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**Datasheet for the decision
of 28 January 2015**

Case Number: T 2106/13 - 3.2.02

Application Number: 09165894.8

Publication Number: 2127595

IPC: A61B1/04, A61B1/313, A61B1/002

Language of the proceedings: EN

Title of invention:
Miniature endoscope system

Applicant:
VisionScope Technologies LLC

Headword:

Relevant legal provisions:
EPC Art. 76(1), 111(1)
EPC R. 115(2)
RPBA Art. 15(3)

Keyword:
Added subject-matter -
main and first to fourth auxiliary requests (yes)
Added subject-matter - fifth auxiliary request (no)

Decisions cited:

Catchword:



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Boards of Appeal
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Case Number: T 2106/13 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 28 January 2015

Appellant: VisionScope Technologies LLC
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 3 April 2013
refusing European patent application No.
09165894.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman E. Dufrasne
Members: M. Stern
P. L. P. Weber

Summary of Facts and Submissions

- I. The applicant lodged an appeal against the decision of the Examining Division, dispatched on 3 April 2013, refusing European application No. 09 165 894.8. The application was refused since the claimed subject-matter extended beyond the content of the parent application as filed, D0: WO-A-01/19 235, contrary to Article 76(1) EPC.
- II. The Board summoned the appellant to oral proceedings and presented in an annexed communication dated 6 November 2014 its provisional opinion concerning, inter alia, compliance with the requirements of Article 76(1) EPC.
- III. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the main request or, in the alternative, of on one of the first to fourth auxiliary requests, all filed with letter dated 24 December 2014, and the fifth auxiliary request filed with letter dated 27 January 2015. In this last letter, the appellant also informed the Board that it would not attend the oral proceedings.
- IV. Oral proceedings took place on 28 January 2015 in the absence of the appellant in accordance with Rule 115(2) EPC and Article 15(3) RPBA.
- V. Claim 1 of the different requests reads as follows:

Main request:

"A disposable imaging probe for a miniature endoscope comprising:

an imaging channel and a surrounding annular illumination channel, the probe having a mounting hub for mounting the probe to a base unit of an endoscope, the probe further having a diameter of less than 2 mm, and wherein the illumination channel is optically coupleable to a light source on mounting the probe on an endoscope with said mounting hub."

First auxiliary request:

"A disposable imaging probe for a miniature endoscope comprising:

an image transmission path and a surrounding annular illumination channel, the probe further having a mounting hub for mounting the probe to a base unit of an endoscope, and the probe having a diameter of less than 2 mm, and wherein the illumination channel is optically coupled to a light source on mounting the probe on an endoscope with said mounting hub."

Second auxiliary request:

"A disposable sheath for a miniature endoscope comprising:

a sheath assembly having an imaging channel and an annular illumination channel, and a mounting hub securable to the base unit of an endoscope; and in which
the annular illumination channel surrounds the imaging channel to provide a probe having a diameter of 2 mm or less, and in which the illumination channel is optically coupleable to a light source by the mounting hub."

Third auxiliary request:

"A disposable sheath for a miniature endoscope comprising:
a sheath assembly having an image transmission path, an annular illumination channel and a mounting hub securable to a base unit of an endoscope; and in which: the annular illumination channel surrounds the image transmission path to provide a probe having a diameter of 2 mm or less, and in which the mounting hub includes an optical coupler that can optically couple the illumination channel to a light source further comprising a cannula connectable to the sheath assembly, and,
further comprising a fluid port on the cannula for fluid delivery."

Fourth auxiliary request:

"A disposable sheath assembly for a miniature endoscope comprising; [sic]
the sheath assembly having an imaging channel, an annular illumination channel, a mounting hub securable to a base unit of an endoscope, and a sterile barrier; and in which:
the annular illumination channel surrounds the imaging channel to provide a probe having a diameter of 2 mm or less, and in which the illumination channel is coupleable to a light source upon attachment of the mounting hub to a handle of the endoscope, and wherein the sterile barrier is attached to the mounting hub and extends over the handle of the endoscope."

Fifth auxiliary request:

"A sheath assembly for a miniature endoscope comprising:
a probe having a waveguide and a surrounding annular illumination channel;
a mounting hub (218, 414); and
a sterile barrier, the probe and the sterile barrier being attached to the mounting hub;
wherein the mounting hub is securable to a base unit of an endoscope, wherein the probe has a diameter of less than 2 mm, and wherein the illumination channel is optically coupleable to a light source on mounting the probe on an endoscope with the mounting hub."

