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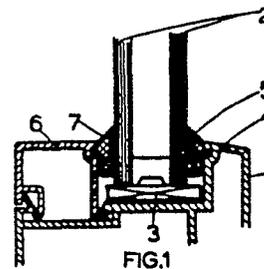
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54 **Fixation section and door, window or frame provided with such section.**

57 The invention relates to a door, window or frame comprising a plastic enclosure in which a pane (2) or a panel can be set, this enclosure being composed of main sections (1) provided with a rabbet (4) against which the pane (2) or panel can be placed, and a fixation section (6) securing the pane (2) or panel against the rabbet (4) optionally with intermediate sealing means (5, 7) being used, which fixation section (6) can be attached to the main section (1) by means of one or more snap interlocks.

The invention is characterized in that the fixation section (6) is connected to the main section (1) on the side away from the pane (2) or panel in that a bent edge of the fixation section (6) is made to cooperate with a bent edge or groove of the main section (1) by hooking-in the fixation section (6) and turning it on an axis parallel to itself, the edges or grooves being so designed that the connection can be disconnected only by turning the fixation section (6) back, with the connection on the side near the plane of the pane (2) or panel being a snap interlock securing the fixation section (6) in the position reached after turning.



DOOR, WINDOW OR FRAME

The invention relates to a door, window or frame comprising a plastic enclosure in which a pane or a panel can be set, this enclosure being composed of main sections provided with a rabbet against which the pane or panel can be placed, and a fixation section
5 securing the pane or panel against the rabbet, optionally with intermediate sealing means being used, which fixation section can be attached to the main section by means of one or more snap interlocks.

This type of door, window or frame is known from the Netherlands Patent Application No. 7009258. The fixation section
10 described therein is attached to the main section by means of two snap interlocks. This construction involves the drawback that the fixation section - also called glazing bead - can easily be removed by unauthorized persons. The pane or panel can then be removed noiselessly.

It is the object of the invention to obviate this drawback, and
15 to provide a door, window or frame so constructed as to make it very difficult, if not impossible, to avoid damage in removing the fixation section with a view to taking the pane or panel out of its enclosure.

According to the invention this is achieved in that the fixation section is connected to the main section on the side away
20 from the pane or panel in that a bent edge of the fixation section is made to cooperate with a bent edge or groove of the main section by hooking-in the fixation section and turning it on an axis parallel to itself, the edges or grooves being so designed that the connection can be disconnected only by turning the fixation section back, and in that
25 the connection on the side near the plane of the pane or panel is a snap interlock securing the fixation section in the position reached after turning. Preferably, the snapping movement of this interlock is towards the plane of the pane or panel, because this ensures better compressions of the sealing means.

30 In a preferred embodiment of the invention the main section has a bent edge and the fixation section has a cooperating bent edge and a straight edge, this bent edge and straight edge gripping around the bent edge of the main section.

The fixation section may also be attached to a door or window frame to serve as stop for the door or window.

The invention also relates to a door or window frame provided with a fixation section serving as stop for the door or window, with the frame being connected to the stop section on the side away from the plane of the door or window in that a bent edge of the stop section is made to cooperate with a bent edge or groove of the frame by hooking-in the stop section and turning it on an axis parallel to itself, the edges and sections being so designed that the connection can be disconnected only by turning the stop section back, and with the connection on the side near the plane of the door or window being a snap interlock securing the stop section in the position reached after turning.

The invention further relates to the fixation section serving as stop or as glazing bead provided with a bent edge which, by hooking-in the fixation section and turning it on an axis parallel to itself, can be made to cooperate with a bent edge or groove of the other section. The bent edge and the fixation section are so designed that the connection can be disconnected only by turning the fixation section back. The fixation section further has an edge which can establish a snap interlock between this section, in the position reached after turning, and an edge of the other section.

The installed fixation section, which may serve as glazing bead or a stop for a door or window, can now removed from the outside only by main force, whereas fastening during installation is very simple. In addition a good tight between pane or panel and fixation section is obtained. A further advantage is that when the pane of panel has got damaged or has broken, the glazing bead can be removed in a simple way after the pane or panel has been taken out, and can be very easily replaced again after a new pane or panel has been installed.

Both the main section and the fixation section are preferably made of a thermoplast. This brings the advantages of, e.g., low maintenance requirement, good thermal and acoustic insulation, good shape retention and dimensional stability, and esthetic attractiveness because of the possibility of keeping the sections slender.

The invention will now be elucidated with reference to a drawing, in which:

Fig. 1 is a sectional view of a preferred design of a window frame with a fixation section installed;

5 Fig. 2 is an enlarged sectional view of this preferred design;

Fig. 3 is a sectional view of an installed fixation section with the members forming the connection on the side away from the plane of the door or window being of bent design;

10 Figs. 4 and 5 show still other possible designs of the connection between frame and fixation section on the side away from the plane of window or door;

Fig. 6 shows a connection of a fixation section to a door frame, with the fixation section serving as door stop.

