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D E C I S I O N
of 17 December 2001

Case Number: T 0938/98 - 3.4.2
Application Number: 91101152.6
Publication Number: 0440170
IPC: G02B 7/34, G03B 7/08

Language of the proceedings: EN

Title of invention:
Camera

Applicant:
CANON KABUSHIKI KAISHA

Opponent:

-

Headword:

-

Relevant legal provisions:
EPC Art. 111(1)

Keyword:

"Reasons given for the refusal not considered convincing;"
"Pertinent prior art document introduced ex-officio by the Board"
"Remittal to the first instance for further prosecution"

Decisions cited:

-

Catchword:

-



Case Number: T 0938/98 - 3.4.2

D E C I S I O N
of the Technical Board of Appeal 3.4.2
of 17 December 2001

Appellant:

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Representative:

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Decision under appeal:

**Decision of the Examining Division of the
European Patent Office posted 12 May 1998
refusing European patent application
No. 91 101 152.6 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: A. G. Klein
Members: M. A. Rayner
V. Di Cerbo

Summary of Facts and Submissions

I. European patent application No. 91 101 152.6 (publication No. 0 440 170) was refused by the examining division. The reason for the refusal was that the subject matter of claim 1 lacked an inventive step within the meaning of Article 56 EPC in view of the content of the following documents:

D1: US-A-4 774 401

D8: DE-A-38 03 305

D9: US-A-4 476 383

II. The appellant (applicant) filed an appeal against the decision. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of an amended set of claims filed with the statement of the grounds of appeal; on an auxiliary basis, the appellant requested oral proceedings.

Claim 1, the only independent claim, reads as follows:

" A camera comprising:

(a) detecting means (5, 6; 17; SPD₀₁ to SPD₁₅, AMP₀₁ to AMP₁₅, DI₀₁ to DI₁₅) dividing the field of view into a plurality of areas (S₀₁ to S₁₅) and detecting [*sic*] the luminance of each of said areas and

(b) focus detecting means (14, 15; 19; CCD_{L1}, CCD_{L2}, CCD_{C1}, CCD_{C2}, CCD_{R1}, CCD_{R2}) capable of detecting focus of selected one of a plurality of focus detecting areas (S_L, S_C, S_R) in said field of view;

said camera further comprising

(c) setting means (18, 22) for sorting the areas of the detecting means into a plurality of groups the members of each group having the same degree of weight, the weights of each group being different from one another and the sorting being dependent upon which one of the focus detecting areas has been selected, and

(d) calculation means (22) for calculating a light measurement value by using the luminance of each of said areas obtained by said detecting means und [sic] using the degree of weight of each area in accordance with the group it belongs to, wherein

(e) said setting means (18, 22) changes the area of largest degree of weight depending on one of the detecting areas which has been selected by the focus detecting means."

III. In support of its request, the appellant essentially submitted that a skilled person would not consider combining the disclosures of documents D1 and D8 because while in the camera according to document D1 the focus condition is only detected at the central portion of the photographic scene and the central portion is differently weighted in the light measurement process according to the servo or the one-shot type focus control mode selected for the focus control operation, document D8 teaches the automatic focus control of a camera on the basis of plural focus measurement areas in the photographic scene and is silent as to any relationship between selection of one of the focus areas and the luminance detection. Furthermore, document D9 discloses a photometering

process for establishing a brightness distribution pattern to be evaluated and classified into one of a plurality of categories and is entirely different from the classification and weighting process of the invention.

In addition, even the combination of these documents would not lead to the invention because none of the documents teaches modifying the group classification or varying the degree of weighting of the different luminance detecting areas according to the selected focus area as defined in claim 1. In this respect, the examining division has failed to identify all the measures that a skilled person would have to adopt in order to combine the disclosure of documents D1 and D8 so as to arrive at the invention and it has also failed to assess in detail the obviousness of each of these measures.

IV. In a communication pursuant to Article 11(2) of the Rules of Procedure of the Boards of Appeal issued on 8 June 2001 in preparation of oral proceedings, the board expressed its provisional doubts about the admissibility under Article 123(2) EPC of the amended claim 1 and noted that the arguments set out by the examining division to justify its rejection of the application under Article 56 EPC did not appear to be convincing. The board also drew the attention of the appellant to the content of the following document which had not been cited by the search or examining divisions but was nevertheless considered by the board as *prima facie* relevant to the patentability under Article 52(1) EPC of the subject matter of the amended claim 1:

R1: JP-A-1 293 310 (published on 27 November 1989)
together with the corresponding English abstract
published in *Patent Abstracts of Japan*,

the disclosure of which is interpreted according to the
following document:

R2: English language translation of the disclosure of
document R1, as prepared on behalf of the EPO.

