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D E C I S I O N
of 22 September 2005

Case Number: T 0915/03 - 3.5.2

Application Number: 96118137.7

Publication Number: 0774802

IPC: H01R 13/627

Language of the proceedings: EN

Title of invention:
Electrical connector with internal resilient member

Applicant:
SUMITOMO WIRING SYSTEMS, LTD.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 82, 92(1), 123(1)
EPC R. 30(1), 86(4)

Keyword:
-

Decisions cited:
G 0002/92, T 0708/00, T 0274/03

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0915/03 - 3.5.2

D E C I S I O N
of the Technical Board of Appeal 3.5.2
of 22 September 2005

Appellant: SUMITOMO WIRING SYSTEMS, LTD.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 20 February 2003 refusing European application No. 96118137.7 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: W. J. L. Wheeler
Members: F. Edlinger
E. Lachacinski

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division refusing European patent application No. 96 118 137.7.

II. Three documents had been cited in the search report. They will be referred to below as D1 to D3:

D1: Patent Abstracts of Japan, vol. 095, no. 011, 26 December 1995 & JP 07 211 392 A,

D2: EP 0 657 968 A, and

D3: EP 0 646 992 A.

III. The application was refused on the ground that the amendments made to claim 1 filed with letter dated 27 March 2002 and to claims 2 to 9 filed with letter dated 14 March 2001 did not meet the requirements of Rule 86(4) EPC.

IV. With the statement of grounds of appeal, the appellant contested the examining division's interpretation of Rule 86(4) EPC and requested that a patent be granted with the originally filed claims (main request) or with the description and claims on file (auxiliary request).

V. With the summons to oral proceedings, the Board sent a communication under Article 11(1) RPBA which indicated that the Board was inclined to agree with the appellant concerning the ground for refusal under Rule 86(4) EPC. However, the subject-matter of claim 1 as originally filed (main request) appeared to lack an inventive step

in view of the prior art disclosed in D3, which was cited as category "X" in the search report. Concerning claim 1 of the auxiliary request, the Board might remit the case to the examining division for further prosecution because inventive step had not been examined, in particular with respect to D3.

VI. With a letter dated 31 May 2005, the appellant filed new page 2a and new claims 1 to 10 as a new main request.

VII. With telefax of 20 June 2005, the appellant requested that the case be remitted to the examining division. In case this request was granted the request for oral proceedings was withdrawn.

VIII. The Board then cancelled the oral proceedings with notification dated 24 June 2005.

IX. Claim 1 has the following wording:

"An electrical connector comprising a male housing (20) and a female housing (30), said male housing (20) adapted for insertion along a path into said female housing (30) in an insertion direction, whereby at least one terminal (11) in said male housing (20) is brought into electrical contact with a corresponding terminal (12) in said female housing (30),

a pivoting member (40) mounted on one of said female housing (30) and said male housing (20) and having an arm (41) and a cam (44) on said arm (41), said pivoting member (40) adapted to pivot about a pivot point and having a locking position, wherein said cam (44) is in

said path, and an open position, wherein said cam (44) is not in said path,

an actuating member (22) on the other of said male housing (20) and said female housing (30), said actuating member (22) adapted to contact said cam (44) at a surface (44a) thereof as said male housing (20) is inserted into said female housing (30),

a resilient member (50) disposed at said one housing and bearing against said pivoting member (40) at a bearing point, said resilient member (50) urging said arm (41) toward said locking position,

whereby, as said male housing (20) is inserted into said female housing (30), said arm (41) is moved from its locking position to its open position until said actuating member (22) has passed over at least an apex portion of said cam (44), at which point said arm (41), under the influence of said resilient member (50), returns to said locked position, thereby securing said male housing (20) in said female housing (30),

wherein

a) said pivoting member (40) in addition to said arm (41) has an operating portion (42) received in a rotation groove (34) of said one housing; and

b) said resilient member (50) bears against said operating portion (42) at said bearing point such that said pivot point is between said bearing point and said cam (44);

c) whereby by pressing said operating portion (42) inward said cam (44) can be lifted;

d) and whereby said resilient member (50) is disposed entirely within said housing."

Claims 2 to 10 are dependent on claim 1.

X. The reasoning given in the decision under appeal may be summarized as follows:

The subject-matter of claim 1 as filed differed from the prior art disclosed in D1 in two aspects. According to claim 1, the resilient member was entirely disposed within the housing. Further, the pivot point of the pivoting member (40) was between a bearing point of the resilient member (50) and a cam (44). The first distinction related to the problem of prior art connectors getting caught on each other's external resilient members when they were packed in bags. The solution to this problem, to dispose the resilient member within the housing, was obvious from D2 (Figure 10). Since the further distinction merely was an obvious design alternative, the subject-matter of claim 1 as filed did not involve an inventive step.

