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⑳ Applicant: REDLAND BOUWPRODUKTEN B.V.  
Provincialeweg 155  
NL-3461 AV Linschoten(NL)

㉑ Inventor: Brueren, H.W.F.P.  
Gendershof 23  
NL 4175 AN Haaften(NL)  
Inventor: Iseger, L. A.  
Heulestein 17  
NL-3417 TC Montfoort(NL)

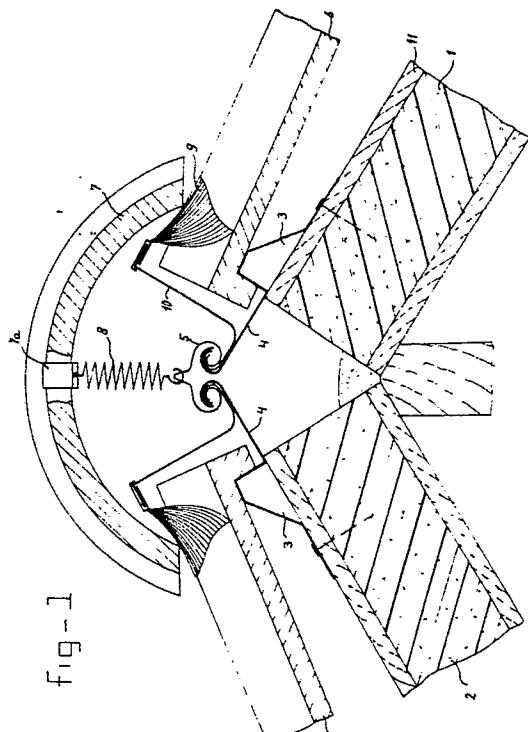
㉒ Representative: Baarslag, Aldert D.  
Nederlandsch Octrooibureau Johan de  
Wittlaan 15 P.O. Box 29720  
NL-2502 LS Den Haag(NL)

㉓ Device to be mounted on the ridge of a pitched roof for securing joining means for holding a roof ridge tile in its place.

㉔ The device comprises two strips (4), to be fixed with nails or screws, which are joined to a part situated in between in a manner such that the angular position of the strips can be altered by pivoting or bending with respect to the part situated in between, the joining means can be secured to the part situated in between.

In order to promote ventilation of the gap between the underside of the roofing tiles (6) and the top face of the roof boards (1, 2) and to prevent leakage as a consequence of an incorrect position of the uppermost tile laths with respect to the vertical plane through the centre of the roof ridge tile (7), the strips (4) are provided with a tiling lath profile (3) or a securing device for securing a wooden tile lath, a flexible sealing strip (9) which can be brought into contact with an uppermost row of roofing tiles (6) being joined by means of one or more securing legs (10) to said device. The part situated in between is a securing bracket (5).

EP 0 306 109 A1



**Device to be mounted on the ridge of a pitched roof for securing joining means for holding a roof ridge tile in its place**

The invention relates to a device to be mounted on the ridge of a pitched roof for securing joining means for holding a roof ridge tile in its place, which device has two strips, to be fixed with nails or screws, which are joined to a part situated in between in a manner such that the angular position of the strips can be altered by pivoting or bending with respect to the part situated in between and that said joining means can be secured to the part situated in between, as disclosed in NL-A-7002685.

Pitched roofs usually comprise two roof faces each provided with roof boards on which horizontal tiling laths are secured at a distance from each other. The ridge of the roof is covered by a ridge tile which is a half round tile which overlaps the upper edge of the uppermost layer of tiles. There are two possibilities for holding the ridge tile in its place: one in which the ridge tile is screwed onto a ridge board and one in which the ridge tile is pulled downwards by tension springs or joining means of this type. The present invention deals with the last mentioned possibility.

It is known that the joining means (tension springs) are secured to a wooden lath between the two roof faces, the openings between the uppermost layer of tiles and the lower edges of the roof ridge tile being sealed with cement to prevent penetration of powder snow and rain. This construction has the following disadvantages:

1) The cement prevents good ventilation of the gap between the underside of the roofing tiles and the top face of the roof boards.

