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D E C I S I O N
of 7 July 1998

Case Number: T 0403/96 - 3.2.1

Application Number: 89830334.2

Publication Number: 0362148

IPC: B62D 33/023

Language of the proceedings: EN

Title of invention:
Section-member assembly for forming truck side-boards

Patentee:
Metra Metallurgica Trafilati Alluminio S.p.A.

Opponent:
Alusuisse Technology & Management AG

Headword:
-

Relevant legal provisions:
EPC Art. 56, 123(2)

Keyword:
"Added subject-matter (no)"
"Inventive step (yes)"

Decisions cited:
-

Catchword:
-



Case Number: T 0403/96 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 7 July 1998

Appellant:
(Opponent)

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Respondent:
(Proprietor of the patent)

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 11 March 1996
rejecting the opposition filed against European
patent No. 0 362 148 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: F. Gumbel
Members: S. Crane
J. van Moer

Summary of Facts and Submissions

- I. European patent No. 0 362 148 was granted on 20 April 1994 on the basis of European patent application No. 89 830 334.2.
- II. The patent was opposed by the present appellants on the grounds of lack of novelty and/or inventive step (Article 100(a) EPC), insufficiency of disclosure (Article 100(b) EPC) and inadmissible extension of subject-matter (Article 100(c) EPC). The objection under Article 100(b) EPC was subsequently withdrawn.

Of the prior art documents relied upon in the opposition proceedings only the following have played any significant role on appeal:

D7: FR-A-1 497 184

D8: Company brochure of Aluminium - Walzwerke Singen GmbH entitled "Alusingen Fahrzeugbau-Konstruktionen", 1985, pages 2.4 and 2.4.3

D9: "Nutzfahrzeugaufbauten - Mit Aluminium leichter zum Ziel", G. Gross, Sonderdruck von Beiträgen in "Fahrzeug + Karosserie" Ausgaben 3-8/1983, pages 10 to 13.

- III. With its decision posted 11 March 1996 the Opposition Division rejected the opposition.

- IV. An appeal against this decision was filed on 10 May 1996 and the fee for appeal paid at the same time.

The statement of grounds of appeal was filed on 11 July 1996. With this statement the appellants submitted a letter addressed to them by the author of document D9, Dr. Gross, giving supplementary information about the content of Figure 4 of that document.

V. Oral proceedings before the Board were held on 7 July 1998.

At the oral proceedings the respondents (proprietors of the patent) submitted a new set of claims 1 to 3 together with a revised description (columns 1 to 4) and drawings (Figures 1 to 7), on the basis of which they requested maintenance of the patent in amended form.

New claim 1 reads as follows:

"A section member assembly for making side-boards of trucks and the like, comprising section members including at one end portion thereof, an open portion (5) and, at an opposite end portion thereof, a closed portion (4) having a width less than that of said open portion and provided for snap engaging in the open end portion (5) of a like section member, characterized in that on the two opposite sides of said closed portion (4) there are provided latching teeth (6), whereas on the inner face of the two sides of said open portion (5), provided for receiving said closed portion (4) of a like section member, there are provided two restraining teeth (7, 8) having suitably differentiated profiles which can be engaged with said two latching teeth (6) to couple the section members while recovering possible clearances, said two restraining teeth (7, 8) having a contour different from that of

said latching teeth and being arranged for coupling with said latching teeth (6) both by causing a section member to translate with respect to the other and by causing a said section member to partially rotate with respect to the other section member."

Dependent claims 2 and 3 relate to preferred embodiments of the assembly according to claim 1.

The appellants requested that the decision under appeal be set aside and the patent revoked in its entirety.

VI. The arguments of the appellants in support of their request, insofar as still relevant to the present claims, can be summarised as follows:

There was no basis in the original application for the features contained in claim 1 that the restraining teeth have a contour different from that of the latching teeth and that coupling of the section members could be achieved by relative translation between them. With respect to the first of these features all that was disclosed in the original application was that one restraining tooth had a contour different from that of the other restraining tooth. With respect to the second of these features the original disclosure only mentioned the possibilities of coupling by means of relative rotation of the section members or by a "restraining method". The latter was not however coterminous with relative translation.