- VI. The arguments presented by the appellant which are relevant for the present decision are summarised as follows:

Not including the sterile barrier in the claims did not offend Article 76(1) EPC. In the parent application as filed, the sterile barrier, shown in Figures 9 and 12 with reference 164, had the purpose of providing a sterile cover for the components of the base unit 202. The passage at page 14, line 29 to page 15, line 7 clearly indicated that the probe was a separate entity from the sterile barrier and that the probe could have an annular illumination channel around a waveguide, the passage at lines 7 to 8 of page 2 having discussed the use of an optical waveguide. The sterile barrier was clearly an optional item (page 15, lines 1 and 2), and, perhaps more importantly, the sterile barrier was not essential to the inventive concept concerning the disposable sheath, which is shown in Figure 9 with reference 162.

The basis for the term "probe" and for the fact that it was disposable could be found at least at page 2, lines 2 to 6, page 3, lines 1 to 2 and page 15, line 1. The passage at page 2 moreover specified that in its broadest sense the invention related to such a probe or endoscope where the distal end of the probe was less than 2 mm in diameter. The feature of the mounting hub for mounting the probe to a base unit of an endoscope had a basis at least at page 11, lines 21 to 22 and page 15, lines 5 to 7.

In some of the requests, the term "sheath" was replaced with "disposable imaging probe" in order to avoid any potential confusion surrounding the terms "sheath" and "sheath assembly". The probe itself was part of the sheath assembly which also included the sterile barrier. It was understood that the sheath was the same entity as the probe and that the sheath assembly was an assembly that included the probe/sheath as well as other components such as the sterile barrier.

Reasons for the Decision

1. The appeal is admissible.
2. *Procedural matters*

The duly summoned appellant did not attend the oral proceedings, as announced one day before. The proceedings were consequently continued without the appellant, as provided for in Rule 115(2) EPC. In accordance with Article 15(3) RPBA, the appellant was treated as relying only on its written case.

3. *Main request*

- 3.1 Claim 1 defines a disposable imaging probe for a miniature endoscope comprising a number of features. Whilst this subject-matter does not have a basis in any of the independent claims of the parent application as filed, D0, the question arises whether it is nevertheless directly and unambiguously derivable from D0 as a whole.

In this respect, particularly the following general consideration is to be borne in mind. Presumably out of an abundance of caution, the description has been drafted using an unusual profusion of clauses aimed at presenting essentially every feature of the endoscope as optional (e.g., the endoscope "can" have feature A, or "can" have function B). In particular, in the relevant description of the embodiment of Figures 9 to 14 (notably in the paragraph bridging pages 14 and 15) practically every sentence includes such a "can"-statement. Under these unusual circumstances, the reader of D0 would not fairly conclude that a given feature (or function) is optional just because D0 says that it "can" be part of imaging probe.

- 3.2 The disposable imaging probe is defined in claim 1 as comprising, inter alia, "an imaging channel and a surrounding annular illumination channel". The only disclosure of an imaging probe with an *annular* illumination channel surrounding an imaging channel (specifically, a waveguide or hollow channel) is provided in D0 on page 15, lines 3 to 4 in the context of the description of the embodiment of the endoscope depicted in Figures 9 to 14.

On page 11, lines 18 to 20, the endoscope according to this embodiment is said to have a *disposable* third assembly having a rod and needle with a distal lens assembly 162 that is attached to a sterile sleeve assembly 160 which includes a sleeve 164 that extends over the handle or base unit 202 of the endoscope. This sleeve 164 is designated also as a "sterile barrier" in the paragraph bridging pages 14 and 15 because it has the function of covering the entire endoscope handle or base unit 202 so that the latter remains sterile during a surgical procedure (page 15, lines 23 to 25).

As indicated in the "Summary of the invention" on page 3, lines 1 to 2, the sterile barrier is disposable along with the needle probe. The expression "needle probe" appears to refer to the small diameter imaging probe of less than 2 mm in diameter mentioned before on page 2, lines 2 to 6. For the purpose of disposing of the sterile barrier and the imaging probe, it is disclosed that the sterile barrier 164 and the imaging probe are *both* attached to the mounting hub 218 (page 15, lines 5 to 6). The sterile barrier is also not to be considered as optional just because on page 15, line 1 it is stated that the sheath assembly "can" include a sterile barrier, for the reason explained above under point 3.1. Hence, contrary to the assertion by the appellant, the concept of a disposable imaging probe is inextricably related to the simultaneous disposing of the probe and the sterile barrier.