2) With different roof angles problems may arise in finding the correct position of the uppermost tile laths with respect to the vertical plane through the centre of the roof ridge tile. The consequence of an incorrect position of the uppermost tile laths is leakage.

Although the use of cement for sealing the openings between the uppermost layer of tiles and the bottom edges of the roof ridge tile is avoided in the device according to NL-A 7,002,685 by shaping the free ends of the strips by turning them over into concealed troughs and/or by mounting a cap beneath the roof ridge tile. However, this does not solve the problem of finding the correct position of the uppermost tile laths. Sealing while maintaining ventilation therefore leaves something to be desired.

The object of the invention is to avoid said drawbacks and the device mentioned in the introduction is characterized in that the strips are provided with a tiling lath profile or a securing

device for securing a wooden tile lath, in that a flexible sealing strip which can be brought into contact with an uppermost row of roofing tiles is joined by means of one or more securing legs to said device, and in that the part situated in between is a securing bracket.

The construction according to the invention is universally suitable for all roof angles and is self-ventilating. The securing bracket preferably has a pivot joint to the strips.

The flexible sealing strips may be composed of a plastic fleece or gauze on which or in which plastic fingers are mounted. The fingers ensure that the strips fit smoothly and accurately over the upper relief of the roofing tiles.

It is necessary for air to be able to rise into the gap between the bottom face of the tiles and the upper face of the roof boards. In order to be able not to impede the ventilation, the tiling lath profiles are provided with ventilation openings. The flexible sealing strips may also be permeable to air. Finally, the legs for securing the sealing strips are provided with passages. All these measures serve to enable the air which has penetrated the gap mentioned to flow to the outside.

Attention is drawn to the fact that European Patent Application 220,771 reveals a bracket or cap, to be mounted on the ridge of a pitched roof, which is provided with a receiving device for the ridge board for supporting the roof ridge tile and two legs extending from said receiving device for securing to the roof boards. The leg or legs are provided with a securing part for an uppermost tile lath or with a substitute uppermost tile lath. The bracket or cap is suitable for various roof angles because the angle between the legs and the supporting face of the receiving device for the ridge board is adjustable. In this known construction a lower ridge tile is necessary which is a cap which is situated below the ridge tile and which prevents leakage due to the penetration of powder snow or rain. Said cap also prevents, however, the ventilation of the gap between the lower face of the tiles and the upper face of the roof boards.

The invention will now be explained in more detail with reference to the figures.

Figure 1 shows a section through a roof ridge in which a first embodiment of the device according to the invention is used.

Figure 2 shows a section through a roof ridge in which a second embodiment of the device according to the invention is used.

The roof ridge constructions shown comprise two roof faces 1 and 2 which are secured at a

particular roof angle. Each roof face is constructed in the form of roof boards which incorporate a thick layer of insulating material. Secured to the roof boards of each face is a multiplicity of wooden tile laths which are not shown. The uppermost tile lath of each of the faces is, however, not of wood but is constructed as a profile 3 which forms part of a strip 4 which is secured to the roof boards. Each of the two strips 4 is pivotably joined to a securing bracket 5.

The uppermost roof tiles, an edge of which is attached to the uppermost tile lath profiles 3 are indicated by 6.

A roof ridge tile 7 rests on the uppermost row of tiles 6 and is held in its place by tension springs 8 which extend between the ridge tile bracket 7a and the bracket 5. Other joining means, such as wires and cables are also possible instead of tension springs.

Making contact with the tiles 6 is a flexible sealing strip 9 which is composed of a plastic fleece or gauze on which or in which fingers are mounted to ensure that the fleece adjoins the upper relief of the tiles 6. The sealing strips 9 are secured to the legs 10 which, according to Figure 1, are pivotably joined to the bracket 5 and according to Figure 2, are firmly attached to the strips 4.

The sealing strips 9 prevent the penetration of powder snow and rain into the space beneath the roof ridge tile 7. No cement therefore has to be provided between the roof ridge tile and the tiles.

