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(54) **Eaves tile**

(57) The eaves tile consists of two assembled bodies (1,18), the body (1) being an element in polyurethane resin or in vibrating-compressed cement mixture, made impermeable using resins and being treated on the surface using water-repellent products, whereas the body (18) is a tile-shaped element.

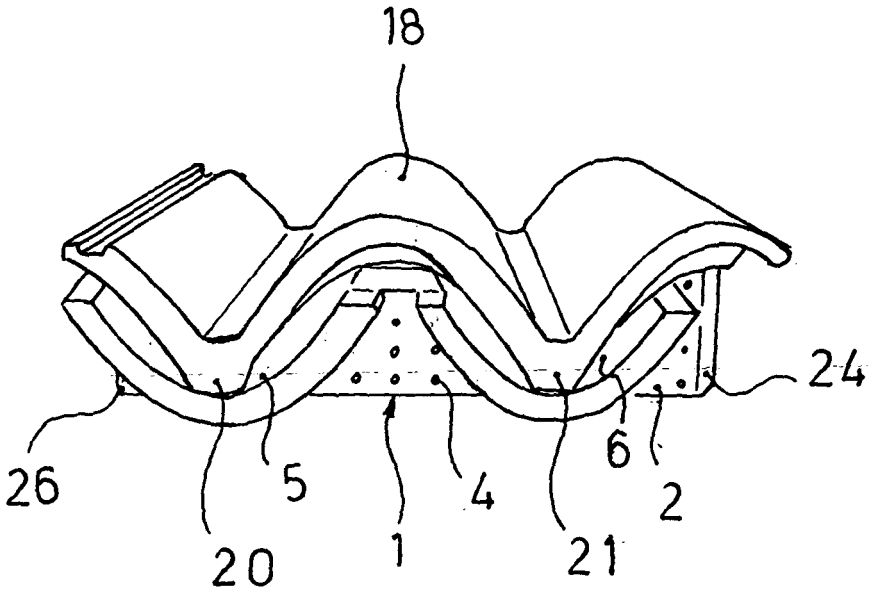

Fig.5

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Description

[0001] It is to be considered that in the downstream part of the roofs with tile covering eaves tiles are used, so known because they are the tiles placed near the eaves. Currently, the eaves tiles are realized placed the tiles with concavities upwards with a distance enough to can place, in complementary way, tiles with concavity downward. This mounting system determines covering that guarantees impermeability and contemporary permits the aeration of the underlying part of the roof. For the position keeping, the tiles with concavity upwards are fixed to the roof with cement mortar and common joists are placed to rise the first line of tiles so to not -have angles between the tiles and have planarity characteristics to the tile covering or small relieves in this first line. Unfortunately, the cement mortar, applied to the tiles in these points, permits the imbibition. Infact, the driving rain or condensation forms are absorbed to the cement mortar favouring infiltration under the covering. Moreover, such as the current eaves tiles must permit the aeration to the underlying part of the roof they are subjected to water infiltrations, coming to the part near the gutter, in the case of driving rain or of winds affecting onto the water layer caused to the rain flowing from the roof to the underlying gutter. The invention refers to a new eaves tile able to permit a high impermeability to the roof and contemporary to determine a good aeration of the part of the roof underlying the tiles. Moreover, the invented eaves tile is able to eliminate the use of the common joist and the cement mortar actually used. Moreover, the invented tile determines a higher mounting speed in comparison with the realizations known in the prior art. The invented eaves tile consists of a body 1 in polyurethane resin or in vibrating-compressed cementer mixture , impermeabilized with resins and treated onto the surface with water-repellent products. Said body 1 has a back vertical wall 2 with upper outline border 3 having the inside profile of the tiles. Onto said back wall 2 are then present holes 4 with diameters of bigger dimensions toward the outside part of the wall 2, considering for the outside part the part placed in front of the eaves. Perpendicularly to the back wall 2 and on the outside part two concave surfaces 5 and 6 are present in material continuity with the back wall 2. Said concave surfaces 5 and 6 have protruding parts 7 and 8 placed in the middle of the corresponding cavities and having blind holes 9, 10, 11 and 12 suitable to contain the teeth 13, 14, 15 and 16 placed onto the lower wall 17 of the tile-shaped body 18. Onto the lower part of the tile 1 is, moreover, present a drop-break groove 19. In composition of the two bodies 1 and18, the protruding part 7 with the blind holes 9 and 10 contains the teeth 13 and 14 whereas the protruding part 8 with the blind holes 11 and 12 contains the teeth 15 and 16. Other teeth 20 and 21, placed under the body 18, come to put in the concavities 5 and 6, over the protruding parts 7 and 8 so bigger limited the translation possibility long the roof plane. In