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Datasheet for the decision of 25 September 2018

Case Number: T 1136/14 - 3.2.02

Application Number: 10000362.3

Publication Number: 1975225

IPC: A61B5/06, A61B5/05

Language of the proceedings: EN

Title of invention:
Medical positioning system

Applicant:
Mediguide Ltd.

Headword:

Relevant legal provisions:
EPC Art. 54

Keyword:
Novelty (no)

Decisions cited:

Catchword:

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Case Number: T 1136/14 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 25 September 2018

Appellant: (Applicant)	Mediguide Ltd. Advanced Technology Center, P.O. Box 15003 31053 Haifa (IL)
Representative:	Kramer Barske Schmidtchen Patentanwälte PartG mbB European Patent Attorneys Landsberger Strasse 300 80687 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 24 January 2014 refusing European patent application No. 10000362.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	E. Dufrasne
Members:	M. Stern
	S. Böttcher

Summary of Facts and Submissions

I. The applicant lodged an appeal against the decision of the Examining Division, dispatched on 24 January 2014, refusing European application No. 10 000 362.3. The application was refused on the grounds that the subject-matter of claim 1 then on file lacked novelty over the following document:

D1: WO-A-96/41119.

II. Notice of appeal was filed on 20 March 2014 and the fee for appeal was paid the same day. A statement setting out the grounds of appeal was received on 6 May 2014.

III. In a communication attached to the summons to oral proceedings dated 11 May 2018, the Board raised objections of added subject-matter over the parent application as originally filed, WO-A-00/69335 (Article 76(1) EPC), and lack of novelty regarding document D1 (Article 54 EPC).

IV. Oral proceedings were held on 25 September 2018.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed during the oral proceedings. All other requests were withdrawn.

V. Claim 1 of the main request reads as follows:

"1. Apparatus for determining the position and orientation of a detection probe relative to a reference frame, in association with an image, comprising:

a magnetic field transmitter (108), including at least three magnetic field generating elements (142A, 142B, 142C);

a signal generation module (132), connected to said magnetic field transmitter (108) and determining and providing a respective transmit signal to each of said magnetic field generating elements (142A, 142B, 142C), and wherein said transmit signal includes a plurality of frequencies;

a detection probe (540) including at least one magnetic field detector (110), said magnetic field detector (110) configured to produce a detected signal; and

a detection processor (102), connected to said detection probe (540), receiving the detected signal from said detection probe (540),

wherein

said detection processor (102) determines the location and orientation of said detection probe (540) based on said detected signal from the at least one magnetic field detector (110) and indicates the location of said detection probe (540) within said image,

characterized in that

the signal generation module (132) determines a respective transmit signal each comprising a different plurality of frequencies for each of the magnetic field generating elements (142A, 142B, 142C) and provides the respective transmit signal comprising a plurality of frequencies to each of the magnetic field generating elements (142A, 142B, 142C)."

VI. The arguments of the appellant that are relevant for the present decision may be summarised as follows:

The main request was filed at oral proceedings in order to overcome the objections under Article 76(1) EPC raised by the Board against the former main request and auxiliary request I.

The subject-matter of claim 1 of the main request was novel over D1. In one of the embodiments disclosed in D1 on page 20, line 38 to page 21, line 4, relating to frequency multiplexing, each of the magnetic field generating coils was driven with an equal number of multiple frequencies, the number being equal to the number of sensors. In contrast, in the apparatus of claim 1 the signal transmitted to each of the magnetic field generating elements comprised a "different plurality of frequencies", an expression carrying the meaning that the number of frequencies with which each magnetic field generating element was driven was different. This was consistent with what was disclosed on page 6, lines 5 to 9 of the application. There were no further differentiating features in claim 1.

Reasons for the Decision

1. The appeal is admissible.

2. The invention

The invention relates to an apparatus for determining the position and orientation of a probe in association with an image, the apparatus comprising, in essence, a 3D electromagnetic field generator (108) (having, for example, coils producing electromagnetic fields in a plurality of directions), a magnetic field detector (110) for detecting the generated fields and producing a detected signal, and a processor (102) for

determining the position and orientation of the probe from the detected signal (Figure 1; page 34, paragraph 2).

3. Novelty

3.1 The present main request was filed at oral proceedings in replacement of the former main request and auxiliary request I in order to overcome objections of added subject-matter under Article 76(1) EPC raised by the Board against the former requests.

3.2 As correctly established in the impugned decision, document D1 discloses an apparatus for determining the position and orientation of a detection probe in association with an image, the apparatus comprising: a magnetic field transmitter including three magnetic field generating elements (transmitter coils 10a, 10b, 10c in Figure 1; page 9, lines 4 to 6), a signal generation module (command unit 28; page 11, lines 1 to 5) providing a transmit signal to each of the magnetic field generating elements, a detection probe (14) including at least one magnetic field detector (component sensors 20, 22, 24 in Figure 2) producing a detected signal (page 9, lines 19 to 22), and a detection processor (30, 32) that determines the location and orientation of the detection probe based on said detected signal and indicates the location of the detection probe within an image (page 17, lines 4 to 38).

3.3 Whilst the disclosure of these features in D1 is not in dispute, the appellant based its novelty claim on a further feature of claim 1 defining that the respective transmit signal to each of the magnetic field generating elements comprises a "different plurality of

frequencies". This feature has its basis (solely) on page 22, lines 5 to 9 of both the original parent application and the present application, stating that each of the (magnetic field generating) coils receives a signal that includes a "different set of frequencies".

The Board, however, considers that this feature is likewise anticipated by D1. On page 20, line 22 to page 21, line 4, D1 discloses that each of the transmit coils (or magnetic field generating elements) can be driven at multiple carrier frequencies, the carrier frequencies for each coil being different from one another and different from all of the other carrier frequencies for all of the other coils. Accordingly, the respective transmit signal to each of the magnetic field generating elements comprises a different set of carrier frequencies, or, in the language of claim 1, a "different plurality of frequencies".

3.4 The appellant argued that the claimed expression of a "different plurality of frequencies" had the meaning of a different *number* of frequencies. This interpretation could be inferred from page 6, lines 5 to 9 of the original application disclosing that the transmission channels could include any number of frequencies, leading to the conclusion that each magnetic field generating element was driven by a *different number* of frequencies. This feature was different from D1 where the number of carrier frequencies was the same for all coils (page 20, line 38 to page 21, line 4).

The Board does not accept this argument. Although the mentioned passage on page 6, lines 5 to 9 refers to the number of frequencies driving each coil, it does not disclose that the number of frequencies should be

different for each coil. Moreover, as already indicated above, the only basis for defining "different pluralities of frequencies" for each coil is the disclosure on page 22, lines 5 to 9 disclosing a "different set of frequencies" for each coil. And precisely this is what D1 discloses, as explained above.

3.5 As the appellant indicated at oral proceedings that there were no other distinguishing features over D1, the Board comes to the conclusion that the subject-matter of claim 1 lacks novelty within the meaning of Article 54 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Hampe E. Dufrasne

Decision electronically authenticated