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Datasheet for the decision of 2 December 2019

Case Number: T 0094/17 - 3.5.07

Application Number: 05730928.8

Publication Number: 1735723

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Language of the proceedings: EN

Title of invention:
Data arrangement, method, dental-care-related device and software product for dental-care quality assurance

Applicant:
Planmeca Oy

Headword:
Dental-care-related device/PLANMECA

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - both requests (no)

Decisions cited:
T 2488/11, T 2315/16

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Case Number: T 0094/17 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 2 December 2019

Appellant: (Applicant)	Planmeca Oy Asentajankatu 6 00880 Helsinki (FI)
Representative:	Winter, Brandl, Fürniss, Hübner, Röss, Kaiser, Polte - Partnerschaft mbB Patent- und Rechtsanwaltskanzlei Alois-Steinecker-Strasse 22 85354 Freising (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 11 July 2016 refusing European patent application No. 05730928.8 pursuant to Article 97(2) EPC**

Composition of the Board:

Chairman	R. Moufang
Members:	R. de Man
	E. Konak

Summary of Facts and Submissions

I. The applicant (appellant) appealed against the decision of the Examining Division refusing European patent application No. 05730928.8, which was published as international application WO 2005/096177.

II. The Examining Division decided that the subject-matter of independent claims 1, 11, 15 and 16 of the sole substantive request lacked inventive step over a combination of the following documents:

D1: US 5 453 009, published on 26 September 1995;
D3: DE 100 45 067 A1, published on 4 April 2002;
D4: US 4 943 939 [identified in the decision as US 4 934 939], published on 24 July 1990.

III. In its statement of grounds of appeal, the appellant maintained the sole request considered in the contested decision as the main request and filed first and second auxiliary requests.

IV. In a communication accompanying the summons to oral proceedings, the Board expressed the preliminary opinion that none of the requests complied with Articles 56, 84 and 123(2) EPC.

V. In a letter dated 13 November 2019, the appellant indicated that it "deletes the claims 2, 15 and 16 according to main request". It replaced the first and second auxiliary requests with a new first auxiliary request.

VI. During oral proceedings held on 2 December 2019, the appellant amended the main request in accordance with the indication in its letter. At the end of the oral

proceedings, the chairman pronounced the Board's decision.

VII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, in the alternative, the first auxiliary request.

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

"A system for a dental-care environment, for use during a dental procedure, the system comprising at least one dental-care instrument (X), a dental unit (U) comprising an instrument table, said dental unit (U) being configured to control operation of said at least one dental-care instrument during the dental procedure, a data system (S) and a data communication arranged between the dental unit (U) and the data system (S), wherein
the dental unit (U) comprises
means for identifying during the dental procedure taking of said at least one dental-care instrument (X) from said instrument table to use in the dental procedure, and
means for transmitting at least one value of at least one operation parameter of said at least one dental-care instrument (X) during the dental procedure to the data system (S) as a response to the identification by the identifying means of the taking of said at least one dental-care instrument (X) from said instrument table, and
wherein the data system (S) comprises
means for storing said transmitted at least one value of the at least one operation parameter in the data system (S) during the dental procedure item-specifically, the item being at least one of a patient,

said at least one dental-care instrument (X), a certain tooth of a patient and a certain tooth surface of a patient."

IX. Claim 1 of the first auxiliary request reads as follows:

"A system for a dental-care environment, for use during a dental procedure, the system comprising at least one dental-care instrument (X), a dental unit (U) comprising an instrument table, said dental unit (U) being configured to control operation of said at least one dental-care instrument during the dental procedure, a data system (S) and a data communication arranged between the dental unit (U) and the data system (S), wherein
the dental unit (U) comprises
a microcomputer (PC) or a user interface arranged to the dental unit (U) for entering a treatment plan in the data system (S),
means for identifying during the dental procedure taking of said at least one dental-care instrument (X) from said instrument table to use in the dental procedure, wherein the dental procedure according to the treatment plan stored in the data system is identified on the basis of the identification of the taking of said at least one dental-care instrument (X) from said table,
means for identifying the dental-care instrument (X) upon connecting the instrument (X) to the dental unit (U) and receiving actual status information of the identified instrument from the data system (S) being configured to identify an unsterilized, unsuitable for the dental procedure in question or otherwise unfit dental-care instrument (X) and as a response to said identification of the dental-care instrument (X),

indicate before use of the dental-care instrument that it is not suitable for use and
means for transmitting at least one value of at least one operation parameter of said at least one dental-care instrument (X) during the identified dental procedure to the data system (S) as a response to the identification by the identifying means of the taking of said at least one dental-care instrument (X) from said instrument table, and
wherein the data system (S) comprises
means for storing said transmitted at least one value of the at least one operation parameter in the data system (S) during the dental procedure item-specifically, the items being a patient, said at least one dental-care instrument (X), a certain tooth of a patient or a certain tooth surface of a patient."

