

[54] **TOP FOR A SKYLIGHT SIDE MEMBER**  
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[58] Field of Search ..... **52/97, 198, 200, 209, 302, 52/628; 49/476**

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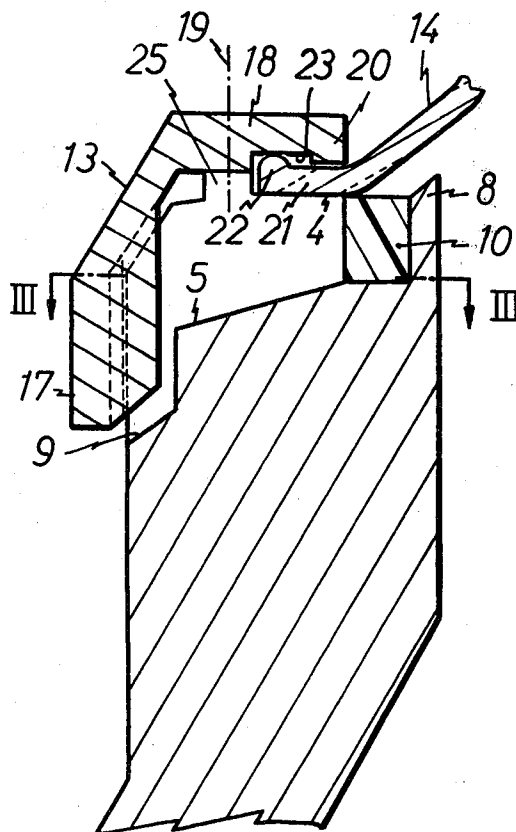
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[57] **ABSTRACT**

A top for a skylight side member comprises, in its effective part, alternate horizontal bearing surfaces and passages, the horizontal bearing surfaces consisting of the upper surface of support shaped so as to project in relation to the hollow passages, the said passages being formed in the spaces provided between the supports.

