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(54) **Method for positioning a doorcase with skylight as well as a positioned doorcase.**

(57) A method for positioning a doorcase with skylight in a reactangular aperture in a wall of a building comprising following steps. Two side posts 4 of the doorcase are provided with shiftable adaptors 5 at their upper ends and positioned apart from each other against the vertical limitations of the aperture along their whole length. A lintel 7 is positioned between the side posts 4 above the doorway. By means of glass fillets 10 a glass pane or the like is attached between the side posts 4, the lintel 7 and the ceiling 1. First, the cross beam 7 is connected to the side posts 4 at the correct height above the floor 2 by inserting in apertures provided therein. On the upper edge of the glass pane or the like an upper member 8 is provided the ends of which engage around the adaptors 5 and form a fitting connection therewith. The lower edge of the glass pane or the like is positioned in the lintel 7 and the glass pane with upper member 8 is tilted in the doorcase, after which the glass fillets 10 are provided by snapping.

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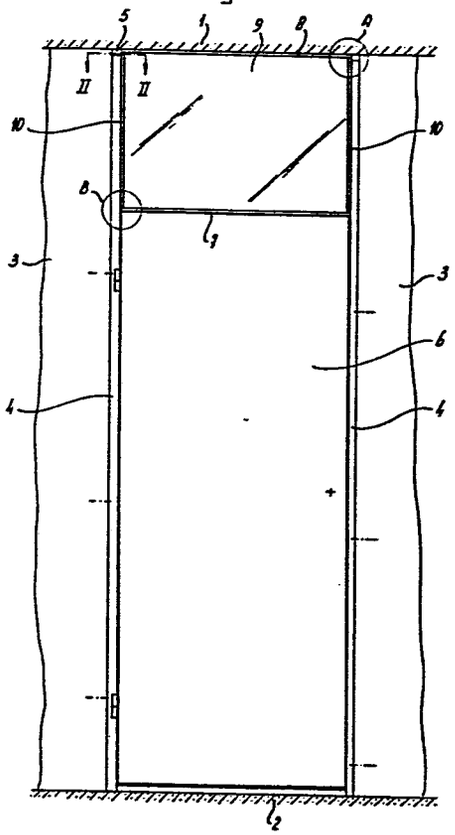
fig-1



Method for positioning a doorcase with skylight as well as a positioned doorcase.

The invention relates to a method for positioning a doorcase with skylight in a rectangular aperture in a wall of a building, in which one provides two side door posts with shiftable adaptors at their upper ends and positions them apart from each other against the vertical limitations of the aperture along their whole length and in which one positions a lintel between the side posts above the doorway, as well as attaches by means of glass fillets a glass pane or the like between the side posts, the lintel and the ceiling.

A main part of said method is known from the Dutch Patent 138,215 of applicant, intended for a doorcase the components of which are manufactured from aluminum. Therewith it is possible to saw the side posts in the correct length at the building site. This became more difficult when one was going to roll the components from steel plate preferably provided with a surface coating. Then, one is going to work with adaptors being shifted in the upper end of the side posts. Then, the side posts themselves are delivered in standard lengths and the tolerance differencies at the building site are accommodated by the adaptors being shifted more or less far in the side posts.

In the method according to the Dutch Patent 138,215 and also in the modified known method the side posts of correct length are arranged between ceiling and floor with adaptors or not and attached to the wall with the correct spacing. Subsequently the glass fillets are brought in the correct length and connected to the upper portions of the posts. Preferably, said attachment of the glass fillets is carried out by snapping on punched lips of the side posts.

Then, on the upper edge of the glass pane of the skylight a glass channel section is provided having flexible upward lips or edges and the glass pane is shifted upwards from beneath. Thereafter, at the lower side of the glass pane a lintel is positioned being screwed fixedly at the lower ends of the glass fillets.

Thus, with this known method the glass fillets still should be brought in the correct length at the building site. Further fixing the lintel by screwing is quite time consuming.

The invention has the object to improve further the known method, by which mounting of the doorcase may occur quicker and thus cheaper.

According to the invention this is obtained in that first one connects the lintel to the side posts at the correct height above the floor by inserting in apertures provided therein, that one positions on the upper edge of the glass pane or the like an upper member the edges of which engage around the adaptors and form therewith a fitting connection and that one positions the lower edge of the glass pane or the like in the lintel and tilts the glass pane with upper member in the doorcase, after which the glass fillets are provided by snapping.

