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(54) **The window**

(57) The window according to the invention consists of the window frame and casement, whereas the window frame consists of the outer section (1) and inner section (2), connected each other by thermal spacers (3), inside there are seated the shaped gaskets (4 and 5) and touching them, and the outer shaped section (1) is a shell-type rectangle (6), having on its longer side the clamping seats (7), whilst its opposite longer side is extended at its one side with the wall (8) ended with the mounting slot (9), and the other edge of the longer side (10) has the angle ridge (1), whereas the inner shaped section (2) of the shell-type rectangular cross-section has at its edges the angle ridges (11), and at its longer side the clamping seats (7), whereas the thermal spacer (3) is composed of two parallel walls (12 and 12') connected each other by the cross-pieces (13 and 13').

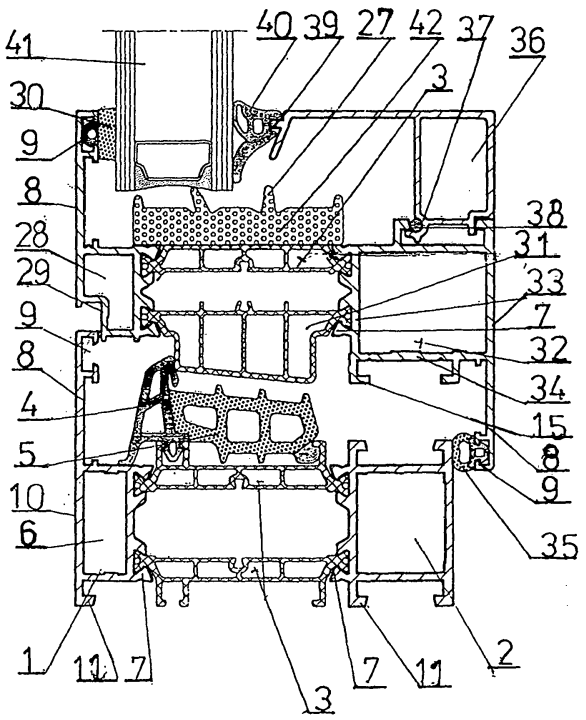

Fig.1

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Description

[0001] The subject of the invention is the window opened inwards or outwards of a building.

[0002] Such a structure of the window and/or window frame is not known to the applicant.

[0003] The subject of the invention is represented in the drawings, namely the

Fig. 1 represents a cross-section of the window frame and its casement, the
Fig. 2 represents a cross-section of the thermal spacer of the window frame, the
Fig. 3 represents a cross-section of the thermal spacer of the casement, the
Fig. 4 represents a cross-section of the thermal spacer of the casement, the
Fig. 5 represents a cross-section of the gasket, the Fig. 6 represents a cross-section of the variant form of the window frame and casement, the Fig. 7 represents a cross-section of the further variant of the window frame and casement, the Fig. 8 represents a cross-section of the next variant of the window frame and casement, the Fig. 9 represents the window frame and casement in a cross-section and perspective view.

[0004] The window according to the invention consists of the window frame and casement. The window frame consists of the outer shaped section 1 and inner shaped section 2, connected with each other by thermal spacers 3, inside there are seated the shaped gaskets 4 and 5 touching them. The outer shaped section 1 is a shell-type rectangle 6, having on its longer side the clamping seats 7, whilst its opposite longer side is extended at its one end with the wall 8 ended with the mounting slot 9, and the other edge of the longer side 10 has the angle ridge 11.

