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Anmeldenummer / Filing No / N^o de la demande : 82 306 304.5

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Bezeichnung der Erfindung: Window and door frame components

Title of invention:

Titre de l'invention :

Klassifikation / Classification / Classement : E06B 3/22, E06B 3/26

ENTSCHEIDUNG / DECISION

vom / of / du 24 July 1990

Anmelder / Applicant / Demandeur : L.B. Plastics Limited

Patentinhaber / Proprietor of the patent /
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPÜ / EPC / CBE Art. 56

Schlagwort / Keyword / Mot clé : "Inventive step (denied)"

Leitsatz / Headnote / Sommaire



Case Number : T 115/89 - 3.2.2

D E C I S I O N
of the Technical Board of Appeal 3.2.2
of 24 July 1990

Appellant : L.B. Plastics Limited
Firs Works, Nether Heage
Belper, Derbyshire (GB)

Representative : MacMaster, Alan Jeffrey et al,
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48 Friar Gate
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Decision under appeal : Decision of Examining Division 109
of the European Patent Office dated
6 October 1988 refusing European
patent application No. 82 306 304.5
pursuant to Article 97(1) EPC

Composition of the Board :

Chairman : G. Szabo
Members : P. Dropmann
L. Mancini

Summary of Facts and Submissions

- I. European patent application No. 82 306 304.5 filed on 26 November 1982 and published under publication No. 0 082 606 was refused by a decision dated 6 October 1988. The decision was based on Claims 1 to 4 as filed with a letter dated 19 January 1987. The main claim was worded as follows:

"A window or door construction incorporating a pane or panes of glass retained in a frame by elongated glazing beads inserted between the glass and the frame, each glazing bead comprising first retaining means at or adjacent its outer edge engageable with a co-operating retaining member on the frame and second retaining means at or adjacent its inner edge, said second retaining means comprising oppositely acting retaining formations carried by said bead characterised in that the formations (11A, 11B) on said second retaining means are engageable with a co-operating elongated retaining member (9A) formed integrally with the frame (5)."

- II. The reason given for the refusal was that the subject-matter of the claims did not involve an inventive step both in view of the prior art revealed in document DE-U-1 995 673 itself, and in the light of the combination of the disclosure of FR-A-1 588 053 with the cited German utility model.
- III. On 30 November 1988 the Appellant lodged an appeal against the Decision. The appeal fee was paid on 1 December 1988 and the Statement of Grounds was received on 1 February 1989.

The Appellant argued that the Examining Division

- did not correctly formulate the problem to be solved,
- did not take account of the fact that others had failed to fully overcome the fundamental problem,
- failed to take account of the long period of time elapsing during which the alleged obvious solution was available but was not adopted,
- used hindsight in defining and selecting the steps necessary to move from the prior art to the Appellant's solution, which steps could only be formulated given knowledge of the final solution and which steps were in any event not obvious, and
- failed to acknowledge the benefits of the Appellant's solution to the problem compared with other solutions which could have been adopted.

IV. The Appellant requests that the contested Decision be set aside and, by implication, that a European patent be granted on the basis of the refused claims. The Appellant further requests refund of the fee and costs.

Reasons for the Decision

1. The appeal is admissible.
2. Novelty

The subject-matter of Claim 1 is novel over the prior art documents mentioned during the proceedings, since none of the documents discloses a window or door construction which comprises all the features specified in Claim 1. In particular, the co-operating retaining member (34) of the window or door construction disclosed in Fig. 6 of DE-U-1 995 673 is neither elongated nor formed integrally with the frame.

3. **Closest state of the art**

As acknowledged by the Appellant (cf. his letter dated 19 January 1987), DE-U-1 995 673 represents the state of the art document which is closest to the subject-matter of Claim 1. In fact, this document (cf. in particular Figs. 6 and 6a and page 8) discloses a window or door construction comprising all the features specified in the first part of Claim 1, i.e. it reveals a construction which incorporates, using the reference numerals of the prior art document, a pane of glass (31) retained in a frame (1,2,8) by elongated glazing beads (19,19') inserted between the glass and the frame, each glazing bead comprising first retaining means (17) at or adjacent its outer edge engageable with a co-operating retaining member (15) on the frame and second retaining means at or adjacent its inner edge, said second retaining means comprising oppositely acting retaining formations (33) carried by said bead. In further correspondence with Claim 1, it is known from the DE document that the formations (33) on said second retaining means are engageable with a co-operating retaining member (34) on the frame.

