

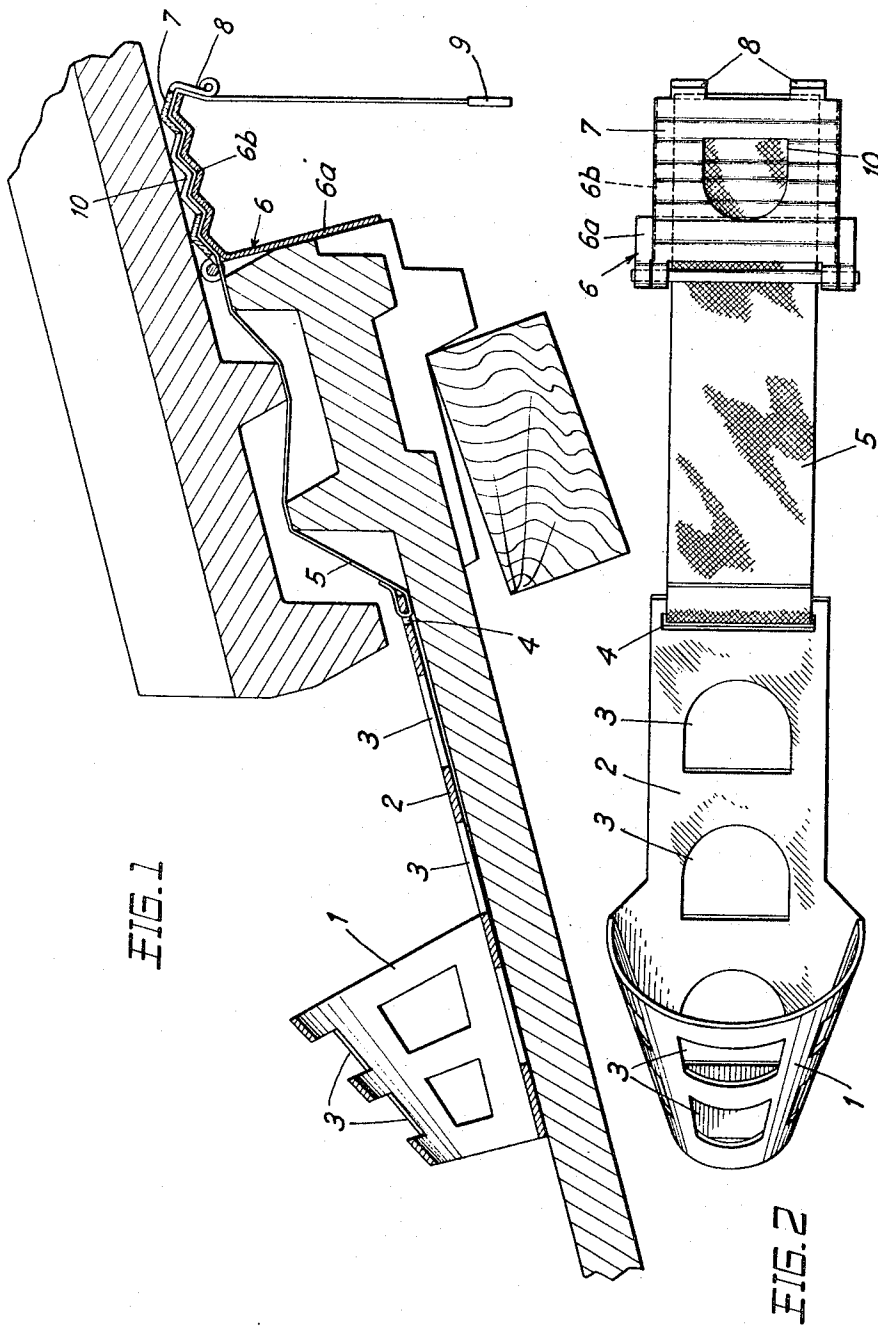
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SNOW RETAINING DEVICE FOR TILED AND PLATED ROOFS

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SNOW RETAINING DEVICE FOR TILED AND PLATED ROOFS

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6 Claims. (Cl. 52-24)

A snow retaining device adapted to be mounted on terminated roofs is already known in the art. This known device consists of a sheet metal strip shaped at its one end to form a snow retaining hump and having its other end adapted to be secured to the roof. This rigid snow collecting device has the disadvantage that, according to the shape of the plates or tiles covering the roof, snow retaining devices of different construction are required.

The prime object of the present invention is to avoid this drawback of known devices, by realizing a snow retaining device for tiled and plated roofs having a snow supporting portion forming an elevation and a portion for holding the device at a roof, in which the snow supporting portion is connected with the holding portion by means of a flexible band.

The flexible band may easily adapt itself to projections of the roof covering material. It furthermore enables using a holder connected with the band by clamping action so that the length of the band between the snow supporting portion and the holder may be varied and thus the same device made adaptable for use with different roof covering materials.