material continuity then are present, under the concave -surfaces 5 and 6, the protruding parts 22 and 23 that form the points of support the eaves tile 1-18 to the roof plane. The back wall 2 has, moreover, an arc vertical profile 24 with border 25 so to be brought near the corresponding vertical border 26 of an adjacent eaves tile 1-18 so closing the possible spaces between the adjacent bodies 1 and recovering in this way the inevitably tolerances to the mounting between the bodies 1. In positioning phase, the invented eaves tile 1-18 provides the blocking to the roof of the body 1 by means of suitable glues placed onto parts 22 and 23 which form the points of support to the roof. Long the same line, and in adjacent manner to the first tile 1, a second tile 1 is laterally placed with the arc profile 24 of the first tile in contact with the border 26 of the following one. In prosecution are so fixed a number of tiles 1 as requested to the length of the roof border. In each body 1 are then placed a corresponding number of tile-shaped bodies 18, being careful to put the teeth 13, 14, 15 and 16 into the corresponding blind holes 9, 10, 11 and 12 and the teeth 20 and 21 into the concave surfaces 5 and 6. In the same manner it is possible gluing directly for all the length of the roof border the eaves tiles 1-18 already assembled, i.e. with the bodies 1 and the tile-shaped 18 already connected with the teeth inserted in the corresponding blind holes and into the cavities. Then it is to be considered that the back wall 2 has holes 4 so it is able to permit the air passing connected to the convective motion and to avoid water infiltrations under the roof. Infact, it comes to form a sole wall without openings under the tiles such as the arc profile 24 in contact with the border 26 of the body 1 placed following permits the rain seal infiltrated for the wind in said positions. Moreover, the flaring of the holes 4, oriented in the way previously described, favours the ventilation of the garret thanks to the Venturi effect that is created in said area. Instead, in presence of perturbations with wind, the heat present in the garret inverts the air flow passing to the holes 4. The air circulation is so able to go out to the holes 4 avoiding to the drops or to the water sprinkles to penetrate over the back wall 2 and the conicalness of the holes 4 is so to make falling down eventual drops or water sprinkles toward the eaves. The invented eaves tile is of immediate and speed mounting for the covering of roof and it has not the necessity of joists or of fixing with cement mortars to have the planarity of the tiles in the covering of for the small rising of the tiles placed near the eaves. Moreover the invented tile avoid the enter of the birds or of other animals under the tile covering. The invented eaves tile is illustrated in a merely indicative way in the drawings of sheets 1, 2, 3 and 4. In sheet 1 figure 1 is frontal view of the support body 1. In sheet 2 figure 2 is top view of the body 1. Figure 3 is under view of the body 1. In sheet 3 the figure 4 is perspective view of the invented tile in the phase of assembling of the body 1 with the body 18 so to form the eaves tile 1, 18. In sheet 4 figure 5 is perspective view of the assembled eaves tile 1, 18.

Claims

1. Eaves tile **characterized** to consists of two assembled bodies (1, 18) where the body (1) is an element in polyurethane resin or in vibrating-compressed cementer mixture, impermeabilized with resins and treated onto the surface with water-repellent products whereas the body (18) is a tile-shaped element.