4. **Problem and solution**

As pointed out by the Appellant during the examining procedure (cf. letter dated 19 January 1987) and under point 6 of the Statement of Grounds, the retaining members (34) of the prior art construction, which members had the form of studs, were unsatisfactory from two points of view. Firstly, the glazing bead was retained only at spaced locations on the frame and was therefore much less secure than a bead retained throughout the length of the frame. Secondly, the studs comprised separate components which complicated fabrication of the window, since it was

necessary for the main window frame extrusion (8) to be drilled at spaced intervals to receive the studs which then required to be inserted into the drilled holes in a time-consuming operation before the glazing bead could be fitted and which were liable to become detached and lost.

In the Statement of Grounds (cf. points 2 and 3) the Appellant put more emphasis on the first of said two points of view arguing that the basic problem which the present invention sought to solve was not fundamentally to improve upon the disclosure in DE-U-1 995 673 but to provide a satisfactorily secure external glazing bead. External glazing could only be adopted if the glazing bead was sufficiently secure after fitting that it could not be readily removed, otherwise unauthorised persons could gain entry by removing the bead and the window glass.

However, it is stated in the application as originally filed (cf. page 2, last but one paragraph and Claim 9) that the glazing bead is removable. There is no disclosure in the original application that the glazing bead once fitted cannot be removed except by breaking the glass. In particular, such feature cannot be derived from Fig. 1 of the application since the cross sections of the spaced parallel ribs (11A, 11B) formed on the glazing bead are not such that removal of the glazing bead can be prevented.

In this context reference is made to the Decision T 155/85 dated 28 July 1987 (headnote published in OJ EPO 1988, 87). According to point 12 of this decision, it is not acceptable "to rely on an effect which has previously been described as undesirable and of no value by the Applicant, to present the same suddenly as possibly representing an advantage from some other point of view, and thereby to imply that the technical problem and the considerations for the inventive step should take this reversal into

account. Whilst a redefinition of the technical problem in respect of a particular state of the art is normally permissible and even necessary on the basis of the comparison of achievements with the closest prior art, this should not contradict earlier statements in the application about the general purpose and character of the invention."

The Appellant's argument that the glazing bead of the construction according to the present application is not removable and that the problem which the present invention seeks to solve is that of providing, from a security point of view, a satisfactorily secure and thus not removable external glazing bead, must therefore be dismissed as contrary to the original disclosure and cannot be taken into consideration when assessing the inventive step. But even if it were taken into account, the Board would not come to a different conclusion concerning the inventive step.

Hence, in correspondence with the Appellant's above-mentioned second point of view, the technical problem underlying the present application can only be seen in the elimination of the problems associated with the separate studs mentioned in DE-U-1 995 673, and in the facilitation of the fabrication of the window or door construction.

This problem is solved according to Claim 1 by making said co-operating retaining member (9A) elongate and forming it integrally with the frame (5).

5. Inventive step

5.1 The posing of the above-mentioned problem does not, in the Board's view, contribute to the presence of any possible inventive step. The problem is a mere consequence of the deficiencies linked with the separate studs of the kind

required in DE-A-1 995 673 which deficiencies are recognised by a person skilled in the art either on reading the document or during fabrication and practical use of the prior art construction (cf. T 109/82, Hearing aid/BOSCH, OJ EPO 1984, 473, Headnote I).

5.2 Faced with the problem of eliminating the deficiencies associated with the separate studs and of facilitating fabrication of the window or door construction, the skilled person would try to avoid the use of the series of separate studs. In view of the fact that frames and glazing beads for window or door constructions of the type specified in the first part of Claim 1 are usually produced by an extrusion process (cf. DE-U-1 995 673, pages 1 and 8), the Board is of the opinion that the replacement of the series of studs by an elongate retaining member lies well within the realm of a person skilled in the art. Such an elongate retaining member would then of course be formed integrally and simultaneously with the frame during the extrusion process in order to facilitate fabrication of the frame.

It can also be pointed out that such elongate integrally formed retaining members are known from the closest prior art document DE-U-1 995 673 itself (cf. Fig. 6, the dovetailed tongue of frame 8 co-operating with the fitting strips 17 of the glazing bead). In order to further prove that such elongate integrally formed retaining members on a frame are quite common in the art, reference is made to the document "Avis Techniques" mentioned during the examination procedure. On page 9 of this document, frame profiles P1020 and P1038 comprise integrally formed hook-shaped retaining members engageable with co-operating hook-shaped retaining means on the glazing bead profile P1030.

