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D E C I S I O N
of 9 September 2005

Case Number: T 0310/05 - 3.4.2

Application Number: 01930377.5

Publication Number: 1386126

IPC: G01J 5/10, G03B 42/00

Language of the proceedings: EN

Title of invention:
Handheld Infrared Camera

Applicant:
FLIR Systems AB

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 111

Keyword:
"Reasons for refusal - persuasive (no)"
"Remittal for further prosecution (yes)"

Decisions cited:
-

Catchword:
-



Case Number: T 0310/05 - 3.4.2

D E C I S I O N
of the Technical Board of Appeal 3.4.2
of 9 September 2005

Appellant: FLIR Systems AB
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 19 October 2004
refusing European application No. 01930377.5
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: A. G. Klein
Members: M. A. Rayner
C. Rennie-Smith

Summary of Facts and Submissions

I. In its appeal filed on 16 December 2004, the appeal fee being paid on the same date, the applicant appealed against the decision of the examining division of 19 October 2004 refusing European patent application number 01 930 377.5, of which the International publication number was WO-A-02 090911. The statement of grounds for appeal was filed on 10 February 2005. The patent application concerns a handheld infrared camera for thermographic inspections.

II. *Examination Proceedings*

In the decision under appeal, reference was made to the following documents which had been introduced into the procedure by the examining division in its sole substantive communication:

D1: EP-A-917 438 (N.B. In the decision under appeal, specific references were actually to EP-B-917 438. In the present decision the board has considered corresponding passages in the corresponding International application WO98/02085), and

D2: WO-A-0030526.

In its statement of grounds for the appeal, the appellant made reference in addition to the following document which had been cited in the International Search Report

D3: US-A-5 675 149.

III. *Decision under Appeal*

In its decision, the examining division decided that the subject matter of claim 1 before it was not novel with respect to document D2. This was the reason given by the division for having to issue a refusal pursuant to Article 97(1) EPC. In what it called further comments, the division went on to consider the subject matter concerned as not to involve an inventive step having regard to document D1.

In establishing the reason for refusing the application, i.e. reaching its conclusion as to lack of novelty, the examining division repeated its reference to various passages in document D2 as pointed out in its sole communication as disclosing features of claim 1 before it, in particular with reference to a handheld infrared camera relying on a passage reciting that the term "light" is defined as electromagnetic energy within the range of frequencies or wavelengths extending from infrared to ultraviolet radiation and including visible light. In its decision, the examining division remarked that counter arguments submitted in the reply to the communication were not convincing.

In its further comments, the division repeated its remarks made in the communication concerning inventive step in relation to document D1. It identified differences between the subject matter of claim 1 and the disclosure of document D1 including that the camera is for use in the infrared range. However, as police investigations contemplated in document D1 often need night vision, the inclusion of an infrared light source

in the camera of document D1 would have been considered by the skilled person without an inventive step.

Case of the Appellant

(a) *Requests*

According to the notice of appeal, the appellant requests that the decision under appeal be set aside and the patent application reinstated. An amended set of claims was filed with the statement of the grounds for appeal.

(b) *Arguments*

Novelty

The camera disclosed by document D2 is clearly a photographic camera. Even if the view were to be taken that the near infrared range is a subset of the infrared range, this would not make the camera of document D2 an infrared camera. An infrared camera registers incoming infrared radiation emitted from an object in a region, the emitted radiation depending on the temperature of the object. Based on the registered radiation an image is generated. However, the camera according to document D2 includes means for illuminating an area of the patient and thus works according to the principle of a visible light camera, i.e. it registers light reflected from an object to produce a photographic image of the object.

Document D1 does not disclose an infrared camera suitable for thermographic inspections; in fact,

document D1 does not disclose an infrared camera at all. The subject matter of claim 1 is thus novel over document D1 or D2.