It is of great importance that the gap between the tiles and the roof boards is well ventilated. The air rising into the gap must not therefore be retained at the position of the device 1, 5, 10, 9 described above. Various possibilities exist for achieving this:

If the air flowing between the roof battens 11 of the roof boards 11 beneath the tile lath profile enters the space beneath the bracket 5 and the bracket 5 comprises a multiplicity of separate pieces which are at some distance from each other, there is no problem. The air beneath the brackets 5 flows upwards and can flow outwards via openings between the bottom edge of the ridge tile 7 and the uppermost tiles 6 (which are arched).

If, on the other hand, the bracket 5 is composed of a long piece and the pivot joint between the stripe 4 and the bracket 5 allow no air, or virtually no air, through, openings will have to be provided in the tile lath profiles 3 and/or in those parts of the strips 4 which are situated between the profiles 3 and the pivot joints to the bracket 5. In addition, the flexible strips 9 will in that case have to be permeable to air or the legs 10 will have to be provided with air passage openings. The air rising up into said gap must always be able to flow outward from the space bounded by the side

edges, which face each other, of the roof faces 1 and 2, the roof ridge tile 7 and the uppermost row of tiles 6.

The constructions shown keep powder snow and rain out of the abovementioned bounded space beneath the roof ridge tile, permit a good ventilation of the gap between the upper face of the roof boards and the lower face of the tiles and are suitable for all the common roof angles.

The difference between the embodiment of Figure 1 and that of Figure 2 is that the bracket 5 has a somewhat different form and that the legs 10 are joined in a different manner (see above).

The flexible sealing strips may, for example, be composed of fine mesh gauze which is permeable to air and to which fingers are glued.

Various modifications are possible within the scope of the claims. Instead of the tile lath profiles 3, a flexible strip may be used in which a wooden tile lath can be wrapped (see European Patent Application 220,771 already mentioned). Essential to the invention is the fact that the device for securing a tension spring for holding a roof ridge tile in its place has a securing bracket which has a pivotable or bendable joint to two strips to be fixed by nails or screws to the roof faces, which strips are provided with a roof tile profile or a securing device for securing a wooden tile lath. Furthermore, the securing legs are provided with a flexible sealing strip which can be brought into contact with an uppermost row of roofing tiles. In this system, openings can be produced in a simple manner in order to guarantee good gap ventilation. It is important that the device described replaces the uppermost tile laths, holds the roof ridge tile in its place, forms a watertight and snowtight seal and makes possible ventilation of the gap between tiles and roof boards.

## Claims

1. Device to be mounted on the ridge of a pitched roof for securing joining means for holding a roof ridge tile in its place, which device has two strips, to be fixed with nails or screws, which are joined to a part situated in between in a manner such that the angular position of the strips can be altered by pivoting or bending with respect to the part situated in between and that said joining means can be secured to the part situated in between, characterized in that the strips (4) are provided with a tiling lath profile (3) or a securing device for securing a wooden tile lath, a flexible sealing strip (9) which can be brought into contact with an uppermost row of roofing tiles being joined

by means of one or more securing legs to said device, and in that the part situated in between is a securing bracket (5).

2. Device according to claim 1, characterized in that ventilation openings are provided in the said tiling lath profiles (3).

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3. Device according to claim 1, characterized in that the flexible sealing strips (9) are permeable to air.

4. Device according to claim 2 or 3, characterised in that the legs (10) for securing the sealing strips (9) are provided with passages.

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5. Device according to one of the preceding claims, characterized in that the flexible sealing strips (9) are composed of a plastic fleece or gauze on which or in which plastic fingers are mounted.

