this allows this to be carried out correctly, and above all using panels having a larger width, as these "larger" panels are also somewhat sturdier and more rigid;
- 15 - the panels described in FR 2 832 470 are manufactured via extrusion; it is an inherent feature of this production process that, partly because of after-shrinkage of the plastics material, stresses remain in the material at all times, so that these panels are almost never "perfectly" straight in their longitudinal direction and as a result of which there is a high risk that some of the male connecting means will become visible again;
- 20 - fitting to an uneven substrate.

25 **[0008]** Furthermore, the strip described in FR 2 832 470 does not allow the width of the visible band (joint) to be altered during fitting; in other words, when profiled strips of this type are joined together, the width of the intervening joint is fixed.

30 **[0009]** International patent application WO 2004/083558 describes a profiled strip for forming a walking surface or roof surface. The profiled strip described in WO 2004/083558 comprises a rear wall and a viewing wall having a viewing side which are joined together by means of lateral side walls, the viewing side being provided with a visible band which extends below the face of the viewing side substantially parallel to the face of the profiled strip and the upper face of which is recessed with respect to the face of the viewing side, a first longitudinal side provided with male connecting means and a second longitudinal side which is located opposite the first longitudinal side and provided with female connecting means, which connecting means are suitable to join the longitudinal sides of adjoining profiled strips together by engagement of the male connecting means in the female connecting means, the first longitudinal side being provided with first male and first female connecting means, the second longitudinal side being provided with second male and second female connecting means, the second male connecting means being suitable to join together the longitudinal sides of adjoining profiled strips by engagement of the second male in the first female connecting means, and the first male connecting means being formed by a lip which protrudes from the elongate face and the upper face of which is recessed with respect to the face of the viewing side. In WO 2004/083558 the two female connecting means are formed by an opening in

the lateral side wall of the profiled strip. Since the inner side of the profiled strip is hollow, this opening allows lateral expansion of the first male connecting means (lip).

[0010] For this purpose, the object of this invention is to provide a profiled strip which allows profiled strips of this type to be mutually connected to one another so that mutual visual differences between the profiled strips at the level of the connections are as minimal as possible and it also being possible to set the width of the visible joint.

[0011] The object of the invention is achieved by providing a profiled strip comprising a rear wall and a viewing wall having a viewing side which are joined together by means of connecting ribs, the viewing side being provided with a visible band which extends below the face of the viewing side substantially parallel to the face of the profiled strip and the upper face of which is recessed with respect to the face of the viewing side, a first longitudinal side provided with male connecting means and a second longitudinal side which is located opposite the first longitudinal side and is provided with female connecting means, which connecting means are suitable to join together the longitudinal sides of adjoining profiled strips by engagement of the male connecting means in the female connecting means, the first longitudinal side being provided with first male and first female connecting means, the second longitudinal side being provided with second male and second female connecting means, the second male connecting means being suitable to join together the longitudinal sides of adjoining profiled strips by engagement of the second male in the first female connecting means, and the first male connecting means being formed by a lip which protrudes from the elongate face and forms part of the visible band which protrudes below the face of the viewing side substantially parallel to the face of the profiled strip and the upper face of which is recessed with respect to the face of the viewing side, and that the second female connecting means are formed by a slot shaped in such a way that the first male connecting means of an adjoining analogous profiled strip can be accommodated therein, at least partially in a slide-fitting manner, until the connected position is reached and that the slot is delimited at the viewing side by the viewing wall.

[0012] In the context of this invention, the term "viewing wall" refers to the wall which is visible when the profiled strip is installed.

[0013] In the connected position, at least a portion of the visible band will be visible, so that this portion is visually apparent as an elongate connecting seam between adjoining profiled strips. Since, in the profiled strip according to this invention, the lip protruding from the elongate face forms part of the visible band, no differing visual effects will occur even when two profiles are not perfectly joined together.

[0014] The profiled strip according to the invention also allows the width of the elongate connecting seam to be set by attaching the second male connecting means less

deep in the first female connecting means, for example. In this case, a part of the protruding lip will then also be visible as an elongate connecting seam.

[0015] According to a more preferred embodiment of the profiled strip according to the invention, the aforementioned profiled strip comprises a back which is located opposite the viewing side, the second male connecting means being formed by a fastening lip which protrudes from the elongate face and extends substantially parallel to the face of the back and the first female connecting means are formed by a slot shaped in such a way that the second male connecting means of an adjoining analogous profiled strip can be accommodated therein, at least partially in a slide-fitting manner, until the connected position is reached. Preferably, the aforementioned fastening lip comprises a fastening element, the lower face of which is recessed with respect to the face of the back.

