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(11)

**EP 0 872 606 A1**

(12)

## EUROPEAN PATENT APPLICATION

(43) Date of publication:  
**21.10.1998 Bulletin 1998/43**

(51) Int Cl.<sup>6</sup>: **E04B 9/30**

(21) Application number: **98201061.3**

(22) Date of filing: **03.04.1998**

(84) Designated Contracting States:  
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC  
NL PT SE**  
Designated Extension States:  
**AL LT LV MK RO SI**

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(30) Priority: **17.04.1997 NL 1005827**

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### (54) Wallfacing strip

(57) Mounting element for mounting a frame for a system ceiling on a wall, comprising a strip (1) which is substantially rectangular in cross-section for arranging horizontally against a wall in a manner such that a surface is provided by the side remote from the wall for mounting thereagainst of the frame, wherein an underside of the strip extending between the wall and the

frame remains visible, wherein the surface of the side serving as underside of the strip is provided with a paper film layer (2) provided with an adhesive layer and extending in longitudinal direction which covers in longitudinal direction the edge zones (3) of the sides extending transversely of the side serving as underside, and method for manufacturing such a mounting element.

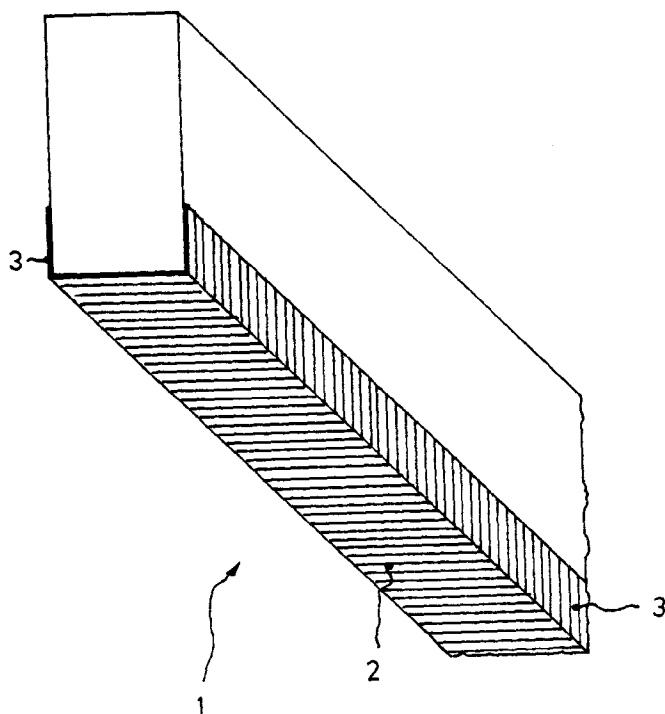


Fig. 1

## Description

The invention relates to a mounting element for mounting a frame for a system ceiling on a wall, comprising a strip which is substantially rectangular in cross-section for arranging horizontally against a wall in a manner such that a surface is provided by the side remote from the wall for mounting thereagainst of the frame, wherein an underside of the strip extending between the wall and the frame remains visible.

Such a mounting element is known under the name of wallfacing strip, for instance in the form of a pinewood strip of rectangular cross-section having a narrow side of for instance 18 mm and a wide side of for instance 34 mm, wherein one of the narrow sides and edge zones of the wide sides connecting thereto on either side are provided with a paint layer. With the painted narrow side directed downward, this wallfacing strip is arranged at ceiling height with a wide side horizontally against a wall by screwing or nailing so that the other wide side becomes available for fixing thereto, for instance by stapling, of the frame of a system ceiling, wherein the painted narrow side also remains visible after arranging of the ceiling. Applying of the paint layer normally takes place by means of spraying.

The drawback of the known sprayed wallfacing strip is that a sprayed side begins in the course of time to exhibit unpainted spots at the position of knots in the wood as a result of working of the wood.

