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Datasheet for the decision of 2 March 2007

Case Number: T 1774/06 - 3.4.02

Application Number: 02251905.2

Publication Number: 1241509

IPC: G02B 26/12

Language of the proceedings: EN

Title of invention:
Method and apparatus for image forming with dual optical scanning systems

Applicant:
Ricoh Company, Ltd.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 75(1), 123(2)
EPC R. 87(1), 85(1) and (3), 86(4), 88

Keyword:
"Original disclosure: yes"
"Obvious correction: yes"
"Priority claimed: application filed within the period as set out in Article 87(1) EPC"

Decisions cited:
-

Catchword:
-

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Case Number: T 1774/06 **-** 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 2 March 2007

Appellant: Ricoh Company, Ltd.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 19 June 2006 refusing European application No. 02251905.2 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: A. Klein
Members: M. Stock
C. Rennie-Smith

Summary of Facts and Submissions

I. The applicant and appellant has appealed against the decision of the examining division refusing European patent application 02 251 905.2 (publication EP 1 241 509 A2) for added subject-matter. The following documents were cited:

D1: DE 199 61 502 A
D2: US-A-6 061 080
D3: US-A-5 903 377
D4: EP-A-0 946 042

The examining division was in particular of the opinion that the substitution of the inequality "$\Delta L \cdot \cos(\alpha) < R/2$" for the inequality "$\Delta L \cdot \cos(\alpha) > R/2$" throughout the application documents was inadmissible under Article 123(2) EPC. This amendment was also not admissible under Rules 88 and 86(4) EPC. As additional remarks and further comments the examining division concluded that the priority claimed was not valid and that the claimed subject-matter was not novel over the disclosure of document D3.

II. The appellant requested that a patent be granted on the basis of the claims currently on file. It provided arguments that the replacement of "$\Delta L \cdot \cos(\alpha) > R/2$" with "$\Delta L \cdot \cos(\alpha) < R/2$" satisfies both Article 123(2) and Rule 88 EPC. Therefore the claimed subject-matter was also allowable under Rule 86(4) EPC and should have been searched. The priority claimed was valid in view of the provisions of Rule 85(1) and (3) EPC. The claimed subject-matter was not disclosed by document D3.

III. Claim 1 underlying this decision and the impugned decision reads as follows:

"1. An optical scanning apparatus (100,200) comprising: at least two light source means (1,1-1,1-2) each for emitting a light beam; at least two beam shaping means (2,2-1,2-2,3-1,3-2) each for shaping the light beam; light deflecting means (4) for deflecting each light beam in a continuously changing direction so as to convert each light beam into a scanning light beam and at least two scanning beam focusing means each for bringing the scanning light beam to a focus an a photoconductive surface (11), characterised in that each of said at least two scanning beam focusing means is arranged in use to satisfy an equation $\Delta L \cdot \cos(\alpha) < R/2$ at a junction of the scanning light beam with the other scanning light beam on the photoconductive surface, wherein ΔL represents an inherent light path length variation caused by displacement of the photoconductive surface at the junction, α represents an incident angle made by the scanning light beam and the photoconductive surface, and R represents an inherent marginal distance which is the minimum distance allowable between two adjacent pixels."

Reasons for the Decision

1. *Article 123(2) EPC*

1.1 According to the introduction of the description of the present application, see A-publication, paragraph 0001, the present invention is related to image forming using dual optical scanning systems. There are various

techniques by which two optical systems are adjoined in a main scanning direction to obtain a wide scanning capability, see paragraph 0003. The description goes on, see paragraphs 0004 to 0007, by citing various prior art documents and considers, see paragraph 0008, that these prior art "systems experience a problem in which two scanning lines are not precisely matched in a sub-scanning direction at the starting positions".

1.2 It is therefore evident to a person skilled in the art that the invention described in paragraphs 0009, 0011, 0013 and 0015, should solve this problem, by employing the features indicated in these paragraphs, including the relation between an inherent light pass length variation ΔL, an incident angle α, and an inherent marginal distance R. Even at this point, consideration of the suitability of the equation "$\Delta L \cdot \cos(\alpha) > R/2$" would lead to the conclusion that a minimum pass length variation ΔL is proposed and large values of ΔL are included in contrast to the experience and expectation of the skilled person that the pass length variation should be as small as possible.