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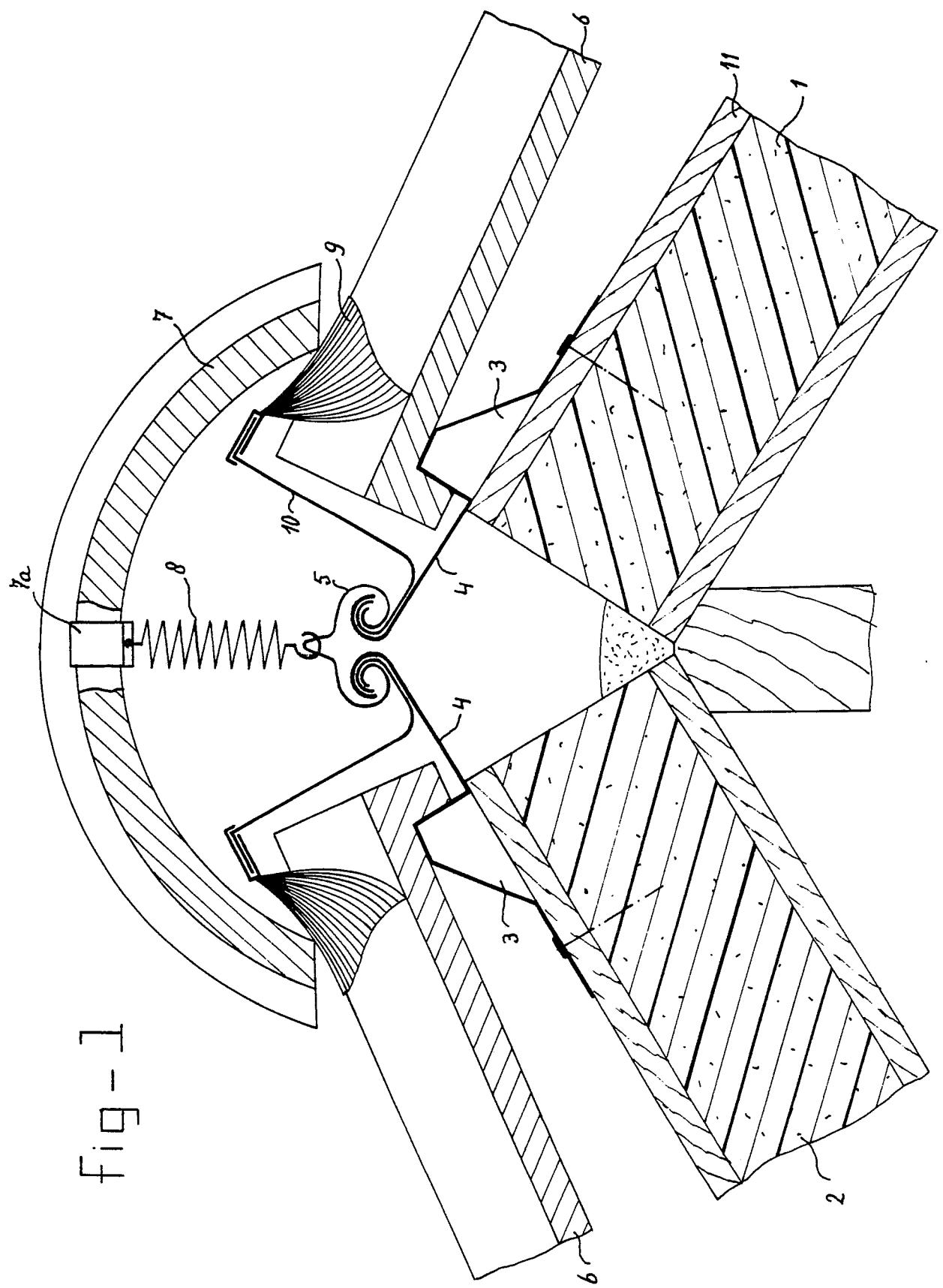
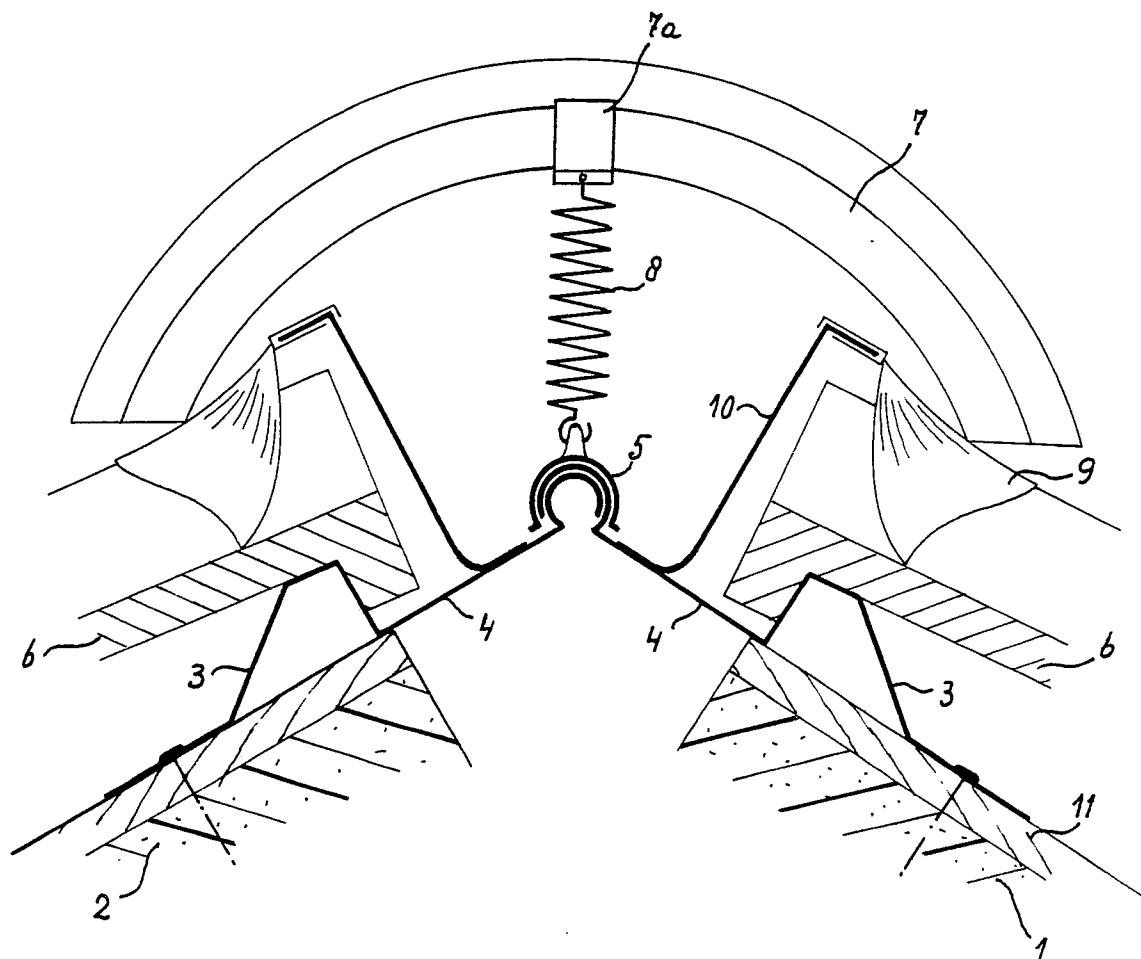