Therefore, the dependent claims 2 to 8 as filed had to be treated like independent claims (which were left without a common inventive concept; Guidelines for Examination, C-III, 7.6). Claim 4 (in combination with claim 1) as filed essentially comprised the additional feature that the pivoting arm was located in a space between a pair of projecting walls.

Amended claim 1 had all the features of claim 1 as filed and further specified an operating portion of the pivoting member which was received in a rotation groove of one housing and that the resilient member was bearing against said operating portion, and the cam could be lifted by pressing said operating portion inward. These features had not been searched because they were not present in the claims as filed and there was no indication in the application that they would be essential, or that claims could be directed to these aspects. Comparing claim 4 as filed and amended claim 1 it was clear that there were "no common special technical features in the sense of Rule 30(1) EPC". Consequently, the amendments made to the application did not meet the requirements of Rule 86(4) EPC.

XI. The appellant essentially argued as follows:

D1 and D2 disclosed connectors with a one-arm lever (cantilever). In view of this prior art, it was not obvious to a person skilled in the art to use a two-arm lever as specified in present claim 1 to achieve the following advantages. Firstly, pressing the operating portion downwards allowed easy unlocking and disengagement of the connector. Secondly, the upwardly directed spring force arranged below the operating portion made it possible to locate the resilient member entirely within the female housing. The arrangement of a pivot point between a bearing point of the resilient member and the cam, which was already present in claim 1 as filed, was not an obvious design alternative, but specified elements of the two-arm lever. Therefore, claim 1 as filed was inventive over a combination of D1 and D2, and amended claim 1, which included additional

features from the description, combined with the original claim 1 to form a single general inventive concept.

If it was true that the additional features of amended claim 1 had not been searched, then the search was too narrow and not conform with the Guidelines B-III, 3.1 and B-III, 3.6 because it did not cover the entire subject-matter with due regard to the description.

The interpretation of Rule 86(4) EPC by the examining division was wrong because it would have the consequence that claims could only be amended if the original claims had already been inventive. There was then no need to amend the claims, and this would undermine the applicant's right to amend the claims at least once pursuant to Article 123(1) EPC. The purpose of Rule 86(4) EPC was to rule out amendments which circumvented the principle that a search fee had to be paid for each invention presented for examination and to stop applicants from switching to unsearched subject-matter (cf OJ EPO 1995, pages 420 and 421).

Reasons for the Decision

1. The appeal is admissible.

2. The present claim 1 only differs from claim 1 on which the decision under appeal is based in that the expression "characterized in that" has been replaced by "wherein", and some linguistic errors have been corrected in the present claim 1. These amendments do

not affect the board's judgment under Rule 86(4) EPC which is the central issue in this case.

3. Rule 86(4) EPC stipulates: "Amended claims may not relate to unsearched subject-matter which does not combine with the originally claimed invention or group of inventions to form a single general inventive concept." Following the principle confirmed by G 2/92, OJ EPO 1993, 591 that an applicant cannot pursue an application for the subject-matter in respect of which no search fees have been paid, Rule 86(4) EPC was introduced to stop applicants switching to unsearched subject-matter if, for example, in the reply to the first communication the applicant drops his existing claims and replaces them with originally non-unitary subject-matter (see the Notice published in OJ EPO 1995, 409, in particular pages 420 and 421). Rule 86(4) EPC thus specifies an additional condition for "unsearched" subject-matter in relation to the "originally claimed" invention or group of inventions, to rule out that non-unitary subject-matter is claimed in sequence in the examining procedure. It does not apply to searched subject-matter, nor does it apply where a lack of unity arises within a group of simultaneously claimed inventions. Article 82 EPC and Rule 30 EPC set out the conditions to be met by a group of inventions which is claimed in one and the same application.

4. The present application as filed contained only one independent claim and seven dependent claims. The search was carried out for claims 1 to 8 as indicated in the search report. D3 was classified as category "X" document in the search report. The search examiner was thus to extend the search to all the dependent claims,

with due regard to the description and any drawings (Article 92(1) EPC), apart from features which are trivial or common general knowledge in the field under consideration (Guidelines for Search, B-IV, 2.6). Special care should be taken, in a case like this, not to overstretch Rule 86(4) EPC, when an applicant merely adds originally disclosed features to one of the claims as filed for which a search report was drawn up (cf T 708/00, OJ EPO, 2004, 160, points 7, 16 and 17; T 274/03, points 5 and 6).