In this way nothing needs to be adapted and screwed fixedly at the building site.

The invention relates also to a doorcase positioned thus and to a lintel, an adaptor and an upper member destined to it.

The invention will be elucidated by reference to the drawing, in which:

Fig. 1 is a view of the positioned doorcase having suspended therein a door;

Fig. 2 an enlarged cross-section along the line II-II of Fig. 1;

Fig. 3 an exploded view of the detail according to the circle A in Fig. 1; and

Fig. 4 an exploded view of the detail according to the circle B in Fig. 1.

In Fig. 1 the ceiling of the building has been referred by 1, the floor by 2 and the wall by 3.

The side door posts manufactured from rolled steel plate are referred by 4 and provided at their upper ends with adaptors 5. The door is indicated with 6, the lintel with 7, the upper member with 8, the skylight with 9 and the glass fillets with 10.

Such a doorcase is generally known.

Doorcases having a skylight constitute upto 85-90% of all inner doorcases in the present building.

Thus, each saving in assembling such doorcases has the influence of a high cost improvement in the whole building industry.

All of the components, such as side door posts 4, adaptors 5, lintel 7, upper member 8 and glass filets 10 may, as known, be completely finished and provided with a surface coating already in delivering at the building site.

Then, painting is not necessary anymore.

In delivering the adaptor 5 has already been shifted in the upper end of each side post 4. The shape of said adaptor 5 known per se appears clearly from Fig. 3. The new feature is represented by the cutting 11 and the lip 12.

The upper member 8 is entirely new.

The rectangular cross-section of the upper member 8 appears clearly from Fig. 3. The lower wall defines to troughs 13 having therebetween a slot for receiving the upper edge of the glass pane 9, preferably clamped by resilient pressure means not shown and known per se, and to be arranged in the slot.

At both ends of the upper member 8, from the one trough the bottom and a short upstanding wall is cut away along a portion of the length, whereas from the other trough a portion of the long upstanding wall is cut away, said cuttings being indicated by 14 and 15.

The glass fillet 10 is in U-shape with snapping edges 16 directed inwards and adapted to snap in known way over lips 17 bended from the side posts 4.

In one wall of the U a groove 18 is provided for receiving a sealing section 19, sealing against the glass pane 9, see Fig. 2.

Now, the lintel 7 will be discussed by reference to Fig. 4.

The lintel 7 consists of a high rectangular duct 20 and a low rectangular duct 21, connected by a body portion 22.

The upstanding walls facing to each other of the ducts 21 and 20 define with the body portion 22 a slot in which the glass pane 9 can seat.

At both ends a piece is removed from the low duct 21.

At the correct distance above the lower end of each side post 4, in each side post 4 a rectangular aperture 23 is provided in which the high duct 20 fits. Then, the end face of the low duct 21 lies against the face 24 of the side post 4.

The assembling of the doorcase is carried out as follows:

In the rectangular wall aperture both of the side door posts 4

having in it the adaptors 5 are arranged vertically and fixed by known adjusting means.

Thereby, the lower ends of the side posts 4 rest on the floor 2.

The apertures 23 are at a correct spacing from the floor 2 corresponding to the height of the door 6 having standard dimensions.

The adaptors 5 are shifted outwards such that their upper ends engage against the ceiling 1. This can take place by means of the upper member 8.

For clearness sake of the drawing, in Fig. 3 the lip 12 of the adaptor 5 is shown in rearward direction. Actually, said lip 12 is directed to that side of the doorcase from which the assembling takes place, thus in Fig. 1 frontwardly.

By shifting the upper member 8 onto the adaptors 5 from the right in Fig. 3 parallel to itself, the lips 12 engage in the cuttings 15.

Now, one may tap the upper member 8 upwardly upto against the ceiling 1, in which the adaptors 5 are taken along and shifted out of the side posts 4 by the correct distance.

The side posts 4, at least one thereof is initially positioned closer to the wall 3 then necessary in using condition.

By said initially larger spacing of the side posts 4 it is possible to provide the lintel 7.

By bringing the side posts 4 to each other again until the head faces of the low ducts 21 of the cross beam 7 engage against the faces 24 of the side posts 4 and the faces 24 of the side posts 4 and the head faces of the upper member 8 against the corresponding faces 24 of the adaptors 5 and by fixing the side posts 4 in this position, the doorway for the door 6 is exactly correct. Then, the door 6 can be suspended in the doorcase by conventional means.