Fig - 1

fig - 2





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)		
A,D	NL-A-7 002 685 (REDLAND BRAAS BREDERO) * Page 3, lines 2-36; page 4, lines 1-26; figures 1,2 * ---	1	E 04 D 1/34 E 04 D 1/36 E 04 D 13/16		
A	BE-A- 662 345 (ETERNIT) * Page 2, last paragraph; page 3, paragraphs 1,2,3,4; figures 1,2 * ---	1			
A	DE-A-2 846 025 (MARLEY) * Page 10, lines 11-13; page 11, lines 4-13; page 13, lines 7-16; figures 1,2,7,8 * ---	2			
A	EP-A-0 117 391 (BRAAS) * Page 6, lines 13-23; page 8, lines 8-19,28-33; page 8, lines 1-7; figures 2,3,5,6 * ---	3,4,5			
A	DE-A-2 707 384 (HERBST) * Page 2; figure * ---	3,5			
A	NL-A-6 712 860 (BRAAS) * Figures 1,2 * -----	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4)		
			E 04 D		
The present search report has been drawn up for all claims					
Place of search	Date of completion of the search	Examiner			
THE HAGUE	23-11-1988	HENDRICKX X.			
CATEGORY OF CITED DOCUMENTS					
X : particularly relevant if taken alone	T : theory or principle underlying the invention				
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