[0016] In a preferred embodiment of the profiled strip according to the invention, in order to keep the setting of the width of the longitudinal connecting seam easily under control for the user (fitter), the second male connecting means and the first female connecting means comprise mutually interacting setting means to set the position of adjoining profiled strips with respect to each other.

[0017] In a particular embodiment of the profiled strip according to the invention, the second male connecting means comprise first setting means, and the first female connecting means comprise second setting means interacting with the first setting means.

[0018] In a first preferred embodiment of the profiled strip according to the invention, the second setting means are formed by a groove positioned in the slot of the first female connecting means and the first setting means are formed by a number of ribs corresponding to this groove.

[0019] In a second preferred embodiment of the profiled strip according to the invention, the second setting means are formed by a number of ribs provided in the slot of the first female connecting means and the first setting means are formed by a groove corresponding to these ribs.

[0020] In accordance with a particular embodiment of the profiled strip according to the invention, the upper face of the visible band is decorated differently from the viewing side.

[0021] In a most preferred embodiment of the profiled strip according to the invention, the viewing side comprises a decorative top layer, the aforementioned profiled strip comprising at least one joint which extends transversely to the longitudinal direction and is recessed with respect to the aforementioned decorative top layer. This joint is preferably created by milling away a part of the decorative top layer, thus revealing a part of the underlying structure. This underlying structure may or may not have a different basic colour and will be sure to provide a certain relief (difference in level) at the visible side of the profiled strip (panel).

[0022] In order to further clarify the features of this in-

vention and in order to indicate additional advantages and particularities thereof, a more detailed description of the profiled strip according to the invention will now be given. It will be clear that nothing in the following description may be interpreted as a restriction of the protection requested in the claims for this invention.

[0023] In this description, reference numerals are used to refer to the appended drawings, in which:

- *Figure 1 is a vertical cross section of the first longitudinal side of the profiled strip according to the invention;*
- *Figure 2 is a vertical cross section of the second longitudinal side of the profiled strip according to the invention;*
- *Figure 3 is a vertical cross section of two profiled strips according to the invention in the connected position; and*
- *Figures 4 to 7 inclusive show a number of possible embodiments of profiled strips according to the invention provided with mutually interacting setting means.*

[0024] The profiled strip (1, 1') in accordance with this invention and as presented in the appended figures comprises an upper wall (visible wall) and a rear wall which are joined together by means of connecting ribs (10). The front face of the upper wall (viewing wall) forms the viewing side (2A) of the profiled strip, while the lower face of the rear wall forms the back (2B).

[0025] The profiled strip is provided at its viewing side (2A), as presented inter alia in Figure 1, with a visible band (3) which extends below the face of the viewing side substantially parallel to the face of the profiled strip (1') and the upper face (3A) of which is recessed with respect to the face of the viewing side (2A). The preferred embodiment shown in Figure 1 of a profiled strip (1') shows the first longitudinal side of the profiled strip according to this invention, which is provided with first male (401) and first female (501) connecting means. Figure 2 is a representation of the second longitudinal side which is located opposite the first longitudinal side and is provided with second male (402) and second female (502) connecting means, the second male connecting means (402) being suitable to join together the longitudinal sides of adjoining profiled strips (1, 1') by engagement of the second male (402) in the first female connecting means (501) (see Figure 3).

[0026] As may be seen from Figure 1, the first male connecting means (401) are formed by a lip which protrudes from the elongate face, at a certain protrusion depth, and forms part of the visible band (3) which extends below the face of the visible side substantially parallel to the face of the profiled strip and the upper face (3A) of which is recessed with respect to the face of the viewing side (2A). The second female connecting means (502) are formed by a slot shaped in such a way that the first male connecting means (401) of an adjoining anal-

ogous profiled strip (1') can be accommodated therein, at least partially in a slide-fitting manner, until the connected position is reached. This slot (502) is delimited at the viewing side by the viewing wall (upper wall) of the profiled strip. The part of the viewing wall that delimits the slot has over the distance delimiting the slot a thickness corresponding to the distance that the upper face (3A) of the visible band is recessed with respect to the face of the viewing side (2A). Preferably, this slot has a conical course. The conically running slot facilitates connecting of analogous profiled strips (1, 1') and also helps to press the visible band effectively upwards. The depth of protrusion of the lip can be equal to, less or greater than the depth of the slot (502) which the second female connecting means form, so that in the connected position at least a portion of the visible band will be visible, and this portion appearing visually as an elongate (longitudinal) connecting seam having a certain width (B) between adjoining profiled strips (1, 1'). Since, in the profiled strip according to this invention, the lip protruding from the elongate face forms part of the visible band, no differing visual effects will occur even when two profiles are not joined perfectly together.

