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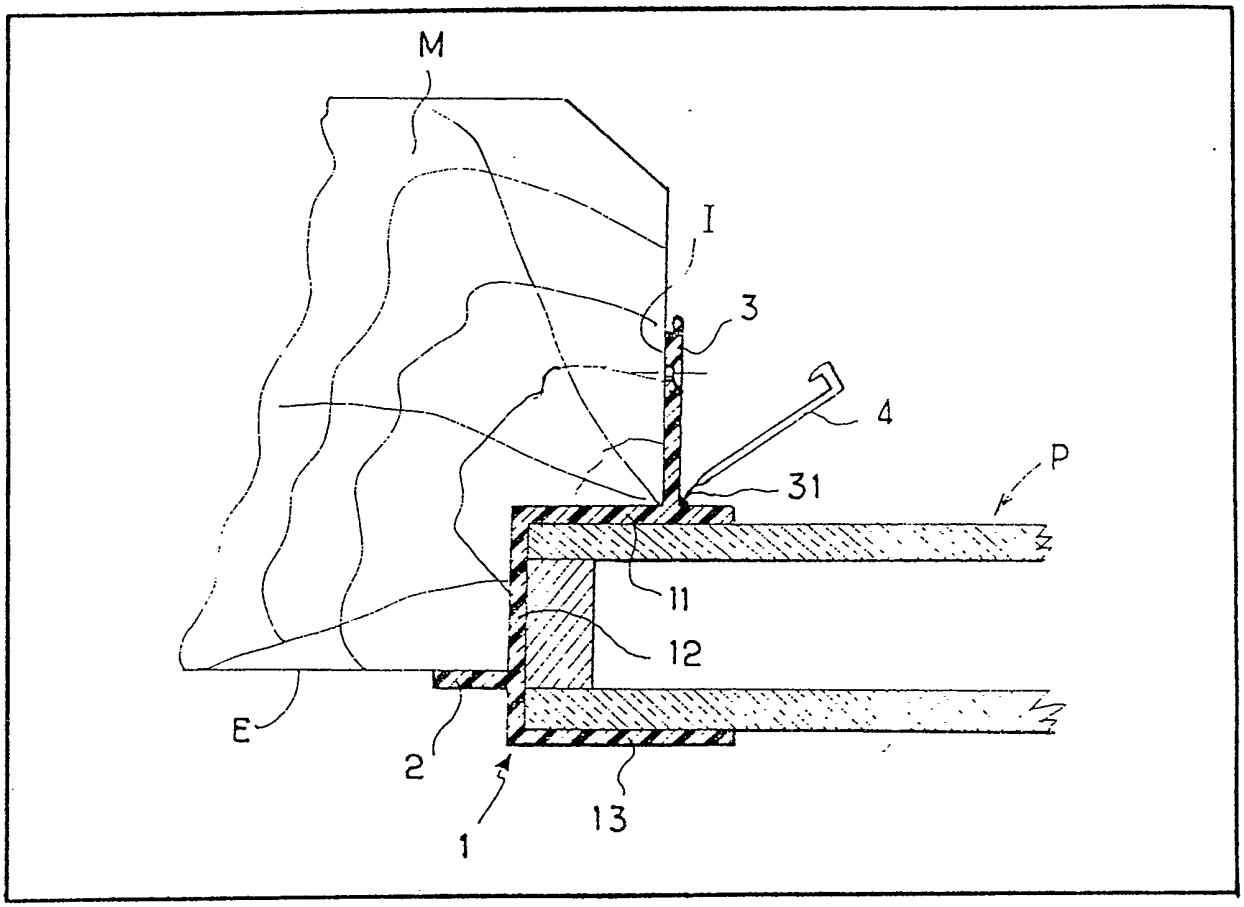
(54) **Auxiliary Frame Member for Double-glazing an Existing Window**

(57) An elongate member of plastics material with a constant cross-section adapted to mount a two-pane insulating panel in an existing window frame, comprises a relatively rigid channel with one wall (11) and a web (12) which may rest against the bottom of the stile fillister, the second wall (13) may protrude beyond the outer surface of the stile and having a relatively rigid flange (2) of plastics material, at right angles to the web (12) which may rest against the outer surface of the stile and a flange (3) of plastics material articulated to the wall (11) and relatively flexible, so as to conform to the contour of the moulding situated on the inner side of the window, the flange (3) being used for fixing the member by means of screws which may be concealed by a screw-cover (4).