In the drawing, reference number 1 indicates a window frame or
15 a main section with a pane 2 installed in it. The pane rests on support pads 3. The frame is provided with a rabbet 4 against which the pane 2 rests, with a sealing strip 5 between rabbet and pane. On the other side the pane 2 is secured in place by means of a fixation section 6, which clamps in the pane 2, with a sealing strip 7 between fixation
20 section and pane. As clearly shown by Fig. 2, the fixation section 6 has a bent and a straight edge, 8 and 13, respectively, and the frame section 1 has a bent edge 9. When the fixation section 6 is installed, the bent edge 8 is made to cooperate with the bent edge 9 by hooking-in this fixation section and then turning it on an axis parallel to
25 itself; the other side of fixation section 6, i.e. the side near the window, has a straight lip 10 which snaps behind the lip 11 of the frame section 1. The snap interlock 10,11 secures the fixation section 6 in place, so that it cannot be turned back in the normal way. Thus a burglarproof connection has been established. The other designs shown
30 in Figs. 3 - 5 are self-explanatory.

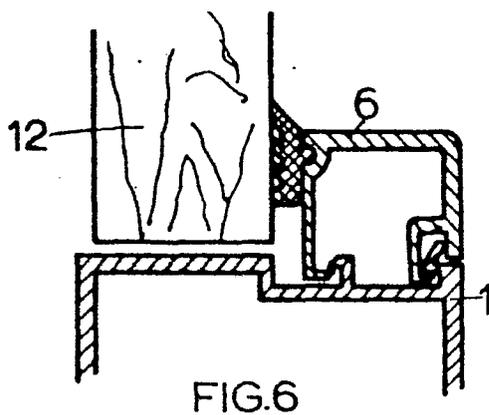
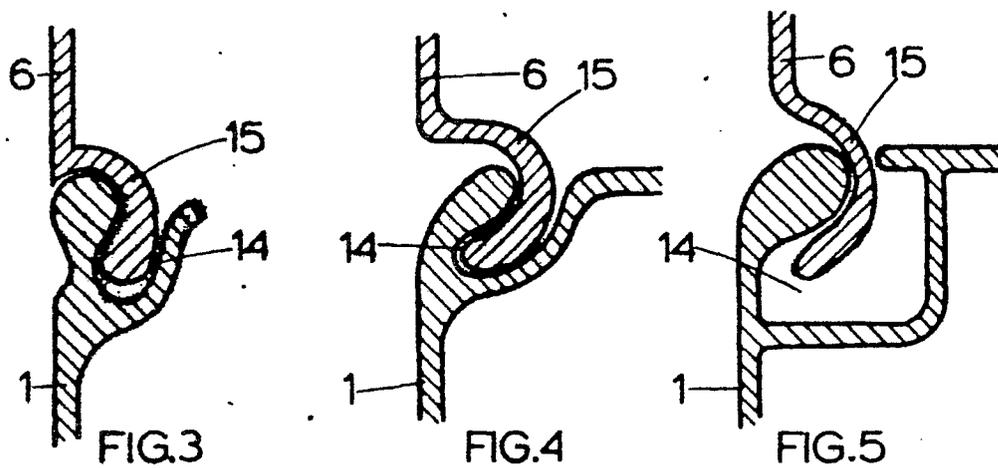
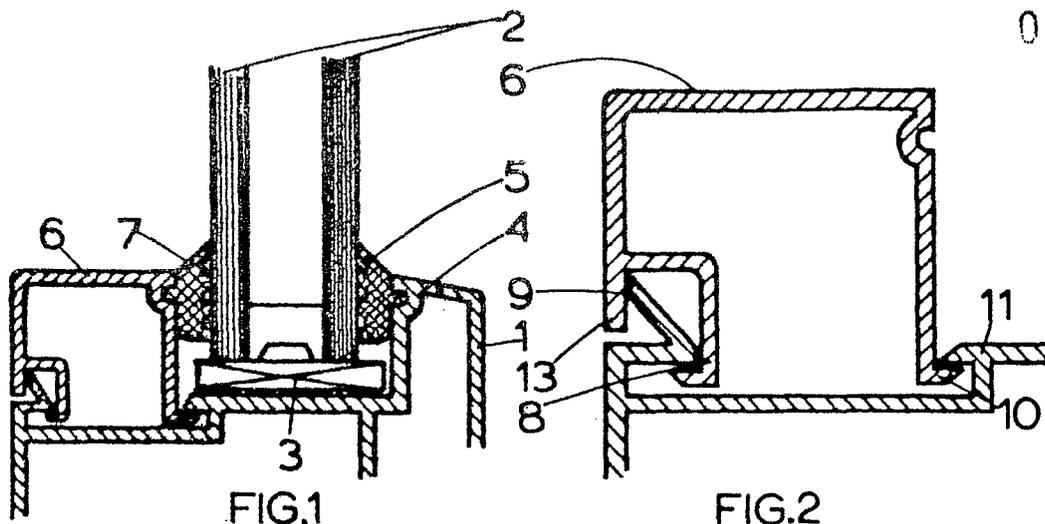
These figures clearly show that the connection between frame section and fixation section on the side away from the window 2 can be made also in another, but essentially similar way. It is here seen that section 1, instead of having a bent edge 9, may be provided with a
35 groove 14 into which the bent edge 15 of the fixation section can grip. Figs. 4 and 5 show embodiments of this principle.