Now, the upper member 8 is removed again and positioned on the upper edge of a glass pane 9 or the like.

The lower edge of the glass pane 9 is positioned in the lintel 7 in a frontwardly inclining position into the slot between the ducts 20 and 21.

Now, the glass pane 9 is tilted rearwardly upto the vertical position, together with the upper member 8 positioned thereon. The

ends of the upper member 8 then grips again around the lips 12 of the adaptors 5.

Finally, the glass fillets 10 are snapped on the lips 17 of the side posts 4.

Said glass fillets 10 need not to be sawed in length, because the oversize is acommodated again into the cuttings 14 of the upper member 8.

Thus, at the building site nothing needs to be sized. Also, the height of the glass pane 9 is not critical, because in the upper member 8 and/or eventually in the lintel 7 resilient pressure means may be provided.

CLAIMS.

1. Method for positioning a doorcase with skylight in a rectangular aperture in a wall of a building, in which one provides two side posts of the doorcase with shiftable adaptors at their upper ends and positions them apart from each other against the vertical limitations of the aperture along their whole length and in which one positions a lintel between the side posts above the doorway, as well as attaches by means of glass fillets a glass pane or the like between the side posts, the lintel and the ceiling, characterized in that first, one connects the lintel to the side posts at the correct height above the floor by inserting in apertures provided therein, that one positions on the upper edge of the glass pane or the like an upper member the ends of which engage around the adaptors and form a fitting connection therewith and that one positions the lower edge of the glass pane or the like in the lintel and tilts the glass pane with upper member in the doorcase, after which the glass fillets are provided by snapping.

2. Doorcase positioned by the method according to claim 1, comprising two side posts provided with adaptors at the upper ends, a lintel attached in fitting relationship between the side posts, a glass pane or the like between lintel and ceiling and glass fillets holding the glass pane or the like in the doorcase, characterized in that in the side posts apertures are provided in which the ends of the lintel fit at least partly and that the adaptors are provided with means by means of which they can be shifted into and out of the side posts by an upper member located against the ceiling.

3. Lintel destined for a doorcase according to claim 2, characterized in that the lintel consists of two rectangular ducts or troughs of different height and connected by a body portion, in which the walls facing to each other of the ducts or troughs and the body portion define a slot for accommodating the lower edge of a glass pane or the like for the skylight and in which the higher ducts or troughs project beyond the lower ducts or troughs and fit in apertures in the side posts.

4. Adaptor destined for a doorcase according to claim 2, comprising a part shiftable in the side post and correspondingly

profiled, characterized in that the adaptor is cut at the upper side so that a lip or the like directed to the mounting face is constituted, with which the upper member may cooperate.

5. Upper member destined for a doorcase according to claim 2, characterized in that the upper member is substantially rectangular in cross-section with two troughs or ducts of the same height, in which the walls facing to each other of the troughs or ducts and the opposite wall of the upper member define a slot for accommodating the upper edge of a glass pane or the like for the skylight, in which in the ends of the upper member cuttings are provided for cooperating with the adaptors and for accommodating the oversize in length of the glass filets.