4.1 Since the present amended claim 1 includes all the features of original claim 1 (as stated in the decision under appeal, point 9.2 of the reasons) and comprises additional, more specific features taken from the description, the subject-matter of the amended claim 1 certainly combines with the originally claimed invention in its broadest terms (claim 1) to form a single general concept (as expressed by the original claim 1). In other words, there would be no lack of unity if the subject-matter of the original claim 1 and that of the amended claim 1 were simultaneously claimed (cf T 708/00, *supra*, points 8 and 16).

4.2 However, the examining division (referring to the Guidelines for Examination, C-III, 7.6) expressed the opinion that the subject-matter of the amended claim 1 had to be compared with the originally claimed group of inventions of claims 2 to 8 since the subject-matter of original claim 1 lacked an inventive step over the prior art disclosed in D1 and D2. Comparing original claim 4 and amended claim 1, there were "no **common** special technical features in the sense of Rule 30(1) EPC" (emphasis added by the Board). No reason was given

why claim 4 had been chosen among the said group of inventions.

4.3 Although a lack of unity may arise *a posteriori* among different dependent claims when the subject-matter of the common independent claim lacks an inventive step, it should only be raised in clear cases (cf Guidelines for Examination, C-III, 7.6 to 7.8). The fact that this objection was not raised in the first communication of the examining division may be seen as an indication that the examining division did not regard it as a clear-cut case.

4.4 Features a) and c) of claim 1 under consideration have been introduced by amendment of the original claim 1. These features are disclosed in the paragraphs bridging pages 6 and 7 and pages 9 and 10, in combination with Figures 1 to 6 of the application as filed. Feature b) of claim 1 further defines the bearing point in relation to (as bearing against) the operating portion (cf page 4, lines 6 to 9; Figures 4 and 5). Feature d), already present in claim 1 as filed, was rearranged. All of the added features in claim 1 refer to elements of a pivoting member (40) having an arm (41) with a cam (44) on one side, an operating portion (42) against which the resilient member (50, disposed entirely within the housing) bears on the other side, and a pivot point between the bearing point and the cam. The operating portion is received in a rotation groove (34) of one housing. Pressing the operating portion lifts the cam on the opposite side of the pivoting member, which thus constitutes a two-arm lever. This arrangement offers a solution to two problems with respect to the prior art disclosed in D1 (which is

described in the context of Figures 7 to 10 of the present application). Firstly, the risk of entanglement during packing and shipping is reduced because neither the operating portion nor the arm projects externally and the resilient member is disposed entirely within the housing (page 1, lines 5 to 7; page 2, lines 5 to 14; page 3, lines 13 to 17; page 7, lines 4 to 9; page 10, lines 9 to 14 of the application as filed). Secondly, the male and female parts of the housing can be disengaged without requiring the use of both hands (page 2, lines 14 to 16; page 4, lines 6 to 10; paragraph bridging pages 9 and 10 of the application as filed).

4.5 Original claim 4 is relevant to the first problem. It specifies that the arm (41) of the pivoting member is located in a space between a pair of walls. This makes it possible to arrange the pivoting member so that it does not project externally of the housing (see paragraph bridging pages 6 and 7 of the application as filed, which refers to both ends 41 and 42 of the pivoting member). Further, all the dependent claims 2 to 8 as filed relate to parts of the (two-arm) pivoting member and the resilient member which bears against its operating portion. Figures 1 to 6 all show aspects of a single embodiment. The solution to the second problem mentioned in the description (easy disengagement by pressing the operating portion) derives directly from the arrangement of the pivoting member and the location of the pivoting point (two-arm lever). The additional features of claim 1 should thus have been taken into account in a search on the basis of the original claims with due regard to the description and drawings. Had the features a), b) and c) of claim 1 been recited in

dependent claims as filed, they would not have stood out as a different claimed invention. In these circumstances, Rule 86(4) EPC should not have been applied in this case at all.

5. Regarding the examining division's interpretation of Rule 30(1) EPC, the Board points out that the reasons given in the decision under appeal are incomplete because Rule 30(1) EPC requires "a technical relationship among those inventions involving one or more of the **same or corresponding** special technical features" (emphasis added). Consequently, different claimed inventions do not necessarily have (only) "same features" in common. It follows from the definition of the "special technical features" given in Rule 30(1) EPC that this examination requires an analysis of the contribution which each of the claimed inventions makes over the prior art, in particular the problems solved and effects achieved by the claimed inventions.

6. The Board thus comes to the conclusion that the present set of claims 1 to 10 does not contravene Rule 86(4) EPC. Since this was the only ground for refusal and the department of first instance has not examined the other requirements of the EPC, the Board has decided to exercise its discretion under Article 111(1) EPC to remit the case to the department of first instance for further prosecution.

Order

For these reasons it is decided that:

1. The contested decision is set aside.

2. The case is remitted to the department of first instance for further prosecution.

The Registrar: The Chairman:

D. Sauter W. J. L. Wheeler