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## EUROPEAN PATENT APPLICATION

(21) Application number : **92301772.7**

(51) Int. Cl.<sup>5</sup> : **F24F 13/08**

(22) Date of filing : **02.03.92**

(30) Priority : **01.03.91 AU 4893/91**

(43) Date of publication of application :  
**02.09.92 Bulletin 92/36**

(84) Designated Contracting States :  
**AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE**

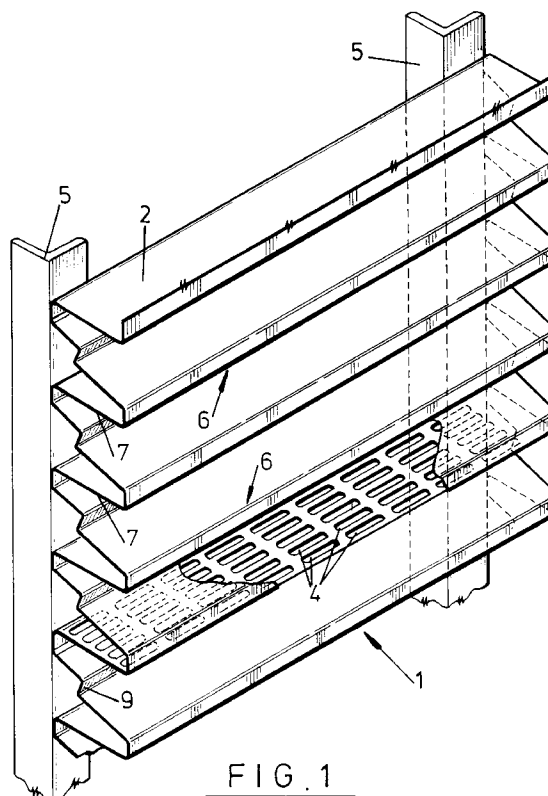
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### (54) **Ventilated Wall.**

(57) Disclosed is a ventilation panel (1) of pressed or rolled sheet metal construction so that lengths may be cut therefrom to form discrete panel modules. The panel (1) comprises a corrugated sheet (2) formed into a number of adjacent louvre fins (6) having louvres (3) which are downwardly sloped for drainage purposes. Extending horizontally from the outer extremity of each louvre (3) to the inner extremity of the next below louvre is a ventilation strip (7) perforated so as to have a number of ventilation apertures (4) therethrough. The ventilation panel (1) is adapted to be attached by way of bolts for example to a pair of vertical uprights (5) located on an interior side of wall panel (1) such that the ventilation apertures (4) are protected from downward ingress of water for example due to the presence of louvres (3) thereabove. Also disclosed is a method of manufacturing the ventilation panel (1) the method comprising forming a series of ventilation apertures (4) through a sheet of pressed or rolled metal, passing the sheet of metal through forming means to provide elongated corrugations therein, the corrugations providing louvres (3) and ventilation regions (7) corresponding to the apertures (4), the apertures interposed between the louvres (3).



The following invention relates to a ventilated wall and more particularly, though not exclusively to a ventilated wall panel formed from a continuous sheet of corrugated material having ventilation apertures consecutively staggered between adjacent louvres of the corrugated material. The invention also relates to a method of manufacturing such a ventilated wall panel.

Known louvred walls which aim at allowing ventilation therethrough while preventing the ingress of rain for example are formed of separate longitudinal metal louvre blades which are mounted on some form of mounting frame, one above the other. Such a method of constructing a louvred wall is inefficient in that vertical uprights must first be provided onto which individual horizontal slats must be separately attached. This process is labour intensive and expensive.

Also known are louvre units such as that disclosed in US Patent No. 3302554. Such a louvre unit comprises a frame surrounding a moulded louvre panel of a discrete size so as to fit within a frame of a specific dimensions. A disadvantage of such a method of constructing a ventilated wall panel is that where panels of different size are required, separate mouldings of appropriate shape and size must be produced. The cost involved in such moulding is high.

It is the object of the invention to overcome or substantially ameliorate the above disadvantages and/or to provide a generally improved ventilated wall.

There is disclosed herein an elongated ventilation panel of rolled or pressed sheet metal construction so that lengths may be cut therefrom to form discrete panel modules, said panel being corrugated to form a series of louvres and ventilation regions interposed between the louvres, the louvres serving as an impediment to ingress of rain for example through the ventilation regions.

There is further disclosed herein a method of manufacturing a ventilation panel so that lengths may be cut therefrom to form discrete panel modules, said method including the steps of:

forming a series of ventilation apertures through a sheet of metal, providing forming means, passing said sheet of metal having said apertures therethrough through the forming means to provide elongated corrugations therein, the corrugations running longitudinally of the sheet and providing louvres and ventilation regions corresponding to said apertures interposed between the louvres, the louvres in the finished product serving as an impediment to ingress of rain for example through the ventilation regions.