Another drawback of a sprayed wallfacing strip is the vulnerability thereof, after it has been arranged, to contamination by for instance paint splashes or plaster residues which find their way onto the wallfacing strip for instance during painting of an adjacent door or window frame or during application of plaster on an adjoining wall surface.

Because the types of wood used for the wallfacing strip are quite soft, paint splashes and wet plaster residues penetrate easily into the wood and can then no longer be removed.

A further drawback of the known sprayed wallfacing strip is that only a smoothly planed surface can be provided with a paint layer by spraying. In practice a strip is usually used which is obtained by sawing in longitudinal direction from a strip of double width. In such a strip the sawing surface is too rough to enable spraying, while the planed side opposite the sawing surface is the so-called waney edge of the wood which often has a natural rounding which makes this side unsuitable as underside of a wallfacing strip.

Another drawback of the known wallfacing strip is the comparatively high price of a wallfacing strip sprayed with a light colour, since once-only spraying is not sufficient to apply a light coloured paint on the planed wood in covering manner.

The object of the invention is to provide a wallfacing strip of which the visible underside does not display bare spots at the position of knots after a period of time.

It is a further object to provide a wallfacing strip of which the visible side is less vulnerable to contaminants.

Another object is to provide a wallfacing strip of which a narrow side can be used as visible underside irrespective of the finishing of the surface of this side.

These objectives are achieved, and other advantages obtained, with a mounting element of the type stated in the preamble wherein according to the invention the surface of the side serving as underside of the strip is provided with a film layer extending in longitudinal direction.

The side of a wallfacing strip serving as underside which is provided according to the invention with a film layer is insensitive to the working of the wood, is easy to clean of paint splashes or other contaminants, wherein no high and therefore cost-price increasing requirements are made of the smoothness of the surface under the film layer.

In an advantageous embodiment of a wallfacing strip according to the invention the film layer covers in longitudinal direction edge zones of the sides extending transversely of the side serving as underside.

In such a wallfacing strip the visible underside and a portion of the sides connecting thereto are enclosed so that the visible part of the wallfacing strip will never be impaired by the lack of a covering colour layer, while edges of the film layer, which is per se firmly attached to the surface of the wallfacing strip, are clamped on either side of the wallfacing strip respectively between the wallfacing strip and the wall and between the wallfacing strip and the frame, whereby the chance of damage or detaching of the film layer is virtually precluded.

In an embodiment of a wallfacing strip according to the invention the film layer is manufactured from plastic.

The film layer is preferably manufactured from paper. A paper film layer has the advantage of being inexpensive, while owing to the compatibility of the physical properties of paper and wood a good and durable adhesion of the layer onto a wallfacing strip is obtained which does not deteriorate due to possible working of the wood.

In yet another embodiment the film layer is provided on its side remote from the strip with a coating layer, for instance a coating layer in a desired colour or a coating layer suitable for painting together with a ceiling.

The film layer can be arranged on the wallfacing strip by glueing.

In an advantageous embodiment the film layer to be arranged is provided on its side facing toward the strip with an adhesive layer, which adhesive layer preferably comprises an adhesive on the basis of an acryl.

An adhesive layer with an acryl-based adhesive offers the advantage that it brings about an optimal adhesion result when a pressure is applied to the adhesive layer. It is possible herewith to arrange on a wallfacing strip a film layer which is already provided with an adhesive layer, so that a separate glueing and drying operation is not necessary, while exertion of pressure to

improve the adhesion likewise improves the quality of the surface of the film layer.

The invention further relates to a method for manufacturing an above described mounting element, comprising the steps of:

- (1) providing a strip of substantially rectangular cross-section,
- (2) providing a film layer wound on a roll and provided on one side with an adhesive layer, which film layer has a width sufficient to cover the side of the strip intended as underside,
- (3) providing a pressing device which is provided with first pressing rollers for applying a pressure in transverse direction on the side of a strip as provided in step (1) serving as underside and to be guided along these pressing rollers in longitudinal direction,
- (4) guiding the strip and the film layer through the pressing device in a manner such that the side serving as underside of the strip is covered by the film layer extending in longitudinal direction, and
- (5) applying a pressure in transverse direction with the first pressing rollers on the side of the strip covered with the film layer in step (4).