1.3 If the skilled person would not on that basis alone realise that the "greater"-sign (">") should be reversed, so as to define an upper limit of a tolerable pass length variation, he or she would obtain this information from the description of Figure 3 in paragraph 0027 to 0029, in particular from the sentence at column 7, lines 13 to 18, stating that "the degree of variation of the scanning position at the junction needs to be within a half amount of a marginal distance R, which is the minimum distance allowable between two pixels and is inherent to each optical scanning system".

Since it is clear from Figure 3 and its description in paragraph 0027 that "the degree of variation of the scanning position at the junction" is represented by $\Delta L \cdot \cos(\alpha)$, the equation should read "$\Delta L \cdot \cos(\alpha) < R/2$".

1.4 Claim 1 has further been amended by defining that ΔL is "caused by displacement of the photoconductive surface at the junction". This feature is disclosed in paragraph 0027 (see column 6, lines 47 to 51) and in paragraph 0028 bridging columns 6 and 7.

1.5 Therefore the Board is satisfied that the subject-matter of claim 1 does not extend beyond the application documents as originally filed. The substitution of "$\Delta L \cdot \cos(\alpha) < R/2$" for "$\Delta L \cdot \cos(\alpha) > R/2$" throughout the application is hence admissible.

2. *Rule 88 EPC*

It is apparent from the reasoning under point 1 above that the amendment proposed, i.e. to reverse the greater-sign in the equation "$\Delta L \cdot \cos(\alpha) > R/2$", is a correction which is obvious in the sense that it was immediately evident that an error had occurred and how it should be corrected. Therefore the requirements of Rule 88 EPC are also met.

3. *Rule 86(4) EPC*

An obvious correction cannot lead to subject-matter which does not combine with the originally claimed invention to form a single general inventive concept, because such a correction only explicitly expresses what was implicitly meant by the original claims in a

proper interpretation. Since Rule 86(4) EPC only forbids claims related to such unsearched subject-matter which is not in unity with the originally claimed invention, it is not applicable in the present case.

4. *Priority*

4.1 Under "Additional Remarks and Further Comments" the examining division has stated that the application did not meet the requirements of Article 87(1) EPC with respect to the period of twelve months.

4.2 The present application was filed on 18 March 2002 at the British patent office in London. The application the priority of which is claimed in the present application was filed on 16 March 2001. Therefore the term of one year for filing the present application ends on 16 March 2002. However, this day was a Saturday, i.e. a day on which the British patent office is not open for receipt of European applications for which a priority is claimed (see OJ EPO 2002, 27). In this case the provisions of Rule 85(1) and (3) EPC in conjunction with Article 75(1)(b) EPC apply, according to which the time limit shall extend until the first day on which the British patent office is open for receipt of such a European application, which was Monday, 18 March 2002.

4.3 Therefore the Board concludes that the present application meets the requirements mentioned in Article 87(1) EPC as far as the period of twelve months from the date of filing of the priority application is concerned.

5. *Novelty*

5.1 Further under "Additional Remarks and Further Comments" the examining division has stated in its decision that the subject-matter of claim 1 in the corrected version was disclosed by D3. This was due to the fact that the equation "$\Delta L \cdot \cos(\alpha) < R/2$" is reduced to $0 < R$ since the scanning beams are always incident on the photoconductive surface under an angle of 90 degrees.

5.2 The applicant has argued that D3 is silent on the feature "$\Delta L \cdot \cos(\alpha) > R/2$" and does not disclose a wide-angled lens system.

5.3 The objection of lack of novelty raised for the first time in the decision under appeal has not been discussed before the examining division. Therefore the Board deems it appropriate to remit the case to the examining division for further examination, so as to allow the applicant to have its arguments and subsequent amendments, if any, considered by two instances.

6. Remittal to the department of first instance is generally not considered as adversely affecting the applicant, so that no oral proceedings need to be appointed, see Case Law of the Boards of Appeal, 4th edition 2001, section 3.4 at page 276, last two paragraphs.

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 prosecution.

The Registrar: The Chairman:

M. Kiehl A. G. Klein