Other features and advantages of the invention will become apparent from the description now to follow, of a preferred embodiment thereof, given by way of example only, in connection with a roof covered with so-called flat ridge or gutter tiles. In this description reference will be made to the accompanying drawings in which:

FIG. 1 is a vertical sectional view showing the roof and the inserted snow retaining device, and

FIG. 2 is a top view of the snow retaining device according to the invention.

Instead of the conventional hump supporting the snow lying on the roof the illustrated snow retaining device comprises a collecting cup 1 having a plane wall portion on its side lying on the roof and a securing plate or lug 2. The cup 1 and the lug 2 may be made of sheet metal or preferably of synthetic material, e.g. of glassfiber-armoured polyvinyl or of any other suitable weather-resistant material. The cup 1 and the lug 2 are provided with cutouts 3. Moreover the lug 2 has at its free end a cut-out 4 through which is passed the fastening loop of a glassfiber band 5. The latter is passed through a clamping holder 6, 7 formed of an angle-shaped part 6 and of a clamping plate 7 articulated along one edge thereof. One leg of the part 6, designated by reference 6a is flat; it serves to support the snow retaining device at the upper side of a tile as shown in FIG. 1, or of a roof-covering plate or a roof batten. The other leg 6b of part 6 as well as the clamping plate 7 are corrugated. Snap springs 8 are arranged at the free end of the clamping plate 7. When the clamping plate 7 is pressed on the leg 6b with the glassfiber band 5 laid in between, the springs 8 snap around the end of leg 6b and tightly hold the portions 6b and 7 in their clamping position. The corrugated shape of the parts 6b and 7 increase the clamping action so that the glassfiber band cannot be drawn out of the space between the plate 7 and leg 6b even under high tractional load due to the snow load supported by the cup 1. Owing to the angle-shaped structure of

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part 6 a traction exerted on band 5 presses the clamping plate 7 against the uppermost tile and consequently results in a stronger clamping action on the band. Reference numeral 10 designates a cut-out in the clamping plate 7, through which it is possible to press down, e.g. with the thumb, the leg 6b in order to open the clamp. The end of the band carries a thickened portion 9 preventing the band from being drawn out completely through the slot between the angle-shaped part 6 and the clamping plate 7 at the articulation of these parts when the clamp is open.

The described snow retaining device is adapted for all kinds of plated roof coverings such as for example slate, corrugated eternite, sheet metal etc. as well as for tiled roofs. Roofs covered with plain tiles require the longest bands 5. The devices are thus manufactured and stocked with this longest required band length. If used for roofs needing a smaller band length the clamping means 6b, 7 is accordingly displaced on the band and secured at the desired point. Correct adjustment of the band length is attained when the upper end of the lug 2 reaches underneath the lower end of the next tile or covering plate. Then the cup is held in its correct position, in which it cannot be tilted, e.g. by wind.

In order to effectively prevent the snow from sliding down from a roof the devices must be arranged in sufficient number and equally distributed all over the whole roof surface.

Many variations of the illustrated and described embodiment are possible without departing from the invention. For example the illustrated cup 1 may be replaced by a conventional angular or otherwise shaped hump. The band 5 may also be made of weather-resistant flexible material different from the one indicated in the preceding description. However the used material must ensure that the band does not lose its strength in the course of several years even under very bad weather conditions. The clamping means 6, 7 may be made of metal or any other lasting material.

I claim:

1. A snow retaining device for tiled and plated roofs comprising snow supporting means having a rigid body portion and a rigid member extending outwardly therefrom forming an elevation, means for holding the device at a roof including clamping means, and a supple band connected to said snow supporting means and to said holding means, said band being clamped by said clamping means to permit displacement of said holding means lengthwise of said band, said snow supporting means being in spaced relation to said holding means whereby the shape of roofing material covering a roof is readily accommodated.

2. A snow retaining device as claimed in claim 1, in which said clamping means is openable so as to permit displacement of said holding means along said band for adjusting purposes when the clamping means is open.

3. A snow retaining device as claimed in claim 2, in which said clamping means comprises an angular-shaped part including a clamping portion and a leg portion extending outwardly from said clamping portion, and a clamping plate articulated to said clamping portion along one edge thereof, said leg portion being adapted to engage the upper side of a roof tile.

4. A snow retaining device as claimed in claim 3, in which the free end of said clamping plate is provided with snap spring means for engaging the end of the clamping portion of the angular-shaped part.

5. A snow retaining device as claimed in claim 1, in which the outwardly extending member of the snow supporting means is formed as a cup and the body portion is

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provided with a lug, the end of the band being secured to said lug.

6. A snow retaining device as claimed in claim 5, in which the said cup and the lug are provided with cut-outs.

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