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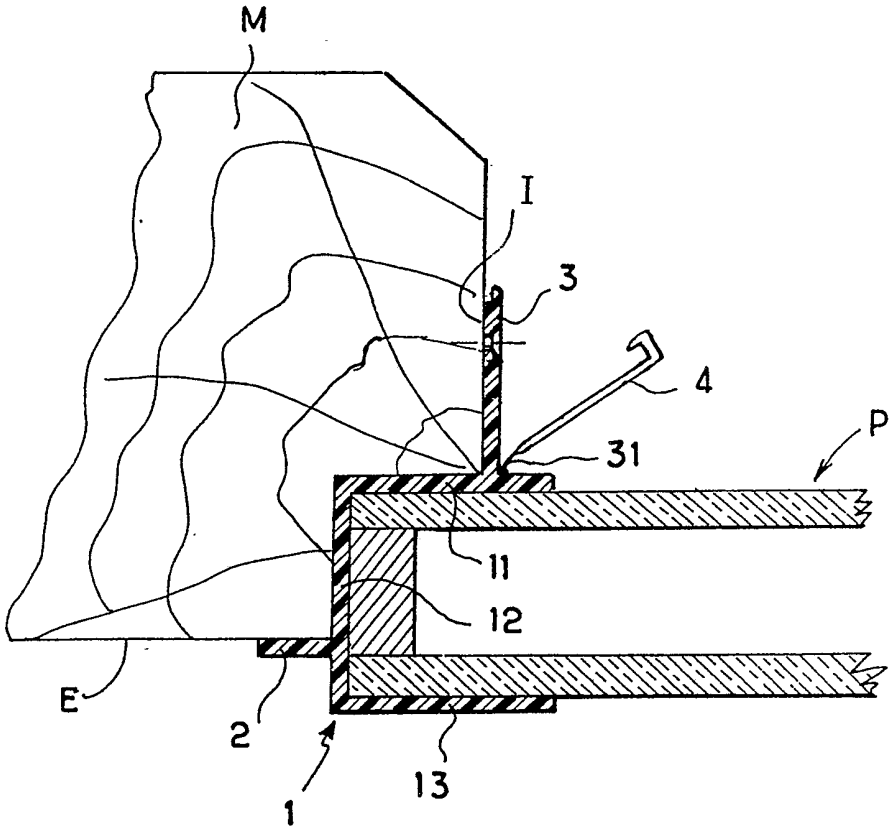
M
I
3
4
P
31
11
12
E
2
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13

SPECIFICATION

A Constant Cross-section Shaped Piece of Plastic Material Adapted to Fix a Renovating Two-pane Panel

The present invention relates to the setting in place of two-pane insulating panels on window frames devoid of fillisters wide enough for receiving such panels. Said windows are therefore, in practice, one-pane windows to be renovated.

As is well known, the two-pane panels comprise two panes with an air-filled space therebetween, connected to each other along the edges thereof by an intermediate metal constant cross-section shaped piece (usually of aluminium) covered along the outer edge thereof by an insulating elastomeric joint.

After having stripped off the putty and removed the former pane, the setting in place of an insulating panel is carried out by securing said panel by means of constant cross-section shaped pieces, and then fixing said shaped pieces to the window frame by means of screws.

Various forms of constant cross-section shaped pieces have been devised, comprising a gutter or groove wider than the window-frame fillister and adapted to receive the insulating panel and a strip for securing said gutter to the frame stile by means of screws. The most usual shaped piece is a Y-shaped one: the gutter, constituted by the upper fork of the Y, rests against a surface of the window stile, and it has the drawback of interrupting the passage of a portion of the daylight, whereas said fixing strip, constituted by the leg of the Y, mounted at the back of the fillister, is covered by putty for making it tight, which is detrimental to a good appearance from the moment the putty is covered with dust.