The method according to the invention enables manufacture of the relevant wallfacing strip in very large quantities in inexpensive and reliable manner.

An embodiment of this method for manufacturing a mounting element of which the film layer covers in longitudinal direction edge zones of the sides extending transversely of the side serving as underside is characterized in that

the film layer to be provided in the second step (2) has a width which is sufficient to cover edge zones of the sides of the strip connecting to the side intended as underside,  
the pressing device to be provided in the third step (3) is provided with guides for bending portions of the film layer protruding on either side of the side serving as underside over the edge zones of the sides extending transversely of this underside, and with second pressing rollers for applying a pressure in transverse direction on the sides connecting onto the underside of a strip as provided in step (1) to be guided in longitudinal direction along these second pressing rollers, and the method further comprises the steps of

- (6) bending with the aid of the guides portions of the film layer protruding on either side of the side serving as underside over the edge zones of the sides extending transversely of this underside, and
- (7) applying a pressure in transverse direction using the second pressing rollers on the edge zones of the sides connecting to the underside covered in

step (6) by the portions of the film layer.

The invention will be elucidated hereinbelow on the basis of an embodiment with reference to the drawings.  
In the drawings:

Fig. 1 shows in perspective view an example of part of a wallfacing strip according to the invention,  
Fig. 2 shows in cross-section a detail of a wall on which a system ceiling is mounted using a wallfacing strip as according to fig. 1,  
Fig. 3 shows in top view a highly simplified representation of a pressing device for arranging a film layer on a wallfacing strip, and  
Fig. 4-7 show respective cross-sections through the device of fig. 3.

Fig. 1 shows a rectangular wallfacing strip 1 which is provided on its bottom narrow side with a film layer 2, edges 3 of which are folded on both sides over the two wide sides of wallfacing strip 1.

Fig. 2 shows wallfacing strip 1 of fig. 1 in a situation after mounting on a wall 4 using a wired nail 5. On the side of wallfacing strip 1 remote from wall 4 an L-profile 7 of a ceiling frame is fixed using a staple 6, in which profile rests a ceiling tile 8. In the shown arrangement the edge zones 3 of film layer 2 on wallfacing strip 1 are clamped between wallfacing strip 2 and respectively wall 4 and L-profile 7.

Fig. 3 shows in top view a pressing device 9 for through-feed of a wallfacing strip in longitudinal direction as according to arrow 10, wherein against a narrow side of the wallfacing strip must be arranged a film layer which is wider than this narrow side. The device 9 successively comprises horizontally placed first pressing rollers 11, guides (rollers or slides) 12 and 13 placed at an angle and vertically placed second pressing rollers 14.

Fig. 4 shows a cross-section through device 9 of fig. 3 along the line IV-IV, wherein a wallfacing strip 1 and a partially arranged film layer 2 with protruding edges 3 has been drawn in by way of elucidation. Film layer 2, 3 is provided on the side facing the wallfacing strip 1 with an adhesive layer containing an acryl-based glue which is activated under pressure. Wallfacing strip 1 and the film layer 2 arranged against the lower narrow side are guided through pressing rollers 11, wherein said lower side and the film layer are firmly connected.

Fig. 5 and 6 show in cross-sections along the respective lines V-V and VI-VI in fig. 3 the pairs of guide rollers 12 and 13 lying at an angle which fold the side edges 3 of film layer 2 toward the side surfaces of wallfacing strip 1, wherein the wallfacing strip is supported by transport rollers 15, 16 respectively.