Fig. 6 shows that the fixation section 6 can be used also as stop for a door 12. The connection between the sections 1 and 6 is made in the same way as shown in Fig. 1. Otherwise the figure is self-explanatory.

C L A I M S

1. Door, window or frame comprising a plastic enclosure in which a pane or a panel can be set, this enclosure being composed of main sections provided with a rabbet against which the pane or panel can be placed, and a fixation section securing the pane or panel against the rabbet, optionally with intermediate sealing means being used, which fixation section can be attached to the main section by means of one or more snap interlocks, this door, window or frame being characterized in that the fixation section is connected to the main section on the side away from the pane or panel in that a bent edge of the fixation section is made to cooperate with a bent edge or groove of the main section by hooking-in the fixation section and turning it on an axis parallel to itself, the edges or grooves being so designed that the connection can be disconnected only by turning the fixation section back, with the connection on the side near the plane of the pane or panel being a snap interlock securing the fixation section in the position reached after turning.
2. Door, window or frame according to claim 1, characterized in that the snapping movement is towards the plane of the pane or panel.
3. Door, window or frame according to claims 1 - 2, characterized in that the main section (1) has a bent edge (9) and the fixation section (6) has a cooperating bent edge (8) and a straight edge (13), the bent edge and the straight edge of the fixation profile gripping around the bent edge of the main section (1).
4. Door or window frame provided with a fixation section as stop for the door or window, which stop can be attached to the frame by means of one or more snap interlocks, this door or window frame being characterized in that the frame is connected to the stop section on the side away from the plane of the door or window in that a bent edge of the stop section is made to cooperate with a bent edge or groove of the frame by hooking-in the stop section and turning it on an axis parallel to itself, the edges and section being so designed that the connection can be disconnected only by turning the stop section back, with the connection on the side near the plane of door or window being a snap interlock securing the stop section in the position reached after turning.

5. Fixation section serving as glazing bead or stop, characterized in that the fixation section is provided with a bent edge which, by hooking-in the fixation section and turning it on an axis parallel to itself, can be made to cooperate with a bent edge or groove of another section (frame section), the bend edge and the fixation section being so designed that the connection can be disconnected only by turning the fixation section back, with the fixation section being further provided with an edge which can establish a snap interlock between this section, in the position reached after turning, and an edge of the other section (frame section).





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. *)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<p><u>CH - A - 145 380 (ENGEL)</u></p> <p>* Page 1, column 1, paragraph 1; page 2, column 2, lines 6-11; figure 12 *</p> <p>--</p>	1-5	E 06 B 3/58 1/30
	<p><u>CH - A - 547 426 (SITE LINES)</u></p> <p>* Column 6, lines 21-24; figure 9 *</p> <p>--</p>	1-5	
	<p><u>CH - A - 276 345 (EGGE & OMARINI)</u></p> <p>* Page 1, lines 29-54; figures 1,2 *</p> <p>--</p>	1,3-5	TECHNICAL FIELDS SEARCHED (Int.Cl. *)
	<p><u>US - A - 2 090 762 (LOWRY)</u></p> <p>* Page 2, column 1, lines 15-75; column 2, lines 1-20, 46-75; page 3, column 1, lines 1-2; figures 1-5 *</p> <p>--</p>	1,3-5	E 06 A
	<p><u>DE - A - 2 305 784 (PATLICO RIGHTS)</u></p> <p>* Page 5, lines 22-31; page 6, lines 1-15; page 7, lines 22-34; page 8, lines 1-7, 20-25; figures 1-3 *</p> <p>--</p>	1,4,5	
A	<p><u>US - A - 3 016 993 (OWEN)</u></p> <p>* Column 3, lines 8-59; column 4, lines 48-75; column 5, lines 1-11; figures 1,4,5 *</p> <p>----</p>	1,4	CATEGORY OF CITED DOCUMENTS
			<p>X: particularly relevant</p> <p>A: technological background</p> <p>O: non-written disclosure</p> <p>P: intermediate document</p> <p>T: theory or principle underlying the invention</p> <p>E: conflicting application</p> <p>D: document cited in the application</p> <p>L: citation for other reasons</p>
<p><input checked="" type="checkbox"/> The present search report has been drawn up for all claims</p>			<p>& member of the same patent family, corresponding document</p>
Place of search	Date of completion of the search	Examiner	
The Hague	03-03-1980	DEPOORTER	