BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Publication in the Official Journal ~~Yes~~ / No

File Number: T 254/90 - 3.5.2

Application No.: 86 200 023.9

Publication No.: 0 190 774

Title of invention: Record carrier body provided with preformed optically detectable servo-track portions and sector addresses

Classification: G11B 7/013

D E C I S I O N
of 14 May 1991

Applicant: N.V. Philips' Gloeilampenfabrieken

Headword:

EPC Article 56

Keyword: "Inventive step - yes, after amendment"

Headnote

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number : T 254/90 - 3.5.2

D E C I S I O N
of the Technical Board of Appeal 3.5.2
of 14 May 1991

Appellant : N.V. Philips' Gloeilampenfabrieken
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Decision under appeal : Decision of Examining Division of the European Patent Office dated 11 January 1990 refusing European patent application No. 86 200 023.9 pursuant to Article 97(1) EPC.

Composition of the Board :

Chairman : W.J.L. Wheeler
Members : A.G. Hagenbucher
M.V.E. Lewenton

Summary of Facts and Submissions

I. The present appeal contests the decision of the Examining Division refusing Appellant's European patent application No. 86 200 023.9.

II. The reason given for the refusal was that although Claim 1 filed with letter of 5 July 1989 was acceptable, the subject-matter of Claim 2 filed with the same letter did not involve an inventive step, having regard to common general knowledge and document

D2: GB-A-2 058 434.

III. In a communication of the Board pursuant to Article 11(2) of the Rules of Procedure of the Boards of Appeal, the Board referred to the following documents:

D1: US-A-4 385 372

D3: GB-A-2 016 744

D4: IEEE Spectrum, August 1979, pages 26 to 33.

IV. Oral proceedings were held on 14 May 1991 at which agreement was reached on amendments to Claim 2. The Appellant requested that the appealed decision be set aside and the patent be granted on the basis of the following documents:

- Claims: 1 and 2 as presented at the oral proceedings.

- Description: pages 1, 2, 6 to 11 as originally filed
  pages 3 and 4 as filed with letter of 5 July 1989
  pages 5 and 5a as filed at the oral proceedings.

- Drawing sheets: 1/2 and 2/2 as originally filed.

V. Claim 1 presented at the oral proceedings has the same wording as Claim 1 filed 5 July 1989 which was judged acceptable by the Examining Division. Claim 2 now reads as follows:

"2. A mastering apparatus comprising a radiation source, a modulator for switching the intensity of the radiation beam produced by the source, an objective system for focussing the radiation beam to form a recording radiation spot on the record carrier means for scanning the recording spot over the record carrier body, and beam shaping means arranged between the radiation source and the objective system for limiting the beam which enters the objective system in one direction so that its width is smaller than the width of the entrance pupil of the objective system, the objective system thereby forming an elongated recording spot, characterized in that the beam shaping means is arranged so that the length direction of the recording spot is perpendicular to the scan direction, the apparatus being suitable for producing a master record carrier with servo track portions and sector address areas to realize a record carrier as claimed in Claim 1."

Reasons for the Decision

1. The appeal is admissible.

2. The amendments made to Claim 2 comply with the requirements of Article 123(2) EPC. All the features of this claim can be found in Claim 2 as originally filed in conjunction with the disclosure on page 11, lines 5 to 22 and Figure 5.

3. **Novelty**

3.1 D2 discloses writing apparatus having all the features specified in the prior art portion of Claim 2 except that D2 does not explicitly refer to "mastering". The embodiment shown in Figure 21 of D2 operates with servo tracks. Although it is, therefore, not necessary to specify "mastering" at the start of claim, the Board sees no objection to the use of this term, because it is clear from D3 (which is referred to in D2: page 4, lines 40 to 42) and D4 (especially paragraphs "Pregrooving for Simplicity" and "Extending the Pregrooved Concept" on pages 26 and 27) that the structure of a mastering system is similar to that of an optical disc recorder able to operate without pregrooved discs.

3.2 None of the available prior art documents shows a disc recorder with beam shaping means which is arranged to form an elongated recording spot having its length direction perpendicular to the scan direction.

3.3 Although D2 describes beam shaping means with adjustable orientation, e.g. in the form of a rotatable diaphragm or a rotatable cylindrical lens, only two distinct operating orientations, namely with the length direction of the recording spot at an angle of +45° and -45° relative to

the scan direction, are used. There is no express or implied disclosure of an elongated recording spot whose length direction is perpendicular to the scan direction.

3.4 Moreover, it is known (cf. D3, D4) that the tracing control of a mastering apparatus must be more accurate than that of recorders working with pregrooved discs (cf. Figure 21 of D2). This requirement is even more stringent when the maximum width of the sector address areas and servo track portions is greater than half the period of the tracks in a direction transverse to the track direction as required in Claim 2 by its reference to Claim 1. Inaccurate tracing may lead to crosstalk during the reading.

3.5 Hence, the requirement of being suitable for producing a record carrier as claimed in Claim 1 leads to a structural degree of accuracy which exceeds that necessary in the prior art according to D2.

3.6 The mastering apparatus according to Claim 2 is, therefore, to be regarded as novel.

4. **Inventive step**

4.1 In the opinion of the Board, the available prior art does not hint at adapting a mastering apparatus with the features in the prior art portion of Claim 2 in order to solve the specific problem of producing record carriers which provide an improved differential tracking signal and a satisfactory integral sector-address signal and, when the information areas recorded in the servo-track portions by a user are read in accordance with the integral method, provide an information signal of satisfactory signal amplitude (cf. description, page 3, third paragraph). Still less does this prior art make it obvious to design

the beam shaping means to form an elongated recording spot having its length direction perpendicular to the scan direction. In this context the Board notes that according to D2, which is the only prior art document disclosing elongated recording spots whose length direction is transverse to the scan direction, the spots are controlled to have different orientations (e.g. ±45°) on adjacent tracks, which is incompatible with the idea of using an elongated recording spot whose length direction is perpendicular to the scan direction.

Hence, the claimed mastering apparatus is to be regarded as involving an inventive step.

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 for further examination on the basis of the claims submitted in the oral proceedings.

The Registrar: The Chairman:

M. Kiehl W.J.L. Wheeler

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