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(54) **Divisible aluminum profile for the formation of the mobile part of an opening door/window frame**

(57) Divisible aluminum profile for forming the mobile part of an opening door/window frame according to claim 1, characterized by that it consists of two parts, (A) (internal, occupying the inner surface of the profile) and (B) (external, occupying all the external surface of the profile), so that part (B) is attached with two hooks (11, 12) of the same direction into receptions (6, 7) in the same direction of part (A), parts (A) and (B) being stabilized and secured with a screw (19) on the side of the cable joint (5) next to the hook (12), the stabilization of the glass sheet, panel or other sheet being effected with two built-in laths respectively located on the same side and at the ends of part (A) and (B) which after assembly form the space for the attachment (10) of the glass sheet, panel or insulating material sheet, a chamber (15) is formed after the assembly with the protrusion (16) for the collection and drainage of water that comes from the area of attachment (10) of the glass sheet, panel or insulating material panel, through the holes (18).

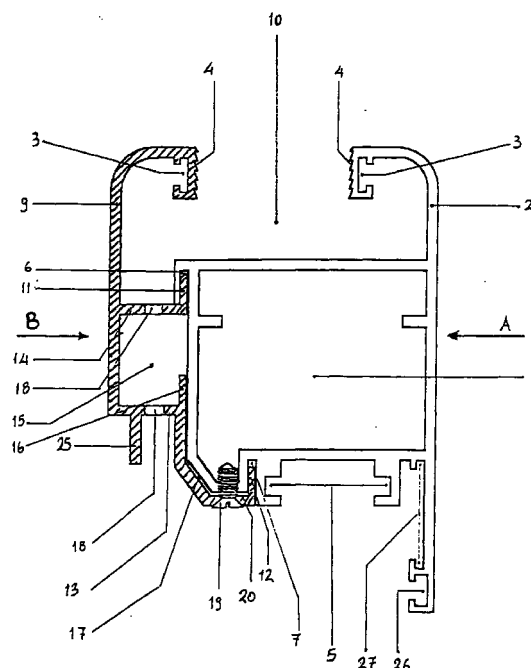


FIGURE 4

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Description

[0001] The invention relates to a divisible aluminum profile for the formation of the mobile part of an opening door/window frames for fitting and stabilizing a glass sheet or panel or sheet of any insulating material onto the profile.

[0002] Stability of the glass sheet, panel or insulating material sheet to the profile of the opening leaf was achieved either with the use of a small lath or by clipping it to a suitable joint or by wedging when the glass is fitted or with special clips attached to a joint or with a system of built - in internal and external laths.

[0003] Regarding the above methods: the first gave an aesthetically poor result as the lath was visible as a part separate from the body of the profile, in the second, the aesthetic result is satisfactory as no separate lath exists and the internal and external planes are integral, however the leaf (mobile part of the opening door/window frame) must be unmounted in order that the glass sheet or panel or insulating material sheet are fitted, rendering the mounting of the leaf to the angular guide impossible and the installation of a plastic gasket between the glass, panel or sheet and the metallic surface very difficult.

[0004] The advantages of the invention is that the above disadvantages of the existing state-of-the-art are overcome.

[0005] The result is satisfactory in terms of aesthetics, i.e. the internal and the external plane of the profile are integral without the presence of the separation line that makes the lath visible as part which is separate from the main body of the opening leaf profile, whereas the glass sheet or panel or insulating material sheet can be fitted without dismantling the mobile part of the opening door/window frame. Furthermore, the procedure for fitting the plastic gasket between the glass sheet, panel or insulating material sheet and the metal surface of the mobile part of the opening frame is simplified. As the aluminum profile is divisible, the ability of different coloration of the internal and external visible surface is possible. As the separation is effected in the vertical direction.

[0006] Finally, cutting and assembling the profile is effected in a fast manner. The assembly can be effected by pressing in a leveling guide or with a divisible connection angle.

[0007] The invention is described in the sequel with reference to the drawing attached, where:

Drawing 1 illustrates a cut of the divisible profile when the two parts are separate.

Drawing 2 illustrates a cat which shows the method of sliding the two parts of the divisible profile together.

Drawing 3 illustrates a cat which shows the divisible profile in an integral form.

Drawing 4 illustrates a cat where the divisible profile

is stabilized and locked.

Drawing 5 and 6 illustrate a perspective view of the divisible profile and

Drawing 7 and 8 illustrate cuts of a variation of the invention. Drawing 7 shows a divided and drawing 8 shows an integral profile.

[0008] The present invention consists of a divisible profile which consists of two parts (A), one being internal and (B) external, the part (B) sliding to fit in part (A) and being secured and locking with a screw (19).

[0009] Part (A) is the main body of the profile and is located in the internal part of the profile and contains an internal chamber (1) where the connecting angle is fitted when the profile is cut at a 45 degrees angle, a built-in glass, panel or sheet lath (2) that bears a reception (3) for fitting an alignment angle and a see-saw surface (4) where the elastic part that stabilizes the glass sheet, panel or other sheet, a joint for a cable to pass (5), a reception (6) inside the external wall of part (A) and in particular in the external angle of part (A) in the area (10) of attachment of the glass sheet, panel or insulating material sheet where the hook (11) of part (B) slides and is secured. Similarly, a second reception exists (7) between the joint for the cable (5) and the point of contact (20) where the screw (19) is screwed where the hook (12) of part (B) locks and is secured, a joint (27) for fitting another alignment angle and a joint (26) for fitting the tightening rubber of the mobile part.