X. The appellant's arguments, where relevant to the decision, are discussed in detail below.

Reasons for the Decision

1. The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.

2. *The application*

2.1 The background section of the application explains that electronic databases are a convenient means for archiving data related to dental-care patients and materials used in dental care. However, manual data entry takes time and is prone to errors. Moreover, data related to the proper use of materials and instruments in dental procedures and to whether instruments have

been properly cleaned or sterilised is typically not entered at all.

2.2 The invention essentially proposes a system for use in a dental-care environment that, in response to detecting that a dentist has lifted a dental-care instrument from the instrument table, automatically stores relevant data in an electronic database.

Main request

3. *Inventive step*

3.1 Document D1 relates to a system for determining whether a dentist performs the steps in a dental procedure in the correct sequence. The system includes a computer that is connected to dental-care instruments (column 1, lines 36 to 40). When the dentist uses an instrument, the computer determines whether the use is in accordance with a previously determined sequence of treatments stored in the computer (column 2, lines 24 to 29). If the instrument is not used in accordance with that sequence, the computer may turn it off (column 2, lines 34 to 36). The treatment process can be verified by an insurance company or government agency (column 2, lines 40 to 47).

3.2 Hence, document D1 discloses a system for a dental-care environment that comprises at least one dental-care instrument and a data system in the form of a computer. The data system is configured to control operation of the instrument.

The system includes means for identifying the use of the at least one dental-care instrument in the dental procedure. Since the treatment process can later be

verified by an insurance company or government agency, some information about the use of the instrument is stored in the data system.

3.3 The subject-matter of claim 1 therefore differs from the system of document D1 in that:

(a) the data system is connected to (and controls and receives information about the use of) the instrument via a dental unit that includes an instrument table;
(b) the means for identifying the use of the dental-care instrument consists of means for identifying the lifting of the instrument from the instrument table;
(c) the information about the use of the instrument includes the value of an operation parameter of the instrument;
(d) the value is stored in connection with at least one of a patient, a dental-care instrument, a tooth of the patient and a tooth surface of the patient.

3.4 Distinguishing features (c) and (d) relate to the cognitive content of the information being stored and therefore make no technical contribution (see decisions T 2488/11 of 23 May 2018, reasons 1.4(i), and T 2315/16 of 5 July 2019, reasons 2.2). The appellant did not dispute this.

3.5 As for distinguishing feature (a), the appellant argued that the data system of document D1 could be connected to the dental instruments in other ways, for example by means of a wireless Bluetooth connection. Feature (a) had the advantage that no confusion could arise with data signals received from dental instruments used in neighbouring treatment rooms of the dental practice. It

was not apparent why the skilled person *would* connect the data system to the dental instruments via the dental unit.

The Board observes that the application discloses nothing regarding this alleged advantage and that claim 1 does not rule out the possibility that the computer is connected to one (or more) dental units via a wireless Bluetooth connection, in which case the same kind of confusion can arise if the wireless data communication is not properly implemented.

Document D1 discloses that the data system is connected to the dental instruments but does not give any further details. The skilled person trying to put the disclosure of document D1 into practice has to fill in such details and would, in the Board's judgment, choose to connect the data system to the dental instruments via the dental unit in accordance with feature (a) as one straightforward and thus obvious possibility.

3.6 As for distinguishing feature (b), the appellant argued that it was not apparent why the skilled person, if he had even been able to come up with a way to detect the use of an instrument, *would* have chosen to detect the instrument's use immediately when it was lifted from the table and not, for example, only when it was switched on by the dentist. By detecting the use immediately, it became possible to detect the use of a dental instrument for a purpose other than its intended purpose, a case that was not uncommon in practice.

The application again fails to disclose anything regarding this alleged advantage of feature (b). Moreover, detecting that an instrument is being used for a purpose other than its intended purpose requires

further specific measures in addition to detecting that the instrument is lifted from the instrument table, and no such measures are mentioned in the claim or in the description.

