

**Internal distribution code:**

- (A) [ ] Publication in OJ  
(B) [ ] To Chairmen and Members  
(C) [X] To Chairmen

**D E C I S I O N**  
**of 17 March 1999**

**Case Number:** T 0816/97 - 3.2.3

**Application Number:** 88830556.2

**Publication Number:** 0325900

**IPC:** E06B 5/10, E06B 3/16

**Language of the proceedings:** EN

**Title of invention:**

A coordinated section member assembly for making armoured window and door frames

**Patentee:**

Metallurgica Metra Trafilati Alluminio S.p.A.

**Opponent:**

Schüco International KG

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Inventive step - obvious combination of known features"

**Decisions cited:**

-

**Catchword:**

-



Europäisches  
Patentamt

European  
Patent Office

Office européen  
des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0816/97 - 3.2.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.3**  
**of 17 March 1999**

**Appellant:** Metallurgica Metra Trafilati Alluminio S.p.A  
(Proprietor of the patent) Via Provinciale Stacca, 1  
25050 Rodengo Saiano (Brescia) (IT)

**Representative:** Gustorf, Gerhard, Dipl.-Ing.  
Patentanwalt  
Bachstrasse 6A  
84036 Landshut (DE)

**Respondent:** Schüco International KG  
(Opponent) Karolinenstraße 1-15  
33609 Bielefeld (DE)

**Representative:** Stracke, Alexander, Dipl.-Ing.  
Patentanwälte  
Dipl.-Ing. A. Stracke  
Dipl.-Ing. K. O. Loesenbeck  
Jöllenbecker Strasse 164  
Postfach 10 18 82  
33518 Bielefeld (DE)

**Decision under appeal:** Decision of the Opposition Division of the European  
Patent Office dated 27 June 1997 revoking European  
patent No. 0 325 900 pursuant to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** F. Brösamle  
J. P. Seitz

## Summary of Facts and Submissions

I. With the decision of 27 June 1997 the opposition division revoked European patent No. 0 325 900 in the light of

(D5) "Nuova Finestra", No. 5, 1983, pages 142 to 150  
and

(D4) DE-U-7 803 666.

II. Claim 1 underlying the above decision was filed with letter of 13 June 1996 and reads as follows:

"1. A coordinated section member assembly for making armoured window and door frames, comprising a section member (1) for making fixed frames; a section member (2) for making the movable frames of inwardly openable windows; a section member (3) for making the movable frames of outwardly opening windows; a section member (4) for making the movable frames of inwardly opening doors; an auxiliary central section member (5) for making two-wing windows; a further auxiliary central section member (6) for making two-wing doors; an abutment section member (7) adapted to provide an abutment for outwardly openable frames; a section member (8) adapted to provide a band and/or a base for the doors; a glass plate restraining section member (9); a section member (10) adapted to provide a fixed upright or cross-member; characterized in that said section members (1, 2) are provided at its armouring zones, with a first armouring seat (12) adapted to receive steel or aluminium armouring foils (A), said

first armouring seat (12) being arranged near the outer side of said section member and a second armouring seat (12) spaced from said first armouring seat toward the inner side of said section member and offset from said first armouring seat in the direction of an adjoining frame so as to be superimposed both on said first armouring seat and on the armouring seat of said adjoining frame and that each said armouring seat (12) is provided with a pair of spacer members dividing each seat into two spaces each of which houses a steel or aluminium armouring foil, so that two reinforcing foils are provided at each armouring zone as a double armouring foil."

- III. On 24 July 1997 the appellant (proprietor) lodged an appeal against the above decision paying the appeal fee on 28 July 1997 and filing the statement of grounds of appeal on 22 October 1997.

The appellant requested to set aside the impugned decision and to maintain the patent on the basis of claims 1 and 2 filed with letter of 13 June 1996 (**main request**) or on the basis of claims 1 and 2 filed with letter of 11 February 1999 (**auxiliary request**).

Claim 1 of the **auxiliary request** is restricted to **aluminium** foils by deleting in claim 1 of the **main request** the words "steel or".

- IV. The opponent (respondent) requests to dismiss the appeal i.e. to not allow the **main** or **auxiliary request**.
- V. Following the board's communication pursuant to

Article 11(2) RPBA in which the board gave its provisional opinion with respect to (D5) and (D4), as well as with respect to two further documents,

(D6) DE-C-2 818 745 and

(D7) "Aluminium", July 1977, pages 421 to 426

filed by the opponent to demonstrate that aluminium could be used for bulletproof windows or vehicles, oral proceedings were held on 17 March 1999 in which the appellant did not take part although duly summoned so that these oral proceedings were continued without him (Rule 71(2) EPC).

VI. The essential arguments of the parties brought forward in writing and orally can be summarized as follows:

(a) appellant

- (D5) does not disclose a seat of a profile that allows two armouring plates/foils to be inserted in that seat;
- (D5) discloses therefore a bulky solution since the armouring foils are inserted in spaced seats of the profile; in addition the known structure does not allow aluminium to be used as an armouring plate;
- (D4) does not disclose any division for providing in an armouring seat two armouring foils; even if two armouring foils would, however, be envisaged in (D4) this document does

not unambiguously point to aluminium rather to mixed materials, namely steel and aluminium;

- (D6) teaches away from the claimed subject-matter, namely to the provision of an **external** foil of aluminium; under these conditions it would not be possible to use two individual foils - instead of one thick foil - being more favourable with respect to the armouring effect than one foil having a double thickness;
- only by hindsight could a skilled person combine (D5) and (D4) to arrive at the claimed subject-matter;
- (D7) relates to a different technical field, namely military equipment, and teaches moreover that in case of aluminium the thickness must be 2,5 times thicker than steel so that a skilled person would not envisage the possibility to replace steel by aluminium.