[0010] Part (B) is the part located in the external part of the profile where the built-in lath (9) is visible which when part (B) slides into part (A) is opposite to the respective built - in lath (2) of part (A) so that the space (10) for fitting and stabilizing the glass sheet, panel or insulating material sheet, the support hook (11) that slides and locks the arms (13, 14) that respectively connect the support hooks (11, 12) with the external side of part (B) into the reception (7) of the part (A) and the water outlet (25) at the lower part of the part (B) through which water drains in the space in front of the central rubber part of the casing.

[0011] Once part (B) slides in and is applied to part (A), the chamber (15) is formed (15) with a protrusion (16) which collects any water droplets that will pass through to the elastic part that stabilizes the glass sheet, panel, or insulation material sheet, whereas in parallel, the protrusion (16) ensures complete collection of water that will enter into the chamber (15) from the support space (10) of the glass sheet, panel or insulation material sheet, avoiding its penetration to the contact surface (17) of part (A) and part (B).

[0012] Water inflow and outflow into the chamber (15) is effected through holes (18) opened at regular intervals to the arms for the retention (13, 14) of the hooks.

[0013] The stabilization and locking of part (B), once it is fitted into (A) is effected with a screw (19) placed in the contact point (20) of part (B) and (A) which

is not visible or accessible for aesthetic reasons and security reasons respectively when the mobile part of the frame is closed, in regular spaces depending on the length of the profile.

[0014] Change of the position and modification of the second hook (12) is possible, so that the profile becomes lighter. 5

[0015] That implies that with respect to part (A) the second reception (7) found between the cable joint (5) and the contact point (20) where the screw (19) is screwed to the external opening of part (A), may be displaced in series with the first reception (6) and the addition of an extension (21) at right angles to the wall of the reception (23) and parallel to the support arm (24) of the hook (22) that will ensure stabilization and locking of part (B) onto part (A) with a screw (19). 10 15

[0016] With respect to part (B), a hook (22) is created similar to the first (11) installed in series with the first (11) which slides to the reception (23) of part (A). The screw (19) is screwed onto the arm (24) of the hook (22), this screw not being visible and accessible when the mobile part of the frame is closed. In this case also a chamber (15) is formed. 20

[0017] To help the reader we give a correlation between numbers and parts of the profile. 25

1. Internal chamber where the connection angle is placed during the 45 degrees cutting of the profile.
2. Built - in glass lath of part (A).
3. Reception for placing the small aligning angle. 30
4. See-saw surface where the rubber that stabilizes the glass, panel or insulating sheet is wedged.
5. Cable joint.
6. Reception located in the external wall of part (A) and in particular in the external angle of part (A) in the place of attachment (10) of the glass sheet, panel or insulation material sheet where the hook (11) slides in and locks. 35
7. Reception located between the cable joint (5) and the contact point (20) where the screw (19) is screwed, the hook sliding in and hooking to this screw. 40
8. *Left blank in original (translator's note) due to error in numbering.*
9. Built-in lath of part (B). 45
10. Place for fitting and stabilizing the glass sheet or panel or insulation material sheet.
11. Support hook which slides and locks into the reception (6) of part (A).
12. Support hook which slides and locks into the reception (7) of part (A). 50
13. Arm connecting the support hook (12) with the external part of part (B).
14. Arm connecting the support hook (11) with the external part of part (B). 55
15. Chamber which collects any water droplets that will pass through the elastic part of stabilizing the glass sheet or panel or insulation material sheet.

16. Protrusion ensuring complete water collection that will enter the chamber (15) from the attachment (10) space of the glass sheet or panel or insulation material sheet.

17. Contact surface of part (A) with part (B).

18. Holes for water inlet and drainage from the chamber (15).

19. Screw that stabilizes and locks part (B) into part (A).

20. Contact surface of part (A) with part (B) where the screw (19) screws.

21. Protrusion where a screw is screwed so that stabilization and locking of part (B) into part (A) is effected.

22. Support hook which slides and locks to the reception (23) of part (A).

23. Reception in the external wall of part (A) in series with reception (B).

24. Arm connecting the support hook (22) with the external part of part (B) in contact with the extension (21) where the screw is screwed.

25. Water sink for water to settle in the space in front of the central rubber of the casing.

26. Joint for positioning the tightening rubber of the mobile leaf.

27. Joint for placing the large alignment angle.

Claims

1. Divisible aluminum profile for forming the mobile part of an opening door/window frame characterized by that it consists of two parts, (A) (internal, occupying the inner surface of the profile) and (B) (external, occupying all the external surface of the profile), so that part (B) is attached with two hooks (11, 12) of the same direction into receptions (6, 7) in the same direction of part (A), parts (A) and (B) being stabilized and secured with a screw (19) on the side of the cable joint (5) next to the hook (12), the stabilization of the glass sheet, panel or other sheet being effected with two built - in laths respectively located on the same side and at the ends of part (A) and (B) which after assembly form the space for the attachment (10) of the glass sheet, panel or insulating material sheet, a chamber (15) is formed after the assembly with the protrusion (16) for the collection and drainage of water that comes from the area of attachment (10) of the glass sheet, panel or insulating material panel, through the holes (18). 30
2. Divisible aluminum profile for forming the mobile part of an opening door/window frame according to claim 1, characterized by that the collection and drainage of water is only possible from part (B) once it is joined with part (A). 45
3. Divisible aluminum profile for forming the mobile 50

part of an opening door/window frame according to claim 1, characterized by that the protrusion (16) ensures perfect tightening of the adjacent surface of parts (A) and (B) and hence, the profile.

