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Aktenzeichen / Case Number / N° du recours : T 103/82

Anmeldenummer / Filing No / N° de la demande : 79101580.3

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Bezeichnung der Erfindung: Sectional ski

Title of invention:

Titre de l'invention :

ENTSCHEIDUNG / DECISION

vom / of / du 11 December 1984

Anmelder/Patentinhaber:

Applicant/Proprietor of the patent:

Demandeur/Titulaire du brevet :

Gallich Thomas P.

Stichwort / Headword / Référence :

EPO / EPC / CBE Art.52(1),56

"Inventive step"

Leitsatz / Headnote / Sommaire

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Case Number: T 103 / 82

DECISION
of the Technical Board of Appeal 3.2.1
of 11 December 1984

Appellant: Galich, Thomas P.
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U S A

Representative: Hansmann, Axel
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Decision under appeal: Decision of Examining Division 115 of the European Patent
Office dated 17 February 1982 refusing European patent
application No 79101580.3 pursuant to Article 97(1)
EPC

Composition of the Board:

Chairman: G. Andersson
Member: C. Maus
Member: P. Ford

SUMMARY OF FACTS AND SUBMISSIONS

- I. European patent application No. 79 101 580.3, filed on 22 May 1979 and published under publication No. 0 019 643, was refused by the decision of the Examining Division 115 dated 17 February 1982.

The decision was based on Claims 1 to 4 received on 11 August 1981.

- II. In its decision, the Examining Division stated that the subject-matter of Claim 1 did not involve an inventive step. In support of its view the Examining Division cited US patent specification No. 3 797 838 and held that the turning of the direction of insertion of mating tongue and groove means through an angle of 90° in a sectional ski disclosed in the aforesaid patent specification did not suffice to impart an inventive step.

- III. On 14 April 1982, the appellant lodged an appeal against this decision paying the fee for appeal at the same time. The statement setting out the grounds of appeal was received on 28 June 1982.

The appellant requested in the notice of appeal that the decision should be set aside in its entirety.

- IV. During the procedure before the Board of Appeal, the appellant substituted new Claims 1 and 2 received on 7 November 1984 for the claims on which the decision was based. At the same time, he submitted a new description consistent with the claims.

Claim 1 reads as follows:

"1. A sectional ski comprising:

first and second ski sections (12, 14);

a first coupling member (16) having a generally bar-shaped portion (26) and an enlarged portion, said bar-shaped portion (26) being secured in endwise relation in a slot (28) in said first ski section (12), said enlarged portion having upper and lower surfaces contoured to form a part of said first ski section (12);

a second coupling member (18) having a generally bar-shaped portion (32) and an enlarged portion, said bar-shaped portion being secured in endwise relation in a slot (34) in said second ski section (14), said enlarged portion having upper and lower surfaces generally forming a part of the surface of said second ski section (14); mating dove-tailed tongue (38) and groove means (40) formed in the ends of said enlarged portions of said first and second coupling members consisting of machined metal, for connecting said first (12) and second ski sections (14) in an endwise abutting relation,

characterized in that the tongue (38) of the dove-tailing is extending transversally that is beginning at one side wall of the ski and is ending near the other side wall and is insertable into and engageable by said groove (40) in sliding relation in a wedged manner, parallelly to the upper and lower surfaces of the ski, said coupling members (16, 18) are tapering off with four to twenty degrees of taper of the mating coacting tongue and groove (38, 40), a stop edge (46) being provided at the end of the groove (40) for abuttingly engaging a shortened end of the tongue (38) and that means are provided including a screw member passing through said tongue and groove means in a direction generally perpendicular to the plane of the surface of the ski, blocking the tongue against sliding movement."

.../...

The appellant was of the opinion that the sectional ski according to this claim involved an inventive step as against the ski disclosed in US patent description No. 3 797 838. A man skilled in the art could not think of realizing a dovetail joint as it is disclosed in present Claim 1.

- V. For the original claims and description reference is made to publication No. 0 019 643.

REASONS FOR THE DECISION

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC. It is, therefore, admissible.
2. Claim 1 contains a combination of features, for which protection was sought in the original Claims 1 to 4 and 5, 7 and 9, and of features which are disclosed on page 6 of the description. The subject-matter of Claim 1 does not, therefore, extend beyond the content of the application as filed (Article 123(2) EPC).
3. The appellant derived the preamble of Claim 1 from the description of the sectional ski shown in Figure 6 of US patent specification No. 3 797 838. Having examined the documents cited in the search report, the Board has come to the conclusion that among the skis disclosed therein the aforesaid ski is closest to the subject-matter of Claim 1 and that the appellant has mentioned in the preamble of the claim all those features which, in combination, are part of the prior art.

Hence, Claim 1 is so far not open to objection.

4. It follows from the foregoing that the subject-matter of Claim 1 is not disclosed in any one of the cited documents. It is, therefore, novel having regard to this state of the art.

5. On the question of whether or not the prior art could suggest ~~the sectional ski according to Claim 1 the following should~~ be observed:
 - 5.1 In the sectional ski disclosed in Figure 6 of US patent specification No. 3 797 838 the mating dove-tailed tongue and the groove means formed in the two coupling members for the first and the second ski section are arranged in a plane which runs parallel to the upper and lower surfaces of the ski. The tongue is placed overhand in the groove means which are closed on their lower surface, thus forming a cavity in the respective coupling member. This connection lacks rigidity because it cannot transmit forces which are directed vertically towards the upper or lower surface of the ski or bending moments which are acting around an axis that is vertical to the longitudinal axis of the ski and parallel to its upper and lower surfaces. For transmitting these forces and bending moments the two coupling members must be additionally connected by screws which are disposed centrally in the coupling members and vertically to the lower and upper surfaces of the ski. However, there remains a risk of lack of rigidity and non-uniform flexing after wearing of mating surfaces if these consist of machined metal.

The problem underlying the invention is, therefore, to provide for satisfying rigidity of the ski sections.

For the sectional ski specified in Claim 1 as the solution of the problem, the skilled person could not find models in the documents stated in the search report.

- 5.2 Among the documents cited besides US patent specification No. 3 797 838, only US patent specification No. 3 825 360 and Austrian patent specification No. 326 534 disclose a dovetailing for sectional skis which comprises two coupling members forming the joint. Slots are formed in the two coupling members into which an insert is mounted. It transmits the above-mentioned vertical forces and bending moments. As a result the two sections of the ski form a generally unitary structure. At this joint, separate means are, therefore, provided for transmitting the axial forces on the one hand and for the vertical forces and bending moments on the other hand. Only the combination of both means produces a rigid joint.
- 5.3 The appellant turned away from the idea of transmitting the bending moments and vertical forces separately from the dovetailing. It was recognised that the aforesaid loads could together be transmitted by the dovetailing if the dovetailed tongue and groove means are turned by an angle of 90° around the longitudinal axis of the ski and that the fit of a machined dovetailed tongue in the machined groove means is ensured if the tongue and the groove means taper off. For the idea of proposing the common transmission of the loads by the dovetailing it was necessary to give up the conception that the dovetailing is a typical connection for transmitting only axial forces.
- 5.4 The other documents give no hint of this idea because they disclose types of rigid joints which are constructed according to principles quite different from the solution proposed by the appellant.
- 5.5 Hence, the sectional ski according to Claim 1 involves an inventive step within the meaning of Article 56 EPC.

6. Claim 1 is, therefore, allowable (Article 52 EPC),
7. Dependent Claim 2 concerns a particular embodiment of the invention according to Claim 1 and thus is likewise allowable.
- ~~8. The description is adapted to the amended Claim 1 and now presents more clearly the state of the art from which the invention starts. Consequently, the amendments are not open to objection.~~

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 grant a European patent on the basis of the following documents:

Claims 1 and 2, received on 7 November 1984,
description, received on 7 November 1984,
original drawings.

The Registrar

J. Rückerl

The Chairman

G. Andersson