In document D7, on which the preamble of claim 1 was based, the restraining and latching teeth were arranged in such a way that coupling of the section members could only be achieved by relative translation. Document D8 on the other hand showed how it was possible, using restraining teeth with a profile different from that of the latching teeth, to arrive at

a coupling system which allowed assembly both by relative translation and by relative rotation of the section members. It was an obvious step to apply this arrangement of teeth to the basic configuration of section member disclosed in document D7 in order to improve the versatility of the ways in which it could be assembled. Furthermore, it was well known, as could be seen for example from document D9, to fashion each of the restraining teeth differently according to its function, i.e. fulcrum or snap-engaging tooth. Thus, this feature added nothing of inventive significance to the subject-matter of the claim.

VII. In reply the respondents argued substantially as follows:

It was clear from Figures 6 to 8 of the original application that not only did one restraining tooth have a profile different from that of the other restraining tooth but that also each of them was different from the latching teeth. Furthermore, it was clear from Figure 9 that the so-called "restraining method" of coupling involved relative translation of the section members. All that had been done was to replace the former term by a more appropriate one.

Although it might indeed be possible to assemble two section members as shown in document D8 by relative translation, to do so would require the application of a large force which could lead to damage of the members. Furthermore, this method of assembly would be dependent on the additional flexibility given by both ends of the section member being open. Thus the tooth profiles shown in document D8 were not applicable to an arrangement, as defined in the preamble of claim 1, where one end portion of the section member was closed. In order to allow section members of this basic configuration to be assembled both by relative

translation and relative rotation the appellants had given each of the restraining teeth a different profile specifically adapted to its specific role on rotational assembly, these profiles allowing assembly in the translational mode without the use of excessive force.

Reasons for the Decision

1. The appeal complies with the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.
2. *Articles 123(2) and (3) EPC*

In comparison with claim 1 as granted present claim 1 has been amended by the incorporation of the features that the two restraining teeth have "suitably differentiated profiles" and that the engagement of the restraining and latching teeth couples the section members "while recovering possible clearances".

The first of these features is taken from the penultimate paragraph of page 5 of the application documents (i.e. the English translation of the original documents filed in Italian) and can be seen clearly in the original Figures 7 and 8.

The second of these features, which the Board understands as meaning that the snap-engaging coupling is designed to give a good fit despite manufacturing tolerances, is taken from the original claim 1 and has been added in response to one of the initial objections of the respondents under Article 100(c) EPC.

Since both of these amendments find a proper basis in the original application and have the effect of limiting the scope of protection, there is no objection to them under Articles 123(2) and (3) EPC.

As for the objections of added subject-matter raised against granted claim 1 and maintained against the present claim 1, the Board is of the opinion that the features concerned are properly supported by the original disclosure. In particular, the unambiguous basis for the requirement that the two restraining teeth have a contour different from that of the latching teeth is to be found (cf. decision T 169/83, OJ EPO 1985, 193) in the original Figures 6 to 8. In this context the Board notes that both the "contour" and the "profile" of the restraining teeth are mentioned in present claim 1. Since it is evident that the same thing is being referred to in both cases, the term "profile" alone will be used from now on to avoid possible confusion.

There can also be no doubt when account is taken of Figure 9 that the "restraining method" of coupling the section members referred to in original claim 1 and in the paragraph bridging pages 6 and 7 of the description merely involves the translation of one section member with respect to the other, as is accurately stated in present claim 1.

The amendments made to the dependent claims, description and drawings were necessary to eliminate embodiments which did not fall within the scope of claim 1. Again, there is nothing here which falls foul of Article 123(2) EPC.

3. *Novelty and inventive step*

In their statement of grounds of appeal the appellants argued, albeit somewhat tentatively, that the subject-matter of granted claim 1 was fully anticipated by the construction shown at the left of Figure 4 of document D9, as this would be understood by the person skilled in the art. In this context they relied in particular on what was said by Dr. Gross, the author of document D9, in his letter to them dated 19 June 1996 concerning the possibility of that construction being assembled both by relative translation and by relative rotation of the section members. In the opinion of the Board it is already somewhat doubtful as to whether it can be seen from the cited Figure that the restraining and latching teeth of the section members are configured in such a way as to allow assembly by relative rotation rather than by relative translation but in any case one thing is clear, namely that both of the restraining teeth have the same profile. Thus the subject-matter of present claim 1, which requires the two restraining teeth to have different profiles, is novel with respect to document D9 (Article 54 EPC).