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4. Divisible aluminum profile for forming the mobile part of an opening door/window frame according to claim 1, characterized by that the material of construction can be PVC, wood, or other synthetic or metallic material.

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5. Divisible aluminum profile for forming the mobile part of an opening door/window frame according to claim 1, characterized by that the hooking, attachment and locking with a screw (19) position of the second hook (22) of part (B) is displaced to the external wall of part (A), next to the water drain of part (B).

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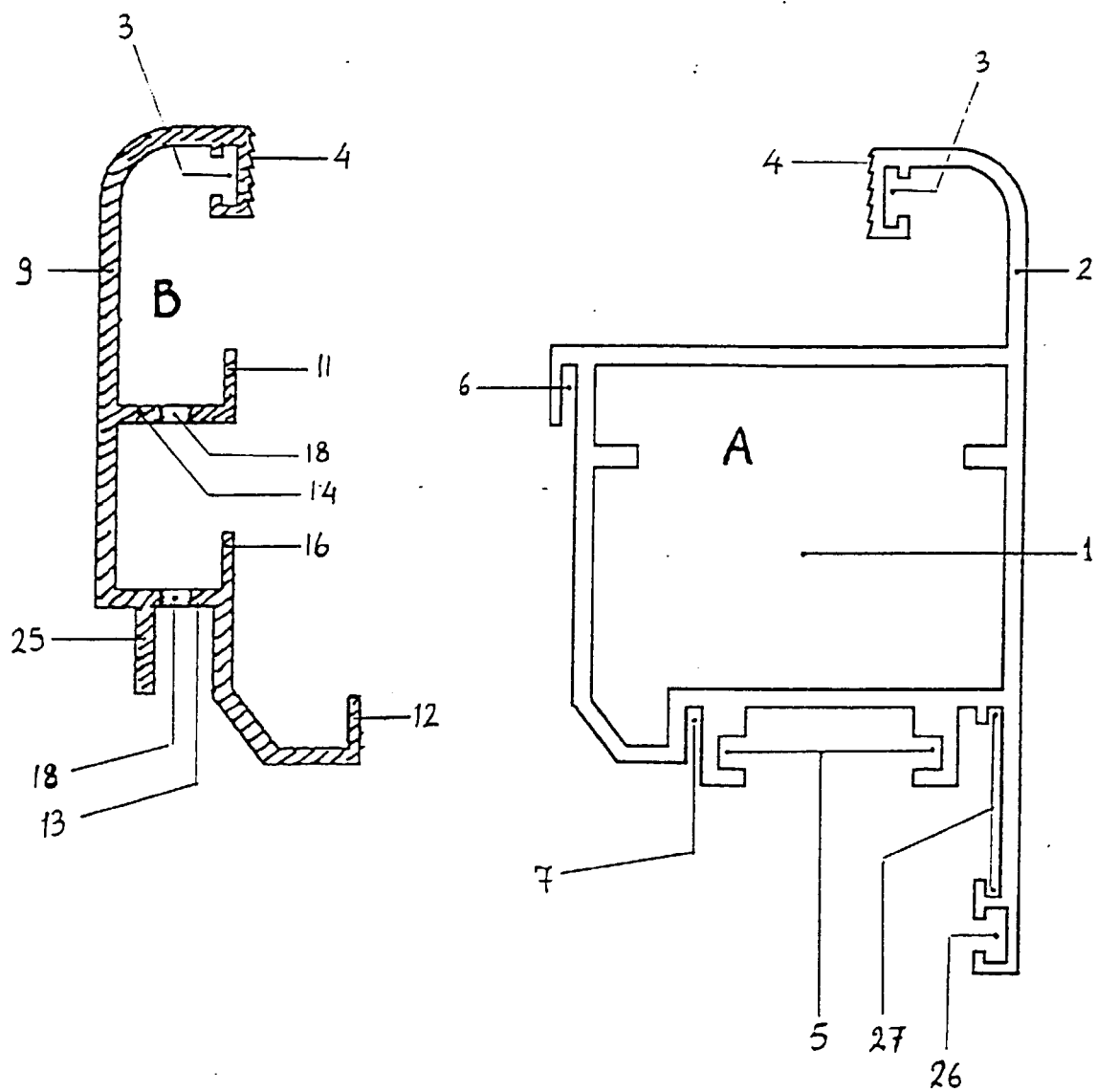