[0005] The inner shaped section 2 of a shell-type rectangular cross-section has at its edges the angle ridges 11, and at its longer side the clamping seats 7. The thermal spacer 3 is composed of two parallel walls 12 and 12' connected with each other by the cross-pieces 13 and 13', where the wall 12 has the grove 14, and the wall 12' has the angle ridges 15, whilst on the edges of the wall 12 and the cross-piece 13' there are mounting components 16. On the thermal spacer 3, in its angle ridges 15, the shell-type gasket 4 is seated in, its walls 17 are connected by cross-pieces 18, and in the upper part of the gasket, there is the protrusion 19, whilst the wall 17 has the seating component 20 of a trapezoid shape. The shaped gasket 4 is joined to the shell-type gasket 5, being composed of the walls 21, 22, 23, 24, 25, connected inside by walls 26, and the protrusions 27 are made on the wall 21 and wall 23. The window casement consists of the outer shell-type section, its rectangular part 28 has the offset 29, and the rectangular part 28 is extended with the wall 8 ended with the mounting slot 9 with the gasket 30 embedded in. The inner shell-type section is connected to the inner shell-type section 32 by the thermal spacers 3 and 31, the inner shell-type section 32 of a rectangular cross-section has on its side 33 the clamping seats 7, and on its walls 34 the angle ridges 15, whilst the side 33 is extended at its one side with the wall 8 ended with the mounting slot 9 with the gasket 35 embedded in. The inner shell-type section 32 is joined to the glazing skirting-strip 36, that has at its one edge the recess 37 with the gasket 38 embedded in, and on the protrusion 39 the gasket 40 is seated, between the gasket 40 and the gasket 30 the casement glazing 41 is seated. On the thermal spacer 3, under the casement glazing 41, the insulation piece 42 is seated, having on its top side the protrusions 27. The thermal spacer 31 is the wall 12 connected to the wall 43 by the cross-pieces 13 and 13", the wall 12 has the groove 14, and the edge of the wall 12 and the cross-piece 1" has the mounting component 16.

[0006] The variant of the window according to the invention has the cross pieces 44 fixed between the thermal spacers 3 of the window frame, and between the thermal spacers 3 and 31 of the casement.

[0007] The next variant of the window according to the invention has the highly-insulating filling 45 set between the thermal spacers 3 of the window frame, and between the thermal spacers 3 and 31 of the casement.

[0008] The next variant of the window according to the invention has the most highly insulating filling 46 set between the thermal spacers 3 of the window frame, and between the thermal spacers 3 and 31 of the casement, and between the thermal spacer 3 and the casement glazing 41'.

[0009] The advantage of the above solutions is a capacity to attain four variants of the structure, with no changes in the basic profiles of the window casement and/or frame, that differ from each other only in a kind of their thermal insulation. The first variant, having its central chamber inside the sections and room between the thermal spacers empty, is marked by the lowest grade of thermal insulation, however higher than in other known structures of such a type. The variant with the cross-pieces between the thermal spacers, and the cross-piece dividing the air chamber into two compartments, has a higher grade of the thermal insulation. The variant with the central chamber filled with a foam, or insulation filling, is distinguished by the highest grade of thermal insulation. Since the structure is solved in variants, there are possibilities to satisfy various requirements of users, keeping costs of commencing and production of the windows at a low level. The glazing skirting-strips, of a closed structure, enable for an anti-burglary window construction with no changes in essential components of the structure. The special shapes of the central two-component gasket and/or glazing/stop gaskets enable to attain high grades of watertightness/airtightness and/or thermal insulation.