**3 Claims, 10 Drawing Figures**



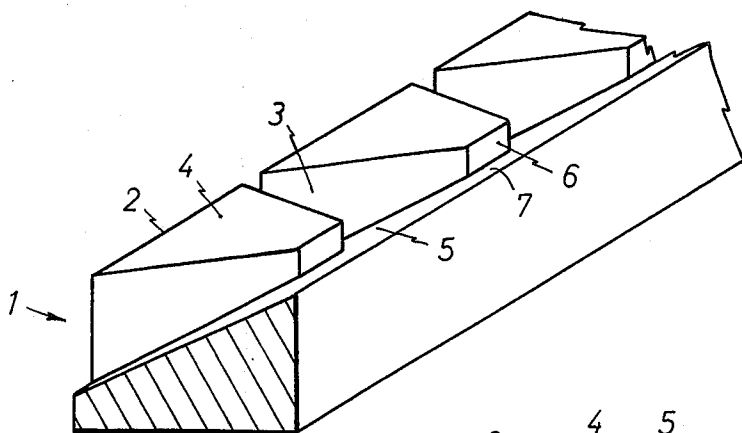


Fig. 1

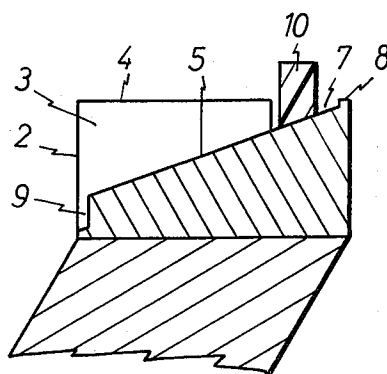


Fig. 2

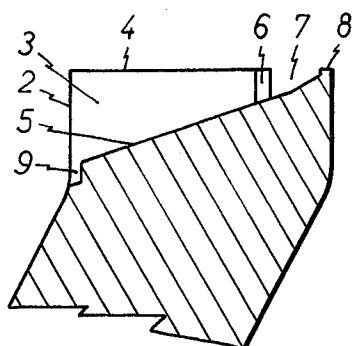


Fig. 3

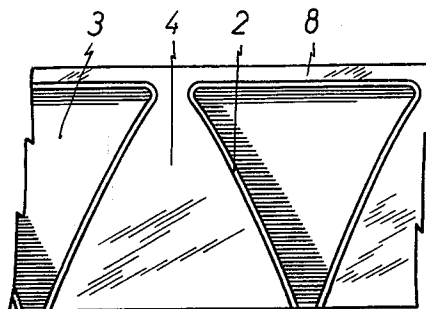
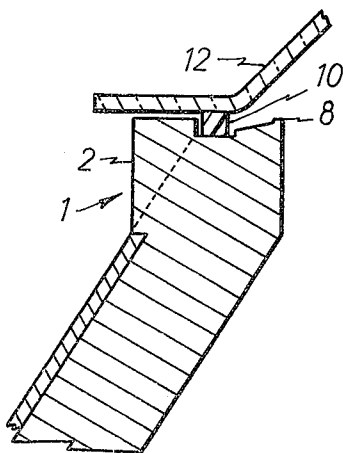
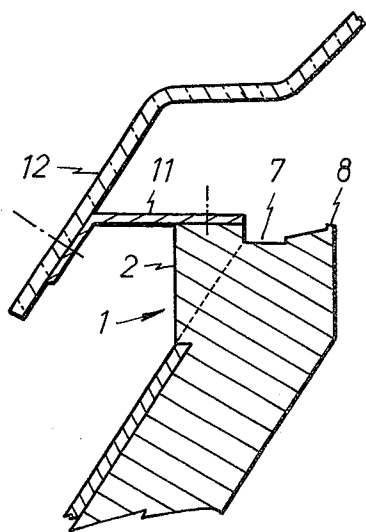
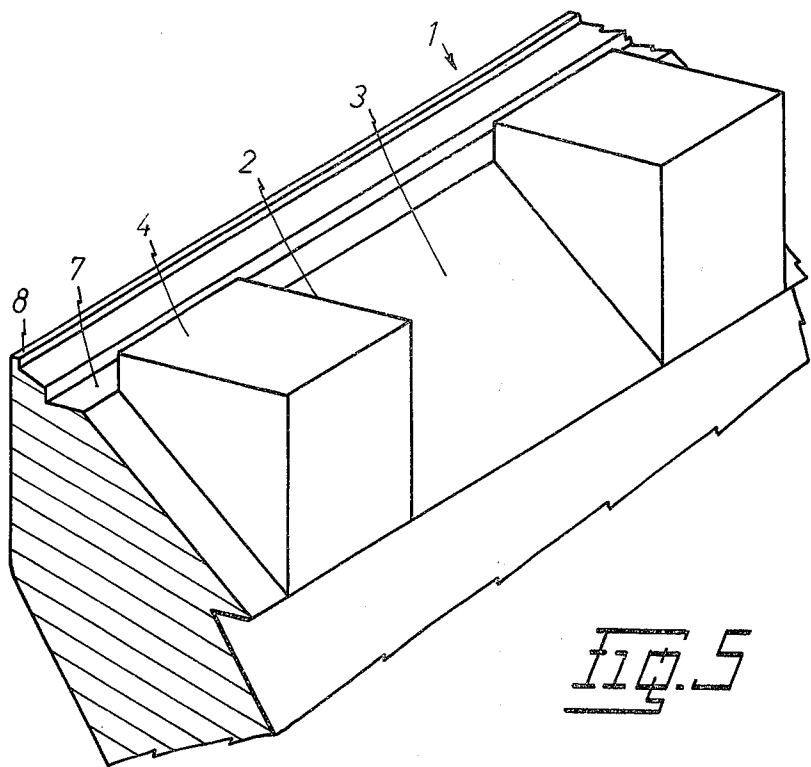