(b) respondent

- nearest prior art document is (D5) which discloses a coordinated section member assembly for making armoured window and door frames; the cross-section members are provided with armouring seats, into which foils/plates of steel or aluminium are inserted to achieve a bulletproof system;
- what is not known from (D5) is that each armouring seat is provided with a pair of spacer

members dividing each seat into two spaces in which two foils/plates can be inserted;

- an armouring seat equipment with spacer members to create two spaces is, however, known from (D4), (see Figures 1/2 and page 3, first paragraph), whereby both spaces can be filled with armouring foils/plates;
- with respect to the combination of (D5) and (D4) a skilled person could directly achieve the subject-matter of claims 1 of the main and auxiliary request without the exercise of an inventive activity and without knowing the claimed invention since a skilled person had only to read the two documents in question to solve the problem of how a favourable armouring system can be obtained;
- it is clearly not obligatory to use **mixed** materials in the case of a double foil/plate per seat; since the combination of (D5) and (D4) is obvious it is a bonus effect that two individual foils/plates offer a better armouring effect than one foil/plate of double thickness.

## **Reasons for the Decision**

1. The appeal is admissible.

*Main request*

2. *Novelty*

This issue was not disputed in the impugned decision or in the appeal proceedings so that the subject-matter of claim 1 is novel.

3. *Inventive step*

3.1 The nearest prior art is (D5) which document discloses a coordinated section member assembly for making armoured window and door frames (see in particular page 143 and Figure 3 thereof). The armouring foils/plates appear as black boxes which are provided for on inner and outer sides of the section members and which moreover are overlapping to achieve a bulletproof system even for shells hitting the frames under acute angles.

3.2 In (D5) two types of materials are dealt with, namely armouring foils/plates made from **steel** and from **aluminium**, (see page 144, right column, lines 11 to 16 and Table 3 on page 147 thereof disclosing *inter alia* an Al-alloy 5083), these two types of material being dealt with also in (D7), (see page 421, left column and page 423 paragraph bridging left and right column).

3.3 There is therefore not the slightest doubt for the board that (D5) is based on the two materials set out in claim 1.

3.4 Starting from a section member assembly as disclosed in (D5) the objectively remaining technical problem to be solved by the invention can only be seen in overcoming

- the shortcomings of **single** armouring foils/plates in the armouring seats of the profiles.
- 3.5 This problem is solved with the modification of the section members itself, namely providing a pair of spacer members in every armouring seat to create two spaces, housing double foils/plates according to claim 1.
- 3.6 With the section member assembly according to the contested patent a better system is achieved with respect to its ability to withstand shells hitting the window/door frames since **double** foils/plates offer an enhanced armouring effect vis-à-vis a single foil/plate of double thickness.
- 3.7 This technical teaching (features for solving the above object/problem) is, however, known from (D4) and its Figures 1/2 and page 2, lines 1 to 10 and last paragraph and page 3, first paragraph, clearly disclosing armouring seats with **double** spaces to enable armouring foils/plates to be inserted whether from steel or any other high strength materials. (D4) is not at all to be interpreted as a document teaching **different** materials of the armouring foils/plates since the first paragraph of page 3 does not prescribe high strength fibres **as obligatory**, rather as an optional feature ("z.B." means "for example").
- 3.8 The board is convinced that a skilled reader **not knowing the claimed invention** would combine the teachings of (D5) and (D4) without the exercise of an inventive endeavour and directly achieve the subject-

matter of claim 1 including its advantageous effect i.e. enhanced resistance against shells/bullets with respect to the prior art reflected by (D5).

3.9 Claim 1 does not therefore define patentable subject-matter within the meaning of Articles 56 and 100(a) EPC and is consequently not valid.

3.10 Appellant's chain of arguments for the above reasons is not convincing since (D5) clearly discloses steel **and** aluminium as advantageous armouring foils/plates whereby no necessity can be derived from (D4) to use **mixed** materials in the case of double foils/plates.

(D7) is only used as a **further proof** to (D5) that it is known to use aluminium as an armouring material. (D6) does not need to be considered since (D7) and (D5) clearly are based on aluminium foils/plates and since (D4) is nearer to the claimed subject-matter than (D6), already implicitly including the advantageous effect of **double** foils/plates instead of a single foil/plate of double thickness.

From page 422, right column, lines 14 to 19, of (D7) it cannot be derived that under all circumstances the use of aluminium leads to bulky constructions since from page 423, (see paragraph bridging left and right column), a skilled person is taught that Al-alloy 5083 - also mentioned in Table 3 of (D5) - **can replace steel** without loosing in armouring effect.

4. Summarizing, appellant's findings are not supported by the facts and have to be rejected.

*Auxiliary request*

5. Claim 1 thereof is restricted to one alternative of claim 1 of the **main request** namely aluminium as the material of the armouring foils/plates. Since this alternative has been dealt with in combination with the above **main request** no further argument is necessary in this respect so that the subject-matter of claim 1 of the **auxiliary request** lacks in inventive step. This claim 1 is also therefore invalid.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

N. Maslin

C. T. Wilson