V. In response to the board's communication, the appellant
requested that the decision under appeal be set aside
and that the case be remitted to the first instance for
further prosecution. In case the board accepted these
requests, the appellant also requested cancellation of
the oral proceedings.

Reasons for the Decision

1. The appeal is admissible.
2. *Inventive step of the subject matter of claim 1 with
regard to the documents considered by the examining
division*
 - 2.1 The reason for the examining division's refusal of the
application is that the subject matter of the then
valid claim 1 does not involve an inventive step with
regard to the disclosure of document D8 and the
teaching of document D1 together with that of document
D9 which is directly referred to in document D1.
However, even assuming that the disclosure of these

documents can be combined, the board is of the opinion that the resulting combination would not lead in an obvious manner to the subject matter of present claim 1.

2.2 Document D8 discloses a camera (see abstract and Figure 7 and 8 together with column 7, line 48 to column 8, line 55) comprising means for detecting the focus state (Figure 7 and column 8, lines 12 to 55) in each of a plurality of focus detection areas in the field of view of the camera (see the three focus detection areas 17, 26 and 27 in Figure 8 and column 8, lines 6 to 11), the focus control of the camera lens being carried out according to the focus state of a selected one of the plurality of focus detection areas (column 8, lines 51 to 54).

2.3 The subject matter of claim 1 differs from the disclosure of document D8 in that the camera comprises means for determining a light measurement value consisting of

- (i) means for dividing the field of view into a plurality of areas and detecting the luminance of each of these areas,
- (ii) means for sorting and weighting the areas as specified in paragraphs (c) and (e) of the claim, and
- (iii) means for calculating the light measurement value as specified in paragraph (d) of the claim.

These features solve the problem of enabling exposure

control of the scene to be photographed by the camera. Document D8 is only concerned with the focus control of the camera and is silent as to the exposure control of the scene to be photographed; the need for exposure control means, however, would arise straightforwardly when implementing the disclosure of document D8 in a real camera.

2.4 Document D1 discloses a camera comprising exposure control means for dividing the field of view into a plurality of areas and detecting the luminance of each of these areas, the camera also comprising means for detecting the focus state in the central region of the field of view (see abstract and Figure 1, 4 and 6). The exposure control is carried out so that the weights of the luminance detection areas depend on the servo or the one-shot focus control mode selected for the focus control operation (see abstract). In order to achieve a proper exposure of the central region of the field of view where focus control is carried out, the luminance detection area located in the central region of the field of view is assigned a higher weight in the exposure control operation (see Figure 3).

In addition, in the embodiment disclosed with reference to Figure 6 the peripheral areas 102C1 to 102C4 and the central areas 102A and 102B contribute to the exposure calculation by means of the average luminance value VC defined in column 8, line 27 and by means of the two series of luminance expressions (1) to (18) shown in columns 16 to 39, respectively, and therefore these areas are respectively sorted into a first and a second group of areas having the same weight in the calculation of the light measurement value.

2.5 The skilled person, confronted with the problem of providing exposure control means for the camera disclosed in document D8, would have considered the possibility of incorporating the exposure control means disclosed in document D1 in the camera of document D8. The mere incorporation of the exposure control means taught in D1 in the camera disclosed in document D8 would however merely result in the exposure control means of D1 operating on the basis only of the central one of the focus detecting areas of document D8 and would therefore not result in the subject matter of claim 1, as was correctly acknowledged by the examining division.

In the examining division's view, however, since document D1 teaches that the exposure control means operates with respect to the object to be focused which in document D1 is in the central region of the viewing field and document D8 discloses selecting one of a plurality of focus regions, the skilled person would apply the exposure control means disclosed in D1 to that of the focus areas selected in accordance with the teaching of document D8 and assign the highest weight to the luminance detection area corresponding to the selected focus detection area in order to achieve proper exposure of the selected focused portion of the scene. The skilled person would then contemplate adapting, ie modifying the exposure control means disclosed in document D1 to give account of the selectable focus detecting areas referred to in document D8.

