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File Number: W 55/91 - 3.4.1
Application No.: PCT/GB 91/00702
Publication No.: W09117575
Title of invention: Opto-electronic device

Classification: H10L 33

D E C I S I O N
of 9 April 1992

Applicant: British Telecommunications plc

Headword:

PCT Article 17(3), Rules 13.1, 40.1, 40.2(c)

Keyword: "Non-unity a posteriori (yes)"

Headnote



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Boards of Appeal

Chambres de recours

Case Number : W 55/91 - 3.4.1
International Application No. PCT/GB 91/00702

D E C I S I O N
of the Technical Board of Appeal 3.4.1
of 9 April 1992

Applicant : British Telecommunications plc
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Representative : E.L.G. Dutton
Intellectual Property Department
British Telecom
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Subject of the Decision : Protest according to Rule 40.2(c) of the Patent
Cooperation Treaty made by the applicants against
the invitation (payment of additional fee) of the
European Patent Office (branch at The Hague)
dated 1 October 1991.

Composition of the Board :

Chairman : G.D. Paterson
Members : R. Shukla
Y. van Henden

Summary of Facts and Submissions

- I. Following the filing of the International patent application PCT/GB 91/00702, the European Patent Office, acting as the International Search Authority (ISA), issued an invitation pursuant to Article 17(3)(a) and Rule 40.1 PCT to the Applicant to pay an additional search fee.
- II. The ISA considered that the problem underlying the invention according to the independent Claim 1 was not novel and a solution to it as defined in the claim was already known or did not involve an inventive step having regard to the prior art as illustrated by the cited document US-A-4 163 952. Consequently, there was no single general inventive concept linking the subject-matter of the following groups of claims which therefore related to two groups of inventions:
1. Claims 1-17, 28-51 : Opto-electronic semiconductor device comprising an epitaxial layer in the form of a ridge structure ;
 2. Claims 18-46,48,49 : Opto-electronic semiconductor device comprising first and second separate ridge structures.
- III. The Applicant paid the additional search fee under protest and argued essentially as follows:

Independent method Claim 37, identified as belonging to the second group of inventions, defines a method for making a device according to Claim 1 and makes no mention of first and second ridge structures. Similarly, Claims 38 to 42 which are dependent on Claim 37, do not make any reference to first and second ridge structures.

Independent Claim 43 and claims 44-49 dependent on Claim 43 all relate to a method for making a device according to claim 1 and make no reference to first and second ridge structures. Claims 37 to 46 thus clearly satisfy the requirements of Rule 13.1 and 13.2 PCT.

Moreover, Claims 18 to 36 in the second group all depend directly or indirectly from the Claims 1 to 17 belonging to the first group, and not just from Claim 1, so that the features of the first invention are also present in the second invention. The present case is thus not a clear case of the type referred to in point 8.2 of the Reasons for the Decision G 1/89.

US-A-4 163 952 cited as an "X" document does not disclose the use of selective epitaxy to form a ridge structure as claimed in Claim 1 so that the latter is patentable as it stands.

IV. The ISA has referred the protest to the Board of Appeal for examination in accordance with Rule 40.2 (c) PCT.

Reasons for the Decision

1. The protest complies with the formal requirements of Rules 40.2 and 40.3 PCT and is accordingly admissible.
2. It is evident from paragraph II above that the finding of lack of unity by the ISA is based on "a posteriori" considerations. In the Decision G 1/89 referred to by the Applicant, the Enlarged Board has stated that an objection of lack of unity of invention a posteriori should only be raised with a view to giving the Applicant a fair treatment and in clear cases.

3. In the Board's judgement, contrary to the Applicant's submission, the present application clearly lacks unity of invention, since, as admitted by the Applicant, the only difference between the opto-electronic device according to Claim 1 and the prior art opto-electronic device disclosed in the document US-A-4 163 952 resides in the manner in which a ridge structure is formed. As this distinguishing feature is a process step which apparently does not attribute any identifiable physical or constructional features, or functional characteristics to the opto-electronic device, the claimed subject-matter prima facie lacks novelty. The common subject-matter, namely, an opto-electronic device having a ridge structure and a PN junction aligned beneath the ridge structure, linking at least Claims 1 to 17 on one hand and Claims 18 to 26 on the other, is thus not novel, so that the two groups of inventions are not so linked to form a single inventive concept as required by Rule 13.1 PCT.

4. According to the Guidelines for international search to be carried out under the Patent Cooperation Treaty (PCT) (cf. Chapter VII, paragraph 12), which are applicable to the EPO acting as an ISA, occasionally in cases of lack of unity "a posteriori", when the inventions are conceptually very close and none of them requires search in separate classification units so that the search examiner is in a position to make a complete search in respect of all the inventions with negligible additional work, no objection of lack of unity of invention should be raised.

The present case, in the Board's view, is however not such a case. As correctly pointed out by the ISA, the opto-electronic device of Claims 1 to 17 relates either to a light emitting device or a light sensitive device, whereas the opto-electronic device according to Claim 18, and in particular Claims 22 and 27 appended to Claim 18, is an

integrated device incorporating light-emitting and light sensitive devices optically coupled by a wave guide. These two different types of devices are classified in different international patent classification units, so that, in the Board's view, a separate search in respect of at least Claims 18 to 27 would require considerable extra work justifying charging of additional search fee.

5. The Applicant has submitted that the concept of first and second ridge structures is present in Claim 18 only in the context that all the features of the earlier invention are also present, so that none of the claims in the second set attempts to claim merely first and second ridge structures per se. The Board however cannot share this opinion, since Claim 18 depends from any one of the preceding claims, so that when its dependency on Claim 1 is considered, it merely claims an opto-electronic device having first and second ridge structures as set out in the claim.
6. Although the Board agrees with the Applicant that the grouping of claims, in particular of Claims 37 to 42 relating to a method for making a device according to Claim 1 in both the groups, is confusing, this in itself does not invalidate the objection in respect of Claims 18 to 27.
7. For the foregoing reasons, in the Board's judgment the international application, in so far as the inventions as claimed, respectively, in Claims 1 to 17 and 18 to 27 are concerned, does not comply with the requirement of Rule 13.1 PCT, and the invitation to pay the additional fee was justified.

Order

For these reasons, it is decided that:

The protest according to Rule 40.2(c) PCT is dismissed.

The Registrar :

The Chairman :

M. Beer

G.D. Paterson