Fig. 4



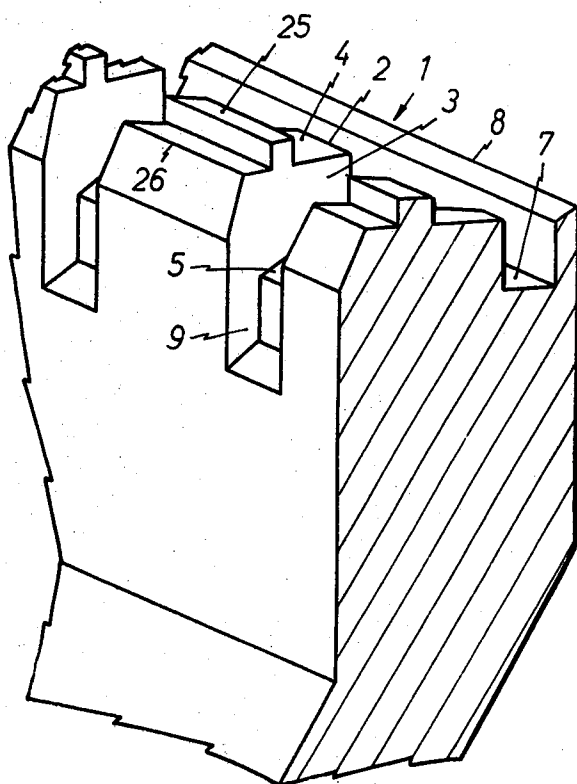


Fig. 8

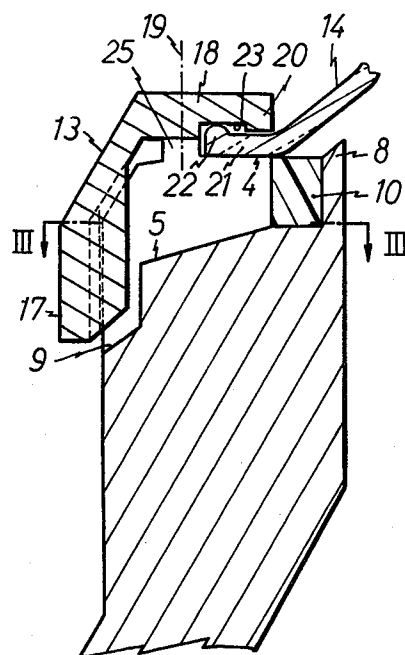


Fig. 9

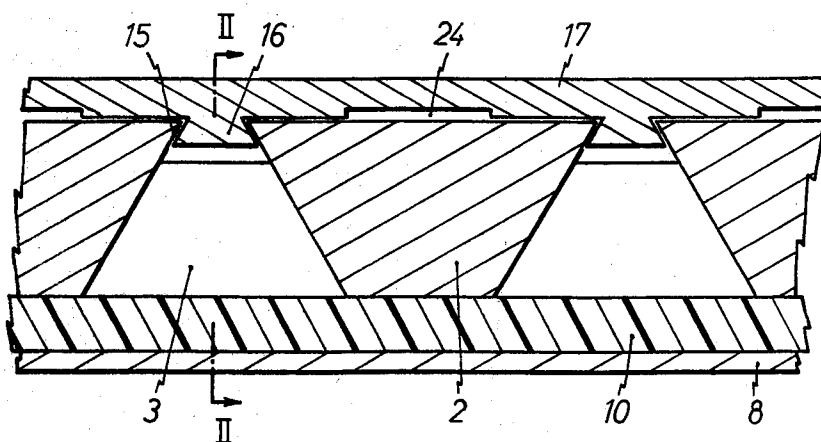


Fig. 10

## TOP FOR A SKYLIGHT SIDE MEMBER

The present invention relates to a top for the side pieces of a skylight, making it possible to use skylights with horizontal edges, while ensuring the entirely satisfactory elimination of condensed water and allowing suitable ventilation of the premises, while being very simple and economical in construction.