One object of the present invention is to provide a constant cross-section shaped piece of plastic material of the above-mentioned general type, capable of being readily secured and conforming to stile mouldings of various shapes, while having a fairly good appearance and providing a good protection against bad weather.

The constant cross-section shaped piece according to the present invention comprises a relatively rigid U-shaped gutter or groove of plastic material a first lateral leg and the back of which rest against the back of the window-stile fillister, whereas its second lateral leg protrudes from the outer surface of said stile and is characterized by a relatively rigid blade of plastic material, at right angles to the gutter bottom and starting from that surface of said bottom opposed to said legs, the said blade being so mounted as to rest against the outer surface of said stile, and by a strip of plastic material articulated to said first lateral leg and relatively flexible, in order to conform to the contour of that stile-moulding situated on the window inner side, the said strip being used for securing said shaped piece by means of screws cooperating with a screw-cover.

Various features and advantages of the present invention will appear from the following description, given merely by way of example, with reference to the sole figure.

Said sole figure represents a preferred embodiment of the constant cross-section shaped piece according to the present invention, in cross-section along a plane at right angles to a stile of the window-frame.

It can be seen that said piece comprises a relatively rigid U-shaped gutter or groove of plastic material, a lateral leg 11 and the bottom 12 of which rest against the bottom of a fillister. Said gutter is adapted to receive a two-pane panel P. The other lateral leg 13 of said gutter is shifted with respect to the outer surface E of the window-frame stile M, bottom 12 being wider than the fillister. At right angles to bottom 12 and integral with that surface of the latter opposed to legs 11—13), is provided a blade 2 of plastic material, having the same stiffness as the gutter, said blade being caused to rest against surface E.

A relatively flexible strip 3 of plastic material is articulated at 31 (by means, e.g. of a narrow strip of plastic material still more flexible and acting in the manner of a hinge) to lateral leg 11, portion 31 being situated where leg 11 protrudes from the fillister bottom: accordingly, strip 3 is in a position to conform to the contour of surface I of the stile, said surface being more or less inclined depending on which type of frame is used and being contingently provided with a moulding. Said strip is adapted to receive screws for securing it to said surface, and a screw-cover 4, also of plastic material, is articulated in portion 31 or in the vicinity of the latter and is capable of gripping the outer edge of strip 3.

Between the fillister bottom and the resting portions of the gutter is usually mounted a sealing packing. It is to be noted that, since the path water (or dust) would have to follow for penetrating into the frame inside between the latter frame and the constant cross-section shaped-piece comprises a first corner at the junction of portions 2 and 12, a second corner at the junction of portions 12 and 11 and a third corner at the junction of portions 11 and 3, an excellent protection is obtained.

Since the constant cross-sectioned piece according to the invention is at the bottom of the gutter, it does not substantially interfere with the passage of daylight. The mounting thereof is particularly simple and it has a fairly good appearance.

Quite obviously, various modifications of detail might be made without going beyond the scope of the invention.

Claims

1. A constant cross-section shaped piece of plastic material for securing a two-pane insulating panel to a window frame, comprising a relatively rigid U-shaped gutter or groove of plastic material, a first lateral leg and the back of which rest against the back of the window-stile fillister,

whereas its second lateral leg protrudes from the outer surface of said stile and characterized by a relatively rigid blade of plastic material, at right angles to the gutter bottom and starting from that surface of said bottom opposed to said legs, the said blade being so mounted as to rest against the outer surface of said stile, and by a strip of plastic material articulated to said first lateral leg and relatively flexible, in order to conform to the contour of that stile moulding situated on the window inner side, the said strip being used for securing said shaped piece by means of screws cooperating with a screw-cover.

2. A constant cross-section shaped piece of plastic material, for securing a two-pane insulating panel to a window frame, substantially as described herein with reference to the accompanying drawing.

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