Claims

1. The window, **characterised in that** it consists of the window frame and casement whereas the window frame consists of the outer section (1) and inner section (2), connected with each other by thermal spacers (3), on the inner spacer there are seated the shaped gaskets (4) and (5) touching the spacer, and the outer shaped section (1) is a shell-type rectangle (6), having on its longer side the clamping seats (7), whilst its opposite longer side is extended at its one side with the wall (8) ended with the mounting slot (9), and the other edge of the longer side (10) has the angle ridge (1), whereas the inner shaped section (2) of a shell-type rectangular cross-section has at its edges the angle ridges (11), and at its longer side the clamping seats (7), whereas the thermal spacer (3) is composed of two parallel walls (12) and (12') connected with each other by the cross-pieces (13) and (13'), where the wall (12) has the grove (14), and the wall (12') has the angle ridges (15), whilst on the edges of the wall (12) and the cross-piece (13') there are mounting components (16), whilst on the thermal spacer (3), in its angle ridges (15), the shell-type gasket (4) is seated in, its walls (17) are connected by the cross-pieces (18), and in the upper part of the gasket, there is the protrusion (19), and the wall (17) has the seating component (20) of a trapezoid shape, and the shaped gasket (4) is joined to the shell-type gasket (5), being composed of the walls (21), (22), (23), (24), (25), connected inside by walls (26), and the protrusions (27) are made on the wall (21) and wall (23), whereas the window casement consists of the outer shell-type section, its rectangular part (28) has the offset (29), and its rectangular part (28) is extended with the wall (8) ended with the mounting slot (9) with the gasket (30) embedded in, whereas the inner shell-type section is connected to the inner shell-type section (32) by the thermal spacers (3) & (31), the inner shell-type section (32) of a rectangular cross-section has on its side (33) the clamping seats (7), and on its walls (34) the angle ridges (15), whilst the side (33) is extended at its one side with the wall (8) ended with the mounting slot (9) with the gasket (35) embedded in, whilst the inner shell-type section (32) is joined to the glazing skirting-strip (36), that has at its one edge the recess (37) with the gasket (38) embedded in, and on the protrusion (39) the gasket (40) is seated, between the gasket (40) and the gasket (30) the casement glazing (41) is seated, whereas on the thermal spacer (3), under the casement glazing (41), the insulation piece (42) is seated, having on its top side the protrusions (27), whilst the thermal spacer (31) is the wall (12) connected to the wall (43) by the cross-pieces (13) and (13"), and the wall (12) has the groove (14), and the edge of the wall (12) and the cross-piece (13") has the mounting component (16).

2. The variant of the window according to the claim 1, **characterised in that** the cross pieces (44) are fixed between the thermal spacers (3) of the window frame, and between the thermal spacers (3) and (31) of the casement.

3. The variant of the window according to the claim 1, **characterised in that** room between the thermal spacers (3) of the window frame, and between the thermal spacers (3) and (31) of the casement is filled with the highly-insulating filling (45).

4. The variant of the window according to the claim 1, **characterised in that** room between the thermal spacers (3) of the window frame, and between the thermal spacers (3) and (31) of the casement, and between the thermal spacer (3) and the casement glazing (41') is filled with the most highly-insulating filling (46).

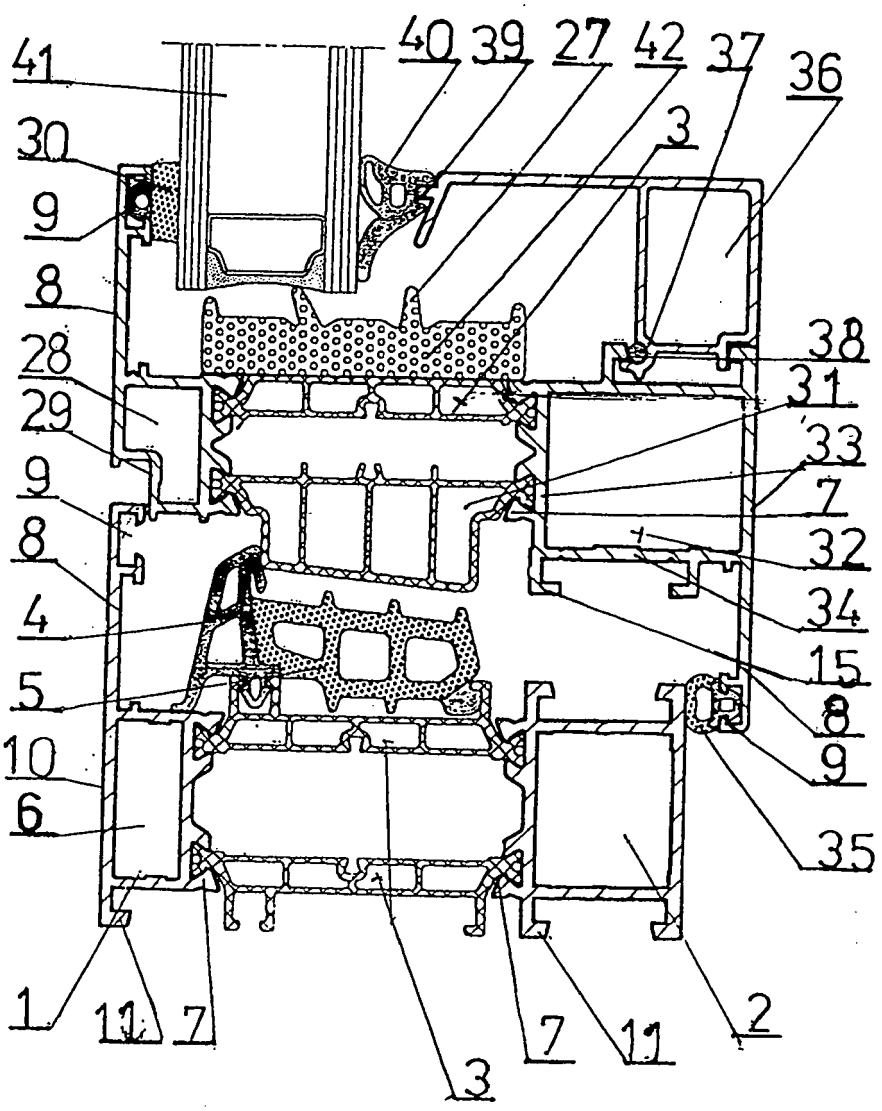
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Fig.1

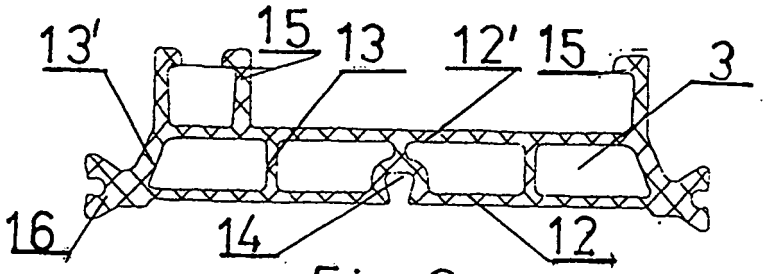

Fig. 2

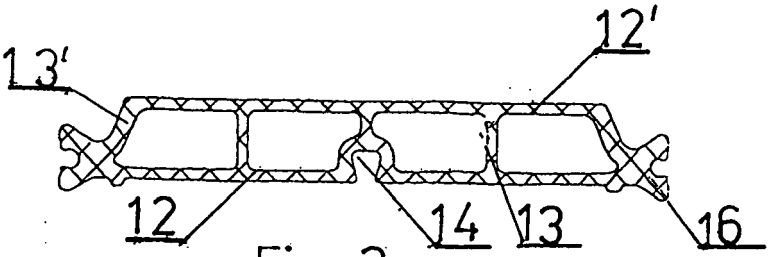

Fig. 3

