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(54) **Top covering for window**

(57) The invention discloses a window top covering, which is used to cover the transitional area of the frame and the top of the sash of the window, seal and water proves the top of an openable window. It comprises a first top covering which is placed on the top part of the frame, and a second top covering which is placed on the top part of the sash, where the first top covering having

a downwardly bending front edge and the bending back edge, where the said back edge is below the said front edge engaging with each other allowing rotation between them. This window top covering has a better sealing performance, wider open angle and a decent appearance. It is in particular suitable for a sloped roofwindow.

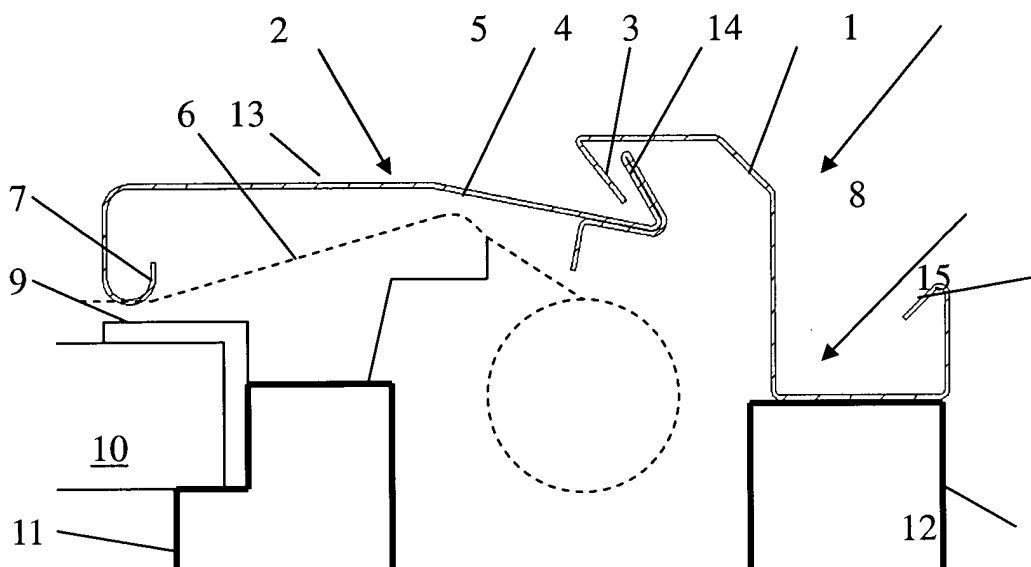


Fig. 1

Description

FIELD OF THE INVENTION

[0001] The invention relates to a top covering for window, which is mounted on top of frame and sash, used to cover the horizontal gap at the section between the frame and the sash, thus prevents rain, snow, dust or other from entering the horizontal gap, ensures a wide open angle of the sash relative to the frame, such as 45°.

BACKGROUND OF THE INVENTION

[0002] For an open able window, in particular a sloped roof window, in order to prevent the leakage, wind or dust in the gap at the top connecting surface between the frame and the sash, other than sealing the gap between the frame and the sash with seal pad or other material, using a window top covering covers the gap to prevent rain from flowing to the position is a more effective and ideal choice.

[0003] A Chinese Patent regarding a window top covering whose serial number is 02254262 discloses a window top covering, comprising a top covering mounted on the frame; a bending part below the top covering, one surface of which is facing outward, away from the frame and towards the opening of the window glass; a sealing pad mounted at the bending part below the top covering to seal the gap between the top covering and the sash glass pressing covering. The top covering is folded two times, and there is a certain distance from the opening at the bending position to its edge, so that the bending part won't block the sash when the sash is opened, thus the open angle is wide. A preferred open angle is usually set to 16°. And the bending part is hard to be seen, the sealing pad seals the gap between the top covering and the glass fixture covering, protects the window from the weather effect.