[0027] The profiled strip according to the invention also allows the width (B) of the elongate connecting seam to be set by attaching the second male connecting means (402) less deep in the first female connecting means (501), for example. In this case, a part of the protruding lip (401) will then also be visible as an elongate connecting seam.

[0028] In a preferred embodiment of the profiled strip according to the invention, in order to facilitate the setting of the width (B) of the elongate connecting seam for the user (fitter), the second male connecting means (402) and the first female connecting means (501) comprise mutually interacting setting means (8 and 9) to set the position of adjoining profiled strips (1, 1') with respect to each other. In this way, the mutually interacting setting means (8 and 9) can be set in such a way that when analogous profiled strips (1, 1') are joined together, it is possible to select from a number of, preferably two or three, fixed widths of the connecting seam; thus, for example, the width of the connecting seam can be set to 5 mm, or 7 mm or 9 mm. It is obvious that other distances, for example 4, 6, 8 or 10 mm, are also possible as the width of the connecting seam.

[0029] Preferably, the longitudinal connecting seams are decorated in the same way, which preferably differs from the decoration of the viewing side (2A). The viewing side can also be provided with a decorative top layer. The profiled strip in accordance with this invention is also provided at its end sides with means to form, when analogous profiled strips are joined together, an end connecting seam between these profiled strips. These connecting means at the end sides are embodied as described in EP 1 659 234.

[0030] As may be seen from Figure 2, the second male connecting means (402) are formed by a fastening lip

which protrudes from the elongate face and extends substantially parallel to the face of the back, and the first female connecting means (501) are formed by a slot shaped in such a way that the second male connecting means (402) of an adjoining analogous profiled strip (1) can be accommodated therein, at least partially in a slide-fitting manner, until the connected position is reached. In this case, the aforementioned fastening lip comprises a fastening element (6), the lower face (7) of which is recessed with respect to the face of the back (2B) of the profiled strip (1). When the profiled strips according to the invention are positioned against a wall, for example, a fastening means, such as for example a screw or nail, will be provided in the above-mentioned fastening lip, preferably in the part of the fastening lip, the lower face of which is not recessed with respect to the face of the back (2B) of the profiled strip (1).

[0031] In order now to set, as discussed above, the position of adjoining profiled strips (1, 1') with respect to each other, the second male connecting means (402) comprise first setting means (8), and the first female connecting means (501) comprise second setting means (9) interacting with the first setting means (8). It is obvious that the aforementioned setting means can assume various embodiments (see for example Fig. 4 to 7 inclusive). Thus, in a first preferred embodiment and as presented in Figures 4 and 5, the second setting means (9) are formed by a groove positioned in the slot of the first female connecting means (501) and the first setting means (8) are formed by a number of ribs corresponding to this groove.

[0032] However, as presented in Figures 6 and 7, it is also possible for the second setting means to be formed by a number of ribs provided in the slot of the first female connecting means (501) and for the first setting means to be formed by a groove corresponding to these ribs.

[0033] It is obvious that other combinations (not depicted in the appended figures) are also possible, such as for example that the second setting means are formed by a rib positioned in the slot of the first female connecting means (501) and that the first setting means interacting therewith are formed by a number of grooves corresponding to this rib or that the second setting means are formed by a number of grooves provided in the slot of the first female connecting means (501) and that the first setting means are formed by a rib corresponding to these grooves.

[0034] The profiled strips according to the invention are made from a suitable polymer by means of a processing method suitable for this purpose. The most common and appropriate processing method is extrusion, the profiled strips being manufactured substantially continuously in great length, and subsequently being sawn to length.

Claims

1. Profiled strip (1) comprising a rear wall and a viewing

wall having a viewing side (2A) which are joined together by means of connecting ribs (10), the viewing side (2A) being provided with a visible band (3) which extends below the face of the viewing side substantially parallel to the face of the profiled strip (1) and the upper face (3A) of which is recessed with respect to the face of the viewing side (2A), a first longitudinal side provided with male connecting means and a second longitudinal side which is located opposite the first longitudinal side and provided with female connecting means, which connecting means are suitable to join together the longitudinal sides of adjoining profiled strips (1, 1') by engagement of the male connecting means in the female connecting means, the first longitudinal side being provided with first male (401) and first female (501) connecting means, the second longitudinal side being provided with second male (402) and second female (502) connecting means, the second male connecting means (402) being suitable to join together the longitudinal sides of adjoining profiled strips (1, 1') by engagement of the second male (402) in the first female connecting means (501), and the first male connecting means (401) being formed by a lip which protrudes from the elongate face and forms part of the visible band (3) which protrudes below the face of the viewing side substantially parallel to the face of the profiled strip and the upper face (3A) of which is recessed with respect to the face of the viewing side (2A), **characterized in that** the second female connecting means (502) are formed by a slot shaped in such a way that the first male connecting means (401) of an adjoining analogous profiled strip (1') can be accommodated therein, at least partially in a slide-fitting manner, until the connected position is reached and **in that** the slot is delimited at the viewing side by the viewing wall.