Hitherto, in fact, to ensure the satisfactory elimination of the water of condensation, provision has always been made for using skylights with inclined edges, a permeable joint being provided between the skylight and the side frame. However, while such a system is perfectly satisfactory from the point of view of the elimination of the water of condensation, it is complicated and costly to put into effect.

Indeed, the shaping of a skylight with sloping edges has to be carried out in several operations, while a skylight with horizontal edges can be made in a single operation. Likewise, a side frame with sloping upper edge is also more complicated in manufacture than one with a horizontal edge.

The present invention accordingly provides a side frame top which can be constructed either in one piece with the side frame or in the form of an independent part which is made integral with the frame.

Moreover, in many cases a skylight is used as a means for lighting a room and its support as a means of ventilation. The national legislation of certain countries moreover requires the provision of permanent ventilation for certain types of premises.

The top for a side frame, according to the invention, makes it possible to achieve this aim easily and lends itself, according to its design, either to the provision of considerable ventilation, or to the provision of adjustable ventilation, or again to an airtight construction, while ensuring the collection and perfect elimination of water of condensation.

The top for a side member, according to the invention, is mainly characterised in that it has, in its active part, alternately horizontal bearing surfaces and inclined passages from inside to outside, intended for the elimination of water of condensation and capable of use for ventilating the premises, the horizontal bearing surfaces consisting of the upper surface of supports shaped so as to project from the inclined surface, while the passages forming discharge and/or ventilating ducts are formed by the spaces allowed between the supports.

The invention will be better understood from the following description with reference to the accompanying drawings which show by way of examples, some embodiments of the invention.

In the drawings:

FIG. 1 is an elevation of an embodiment of the invention;

FIG. 2 show a sectional elevation of another embodiment of the invention;

FIG. 3 shows a sectional elevation of yet another embodiment in which a top is formed in one piece with a side member;

FIG. 4 is a view from above of still another embodiment;

FIG. 5 is a view in perspective of an embodiment permitting considerable ventilation;

FIG. 6 is a section of a side member having a top according to the invention and on which is mounted a

skylight, so as to allow abundant ventilation of a premises;

FIG. 7 shows in section the frame piece of FIG. 6 on which is mounted a skylight with the interpositioning of a permeable joint, so as to prevent any ventilation while allowing the discharge of water of condensation;

FIG. 8 is a view in elevation and section of a top having a stop catch;

FIG. 9 shows, in elevation and in section, along the line II—II of FIG. 10, the top which is shown in FIG. 1 and fitted with a device for fixing a skylight;

FIG. 10 is a view in elevation and section corresponding to the line III—III of FIG. 9.

With reference to FIG. 1, it will be seen that the top 1 has alternate supports 2 and passages 3, the upper surface 4 of the supports 2 being horizontal and forming a bearing surface for the edge of a skylight, while the bottom of the passage, forming a duct, consists of an inclined surface 5 sloping from the inside to the outside. The inclined surface 5 extends beyond the inner extremity 6 of the supports 2 to form a longitudinal gutter 7.

Referring to FIG. 2, there are shown supports 2 with their upper surface 4 forming a bearing surface for the edge of the skylight, the passages 3 having a bottom 5 sloping from inside to outside and likewise the gutter 7, which in this embodiment ends in a kerb 8 designed to hold back the water of condensation in the event of it being too copious.

Similarly, the passages 3 end outside the top in a deep channel ending on the outer surface.

It must be pointed out that a permeable joint 10 can be placed in the gutter 7 in order to ensure windtightness, while allowing the water of condensation to pass; it is chiefly in this case where this joint is used that it will be as well to provide the kerb 8.

The deep channel 9 is provided in the case where a device for fixing the edge of the skylight blocks the extremity of the passage 3, the channel then allowing the discharge of the water of condensation, owing to the fact that it ends under the lower level of the devices for fixing the skylight.