[0004] However, this type of the window top covering has the following problems, if a wider open angle is required, the edge of the top covering has to keep a certain height from the sash top surface such as the glass surface. While with the increasing of the height, the gap between the top covering and the glass pressing covering becomes wider, thus it needs to increase the width of the sealing strip. In this case, it is difficult to seal with the sealing strip only, because the sealing strip moves relative to the bottom covering when the window opens, thus the sealing strip needs to be soft, but when the window is strong, it is hard for the soft and wide sealing strip to stop the wind, and when it rains the rain will enter the window, then the covering fails. Also, since there is no covering in front of the sealing strip, air, sunshine and higher temperature tend to make the sealing strip aging too soon, which cause it losing flexibility thus fail the seal. And the wider gap between the top covering and the glass pressing covering affects the appearance of the window.

SUMMARY OF THE INVENTION

[0005] The invention is to provide a window top covering for a wide angle or range of opening the window and has a better sealing performance.

[0006] Therefore, the invention provides a top covering for a window, characterized in that it comprises a first top covering which is mounted to the window frame, and a second top covering which is mounted to the sash, wherein the first top covering has a front end portion provided with a downwardly bended front flap, the second top covering has a back end portion provided with an upwardly bended back flap, wherein the front end portion is disposed under the back end portion, with the front and back flaps inserted into the comers defined by each other.

Preferably, the second top covering has a flat base portion and a sloped portion provided with the back end portion and extended and angled from the base portion.

Preferably, the front and back flaps are flat.

Preferably, the front and back flaps are curved.

Preferably, a drainage groove is formed in the first top covering.

Preferably, the sides of the first top covering are closed by side pieces.

Preferably, the second top covering has a front portion provided with a curved front edge bended downwards therefrom.

Preferably, the second top covering having a stepped surface at the front edge in order to press upon the surface of the window sash glass.

Preferably, the side pieces has a groove.

Preferably, the groove has a curved comer.

Preferably, the groove has a right angled comer.

Preferably, a hole is formed in the bottom of the groove. Preferably, the bottom of the groove is formed with a collar surrounding a hole.

Preferably, the first top covering or/and the second top covering is/are made from aluminum or zinc or plastic.

Preferably, the first top covering and/or the second top covering is galvanized or painted.

DETAILED DESCRIPTION OF THE DRAWINGS

[0007]

Fig.1 is a cross section of a preferred window top covering embodiment structure according to the invention;

Fig.2 is a cross section of a window top covering in Fig.1 when being opened;

Fig.3 is a groove shaped side piece attached to the left end of the first top covering.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0008] A window top covering according to the inven-

tion will be hereafter described in detail with reference to the drawings and the preferred embodiment.

[0009] As shown in Fig.1 and 2, a preferred embodiment of the top covering according to the invention comprises a first top covering 1 and a second top covering 2. The first top covering 1 is fixed onto a window frame 12, while the second top covering is mounted on a sash 11 corresponding thereto, or on the fixture of glazing (not shown), as long as it is substantially fixed to the sash.

[0010] The front end portion of the first top covering 1 is provided with a flat flap 4 bended downward. The back end portion of the second top covering 2 is inserted below the front end portion of the first top covering 1. The second top covering 2 is also provided with a flat flap 3 bended upward at the back end portion. The two flaps 3, 4 are inserted into the grooves formed by each other, and they can rotate relative to each other. The second top covering 2 bends down to form a sloped flat portion 5 as it approaches the flap 3, with a sharp angle is defined between the sloped portion 5 and the flat base portion 13. The sloped portion 5 is provided so that the second top covering can be swung to a wider angle of opening the sash relative to the first top covering, and the base portion 13 of the second top covering 2 partially shields the interface of the first and second shields at the flaps 3, 4. This decreases the height of the first shield 1 with the same angle of opening the sash, and hides the flaps 3, 4 from somewhere in front of the window. First of all, this arrangement provides a sort of seal for blocking winds from entering between the flaps. Alternatively, the flaps 3 and 4 may be curved instead of being flat.

[0011] The first top covering is formed with a drainage groove 8 open upward, a side wall of the groove 8 is connected with an angled portion 14 so that the water on the first top covering can be discharged into the drainage groove 8, and the water flow to the flap 4 can be reduced. There is an angled flap 15 bended into the groove 8, by means of which a flashing part (not shown) can easily installed to the window. As shown in Fig. 3, two side pieces 30 close the side ends of the first top covering 1 respectively to prevent wind or rain from entering through the two ends, and present a beautiful top covering appearance.