- 3.3 In contrast, claim 1 defines the disposable imaging probe as having a mounting hub for mounting the probe to a base unit of an endoscope, leaving out, however, the limitation that the sterile barrier is attached to the mounting hub as well.

As explained above, the Board considers that the omitted feature was originally disclosed to be inextricably related to the other claimed features of the imaging probe. Therefore, the imaging probe so defined constitutes an unallowable generalisation of the embodiment of the endoscope of Figures 9 to 14.

Consequently, the subject-matter of claim 1 extends beyond the content of D0, in contravention of Article 76(1) EPC.

4. *First to third auxiliary requests*

From the submissions by the appellant it appears that the appellant understands the "sheath" in D0 to be the same entity as the "probe", and the sheath assembly to be an assembly that includes the probe/sheath as well as other components such as the sterile barrier. It appears that the appellant has therefore directed claim 1 of the second and third auxiliary requests at a "disposable sheath", rather than at a "disposable imaging probe" as in the main and first auxiliary requests.

Without entering into a discussion of the consistency of the terminology employed, the Board finds that claim 1 of the first to third auxiliary requests still omits to include the aforementioned limitation of the sterile barrier attached to the mounting hub, as in claim 1 of the main request.

Consequently, the subject-matter of claim 1 of the first to third auxiliary requests too extends beyond the content of D0, contrary to Article 76(1) EPC.

5. *Fourth auxiliary request*

Whilst claim 1 of this request includes the aforementioned feature of the sterile barrier attached to the mounting hub, the claim defines the probe as "having a diameter of 2 mm or less".

The Board agrees with the appellant's submission that the original parent application D0 in its "Summary of the invention" indicates, on page 2, lines 2 to 6, that in its broadest sense the invention relates to an imaging probe or endoscope where the distal end of the probe which is inserted into the tissue under examination is *less than* 2 mm in diameter.

The Board finds however no disclosure in D0 of a probe as claimed having a diameter of 2 mm as included in claim 1 as well. It may be noted that the endoscope with an outer diameter of 2.0 mm disclosed on page 11, line 28 (incidentally, not mentioned by the appellant) refers to a different endoscope embodiment (shown in Figure 8) which does not comprise the claimed annular illumination channel in addition to the imaging channel.

Consequently, claim 1 of the fourth auxiliary request is not allowable under Article 76(1) EPC either.

6. *Fifth auxiliary request*

- 6.1 The endoscope 200 of Figures 9 to 14 is disclosed as having two components, a handle or base unit 202 and a sheath assembly 160 (page 14, lines 30 to 31). The sheath assembly 160 is attachable to the base unit 202 (page 15, lines 8 to 9) and can eventually be discarded (page 11, lines 18 to 22). As these components are

clearly separable, it is permissible that claim 1 defines one of them, the sheath assembly. Its main features are disclosed on page 15, lines 1 to 7, i.e. a probe having a waveguide and a surrounding annular illumination channel, a sterile barrier (164) and a mounting hub (218), with the probe and the sterile barrier being attached to the mounting hub. These features are included in claim 1. Page 15, lines 8 to 11 provides a basis for defining that the hub (218) is securable to the base unit (202) of the endoscope, whereby the illumination channel is optically coupleable to a light source (the light source 236 being within the base unit 202; page 16, lines 17 to 20). The definition of the probe diameter as being less than 2 mm is supported by the general statement on page 2, lines 2 to 6.

As a consequence, the Board is satisfied that the subject-matter of claim 1 of the fifth auxiliary request meets the requirements of Article 76(1) EPC.

- 6.2 It should be noted that the present decision rules only on whether the claimed subject-matter satisfies the requirements of Article 76(1) EPC, the only legal ground on which the appealed decision refusing the application was based.

The Board therefore finds it appropriate to remit the case to the Examining Division for continuation of the examination proceedings on the basis of the fifth auxiliary request (Article 111(1) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



D. Hampe

E. Dufrasne

Decision electronically authenticated