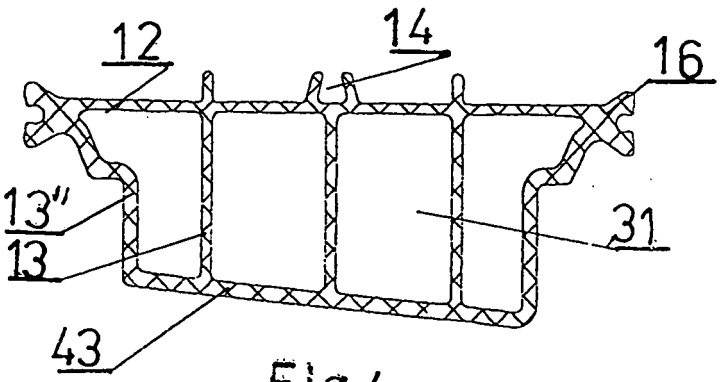

Fig.4

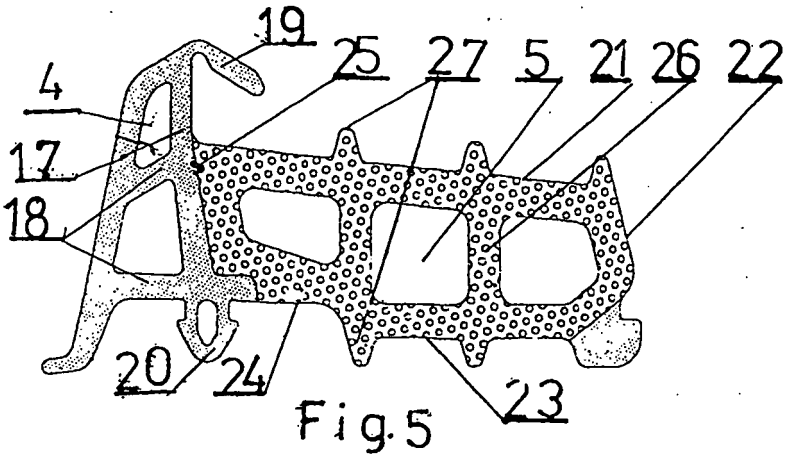

Fig.5