The novelty of the subject-matter of present claim 1 with respect to documents D7 and D8 is not in dispute. Document D7 is mentioned in the introductory description of the patent specification as constituting the most relevant background state of the art and forms the basis for the preamble of present claim 1. It discloses a section member assembly for making side-boards of trucks and the like wherein each section member has one closed and one open longitudinal side edge portion, with the closed portion being narrower than the open portion so that the closed portion of one member can on assembly fit inside the open portion of an adjacent member. The inside surfaces of the limbs of the open portion and the outside surfaces of the closed

portion are provided with interengaging saw-like teeth. The only possibility of assembling two section members is by translation of one with respect to the other.

In relation to this state of the art the technical problem to be solved resides in the provision of coupling means which allow greater versatility of assembly of the section members. As set out in the characterising clause of present claim 1 this problem is solved by the provision of tooth profiles for the restraining teeth on the open portion and the latching teeth on the closed portion of the section member which allow two section members to be coupled both by relative translation and relative rotation. In particular, the restraining teeth have "suitably differentiated" profiles and those profiles are different from the profile of the latching teeth. In the light of the description the term "suitably differentiated" is to be understood as meaning that one of those tooth profiles is adapted to the role of the corresponding tooth as a fulcrum about which the section member is rotated during this mode of assembly whereas the other tooth profile is more commensurate with the snap-engaging function of the tooth. As a consequence of these different profiles it is also possible to reduce the force required for coupling the section members by relative translation in comparison with two identical conventional snap-engaging teeth.

The basic principle of using restraining teeth having a profile different from that of the latching teeth in order to allow coupling of the section members by relative rotation is clearly shown in document D8, which also relates to the same specific technical field as the claimed invention, namely side-boards for trucks and the like. Here, however, both of the side edge portions of a section member are of open configuration and each of the restraining teeth has the same profile.

The appellants maintain that the arrangement of teeth disclosed in document D8 allowed assembly of the section members not only by relative rotation, as specifically disclosed in the document, but also by relative translation and demonstrated this at the oral proceedings before the Board with the aid of short lengths of the section members involved. However, it is apparent that the possibility of assembly by relative translation must be significantly enhanced by the fact that both the restraining and the latching teeth stand free from the respective side edges of the section members so that the latching teeth have considerably more flexibility than when they are arranged on opposite sides of a closed edge portion of the section member, as in document D7. It is thus not clear whether the provision of tooth profiles as shown in document D8 on section members having one open and one closed side portion would result in a construction which enabled assembly of the section members both by relative translation and by relative rotation. In any case, there is nothing in documents D7 or D8 which could lead the person skilled in the art away from using identical restraining teeth towards the use of restraining teeth with two different specially adapted profiles. Here, the appellants rely on document D9, for example the middle and right-hand construction of Figure 4, as evidence of the fact that it was generally known to use asymmetric tooth profiles. That is undoubtedly the case but the constructions involved are restricted to arrangements where coupling of the section members can only be achieved by relative rotation. Thus the Board can see no incentive for the person skilled in the art to take these constructions into account when seeking to provide coupling means appropriate for allowing the possibility of both translational and rotational assembly.

Accordingly, the Board has come to the conclusion that the subject-matter of present claim 1 cannot be derived in an obvious manner from the state of the art and therefore involves an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

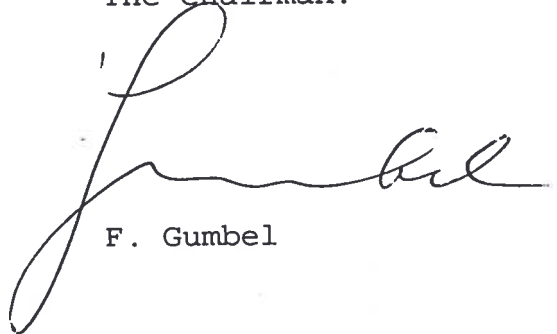
1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in amended form on the basis of the claims, description and drawings submitted at the oral proceedings.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel