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Aktenzeichen / Case Number / N^o du recours : T 189/83

Anmeldenummer / Filing No / N^o de la demande : 78 200 230.7

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Bezeichnung der Erfindung:

Title of invention:

Titre de l'invention :

Cable supporting chain for machine parts moving
in a straight line

ENTSCHEIDUNG / DECISION

vom / of / du 25 September 1984

Patentee :

Anmelder/Patentinhaber:

~~Applicant/Proprietor of the patent~~

Demandeur/Titulaire du brevet :

Mauri, Giovanni

Stichwort / Headword / Référence :

EPÜ / EPC / CBE

Articles 52(1), 56, 104, Rule 63

"Inventive Step - Prerequisite for objection as
to non-inventive aggregation - Award of costs
of oral proceedings"

Leitsatz / Headnote / Sommaire



Case Number: T 189 / 83

DECISION
of the Technical Board of Appeal
of 25 September 1984

Appellant:
(Proprietor of the patent)

Mauri, Giovanni
20 Via dei Prati
I-20 052 Monza (IT)

Representative:

Kuborn, Jaques et al,
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Respondent:
(Opponent)

Kabelschlepp GmbH,
Marienborner Strasse 75
D-5900 Siegen 1, FRG.

Representative:

Patentanwälte Dipl. Ing. Alex Stenger,
Dipl. Ing. Wolfram Watzke, Dipl. Ing. Heinz J. Ring,
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Decision under appeal:

Decision of the Opposition Division of the European Patent Office
dated 14 September 1983 revoking European patent No.
0 001 656 pursuant to Article 102(1) EPC

Composition of the Board:

Chairman: G. Andersson
Member: M. Huttner
Member: P. Ford

SUMMARY OF FACTS AND SUBMISSIONS

I. On European Patent application No. 78 200 230.7 filed on 9 October 1978 and published on 2 May 1979 under No. 001 656 claiming priority from a prior application in Italy of 13 October 1977, European Patent No. 1656 was granted on 30 December 1981 comprising an independent Claim 1 and dependent Claims 2 to 5.

II. The grant of the European Patent was opposed in due time and form by

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and the revocation of the Patent was requested pursuant to Article 102(1) EPC by alleging lack of novelty (Article 54 EPC) in view of FR-A-2 200 929, insufficient disclosure (Article 100(b) EPC) and lack of industrial applicability (Article 57 EPC):

III. After considering the grounds of opposition, the Opposition Division agreed with the opponent as to the allegation of lack of novelty and revoked the patent by its decision of 14 September 1983, pursuant to Article 102(1) EPC in conjunction with Article 54 EPC.

On the other hand, it declined to accept the opponent's submissions regarding insufficiency of disclosure and lack of industrial applicability.

IV. On 10 November 1983, the patentee lodged an appeal against this decision by telex and the confirmation letter was received within the prescribed time limit. The Statement of Grounds, together with new Claims 1 to 3, was received on 23 December 1983 and the appeal fee duly paid. The Patentee argued that the subject matter of Claim 1 not only was novel with respect to the prior art cited, but also could not be deduced from anything disclosed in the state of the art. He requested that the impugned decision of revocation be set aside and the European Patent be granted on the basis of the granted description and the effective Claims 1 to 3.

The effective Claim 1 reads as follows:

A chain comprising modular link elements (1) of plastics material and arranged in two sets interconnected by cross-pieces (2) for supporting cables, hoses or the like, the elements in each set being connected by joints each of which comprises a male portion (5) on one element and a female portion (11A, 11B) on an adjacent element, the male portion being received by and pivoted to the female portion, and each cross-piece (2) having at each end a leg adapted for connection to one of the said elements, the distance therebetween defining the gauge of the chain, characterised by, intermediate the end legs, another leg (25) spaced at a different distance from each of the two end legs, whereby three different chain gauges can be obtained using either the entire cross-piece or one or other cross-piece produced by cutting the cross-piece at the intermediate leg.

V. The opponents repeated in writing and on the occasion of the oral proceedings on 26th June 1984 the arguments previously submitted during the proceedings to the effect that the problem of the invention was not explicitly stated in the patent, the teachings of the patent was insufficiently disclosed so that the person skilled in the art could not carry out the invention without exercising inventive ingenuity, and finally they reiterated lack of novelty of Claim 1 based on its anticipation by either FR-A-2 200 929, the opponent's own pamphlet entitled KS "Kabelschlepp" Energieführungsketten, page 36, (published in September 1959) or a special reprint of an article published by Dipl. Ing. Dietmar Steinmetz, Siegen, in the issue 4/1974 of the journal entitled "Deutsche Hebe- und Fördertechnik".

In the event that the allegation of lack of novelty would fail to be sufficiently persuasive, the opponent further asserted the absence of an inventive step in that the requisite features, each known per se, form a mere aggregation and not an inventive combination.

Finally, the opponents contended that the patentee's appeal had caused the opponents unnecessary expense that could have been avoided if the state of the art had been reasonably assessed by the patentee, showing that he had no proper case.

Oral proceedings were requested in the event that it should prove likely that the revocation of the patent would be reversed by the Board and the patent be maintained.

The opponents therefore requested that the patentee's appeal be rejected and the revocation of the patent confirmed and that they be awarded the costs of the appeal.

- VI. After deliberation, the Chairman of the Board advised the parties involved that the Board intended to maintain the patent with the description and drawings in unchanged form together with the amended Claims 1 to 3 submitted on 23 December 1983 and that pursuant to Rules 58(4) and 66(1) EPC the period of one month to disapprove of the text would run from 26 June 1984. The patentee requested an award of 50 per cent of his costs incurred by reason of the oral proceedings. The opponents' representative did not oppose this request when given the opportunity of so doing.
- VII. A notice of disapproval by the opponents of the text has been received within the prescribed period.
- VIII. Regarding wording of the Claims 1 to 3 and the description as granted reference should be made to European Patent Number 0 001 656.

REASONS FOR THE DECISION

1. The appeal complies with Articles 106 to 108 EPC and Rule 64 EPC and is, therefore, admissible.
2. In the Board's view no objection may be raised to the preamble of Claim 1 acknowledging as known a chain including a cross-piece having at each end a leg adapted for connection to one of the link elements whose distance from each other define the chain gauge as disclosed in FR-A-2 200 929.

Thus, the features of the first part of Claim 1 are in combination part of the state of the art as represented by FR-A-2 200 929 (Rule 29(1)(a) EPC).

Those features that are stated in the characterising portion differ from the most pertinent prior art referred to above with respect to the salient features which the appellant desires to protect (Rule 29(1)(b) EPC).

Since the effective Claim 1 neither extends beyond the contents of the application as filed (Article 123(2) EPC) nor extends the protection conferred (Article 123(3) EPC), it is in conformity with the requirements of the Convention.

3. None of the allegedly novelty destroying documents disclose the idea of an intermediate leg spaced at a different distance from each of the two end legs, so that, by cutting the cross piece at the intermediate leg, a selection of three different cross-piece lengths can be made.

FR-A-2 200 929 shows a cross-piece consisting of two complementary halves, each being provided with a row of adjacently placed interconnected semi-annular cable supporting members, whereby each member is connected at its top by a web to a transversely extending outer cross bar. Such interconnecting webs neither constitute nor are meant to serve as intermediate legs. They rather afford the function of supporting and rigidifying the row of the supporting members. There is no

suggestion that the cross-piece should be cut along any of such webs in order to obtain a cross-piece of smaller chain gauge.

The cross-piece disclosed in Figure 6 of the special reprint from the Steinmetz article introduced by the opponent simply shows two complementary rectangular bars with contiguous semicircular recesses facing each other. Hence, this Figure does not even disclose distinct legs at the ends of the bars and for this sole reason they cannot possibly anticipate the effective Claim 1.

Apart from a number of unitary substantially rectangular cross-pieces having apertures for receiving the cables disclosed in the opponent's Kabelschlepp-Pamphlet 1959, page 36, two hingedly connected cross-pieces are illustrated, having in the closed position aligned oblong recesses formed by two terminal protuberances and equally distributed protuberances arranged therebetween. The protuberances remote from the hinge are adapted to be spaced apart for introducing the cables whereupon they must be jointed with the respective link elements in such a manner that high lateral rigidity of the chain is ensured. However, in none of the cross-pieces shown or described in the pamphlet is there disclosed any cutting along such intermediate protuberances to obtain a cross-piece of reduced length as claimed in Claim 1.

Consequently, no identity with the subject matter of Claim 1 by any one of these publications considered as most pertinent has been established and therefore, the novelty thereof cannot be denied. Thus, Article 54 EPC is satisfied.

4. The patentee considers it as disadvantageous that the cable supporting chains in the state of the art have a gauge determined by the length of the cross-pieces interconnecting the two sets of modular link elements of the chain and that there is no provision for adjusting the chain-gauge to suit a particular application in a simple and convenient manner.

5. Although the technical problem underlying the invention of the present patent is not explicitly stated in the description, the invention as claimed nevertheless is disclosed in such terms that the problem can be determined on the basis of objective criteria as established by the Decision T 01/80 EPO OJ 7/1981, 206. This requires the assessment of the technical progress in relation to the relevant prior art. There can be no doubt that the particular progress achieved by the subject matter of the invention in suit must be seen in the achievement of providing a choice of several different chain-gauges starting out with one single given cross-piece to suit a particular application in a simple and convenient manner. This can readily be gathered from column 1, lines 54-61 of the description, which reveals the technical problem to be solved by the invention. Consequently, the problem and the solution can be understood and hence the mandatory requirements of Rule 27(1)(d) EPC are clearly fulfilled in the present case.

6. It remains to be examined whether the subject matter of Claim 1 resolves the problem of providing for the adjustment of the chain-gauge to simply and conveniently suit a particular application in a manner that

involves an inventive step and the question now arises, whether the publications on which the opponents relied would give the skilled person any indication as to how such adjustment of the chain-gauges could be attained.

- 6.1 In paragraph 2, page 4, of FR-A-2 200 929, variation of the respective lengths of the cross-pieces is mentioned merely in the context of selecting the same in accordance with the diameter and number of the cables or tubes to be supported, from which it can be inferred that individual, custom made, cross-pieces, ready to use and destined for a particular gauge, have to be manufactured.

Thus the skilled person reading this publication would have no reason to be induced to cut the cross-piece disclosed therein as suggested by the invention, all the more since the opponents have also failed to prove that the problem underlying the invention of the patent in suit was known before. This conclusion can be reinforced by the consideration that if the known cross-piece were actually cut along any intermediate web this would, as the patentee correctly pointed out, lead to a weaker interconnection with the respective link element on one side of the chain as compared with the connection provided by the end leg on the other side. This would be due to a considerably reduced supporting area remaining between the web and the link element on that one side. It would also require the outward displacement of the fastening screws with the inevitable result that the link elements would have to be manufactured with an additional set of holes to accommodate the displaced screws. Thus, such a cross-

piece would undoubtedly have to be rejected as technically inadequate. Hence it can be concluded that no skilled person would ever entertain the opponents' notion of resorting to cutting the known cross-piece apart. This conclusion may be confirmed by the observation that while the protective cover plate mounted at the top or the bottom is, on the one hand, secured on both sides of each end leg in a head piece exhibiting a complementary recess, on the other hand, there is no intermediate head piece likewise having such a recess associated with a particular web. If the intermediate cutting at any of the webs had been envisaged as the opponents contend, then the provision of such an additional head piece for securing the still necessary cover plate would have been essential and yet no such means have been suggested.

These points definitely make it unlikely that the skilled person would cut the web disclosed in FR-A-2 200 929 as asserted by the opponents.

Consequently, this citation does not form any basis for an argument that the effective Claim 1 is lacking in inventive activity.

- 6.2 The disclosure of the patent was rightly considered as being sufficient by the decision of the Opposition Division, since the shape of the head piece of the intermediate leg could readily be adapted by the skilled person to receive the cover plate of the short version of the cross-piece. The opponents argued by the same token that the public should be free to make the necessary adaptations of any intermediate web of the FR-A-2 200 929 so as to fulfill the function of an end leg.

Such reasoning, however is not cogent in view of the fact that the lateral slot for holding the cover plate in place is disclosed in the European patent in suit but not in FR-A-2 200 929 for the medium sized cross-piece. The skilled man would have no difficulty in applying these measures on the opposite side of the same intermediate leg so as to provide a slot to face the cover of the short cross-piece when putting the present invention into practice but he could not derive any such teaching from the prior art.

- 6.3 Turning now to the KS-Kabelschlepp-pamphlet, it does not support the obviousness of the subject-matter of Claim 1, because it fails to disclose intermediate legs that are adapted for connection to one of the link elements. All embodiments described and/or illustrated reveal either unitary (undivided) cross-pieces (see upper right corner) or those that are separable length-wise and thus suitable for accommodation of exchangeable cables or equipped with couplings exceeding the outer cable diameter. They are, according to the patentee, intended for delivery in custom-made sizes, as was commonly accepted practice prior to the invention.

Nothing leading the skilled person away from the hitherto prevailing trend in the direction of optional multiple length cutting is apparent from this citation either. Any cutting to obtain intermediate lengths would lead to a plane end surface on that one end, e.g. one that differs from the rounded one depicted at the other end of the original full length cross-piece, which would severely impair the essential equal rigi-

dity and strength of each connection at both link elements, and without which any chain would, for the obvious reasons already stated, be unacceptable in practice. Thus, this publication likewise could not possibly stimulate the skilled person to adopt the optional multi-cutting proposal of the cross-piece, as taught by the patentee's invention.

6.4 The longitudinally divided rectangular cross-pieces shown in the reprint of Mr. Steinmetz's article in Figure 6 are of similar design to the non-swingable embodiments mentioned in the pamphlet dealt with above. The idea of cutting these cross-pieces so as to yield a plurality of subdivided cross-pieces of different length is also nowhere apparent in Figure 6.

6.5 As far as the objection of an aggregation of unrelated features is concerned, which, in the opponents' view, allegedly fail to improve the total effect obtained, it must be pointed out that one of the prerequisites for such an objection is, that the features of the aggregation are known per se. As this condition is not met in the instant case because the multiple length cutting feature is unknown from the relevant art, then obviously any new feature necessarily must produce a new result. In the present case, such new result provides greater versatility through the provision for adjusting the gauge of the chain to precisely the width required to accommodate a particularly chosen number of cables. Therefore this objection is unjustified.

6.6 In view of the fact that US-A-3 503 579 fails to disclose a cross-piece with a leg at its ends, and an intermediate leg at which the cutting of the cross-piece

takes place to obtain different cross-pieces of reduced length and additionally, the design of the chain links is even more remote from those set forth in the first portion of Claim 1, it would be of no avail to try to apply these teachings of the one to any one of the publications previously dealt with. Such a combination would not follow logically for the person skilled in the art and would not lead to the invention claimed in Claim 1.

7. The Board's view therefore is, that the subject matter of Claim 1 would not be obvious from either citation relied on in the Decision of the Opposition Division or cited by the opponents, whether taken singly or combined. Hence, the required inventive step is not lacking and Article 56 EPC is fulfilled. Claim 1 is therefore allowable having regard to Article 52(1) EPC.
8. The dependent Claims 2 and 3, having as subject-matter special embodiments of the invention as claimed in the independent Claim 1 on which they ultimately depend, are also allowable, since their acceptance is contingent on the allowability of Claim 1, which has to be approved.
9. The opponents also raised the objection of non-unity of the subject-matter, but it must be emphasised that lack of unity is no ground of opposition pursuant to Article 100 EPC, so that the Board can refrain from an assessment of this point.
10. There is no basis on which it could be considered equitable to award costs to the opponents in this case. Concerning the patentee's oral request for an award of 50 per cent of his costs incurred by reason

of the oral proceedings, the Board considers that, for reasons of equity, such an award should be made. (Article 104(1) EPC and Rule 63 EPC). The oral proceedings were held at the request of the opponents, not at the request of the patentee, and the opponents failed to succeed on any point. No new point was introduced at the hearing by the opponents and the case could have been decided without oral proceedings. Furthermore, the patentee's representative was required to travel a considerable distance to attend the hearing.

ORDER

For these reasons, it is decided that:

1. The decision of the Opposition Division is set aside.
2. The matter is remitted to the first instance with the order to maintain the European Patent 0 001 656 in amended form on the basis of the following documents:

Description and drawings as granted,
Claims 1 to 3 as received on 23 December 1983.
3. Half of the costs incurred by the patentee in the oral proceedings shall be paid to the patentee by the opponent.

The Registrar:

J. Pfeiffer

The Chairman:

[Handwritten Signature]