[0012] A curved front edge 7 is formed with the second top covering bended downwards from the front end. The curved front edge 7 reduces the distance between the second shield 2 and the glazing fixture 9 or glazing 10 for a narrowed gap between the second shield 2 and the fixture 9 and a better seal. Meanwhile, a winding curtain is hung up under the top covering, and has a curtain material 6 goes through the gap between the second top covering and the fixture, with the curved front edge 7 pressing the curtain material 6 downward and pushing the same towards the glass 10 for a desired tension thereof. Thus, the curved edge 7 is a sealing element, and a guide track for the curtain material 6, as the curved shape does not scratch the curtain material 6 and facil-

itates the smooth movement of the curtain.

[0013] Referring to Fig.3, the ends of the first top covering 1 are connected to a U-shaped groove 20, and the drainage groove 8 and two end pieces 30 are embedded and fixed into the U-shaped groove 20. The U-shaped groove 20 is formed with a hole 21, through which a screw fastens the first top covering to the window frame. A collar 22 is placed at the bottom of the U-shaped groove and surrounding the hole 21, so as to prevent the water from flowing down from the U-shaped groove through the hole 21.

[0014] The first top covering and the second top covering are made of an aluminum alloy plate, which is light, stainless and high-strength. The plate may be painted. PVC or zinc or other materials may be used to manufacturing the top covering, alternatively.

[0015] Referring to Fig.2, as the sloped roof window is opened, the second shield 2 will rotate with the sash with the flap 3 moving down to the right of the flap 4 of the first top covering, while the sloped portion 5 moves to the flap 4 of the first top covering 1. When the sloped portion 5 and the flap 4 of the first top covering abut each other, the window is opened to the maximum extent.

Claims

1. A top covering for a window, **characterized in that** it comprises a first top covering which is mounted to the window frame, and a second top covering which is mounted to the sash, wherein the first top covering has a front end portion provided with a downwardly bended front flap, the second top covering has a back end portion provided with an upwardly bended back flap, wherein the front end portion is disposed under the back end portion, with the front and back flaps inserted into the comers defined by each other.
2. A top covering according to claim 1, wherein the second top covering has a flat base portion and a sloped portion provided with the back end portion and extended and angled from the base portion.
3. A top covering according to claim 1 or 2, wherein the front and back flaps can be flat or, wherein the front and back flaps can be curved.
4. A top covering according to any of the preceding claims, wherein a drainage groove is formed in the first top covering.
5. A top covering according to any of the preceding claims, wherein the sides of the first top covering can be closed by side pieces.
6. A top covering according to any of the preceding claims, wherein the sides of the second top cover-

ing can be closed by side pieces.

7. A top covering according to any of the preceding claims, wherein the second top covering can have a front portion provided with a curved front edge bended downwards there from or, wherein the second top covering can have a stepped surface at the front edge in order to press upon the surface of the window sash glass.
8. A top covering according to any of the preceding claims, wherein the side pieces has a groove, wherein the groove can have a curved comer or, wherein the groove can have a right angled comer and/or, wherein a hole can be formed in the bottom of the groove and/or, wherein the bottom of the groove can be formed with a collar surrounding a hole.
9. A top covering according to any of the preceding claims, wherein the first top covering or/and the second top covering can be made from aluminum or zinc or plastic or, wherein the first top covering and/ or the second top covering can be galvanized or painted.