It would therefore appear obvious for the person skilled in the art to modify the window or door construction known from DE-U-1 995 673 by replacing the separate studs by elongate retaining members formed integrally with the frame, and thus to arrive at the subject-matter of Claim 1, which therefore appears to be lacking in inventive step.

5.3 The arguments advanced by the Appellant do not appear convincing enough to refute this conclusion. As to the argument concerning the formulation of the problem and the problem itself to be considered for assessing the inventive step, reference is made to the statements under point 4 above.

5.3.1 The Appellant argues that the Examining Division did not take account either of the fact that others had failed to overcome the problem or of the long period of time of more than ten years which elapsed between publication of the prior art document and making of the present application, during which period the alleged obvious solution was not adopted. However, the assessment that a particular solution of a problem appears to be obvious in the light of one or more prior art documents does not necessarily mean that the solution has to be found immediately, or a short time after the prior art documents have become available to the public. There may have been reasons why the person skilled in the art did not consider amending the prior art construction. For example, there may have been no need for modifying the closest known art construction since the disadvantages of this construction could be accepted or were compensated by other advantages. There has been no suggestion and evidence put forward that a long felt want had been associated with the cited old document which was only satisfied by the claimed subject-matter after a considerable lapse of time.

In the present case, the prior art attachment of the glazing bead (19) to the frame (8) by studs (34) engageable with the second retaining means (33) of the glazing bead, which attachment has been amended in the present application, just served as an additional fixation (cf. DE-U-1 995 673, page 8, last paragraph), which may not in all cases have been desirable. Thus the need for amendment of the prior art construction arose only when the additional attachment of the glazing bead appeared to be desirable in all cases, which would justify a modification of the frame. The Appellant, however, failed to submit evidence for a long-felt need, i.e. that the problem as indicated under point 4 had long existed and workers in the art had attempted to solve this problem for a long time.

5.3.2 The reproach of hindsight consideration brought forward by the Appellant in the Statement of Grounds is not justified. The problem has objectively been formulated from the actual result achieved over the nearest prior art represented by DE-U-1 995 673 and then it has been assessed whether it would have been obvious for the skilled person to solve this problem in the light of the prior art.

When arguing that the skilled person faced with the above-mentioned task of avoiding the separate studs of the prior art construction and of simplifying manufacture would think in terms of integral formation of studs, not integral formation of a continuous rib, the Appellant did not sufficiently take into account that the window frame profiles and the glazing beads are commonly manufactured by an extrusion process. Such process, however, excludes the formation of integral studs, but enables the formation of an integral continuous rib instead. Thus the Appellant's considerations in this respect appear to be indicative of obviousness rather than inventive step.

In particular, the Appellant's statements concerning the number of different directions in which the skilled person might have been led, do not support the presence of an inventive step but rather prove its absence. Since an extrusion process is commonly used to manufacture frame profiles, and since this process does not allow the integral formation of a series of studs on the frame, it is considered obvious to replace in consequence the individual studs by a single continuous rib, i.e. in the Appellant's words, to change the nature of the formation and to extrude the rib integrally with the frame profile itself. In this manner, the underlying technical problem of eliminating the deficiencies associated with the separate studs and of simplifying the manufacturing process is necessarily solved. Moreover, this solution offers itself for another reason as well, because as pointed out by the Appellant, it eliminates weaknesses in the frame components caused by drilling in the frame of holes required for attachment of the studs.

It has thus become evident, without using hindsight analysis, that a correct consideration of the prior art document leads the skilled person to the subject-matter of Claim 1 for several reasons.

5.3.3 As to the further argument of the Appellant that the benefits of his solution to the problem have not correctly been acknowledged when assessing inventive step, it is pointed out that these benefits are a consequential result of the structural modifications of the prior art construction. They are not surprising and therefore do not contribute to the presence of any possible inventive step.

6. Claim 1 is thus not allowable under Arts. 52(1) and 56 EPC and Claims 2 to 4 must fall together with Claim 1 to which they are appended.

7. In accordance with Rule 67 EPC, reimbursement of an appeal fee shall be ordered when a Board of Appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation. Since in the present case the appeal is not allowable, there is no basis for reimbursement of the appeal fee or other costs.

Order

For these reasons, it is decided that:

1. The appeal is dismissed.
2. The request for reimbursement of the appeal fee is rejected.

The Registrar:




N. Maslin

The Chairman:



G. Szabo

 31.7.90

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