2. Eaves tile, as per claim, 1, **characterized in** the fact that the body (1) has a back vertical wall (2) with upper outline border (3) having the inside profile of the tiles and with flaring holes (4) with bigger conicity toward the eaves.

3. Eaves tile, as for the previous claims, **characterized in that** to have, in protruding to the vertical wall (2), concave surfaces (5, 6) with inside the concavities protruding parts (7, 8) and to have upper blind holes (9, 10, 11, 12) suitable to contain the teeth (13, 14, 15, 16) placed onto the lower wall (17) of the tile-shaped body (18).

4. Eaves tile, as for the previous claims, **characterized in that** to have a drop-break groove (19) in the lower part of the body (1).

5. Eaves tile, as for the previous claims, **characterized in that** to have teeth (20, 21) placed under the body (18) that are to be inserted into the concave surfaces (5, 6) over the protruding parts (7, 8).

6. Eaves tile, as for the previous claims, **characterized in that** to have under the concave surfaces (5, 6) protruding parts (22, 23) which form the points of support to the roof of the eaves tile (1, 18).

7. Eaves tile, as for the previous claims, **characterized in that** to have on one side an arc vertical profile (24) and on the other side a complementary vertical border (26) so to put adjacent the eaves tile (1, 18).

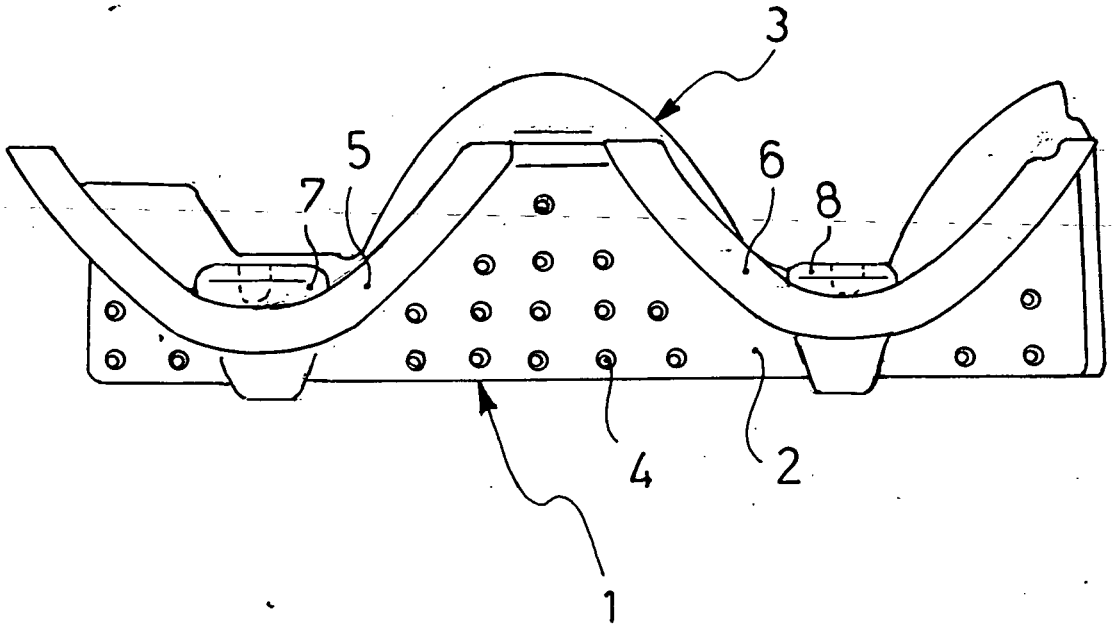

Fig.1

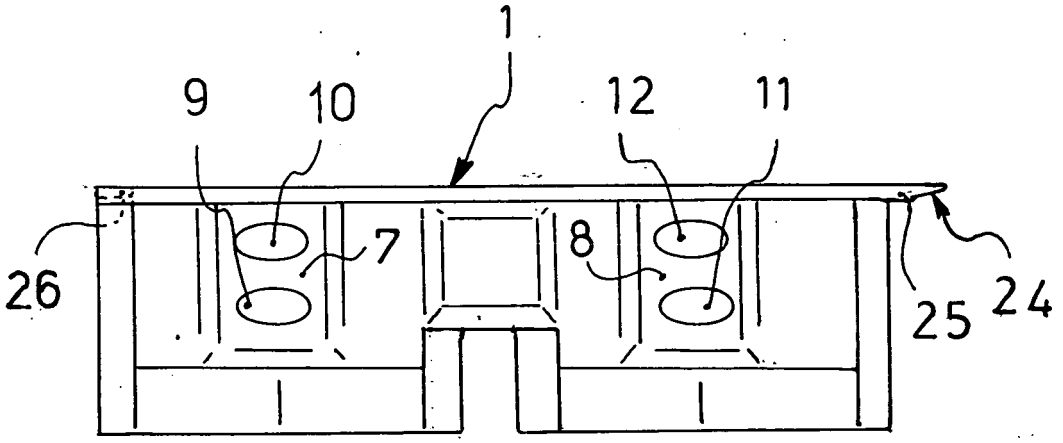

Fig.2

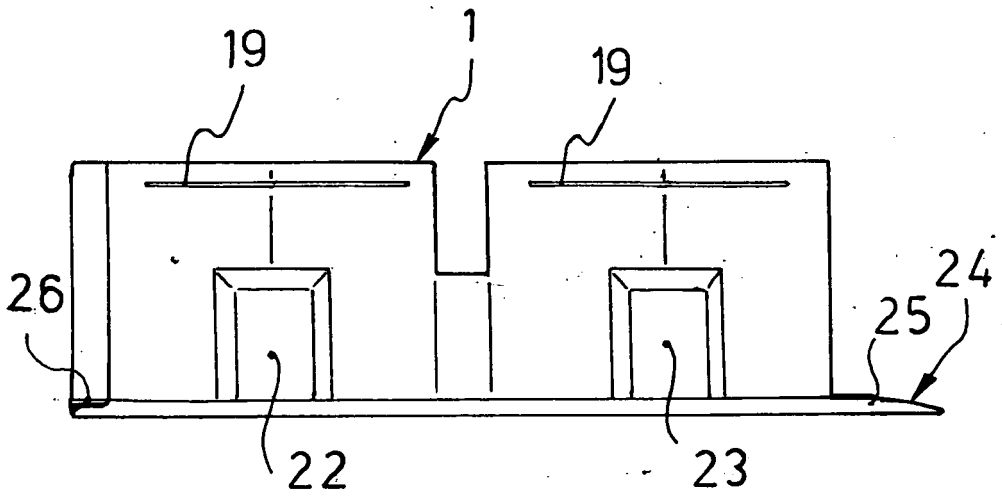

Fig.3

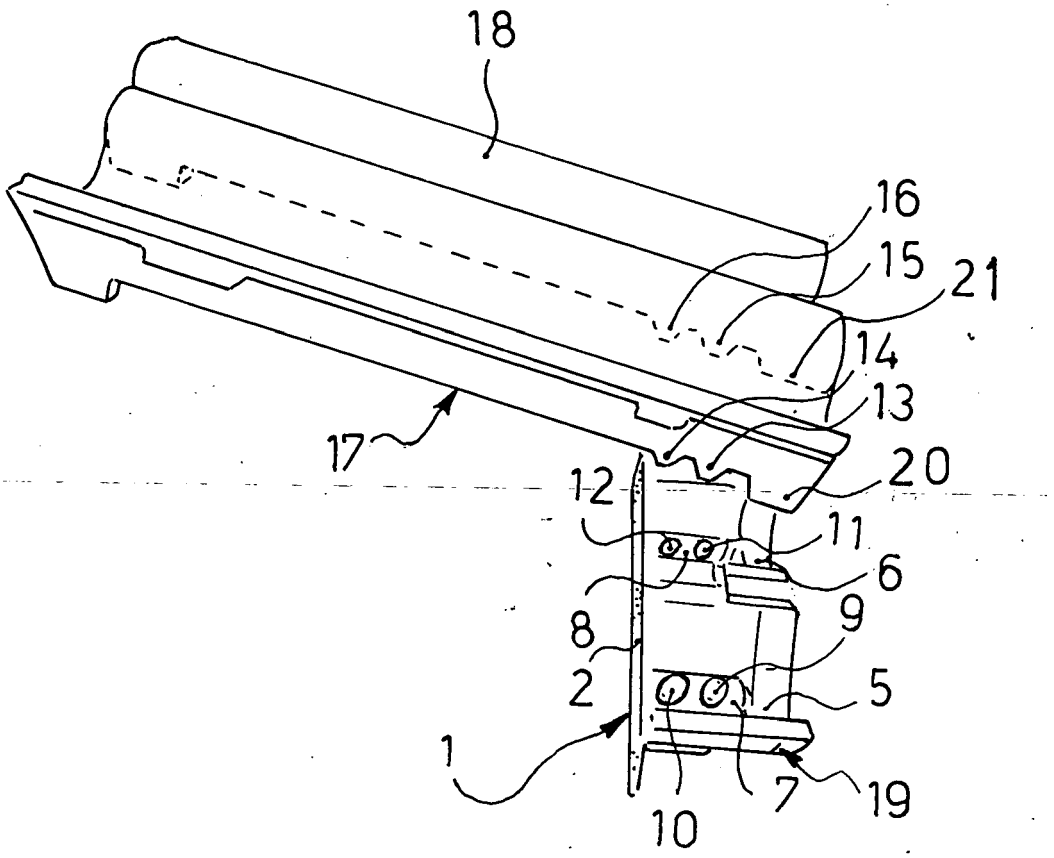

Fig.4

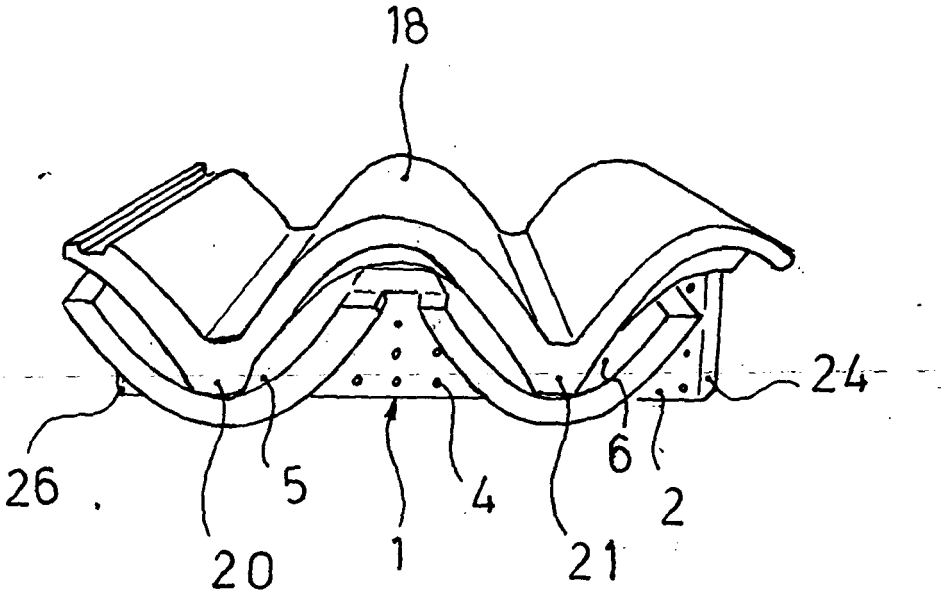

Fig.5

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Application Number
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 March 2006	Vratsanou, V

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EUROPEAN SEARCH REPORT

Application Number
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Place of search	Date of completion of the search	Examiner
Munich	7 March 2006	Vratsanou, V

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