Fig. 7 shows in a cross-section along the line VII-VII of fig. 3 the vertically placed pressing rollers 14, between which the edges 3 of film layer 2 are pressed onto the side surfaces of wallfacing strip 1.

It is noted that while reference is made in the above discussed embodiment to a wallfacing strip of rectangular cross-section with narrow and wide sides, the invention is in no way limited thereto and also extends for instance to a wallfacing strip of square cross-section.

## Claims

1. Mounting element for mounting a frame for a system ceiling on a wall, comprising a strip which is substantially rectangular in cross-section for arranging horizontally against a wall in a manner such that a surface is provided by the side remote from the wall for mounting thereagainst of the frame, wherein an underside of the strip extending between the wall and the frame remains visible, **characterized in that** the surface of the side serving as underside of the strip is provided with a film layer extending in longitudinal direction. 5
2. Mounting element as claimed in claim 1, **characterized in that** the film layer covers in longitudinal direction edge zones of the sides extending transversely of the side serving as underside. 10
3. Mounting element as claimed in claim 1 or 2, **characterized in that** the film layer is manufactured from plastic. 15
4. Mounting element as claimed in claim 1 or 2, **characterized in that** the film layer is manufactured from paper. 20
5. Mounting element as claimed in any of the foregoing claims, **characterized in that** the film layer is provided with a coating layer on its side remote from the strip. 25
6. Mounting element as claimed in any of the foregoing claims, **characterized in that** the film layer is provided with an adhesive layer on its side facing toward the strip. 30
7. Mounting element as claimed in claim 6, **characterized in that** the adhesive layer comprises an adhesive on the basis of an acryl. 35
8. Method for manufacturing a mounting element as claimed in claim 1, comprising the steps of: 40
  - (1) providing a strip of substantially rectangular cross-section,
  - (2) providing a film layer wound onto a roll and provided on one side with an adhesive layer, which film layer has a width sufficient to cover the side of the strip intended as underside,
  - (3) providing a pressing device which is provided

ed with first pressing rollers for applying a pressure in transverse direction on the side of a strip as provided in step (1) serving as underside and to be guided along these pressing rollers in longitudinal direction,

(4) guiding the strip and the film layer through the pressing device in a manner such that the side serving as underside of the strip is covered by the film layer extending in longitudinal direction, and

(5) applying a pressure in transverse direction with the first pressing rollers on the side of the strip covered with the film layer in step (4).

9. Method as claimed in claim 8 for manufacturing a mounting element as claimed in any of the claims 2-7, **characterized in that**

the film layer to be provided in the second step (2) has a width which is sufficient to cover edge zones of the sides of the strip connecting onto the side intended as underside,

the pressing device to be provided in the third step (3) is provided with guides for bending portions of the film layer protruding on either side of the side serving as underside over the edge zones of the sides extending transversely of this underside, and with second pressing rollers for applying a pressure in transverse direction on the sides connecting onto the underside of a strip provided in step (1) to be guided in longitudinal direction along these second pressing rollers, and the method further comprises the steps of

(6) bending with the aid of the guides portions of the film layer protruding on either side of the side serving as underside over the edge zones of the sides extending transversely of this underside, and

(7) applying a pressure in transverse direction using the second pressing rollers on the edge zones of the sides connecting onto the underside covered in step (6) by the portions of the film layer.