FIG. 3 represents a top formed as an integral part of the side frame and which, as in the previous embodiments, has supports 2, passages 3 for discharging the water of condensation, and a gutter 7 in the upper part of the inclined surface 5.

It must be pointed out that in the embodiment which is shown in FIG. 3, the inner extremity 6 of the supports 2 consists of walls that are not parallel with the channel, so as to avoid all stagnation, however slight, of the water of condensation in the channel.

Referring to FIG. 4, the supports 2 extend as far as the kerb 8 and join the latter so that the passages 3 forming discharge passages for the water of condensation consist of hollowed cavities sloping from inside to outside in a horizontal surface, the kerb 8 nevertheless having a width such that it does not reach the effective part of the top, i.e. that which comes into contact with the horizontal edge of the skylight, in such a way that, in the effective part of the said top, horizontal bearing surfaces 4 alternate with passages for the discharge of water 3.

As has been said, the tops such as those described above may consist of independent pieces which are assembled to form one part with a side frame, or they can be formed direct in the upper part of the frame.

According to an embodiment of the invention which is used in the case where it is merely desired to effect the discharge of the water of condensation, without providing any ventilation, the passages have a width that decreases from the inside to the outside so as to collect the maximum amount of water of condensation in the gutter 7, while not forming openings that are too large outwardly for the wind to pass through.

Nevertheless, as shown in FIGS. 5 to 7, it is possible to provide passages of uniform width extending from the gutter to the outer face of the top.

Indeed, referring to FIG. 5, there are shown, between the supports 2, passages 3 of uniform width having larger dimensions than those represented in the embodiments of FIGS. 1 to 4.

These passages are used so as to ensure, at the same time as the discharge of the water of condensation, the ventilation of the premises.

In order to ensure still greater ventilation of the premises, recourse may be had, as shown in FIG. 6, to spacing devices 11 located on the supports 2 keeping a skylight 12 at a distance from the top of the side frame.

It will be noted from this FIG. 6 that although the tops of the frame according to the invention are more especially designed to receive skylights with horizontal edges, it is also possible to fix skylights with inclined edges.

Moreover, in the embodiment of FIG. 6, it would easily be possible to fit a device for adjusting the opening, for instance between the spacing devices 11. It is thus possible to ensure adjustable ventilation of the premises.

In each of the embodiments shown above it must be pointed out that the fixing means are arranged on horizontal surfaces of the top of the frame, whilst between these horizontal surfaces passages with sloping bottoms are always provided, sloping from the upper surface of the top to the outer surface.

The advantage is thus obtained at all times, whatever the method of using the top of the side frame, of the reliable elimination of water of condensation flowing from the skylight, of the stream of air being sent in a rising direction so that it cannot enter the premises direct, but mixes with the air of the premises in the space covered by the skylight by moving along the inner wall of the latter which, in addition, lessens condensation, and finally, from the aesthetic point of view, the advantage that no opening is visible from the interior of the premises.

These aims would obviously also be obtained if the inclined surface constituting the bottom of the passages were to take the form of a curved, rather than a plane surface, as shown in the drawing.

Without departing from the scope of the present invention as defined in the appended claims, it is possible to construct the top of a frame in which a series of corrugations is formed, engaging with the upper edge of the inner surface, the top of these corrugations being removed to constitute upper horizontal supporting surfaces.

Similarly, as shown in FIGS. 2 and 7, the said tops can be used in conjunction with a permeable joint 10, which joint is compressed between the horizontal bearing part of the skylight and the said top, for preference in the gutter 7, so as to allow the discharge of the water

of condensation while preventing wind from passing through.

It is possible to carry out the present invention by making use of all the facilities of present-day technology, for instance moulded material, but it is obvious in this case the different joined surfaces cannot be absolutely vertical and must have a certain taper to allow removal from the mould.