Inventive Step

The camera disclosed by document D2 has an integral speculum permitting entry into small orifices. The object of the document is to provide an ergonomically improved handheld instrument mainly for examination of a patient. There is nothing in document D2 or D1 to prompt the skilled person to modify the apparatus to include an infrared camera suitable for thermographic inspections, this being of no use for a patient. Law enforcement applications mentioned are restricted to looking through small openings. According to document D2, the camera may be any suitable miniature camera, but at that time no miniature camera suitable for thermographic inspection was available. Dimensions of a compact thermal camera can be taken from document D3. While this camera is admittedly compact compared to other thermal cameras, it is several times larger than a miniature visible light camera or video camera. The prior art does not comprise a miniature camera suitable for thermographic inspections that could easily be incorporated in the endoscope of document D2. Modification of the apparatus of document D2 would involve replacing the entire lens system, the detector, and the image handling part, as well as constructional changes to the housing that would make the apparatus unsuitable for its purpose. The replacement of the lens part and the widening of the nose part would require extensive changes. Claim 1 therefore involves an inventive step over document D2.

Document D1 relates to an endoscopic camera and thus the subject matter of claim 1 involves an inventive step over document D1 for the same reasons as advanced in relation to document D2.

(c) *Independent claim*

The independent claim upon which the request of the appellant is based is worded as follows:

"1. A handheld infrared camera for thermographic inspections, comprising a lens assembly (2) supported by a housing (3), which is arranged to hold an electric energy source (5) and a handling means (6) for recording and handling information received via the lens assembly, said housing (3) being provided with user control means for visual and manual control of the apparatus, characterized in that the housing (3) is essentially elongate, having the lens assembly (2) mounted at one end portion and having the opposite end portion formed as a user handle (4), there being provided on one side of the housing a set (8) of manual control means intended to be operated via the thumb of the user, and also a visual control means (7) located between said set (8) of manual control means and the lens assembly (2) and being adapted to be viewed when holding the camera away from the eye and the body of a user, and that the camera is intended for single hand operation"

{The wording "for thermographic inspections" in the second and third lines of the claim above was introduced in the appeal proceedings}

Reasons for the Decision

1. The appeal complies with the provisions mentioned in Rule 65(1) EPC and is therefore admissible.

2. *Amendments (Article 123(2) EPC)*

The sentence in marginal lines 4 and 5 on page 6 of the application recites that "The inventive camera is, as indicated, primarily intended as an infrared camera for thermographic inspections." The amendment made to claim 1 on appeal, i.e. the introduction of the wording "for thermographic inspections" is therefore supported by the application as originally filed so that the board is satisfied as to compliance with Article 123(2).

3. *Novelty*

The camera disclosed in document D2 is not a handheld infrared camera for thermographic inspections because, as submitted by the appellant, it does not register incoming infrared radiation emitted from an object in a region, but works according to the principle of a visible light camera, i.e. it registers light reflected from an object to produce a photographic image of the object. The subject matter of claim 1 is therefore novel in the sense of Article 54 EPC over document D2. The ground upon which refusal of the application by the examining division was based is, even without referring to any other features of the claim, solely for this reason no longer pertinent.

4. *Inventive Step*

The "further comments" advanced by the examining division in the decision under appeal do not persuade the board as to lack of inventive step of the subject matter of claim 1 as presented in the appeal proceedings. In particular, the board does not consider an endoscopic camera as disclosed by document D1 to be the best starting point for assessing inventive step of the subject matter of a claim directed to a handheld infrared camera for thermographic inspections. As the board agrees with the approach of the appellant on novelty as explained in point 4, it has to conclude moreover that the camera as claimed would not be reached even should the use of an infrared source with an endoscopic camera be considered obvious from the teaching of document D1 owing to use of reflected light. On the other hand, document D3, which did not figure at all in the communication or decision of the examining division, shows a number of the claimed features and strikes the board as representing a better starting point. The relevance of the submission of the appellant that the object of document D2 is to provide an ergonomically improved handheld instrument would then need to be considered in the context of the problem solution approach to inventive step.

5. *Further Procedure*

In view of the matters remaining to be examined for the first time, the board therefore considers it appropriate to remit the case back to the first instance for further prosecution.

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:

P. Martorana

A. G. Klein