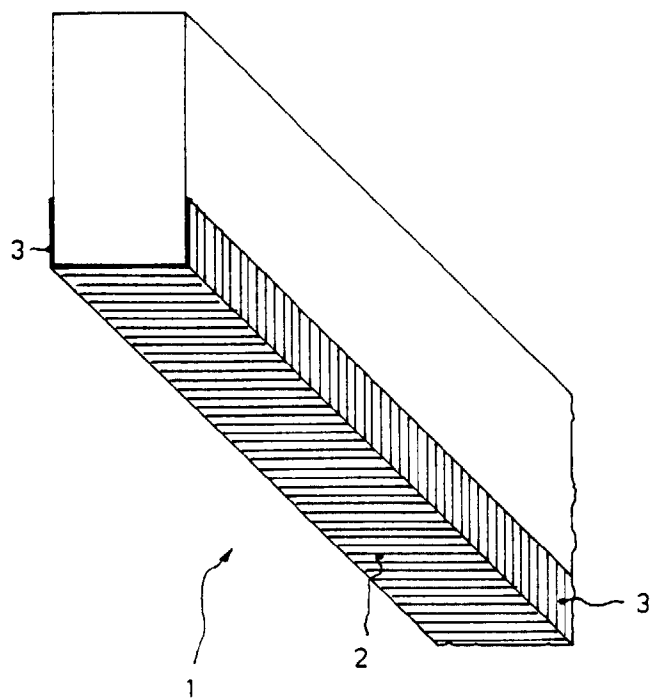


Fig. 1

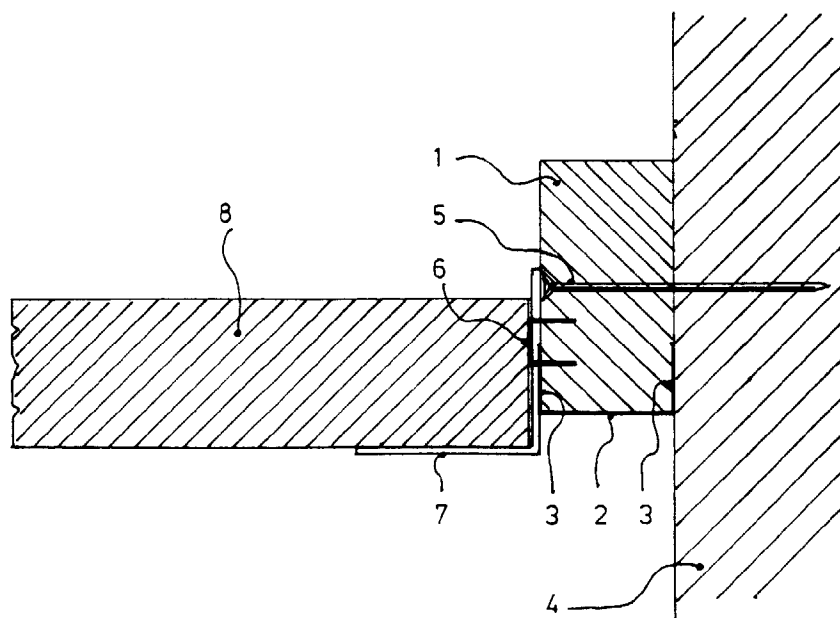


Fig. 2

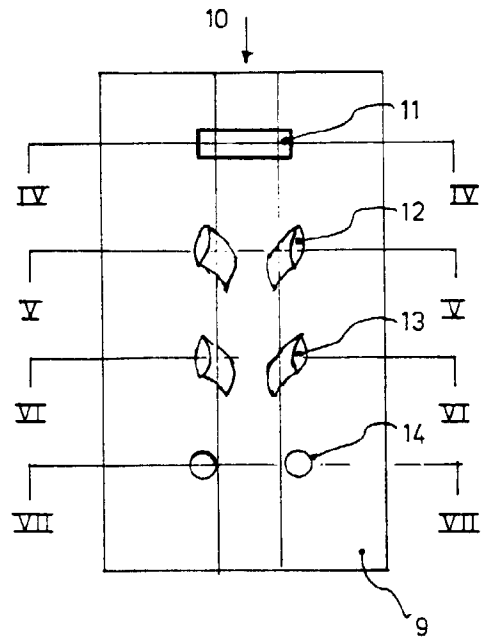


Fig. 3

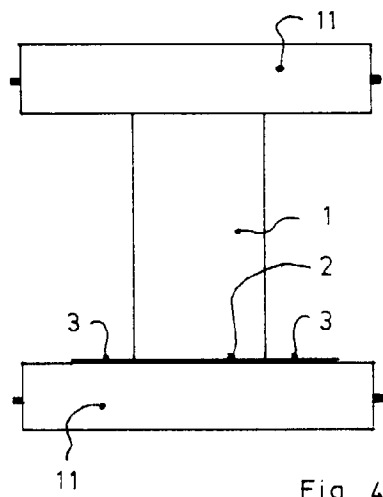


Fig. 4

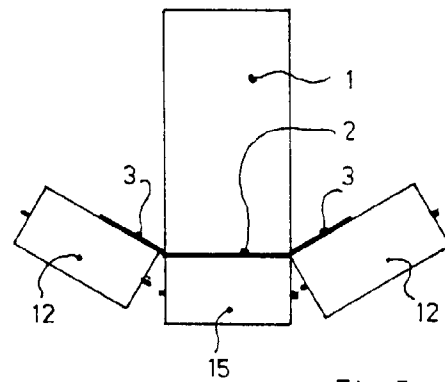


Fig. 5

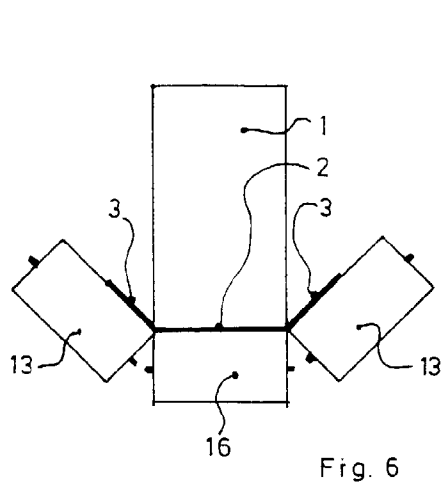


Fig. 6

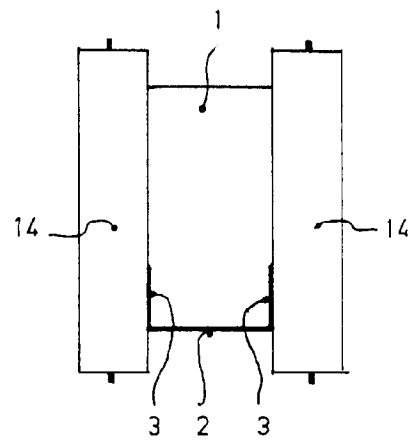


Fig. 7



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# EUROPEAN SEARCH REPORT

Application Number  
EP 98 20 1061

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Y	DE 296 00 531 U (ODENWALD FASERPLATTENWERK) 14 March 1996	1-3,8	E04B9/30
A	* page 4, paragraph 2; figure 1 *	4-7,9	
Y	GB 1 096 166 A (JUTLANDIA AK) 20 December 1967	1-3	
	* page 1, line 35 - line 45; figures *		
Y	WO 96 12857 A (PERSTORP FLOORING AB) 2 May 1996	8	
	* the whole document *		
A		1-7,9	
A	US 3 331 172 A (BLANCHET) 18 July 1967	4-7	
	* column 3, line 40 - line 46; figures *		
A	US 3 159 251 A (BECKER) 1 December 1964	1	
	* column 2, line 44 - line 66; figures 4,5 *		
A	DE 92 07 955 U (REBHAN) 10 September 1992	1	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
	* page 8, paragraph 2; figures 1,2 *		E04B
A	GB 2 087 451 A (HT CEILINGS) 26 May 1982	1	E04F
	* column 4, line 10 - line 25; figures 3,4 *		
A	DE 19 36 958 A (REICHHART) 4 February 1971	8	
	* figures *		
A	FR 1 411 614 A (SHOCK & CO.) 17 December 1965	8	
	* figures 6-8 *		
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		14 July 1998	Righetti, R
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p> <p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>			

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