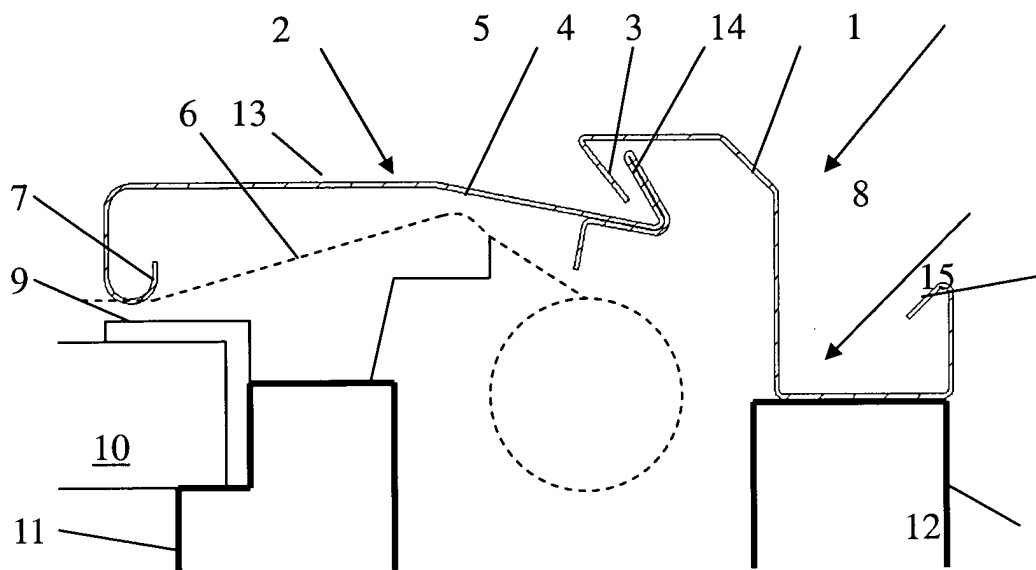


Fig. 1

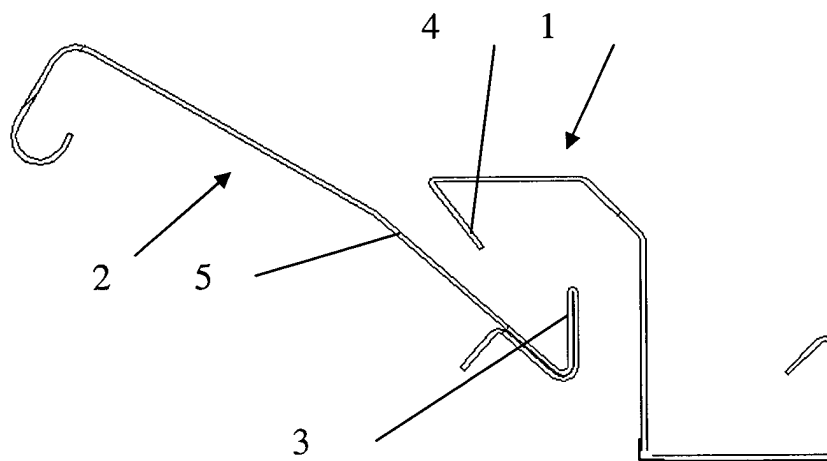


Fig. 2

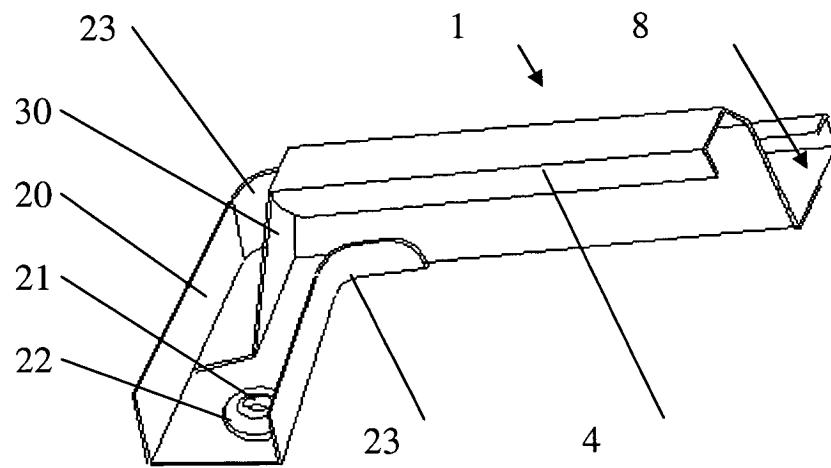


Fig. 3