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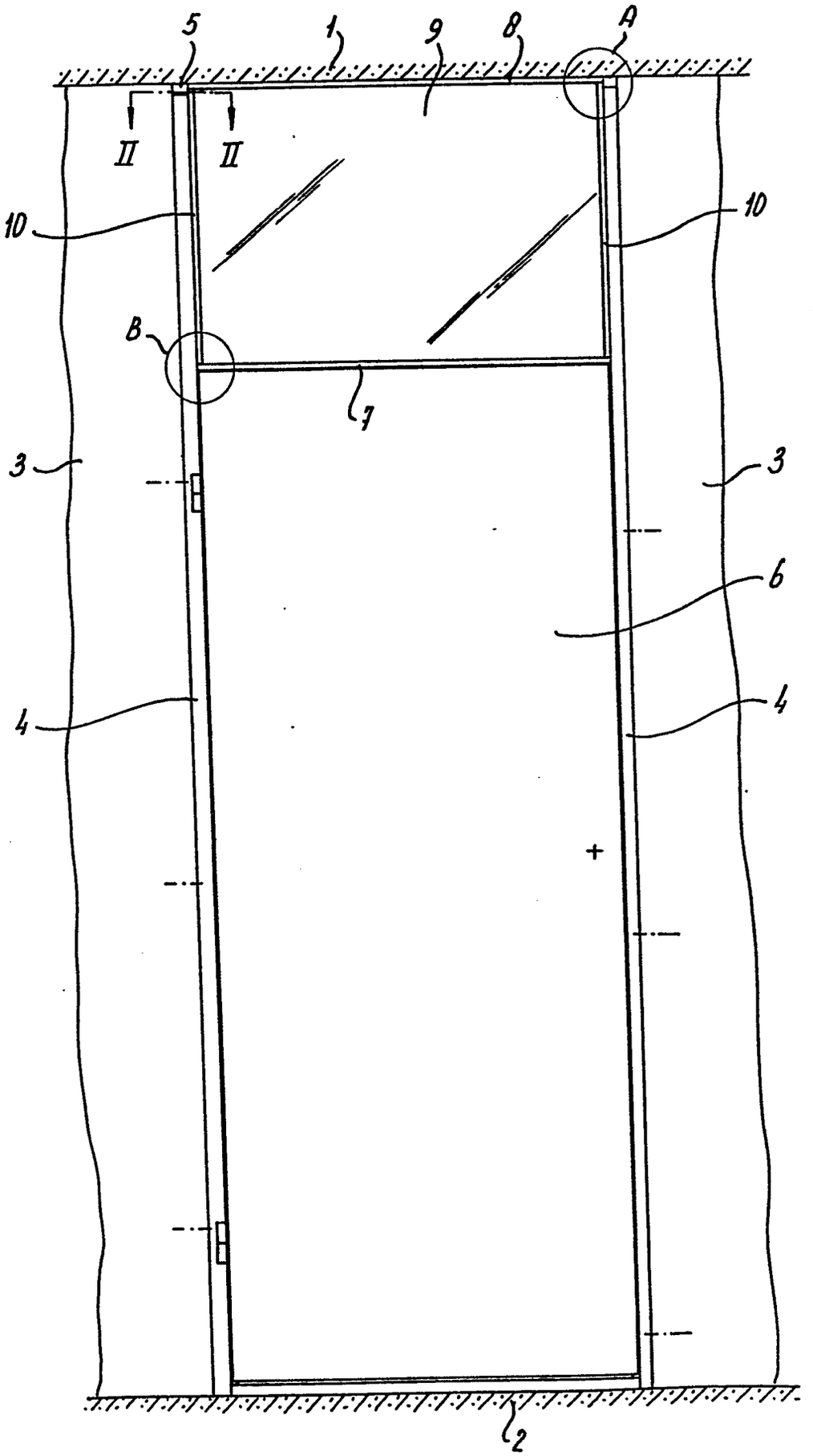
Fig-1