Advantageously, such a ventilated panel may be manufactured off-site, cut to size and erected as a single unit which may in turn result in more time efficient construction of a finished wall.

A preferred form of the present invention will now be described by way of example with reference to the

accompanying drawings, wherein:

Figure 1 is a schematic perspective view of a ventilated wall panel, and;

Figure 2 is a more detailed schematic perspective view of the ventilated wall panel of Figure 1.

In the accompanying drawings there is schematically depicted a ventilated wall panel 1. Panel 1 comprises a sheet of corrugated material 2 formed into a plurality of adjacent louvre fins 6 having louvres 3 which are downwardly sloping for drainage purposes. Each louvre 3 may comprise a longitudinal deformation, such as a dog-leg bend as indicated at 9, or alternatively, may be substantially planar.

The wall panel 1 may for example be any form of coated steel or aluminium, either of which may be zinc coated and painted, mill finished and/or anodised. Alternatively, the wall panel 1 may be formed of any suitable plastics material.

Extending essentially horizontally from the outer extremity of each louvre 3 to the inner extremity of the next below louvre is a ventilation strip 7 perforated so as to have a plurality of ventilation apertures 4.

The ventilated wall panel 1 is adapted to be attached by way of bolts for example to a pair of vertical uprights 5. It should be appreciated that vertical uprights 5 are located on an interior side of wall panel 1 such that the ventilation apertures 4 are protected from downward ingress of water for example due to the presence of the louvres 3 thereabove.

The sheet of corrugated material 2 may be formed in continuous lengths, though should extra vertical extension of the ventilated wall panel be required, a lower edge of one panel may be overlapped with an upper edge of a downwardly adjacent panel as depicted at 8 in Figure 2.

The ventilated wall panel 1 is typically roll formed, though pressing is an alternative method of forming individual panel lengths. The method of manufacturing the ventilated wall panel 1, typically comprises punching apertures 4 in desired locations in a flat elongated sheet of metal or other suitable material. Once the apertures 4 are punched in the metal sheet, the sheet may be formed into the corrugated configuration depicted by conventional roll forming techniques.

If the sheet is to be manufactured by pressing, the sheet again would be punched to provide the apertures 4, and then pressed to have the corrugations.

Ventilation apertures 4 being provided in the essentially horizontal strip 7 may be of any suitable shape such as the elongate slots depicted, or circular for example. The holes 4 would preferably be punched in the sheet material before forming to the corrugated configuration.

It should be appreciated that modifications and alterations obvious to those skilled in the art are not to be considered as beyond the scope of the present invention. For example, the wall panel 1 need not be

attached to a vertical support bracket 5 as depicted, though edges of panel 1 may be located within a recess of a suitable U-section for example.

finished product serving as an impediment of ingress of rain for example through the ventilation regions.

## Claims

1. An elongated ventilation panel (1) of rolled or pressed sheet construction so that lengths may be cut therefrom to form discrete panel modules, said panel being corrugated to form a series of louvres (3) and ventilation regions (7) interposed between the louvres, the louvres serving as an impediment to ingress of rain for example through the ventilation region. 15
2. A panel as claimed in claim 1, wherein the louvres (3) are sloped.
3. A panel as claimed in claim 1 or 2, wherein the ventilation regions (7) comprise a ventilation strip having perforations (4) therethrough, which strip extends from the outer extremity of the louvres. 20
4. A panel as claimed in claim 3, wherein the perforations are elongate slots (4). 25
5. A panel as claimed in any one of claims 1 to 4, wherein the louvres (3) comprise a longitudinal deformation (9) therealong. 30
6. A ventilated wall comprising a pair of uprights (5) having attached thereto a ventilation panel (1) as claimed in any one of claim 1 to 5. 35
7. A wall as claimed in claim 6, wherein the uprights (5) are located on an interior side of the panel (1).
8. A ventilated wall comprising a pair of uprights (5) having attached thereto a plurality panels (1) as claimed in any one of claims 1 to 5, wherein a lower edge of one panel is overlapped with an upper edge of a downwardly adjacent panel (8). 40
9. A method of manufacturing a ventilation panel (1) so that lengths may be cut therefrom to form discrete panel modules, said method including the steps of: 45
  - forming a series of ventilation apertures (4) through a sheet of metal, 50
  - providing forming means,
  - passing said sheet of metal having said apertures (4) therethrough through the forming means to provide elongated corrugations (2) therein, the corrugations running longitudinally of the sheet and providing louvres (3) and ventilation regions (7) corresponding to said apertures (4) interposed between the louvres, the louvres in the 55

- 5 10. A method as claimed in claim 10, wherein the step of providing elongated corrugations in said sheet comprises roll forming.
- 10 11. A method as claimed in claim 10, wherein the step of providing elongated corrugations in said sheet comprises pressing the sheet.