FIGURE 1

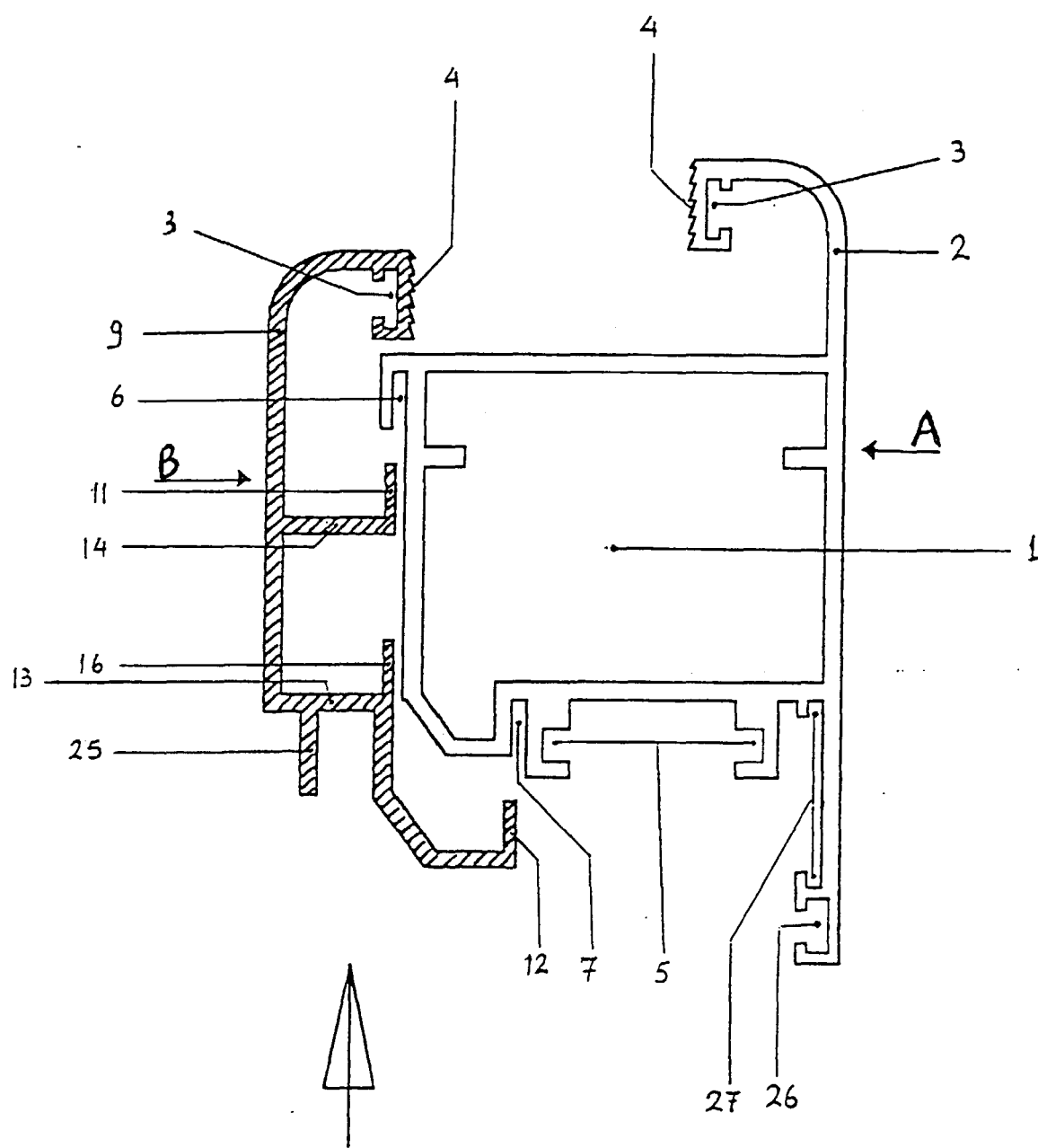
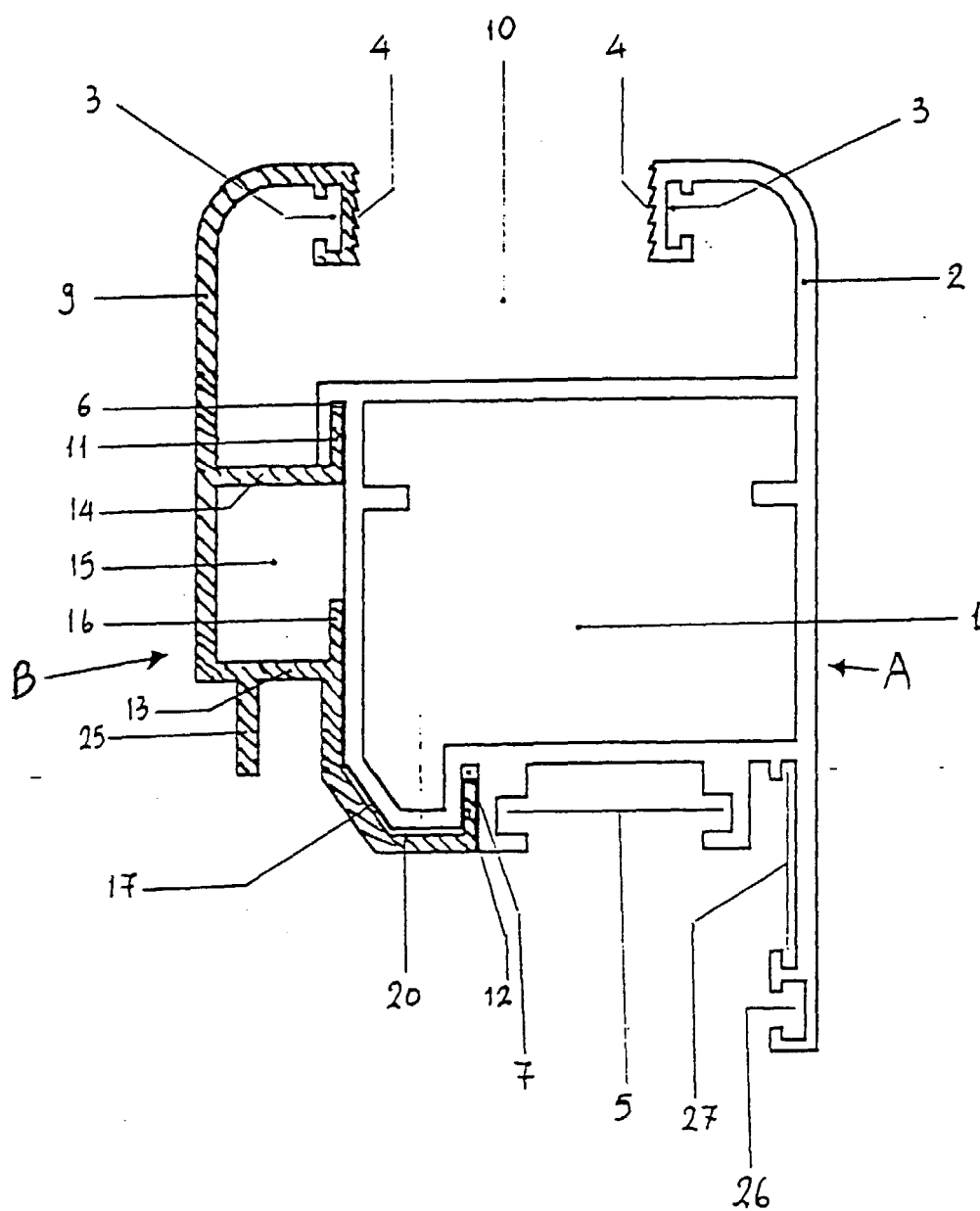