According to the embodiment which is shown in FIG. 8 to 10, a top 1 has protruding supports 2, alternating with hollow passages 3. An upper surface 4 of the supports forms a bearing surface for the edge of the skylight and is limited by a longitudinal stop 25 parallel to the external edge 26 of the support.

The said supports 2 do not extend throughout the width of the top and are adjacent to a gutter 7 on the inside of the said top, which gutter is itself adjacent to a kerb 8 designed to hold back the water of condensation and prevent it from flowing inwards, while the said water of condensation may flow outwards through the passages 3 which have an inclined bottom 5 and end, according to the embodiment of FIGS. 8 to 10, in a deep channel 9.

The passages 3 are formed by spaces made between the supports 2 and they have a width increasing from the outside of the top to the inside, while the supports have an increasing width from the inside to the outside.

With reference to FIGS. 9 and 10, a fixing device 13 is seen for a skylight 14 which is specially adapted for use in conjunction with the top as in FIG. 8. Indeed, the outer extremity of the passages 3 can be used as a mortise 15 for receiving tenons 16 on a flange constituting a retaining device 17 of the fixing device 13, so as to ensure the dovetailing of the said device 17 with the top 1.

Moreover, the fixing device 13 also has a flange constituting the fixing device 18 of the skylight, and the said flange 18 receives fixing devices 19 such as, for instance, screws engaging in the longitudinal stop 25, and through its extremity 20 it exerts pressure on the edge 21 of the skylight.

According to a preferred embodiment of the invention the edge of the skylight 21 ends in a projection 22 which is maintained in a cavity 23 of the flange 18 forming the fixing device, the said edge 21 of course resting on the upper surface 4 forming the bearing surface of the supports 2.

According to a preferred embodiment of the invention the flange constituting the retaining device 17 has, between the tenons 16, the channels 24 for the passage of running water.

In the case of the use of a side frame having a top according to the present invention, the longitudinal stop 25 allows the accurate and rapid positioning of the skylight on the frame. It suffices in fact to lay the skylight in the space bounded by the stops distributed throughout the periphery of the side frame.

When use is made in addition of a fixing device 13, as represented in FIGS. 9 and 10, it suffices to insert vertically, in the extremity forming a mortise 15 of the passages 3, the tenons 16 of the flange forming the retaining device, so that the retaining device is held without being able to pivot through the stress exerted on the flange constituting the fixing device.

When the fixing device 13 reaches the end of the stroke in the mortises 15, the extremity 20 of the flange constituting the fixing device bears on the edge 21 of

the skylight and fixing is then carried out, for instance by screws or bolts 19 represented diagrammatically in the drawing.

In this way, the fixing device 13 is held firmly by its two flanges 17 and 18 and is incapable of movement at the top of the skylight.

Moreover, the stop 25 constitutes, in addition to a positioning device, a means of securing the skylight in the case of deformation due, for instance, to a load of snow. Indeed, when the skylight is subjected to vertical action from top to bottom, it tends to become crushed, especially if it is comparatively long, and at that moment the stop 25 takes up the bulk of the deformation stress by holding the skylight correctly in position on the supports 2.

Moreover, in the case of the deformation or warping of the skylight through stresses having horizontal components, for instance by wind action, the skylight tends to become deformed along its large dimensions and gives way to the effect of these stresses; at that moment the projection 22 terminating the edge 21 of the skylight is able to move into the cavity 23 in the flange forming the fixing device, but is retained by the extremity 20 of the said flange, so that in all circumstances the edges of the skylight is correctly maintained.

When it is desired to provide a seal against rain, wind and dust, in the gutter 7 there can be fitted a joint 10 which allows the passage of the water of condensation which then flows through the passages 3 along the bottom 5 and the deep channel 9, which ends under the lower level of the flange forming the retaining device 17 of the fixing device 13.