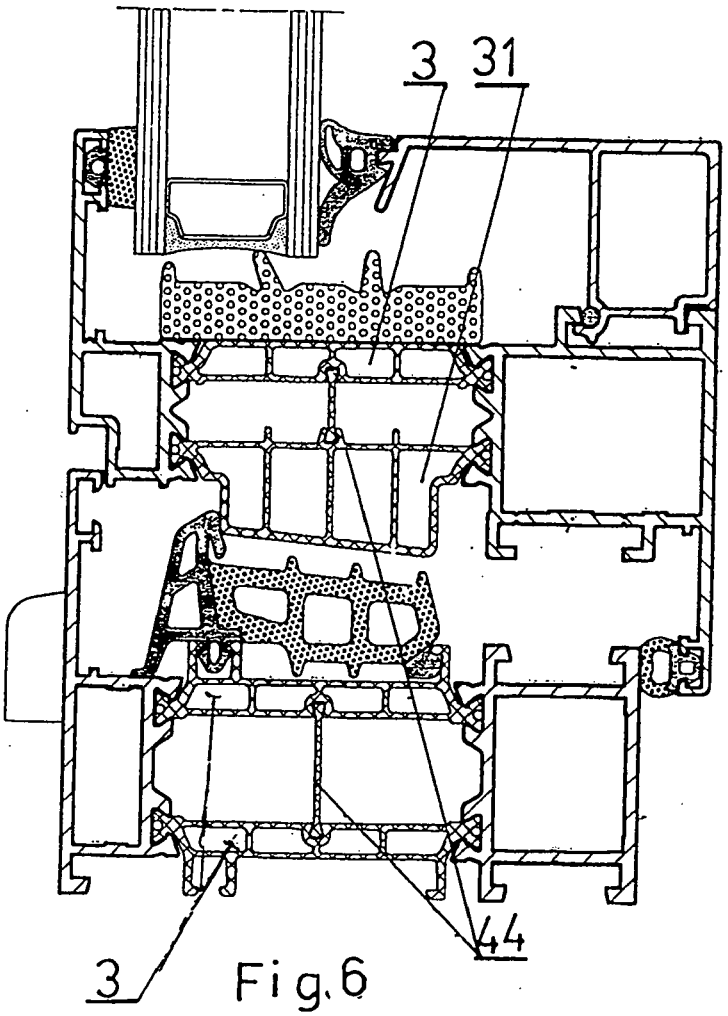

Fig.6

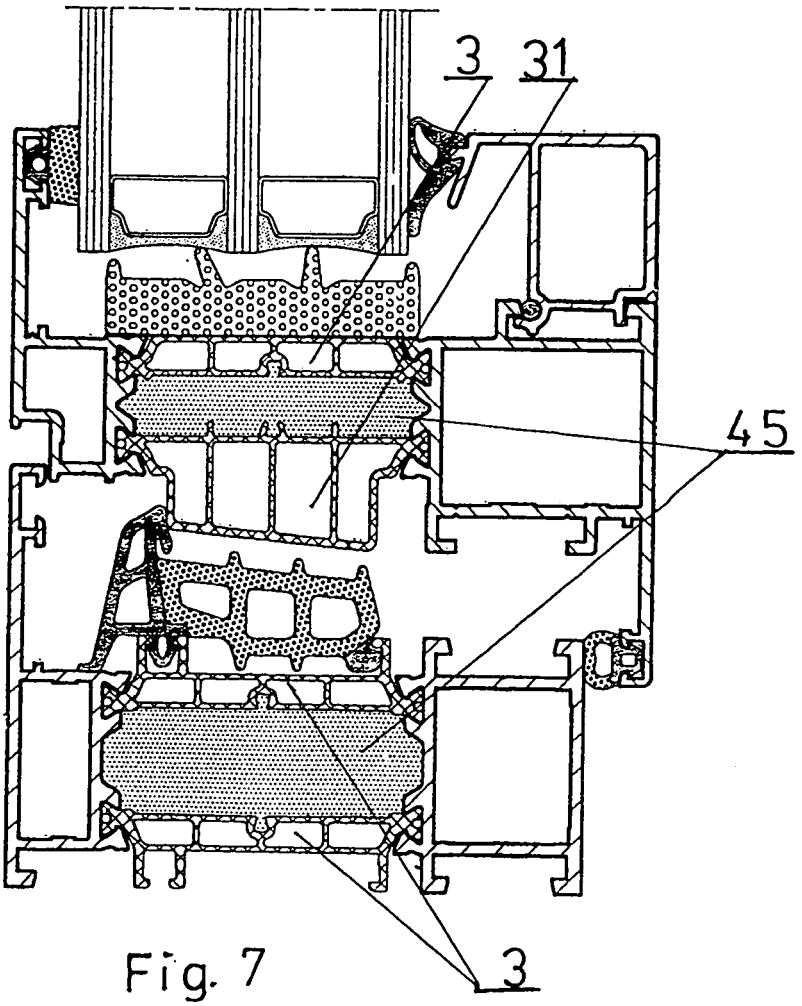

Fig. 7