FIGURE 2



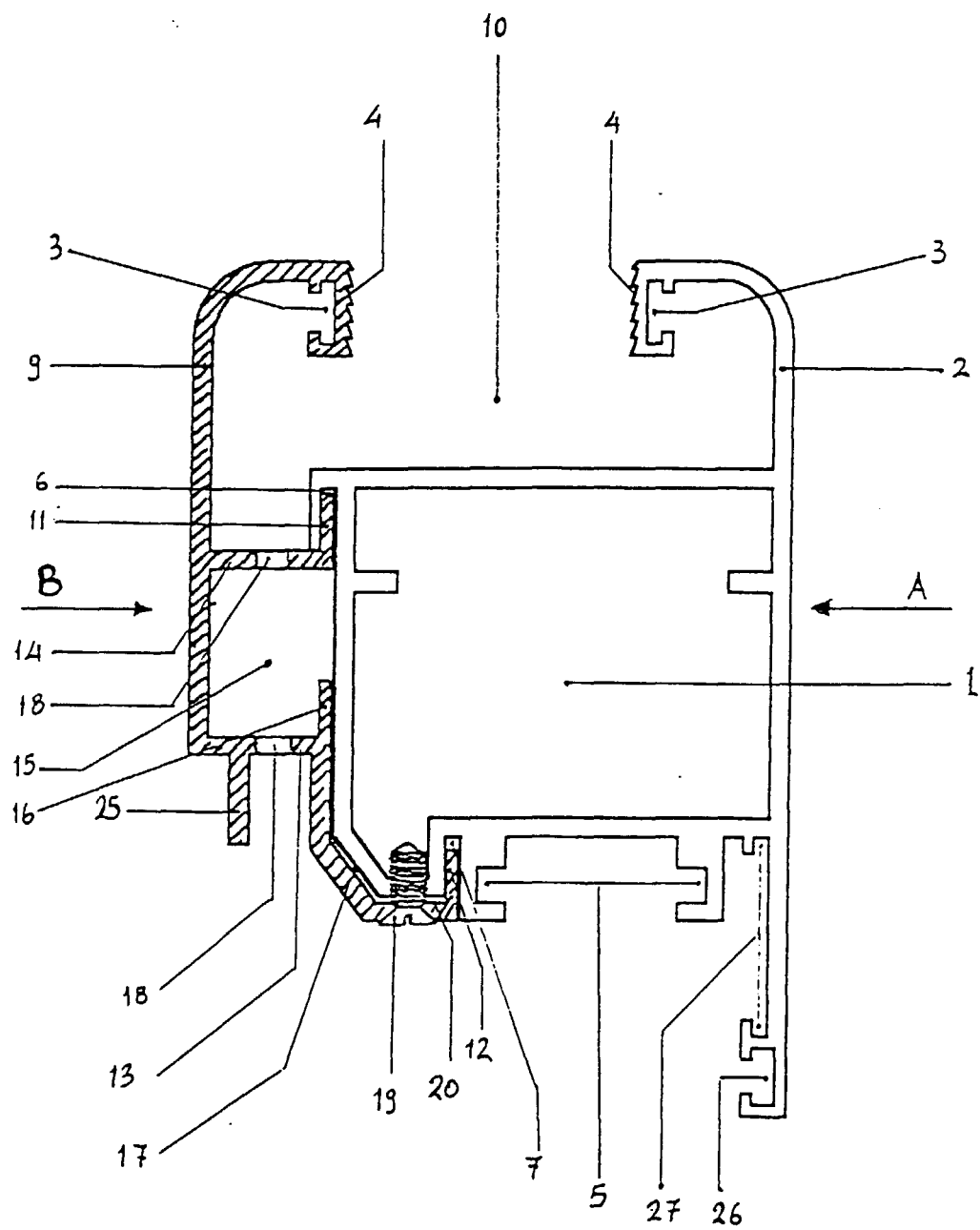


FIGURE 4

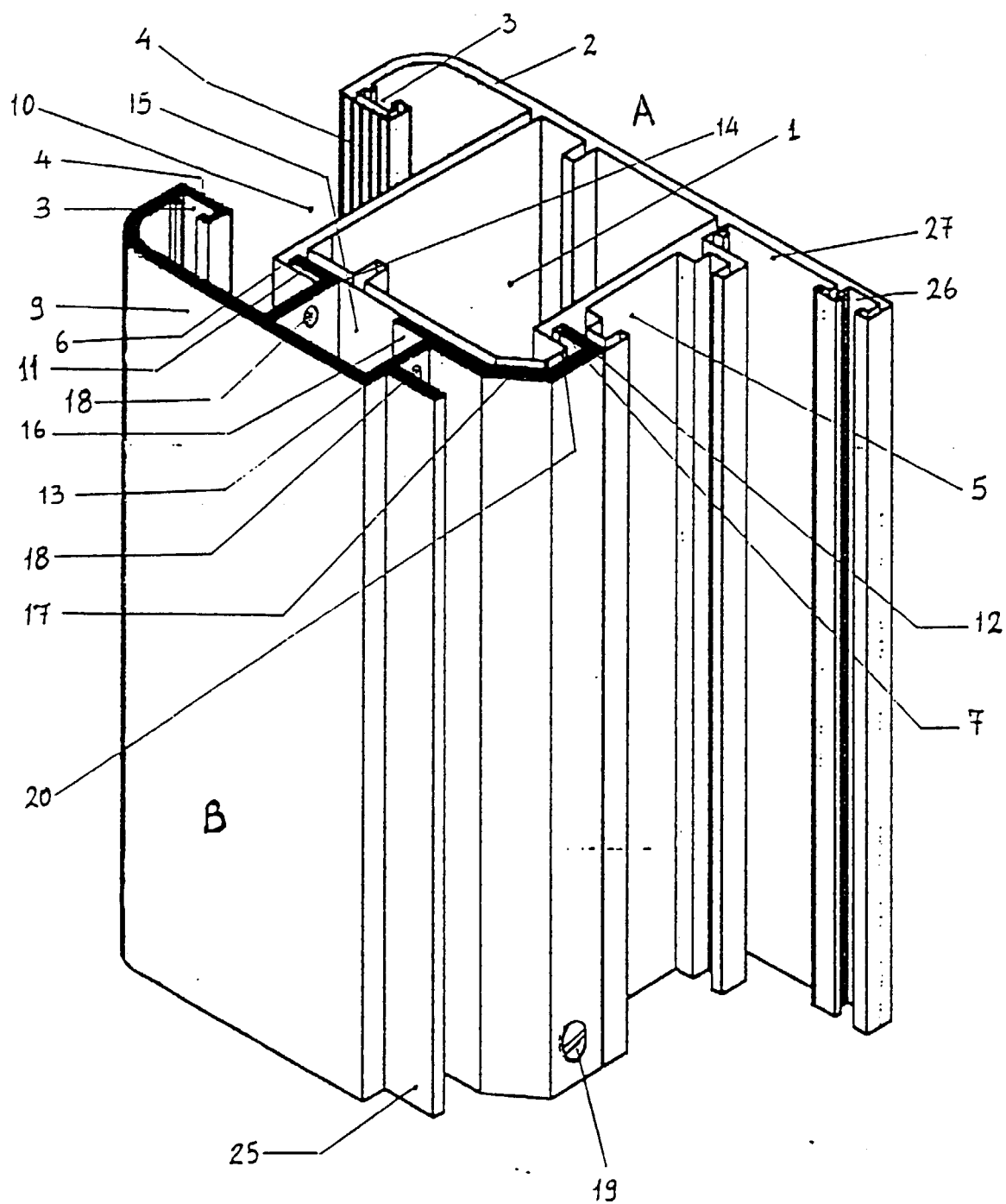


FIGURE 5

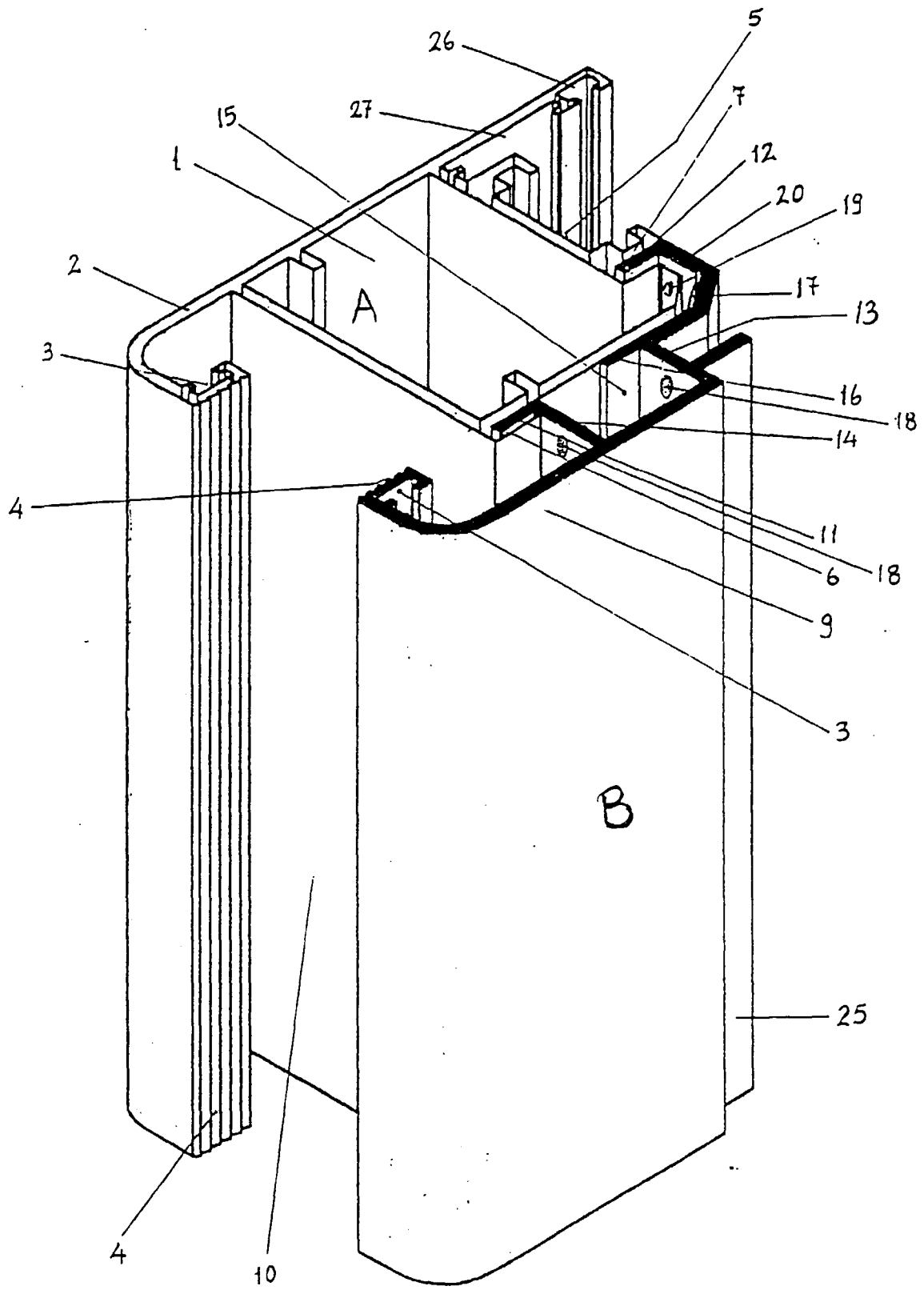