Document D1 does not state how the use of a dental-care instrument is detected. The skilled person trying to put the disclosure of document D1 into practice has to make a choice out of the options available to him. In the Board's judgment, detecting that the instrument was lifted from the instrument table is one such obvious option. In this respect, the Board notes that neither the claim nor the application includes any technical details on how the lifting from the instrument table is detected.

3.7 The appellant further argued why the skilled person would not combine documents D1 and D4. Since the Board's reasoning does not rely on document D4, these arguments need not be discussed.

3.8 Since the Board is also unable to identify any synergistic technical effect going beyond the sum of the expected effects of the individual features, it concludes that the subject-matter of claim 1 lacks inventive step (Article 56 EPC).

First auxiliary request

4. *Interpretation of claim 1*

4.1 Claim 1 of the first auxiliary request adds the following to claim 1 of the main request:

- the dental unit comprises a microcomputer or a user interface to allow the dentist to enter a treatment plan into the data system;

- the "dental procedure according to the treatment plan stored in the data system" is identified on the basis of the identification of the taking of the dental-care instrument from the instrument table; and
- the dental unit comprises "means for identifying the dental-care instrument upon connecting the instrument to the dental unit and receiving actual status information of the identified instrument from the data system being configured to identify an unsterilized, unsuitable for the dental procedure in question or otherwise unfit dental-care instrument and as a response to said identification of the dental-care instrument, indicate before use of the dental-care instrument that it is not suitable for use".

4.2 At the oral proceedings, the appellant acknowledged that claim 1 now uses the term "dental procedure" with two different meanings. In the feature "means for identifying during the dental procedure taking of said at least one dental-care instrument ...", it refers to the dental treatment (as set out in the treatment plan) as a whole. Yet in the feature "wherein the dental procedure according to the treatment plan ... is identified on the basis of the identification of the taking of said at least one dental-care instrument", it refers to a step within the treatment plan.

4.3 The newly added feature of "means for identifying the dental-care instrument upon connecting the instrument ..." is based on page 5, line 20, to page 6, line 11, of the description.

This passage discloses that, when an instrument is connected to the dental unit, an identifier of the

instrument or its sterilisation package, such as an RF tag, is scanned, and the dental unit retrieves status information about the instrument or its sterilisation package from the data system. If this status information indicates that the instrument is "in order (when the database DB has no information of instrument X being used or the sterilisation package being opened since the previous properly performed sterilisation)", a corresponding message is shown on a display of the dental unit. Otherwise, a warning or notice is displayed.

Hence, this passage of the description discloses determining whether the connected instrument is "unsterilised" but not whether it is "unsuitable for the dental procedure in question or otherwise unfit". The latter condition was taken from original dependent claim 7, which is, however, not clearly connected to the process of connecting an instrument to the dental unit.

For the purpose of assessing inventive step, the Board will therefore focus on the "unsterilised" alternative, which is disclosed in the application as filed.

5. *Inventive step*

5.1 In column 2, lines 10 to 36, document D1 refers to a "required sequence of treatments", which corresponds to the "treatment plan" of claim 1. Since the data system of claim 1 verifies whether a dental instrument is used in accordance with this sequence of treatments (see point 3.1 above), the sequence must somehow have been entered into the data system. It would therefore have been obvious to provide the dental unit with a user

interface to allow the dentist to enter the treatment plan.

Moreover, since the data system of document D1 verifies whether a dental instrument is used in accordance with the treatment, it has to identify the step within the treatment plan to which the use of the dental instrument corresponds.

The first two features added to claim 1 of the first auxiliary request therefore cannot support an inventive step.

5.2 The third added feature listed in point 4.1 above relates to a separate problem, namely that of verifying, before a dental instrument is used, that the instrument has been properly sterilised.

At the priority date, it was well known that only sterilised instruments should be used for treating a patient. It was therefore obviously desirable to automatically issue a warning if an instrument was not sterile. The skilled person, faced with the task of implementing an automatic warning facility of this kind, would have provided means for detecting which instruments are connected to the dental unit and means for obtaining the sterilisation status of each instrument from a suitable database without exercising inventive skill.

5.3 The appellant did not present any specific counterarguments to the Board's reasoning.

5.4 Hence, the subject-matter of claim 1 of the first auxiliary request lacks inventive step (Article 56 EPC).

Conclusion

6. Since neither request is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

I. Aperribay R. Moufang

Decision electronically authenticated