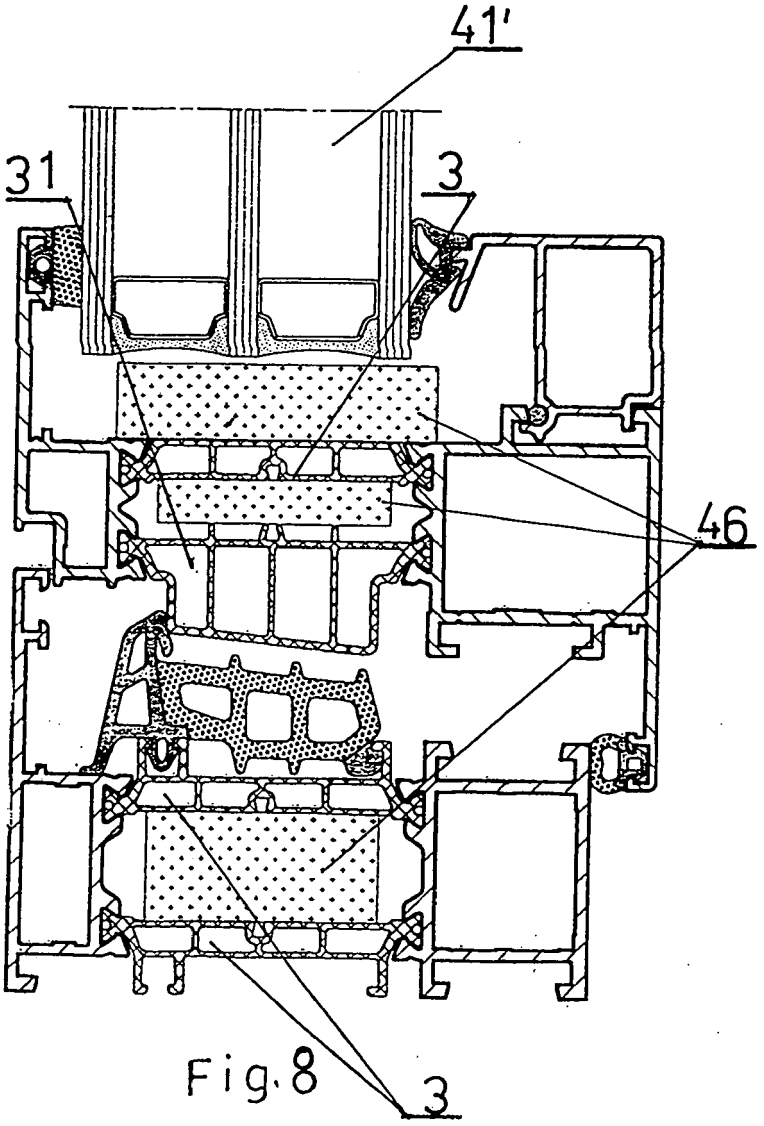

Fig. 8

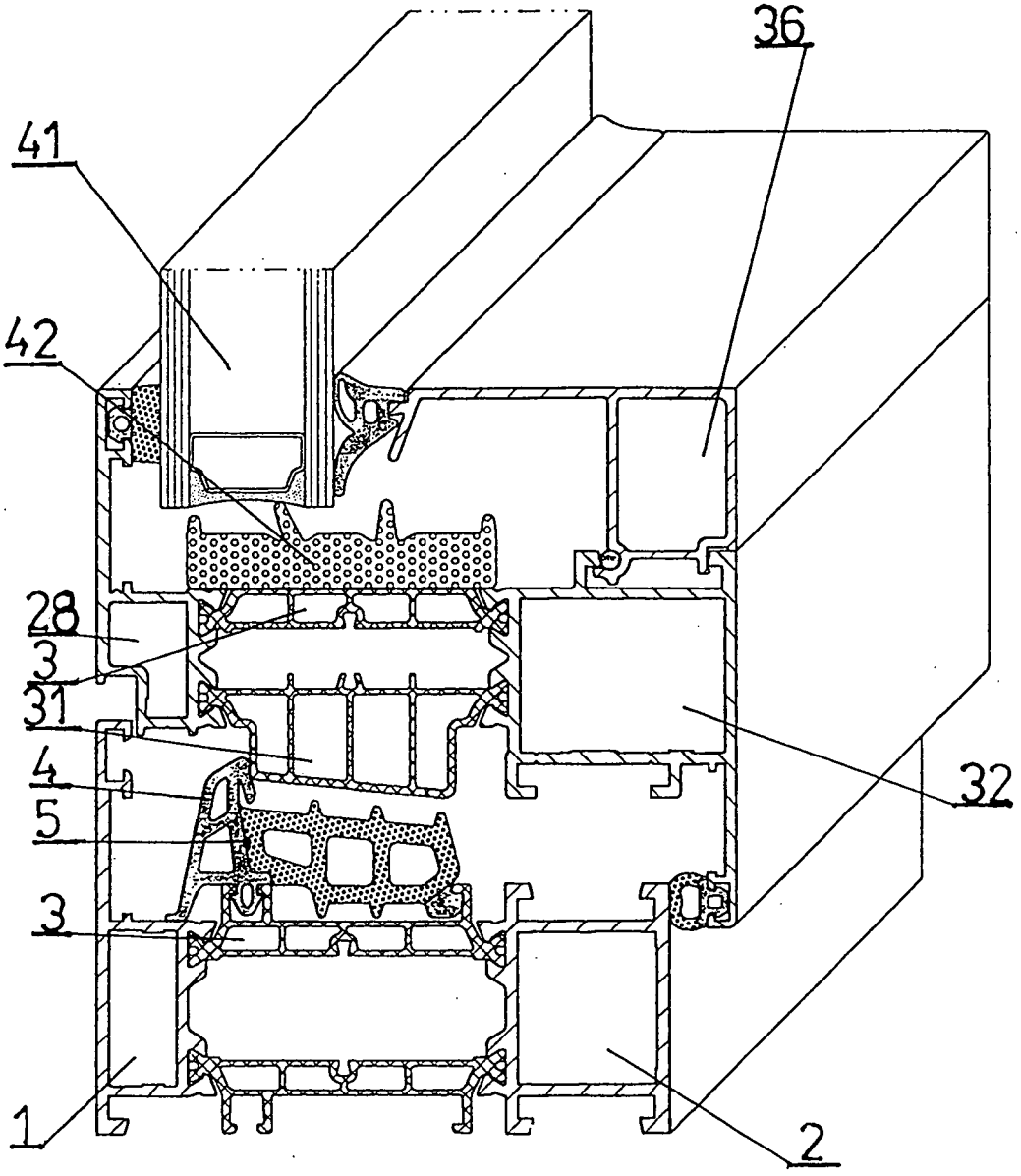

Fig 9