2. Profiled strip according to Claim 1, **characterized in that** the aforementioned profiled strip comprises a back (2B) which is located opposite the viewing side (2A), the second male connecting means (402) being formed by a fastening lip which protrudes from the elongate face and extends substantially parallel to the face of the back and **in that** the first female connecting means (501) are formed by a slot shaped in such a way that the second male connecting means (402) of an adjoining analogous profiled strip (1) can be accommodated therein, at least partially in a slide-fitting manner, until the connected position is reached.
3. Profiled strip according to Claim 2, **characterized in that** the aforementioned fastening lip comprises a fastening element (6), the lower face (7) of which is recessed with respect to the face of the back (2B).

4. Profiled strip (1) according to one of the preceding

claims, **characterized in that** the second male connecting means (402) and the first female connecting means (501) comprise mutually interacting setting means to set the position of adjoining profiled strips (1,1') with respect to each other.

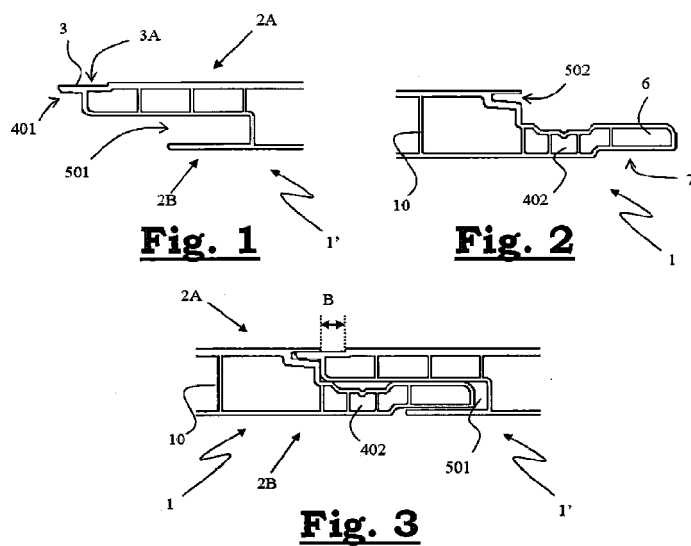
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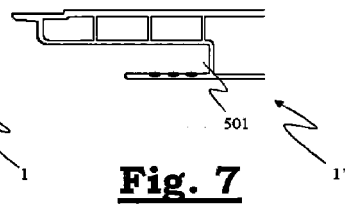
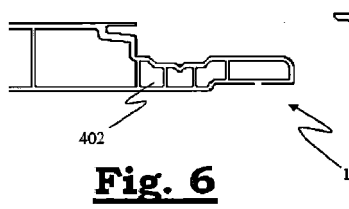
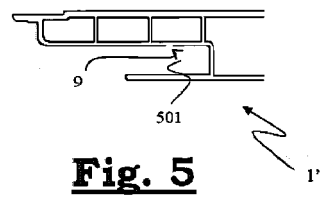
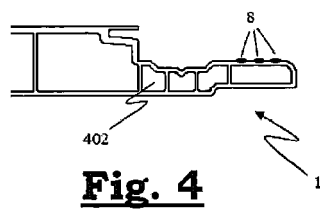
5. Profiled strip according to one of the preceding claims, **characterized in that** the second male connecting means (402) comprise first setting means (8), and **in that** the first female connecting means (501) comprise second setting means (9) interacting with the first setting means. 10
6. Profiled strip according to Claim 5, **characterized in that** the second setting means (9) are formed by a groove positioned in the slot of the first female connecting means (501) and **in that** the first setting means (8) are formed by a number of ribs corresponding to this groove. 15
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7. Profiled strip according to Claim 5, **characterized in that** the second setting means are formed by a number of ribs provided in the slot of the first female connecting means (501) and **in that** the first setting means are formed by a groove corresponding to these ribs. 25
8. Profiled strip according to one of the preceding claims, **characterized in that** the upper face (3A) of the visible band is decorated differently from the viewing side (2A). 30
9. Profiled strip according to one of the preceding claims, **characterized in that** the viewing side (2A) comprises a decorative top layer, the aforementioned profiled strip comprising at least one joint which extends transversely to the longitudinal direction and is recessed with respect to the aforementioned decorative top layer. 35
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EUROPEAN SEARCH REPORT

Application Number
EP 10 16 0747

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 18 August 2010	Examiner Severens, Gert
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 10 16 0747

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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