FIGURE 6

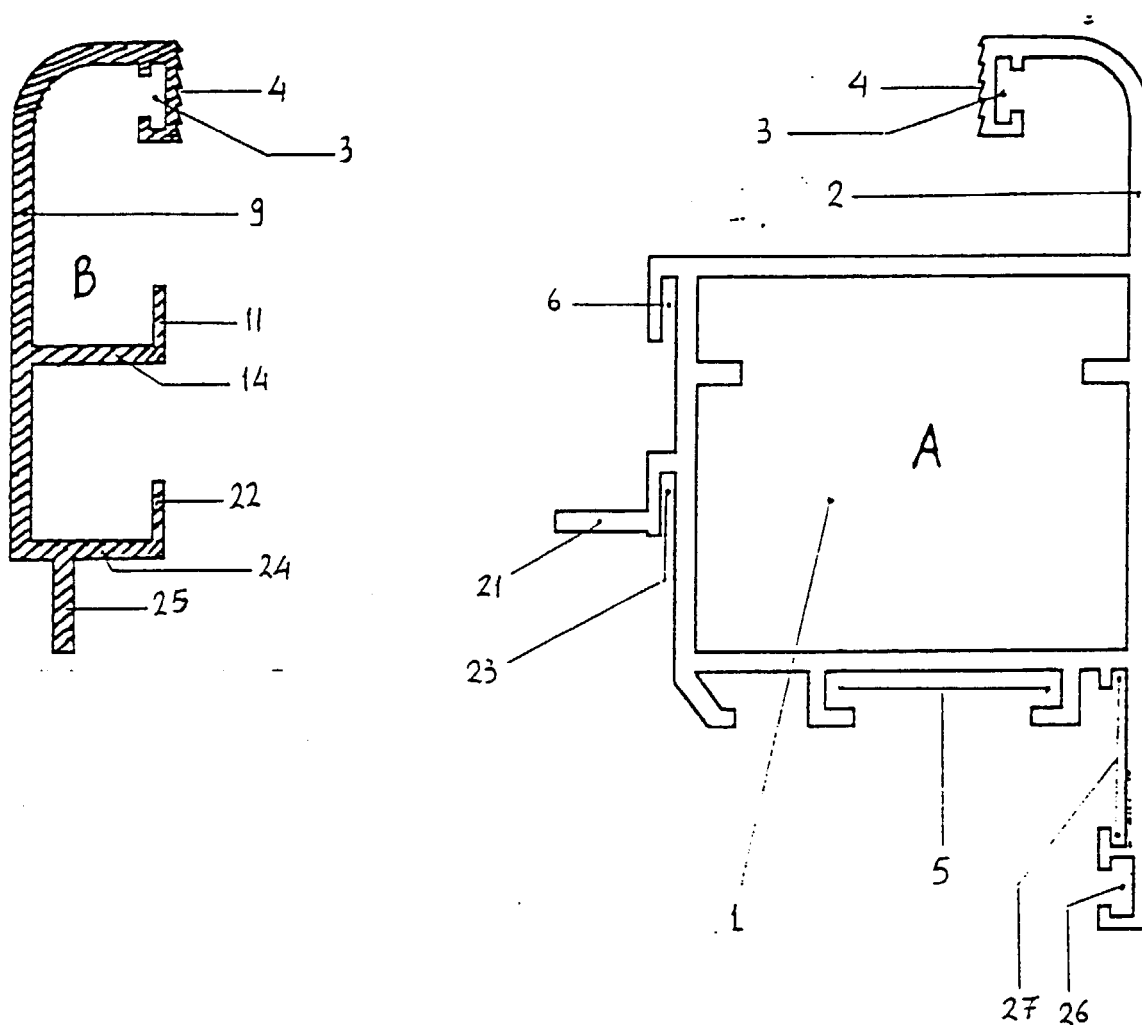


FIGURE 7

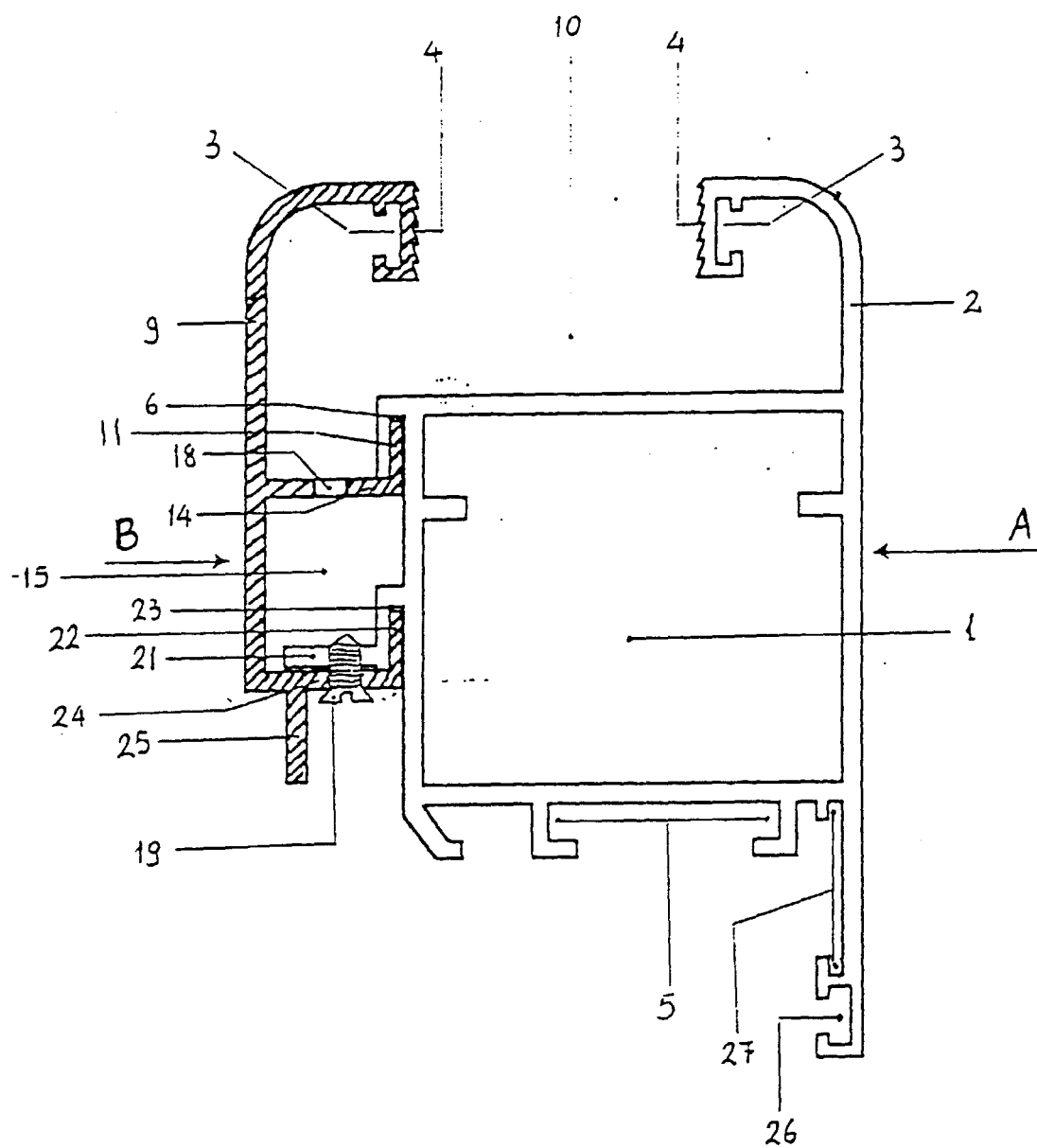


FIGURE 8



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EUROPEAN SEARCH REPORT

Application Number
EP 00 60 0006

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 5 October 2000	Examiner Depoorter, F
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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05-10-2000

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