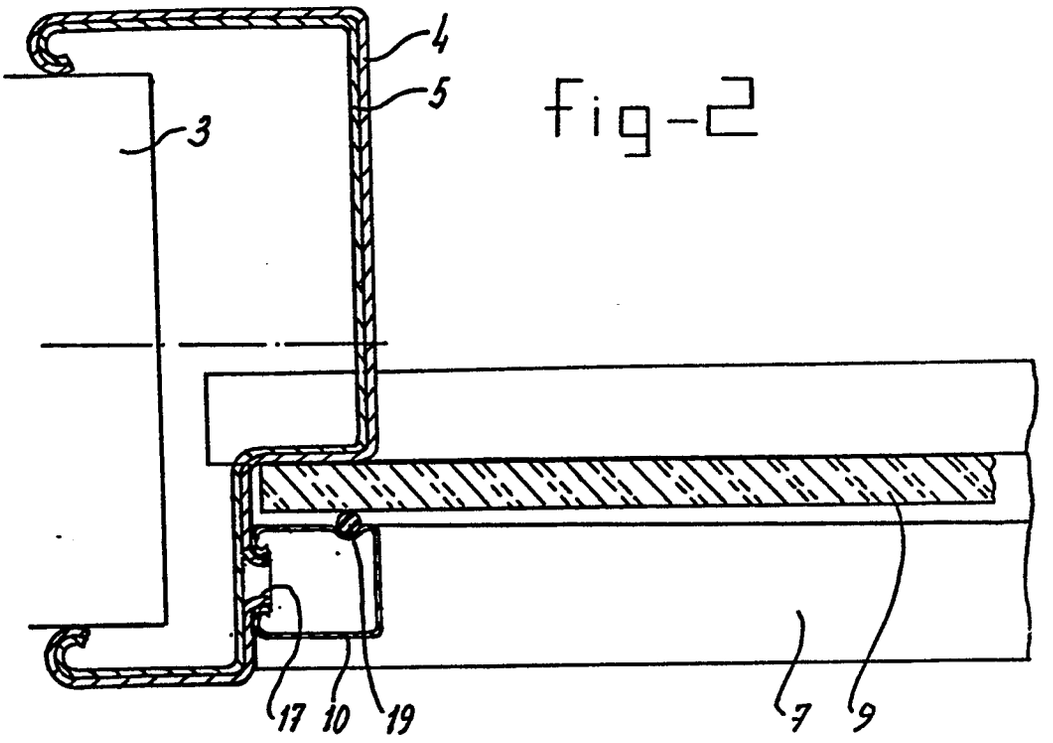
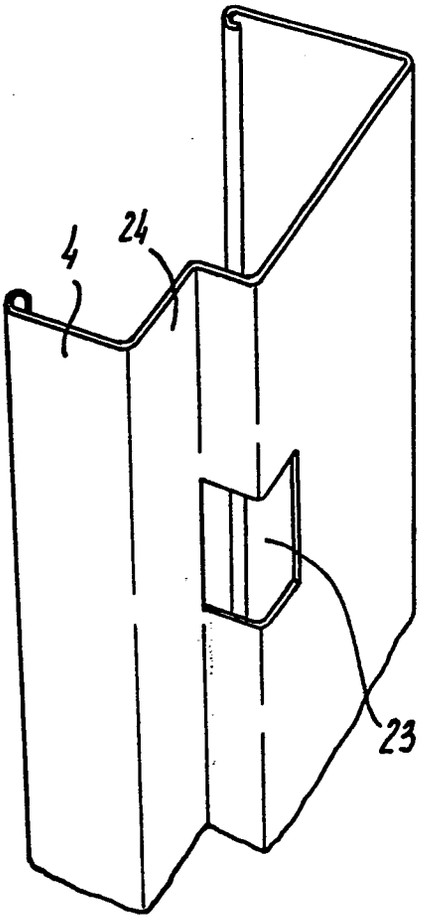