Nevertheless, the said joint 10 can be done away with when, for instance, the tops are used to cover premises where a lot of dust is produced, as the dust from the premises is then likely to choke the joint 10.

It should be pointed out that even if the joint 10 in the embodiment shown in the drawing is done away with, the seal against rain is maintained. Indeed, the obstacles presented by the bottom of the passages 3, the fixing device 13 and the edge 8 is amply sufficient to prevent all penetration of rain on to the premises.

The fixing devices 13 can either be used locally or else extend throughout the edge and even take the form of a single frame obtained by moulding or injection, the top of the side frame also being obtained by moulding or injection.

When the fixing device is used in the form of a single frame, the running water on the outer surface of the skylight 14 can flow away between the extremity 20 of the flange 18 and the said skylight 14, and it will then flow away along the passages 3. Nevertheless, in the event of the water flow managing to pass the stop 25, ducts 24 are provided to ensure its elimination and prevent it from stagnating between the tenons 16 of the flange 17.

It must be pointed out that owing to the use of moulded plastics or injected plastics for carrying out the top and the fixing device according to a preferred embodiment of the invention, a floating fastening of the skylight is obtained without its being necessary to place the latter on a joint, and when a joint is used it does not act as a support for the skylight, but is held in a space set aside for it, i.e. in the gutter 7.

In the embodiment which is described above, tenon and mortise fixing is carried out at the end of the passages 3. A device for fixing the skylight might neverthe-

less be devised in which the securing of the retaining flange 17 takes place by tenon and mortise, the mortises being made in the sides of the passages 3, and the latter can then be made in the form of passages with parallel, and no longer converging, walls.

The invention has been described and illustrated merely by way of example and in no way restrictively and it is evident that a number of modifications may be made in the method of execution without departing from its scope as defined by the appended claims.

I claim:

1. A mounting top for the outwardly extending horizontal edge portions of a skylight comprising:

a frame having at least one elongated side which has a raised inner edge portion, an intermediate horizontal surface portion below the raised inner edge portion and an outer surface sloping downwardly from the horizontal surface portion,

a plurality of alined upright supports spaced along said outer surface, each having a horizontal upper bearing surface above the level of the intermediate surface for supporting the outer horizontal side member of a skylight,

an upstanding rib member on the upper surface of each upright support parallel to the inner edge of the frame side for abutting the peripheral edge of the horizontal edge portion of the skylight,

the space between the supports forming downwardly sloping passageways and the rear ends of the supports being adjacent the intermediate horizontal portion of the frame side to form therewith a plurality of channels,

and a water permeable sealing member seated on said intermediate portion of the frame side engaging the underside of the horizontal edge portion of the skylight when seated on the upright supports, to form a ventilation block.

2. A mounting top for the outwardly extending horizontal edge portions of a skylight comprising:

a frame having at least one elongated side which has a raised inner edge portion, an intermediate horizontal surface portion below the raised inner edge portion and an outer surface sloping downwardly from the horizontal surface portion,

a plurality of alined upright supports spaced along said outer surface, each having a horizontal upper bearing surface above the level of the intermediate surface for supporting the outer horizontal side member of a skylight,

the adjacent sides of the upright supports converging toward their front ends forming a plurality of mortises,

a hold down member for securing the skylight to the top having a horizontal portion bearing against the horizontally extending edge portion of the skylight and a plurality of tenons thereon fitting within the mortises for locking it to the frame side,

the spaces between the supports forming downwardly sloping passageways and the rear ends of the supports being adjacent the intermediate horizontal portion of the frame side to form therewith a plurality of channels,

and a water permeable sealing member seated on said intermediate portion of the frame side engaging the underside of the horizontal edge portion of the skylight when seated on the upright supports, to form a ventilation block.

3. A mounting top according to claim 2 including an upstanding rib member on the upper surface of each upright support parallel to the inner edge of the frame side for abutting the peripheral edge of the horizontal edge portion of the skylight.

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