This adaption or modification, however, raises the question of whether and how the skilled person would, and not just could, actually apply the one-single

focus-area exposure control operation taught in document D1 to the multiplicity of selectable focus areas referred to in document D8.

In the board's view the skilled person would be confronted with a number of different possibilities. A straightforward possibility would consist in arranging all the focus detection areas 17, 26 and 27 of Figure 8 of document D8 within the area region 102A-102B of Figure 6 of document D1; in this case, the exposure calculation would be independent of the selected focus detection area and no regrouping or sorting means as defined in claim 1 would be required. A further straightforward possibility would consist in arranging the focus detection areas within different detection area groups, ie area 17 centred on area 102A and areas 26 and 27 centred on areas 102C2 and 102C4, respectively; in this arrangement the weight of the areas within the group 102C could then be changed to a value higher than the weight of the areas 102A and 102B when either one of the focus detection areas 26 or 27 is selected without properly modifying the groups, so that no regrouping or sorting means as defined in claim 1 would be required either.

A further, actually more elaborated possibility would indeed consist in regrouping the luminance detection areas in groups of areas according to the selected focus detection area as defined in claim 1. However, only hindsight knowledge of the subject matter of claim 1 could suggest this possibility because none of the prior art documents discloses or suggests regrouping or changing the relative weights of the luminance detecting areas according to the selection of a portion of the photographic field as defined in

claim 1. In addition, a new problem arises when following this approach, namely how to regroup, according to the selected focus area, the relatively low number of areas shown in Figure 6 of document D1. This problem was considered by the examining division during the examination procedure and the division in this respect suggested the replacement of the area matrix of Figure 6 by another area matrix having a greater number of areas as known from Figure 4 of document D9, cited in document D1, to give account of this problem. However, no obvious reason can be found *a priori* for following this approach and the replacement suggested by the division would again be the result of a reasoning based on hindsight.

2.6 The two alternative area matrices shown in Figure 1 and 3, and in Figure 4 of document D1 are less pertinent than the embodiment represented in Figure 6 because in these alternative embodiments the areas are differently weighted (see expressions at lines 11 and 40 of column 5), and therefore no groups of areas are properly determined by the exposure calculation. In any case, considerations similar to those set forth in point 2.5 above would also apply to the combination of the disclosure of document D8 with any of these alternative embodiments.

2.7 In these circumstances, the board is of the opinion that the claimed invention could only be reached by discarding more straightforward ways of adapting the teaching of document D1 to the camera disclosed in document D8 and then following an approach requiring measures that are not suggested in the documents and that would require the knowledge of the invention. Therefore, the board considers that the reasoning given

by the examining division for the combination of documents D1, D8 and D9 to arrive at the subject matter of claim 1 is defective in several respects and tainted by *ex post facto* considerations. For these reasons already the decision under appeal should be set aside.

3. *Further prosecution of the application*

3.1 In the board's opinion, none of the other documents in the file discloses or suggests a multi-area exposure control for a camera in which the areas are classified into groups of areas having the same weight according to the region of the field of view selected for the focus control as defined in claim 1.

3.2 In this respect, however, the disclosure of prior art document R1 *prima facie* appears to be sufficiently relevant to the subject matter of claim 1 to deserve due consideration when assessing the patentability thereof under Article 52(1) EPC. The late introduction of prior art document R1 in the appeal proceedings is unfortunate, since remittal of the case to the first instance for further prosecution involves delay in the procedure. However, taking into account the relevance of document R1 and the appellant's request that the case be remitted to the first instance for further prosecution, the board considers appropriate in the present circumstances to exercise its power under Article 111(1) EPC to remit the case to the first instance for further prosecution in the light of the disclosure of document R1 in order not to deprive the appellant of the possibility of having its case considered by two instances.

Moreover, since present claim 1 might be further

amended in examination proceedings before the first instance, the board does not consider it appropriate at this stage to pursue the issues raised provisionally under Article 123(2) EPC in its communication dated 8 June 2001, against the present version of claim 1. These issues may be considered by the examining division, if necessary.

Finally, since the appellant's request for remittal of the case to the first instance was considered allowable, the oral proceedings requested by the appellant only conditionally were cancelled.

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 on the basis of the amended claims submitted by the appellant with the statement of the grounds of appeal dated 17 September 1998.

The Registrar

The Chairman

P. Martorana

A. Klein