Fig-2

Fig-4



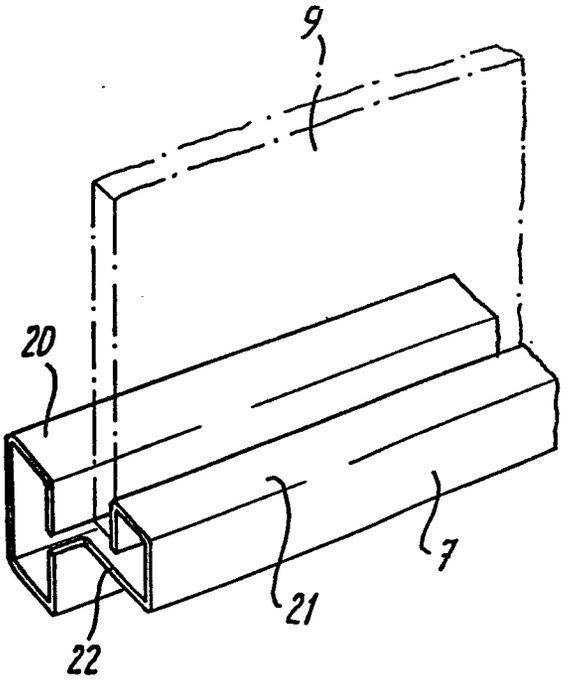


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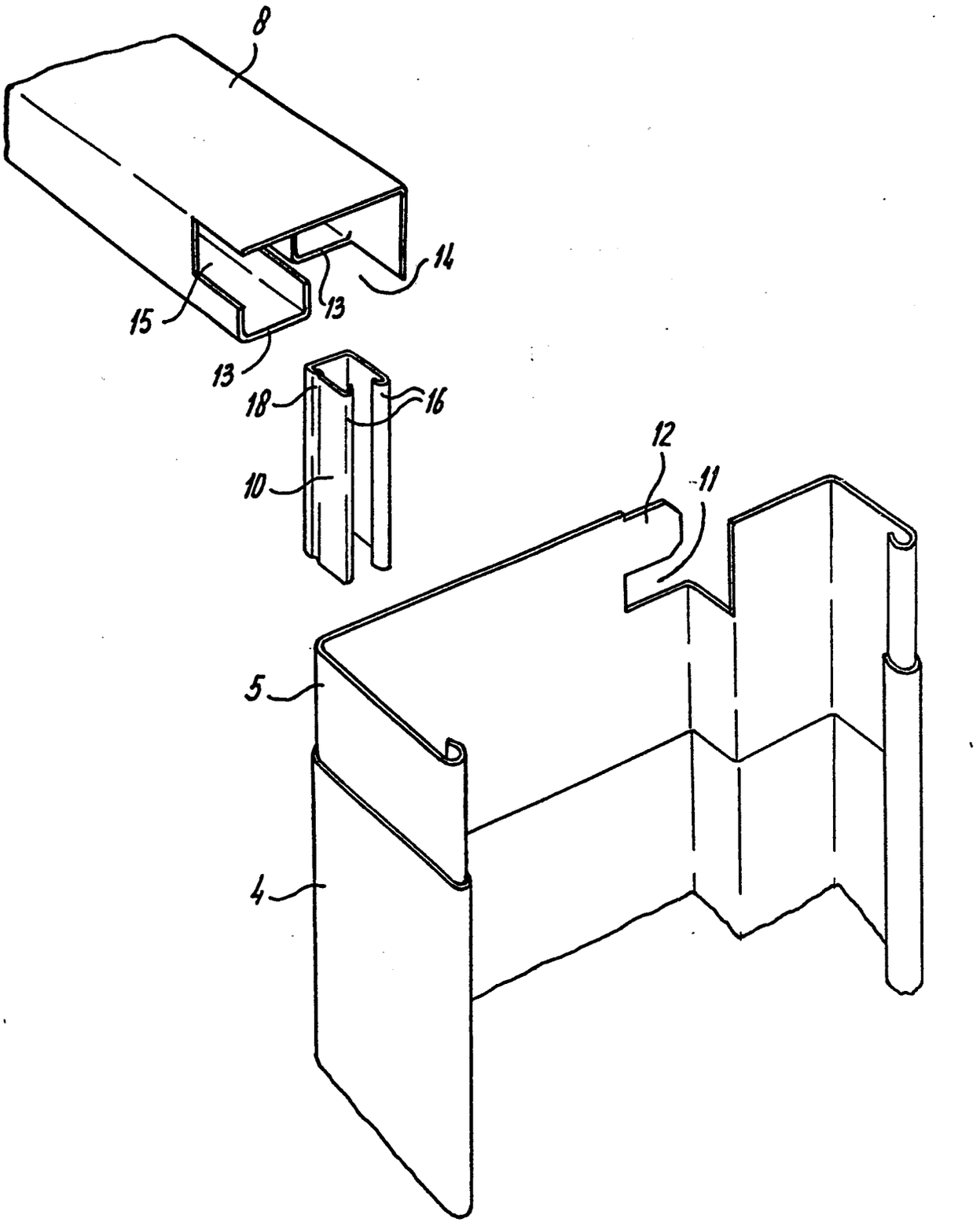
Fig-3



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EUROPEAN SEARCH REPORT

Application number
EP 83 20 0053

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)
A	FR-A-2 219 295 (HOLLANDSCHE BETON GROEP) * Page 4, lines 27-40; page 5, lines 1-25; page 7, lines 4-34; figures 1-6 *	1	E 06 B 1/52
A	NL-A-7 414 633 (COMPRI-ALUMINIUM) * Page 5, lines 1-35; page 6, lines 1-35; page 7, lines 1-35; page 8, lines 1-34; figures 1-4 *	1,2,5	
A	DE-A-2 026 859 (ZIMMERMANN) * Page 2, paragraphs 9,10; page 3, paragraphs 1-4; figures 1-8 *	1,2	
A	DE-B-1 278 091 (GUTH) * Column 2, lines 18-32, 48-52; column 3, lines 1-43; column 4, lines 1-5; figures 1-6 *	1,2	TECHNICAL FIELDS SEARCHED (Int. Cl. ³) E 06 B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	20-04-1983	DEPOORTER F.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
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