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D E C I S I O N
of 1 March 2005

Case Number: T 0320/04 - 3.2.2

Application Number: 95913769.6

Publication Number: 0752833

IPC: A61C 5/00

Language of the proceedings: EN

Title of invention:

Device and method for treatment of dentition

Applicant:

FONTENOT, Mark, G.

Opponent:

-

Headword:

-

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (no) "

Decisions cited:

-

Catchword:

-



Case Number: T 0320/04 - 3.2.2

D E C I S I O N
of the Technical Board of Appeal 3.2.2
of 1 March 2005

Appellant: FONTENOT, Mark, G.
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Representative: Wise, Stephen James
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 21 July 2003
refusing European application No. 95913769.6
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: T. K. H. Kriner
Members: D. Valle
E. J. Dufrasne

Summary of Facts and Submissions

I. The appellant (applicant) lodged an appeal on 19 September 2003 against the decision of the examining division, posted on 21 July 2003, refusing the European patent application No. 95 913 769.6. The fee for the appeal was paid 23 September 2003 and the statement setting out the grounds for appeal was received on 28 November 2003.

II. The examining division held that the application did not meet the requirements of Articles 54 and 56 EPC (lack of novelty and inventive step), Article 84 EPC (lack of clarity) and Article 52(4) EPC (method of treatment of the human body).

III. The following documents, cited during the examination procedure, are relevant for the present decision:

D2 = US-A-3 624 909

D3 = US-A-4 944 947.

IV. Oral proceedings took place on 1 March 2005.

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 or, in the alternative, on the basis of the auxiliary request filed during the oral proceedings.

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

"A dental appliance for the treatment of dental arches and periodontal tissue, which appliance is composed of:

a non-porous polymeric material forming an open trough for immersing the teeth of the dental arch, the dental appliance being adaptable to fit a range of variously sized dental arches, wherein the trough is defined by an anterior wall and a posterior wall of the appliance, the walls together forming an opening into the trough wherein the walls are not in contact with each other when the appliance is packaged; a premeasured amount of a dental agent predispensed within the trough of the dental appliance, optionally in a separate container; and a packaging means for sealing the dental agent within the trough so as to provide a closed, individualised single-use system for the application of the dental agent to the user's dental arches and periodontal tissue."

VI. Claim 1 of the auxiliary request reads as follows (the differences from the main request are underlined):

"A dental appliance for the treatment of dental arches and periodontal tissue, which appliance is composed of: a non-porous polymeric material forming an open trough for immersing the teeth of the dental arch, the dental appliance being adaptable to fit a range of variously sized dental arches, wherein the trough is defined by an anterior wall and a posterior wall of the appliance, the walls together forming an opening into the trough wherein the walls are not in contact with each other when the appliance is packaged; a premeasured amount of a bleaching agent predispensed within the trough of the dental appliance, optionally in a separate container; and a packaging means for sealing the bleaching agent within the trough so as to provide a closed, individualised single-use system for the application of

the dental agent to the user's dental arches and periodontal tissue."

VII. In support of his request, the appellant relied essentially on the following submissions:

D2 did not disclose a packaging means for sealing the dental agent within the trough.

D3 could be combined with the teaching of D2 in the form of the claimed invention only with hindsight. The appliance disclosed in D3 was directed to overcome the problems of an excessive use of fluoride and of the danger of swallowing fluoride, caused by the use of trays which were filled individually for each treatment with fluoride gel (see D3, column 1, lines 24 to 38; and column 3, lines 6 to 15). To overcome these problems, D3 suggested using a dental appliance made of a polymeric foam containing aqueous fluoride and adapted to maintain intimate contact with the teeth (see column 2, lines 36 to 42). Additionally, in order to retain the moisture of the active agent, a special package was suggested for the appliance of D3 (see column 5, lines 10 to 18 and 44 to 60). It followed that the package of D3 was a special package directed to protect the moisture-sensitive ingredients contained in the foam of the appliance and it made no sense to use it in combination with a tray containing the active agent as disclosed in D2.

Furthermore the appliance of D3 was directed to professional use (see column 1, lines 5 to 11) and not to a home use like the claimed invention.

The auxiliary request contained the further distinguishing feature with respect to D3 that the active agent used was a bleaching agent and not a fluoride.

Reasons for the Decision

1. The appeal is admissible.

2. *Inventive step*

- 2.1 The most relevant state of the art is disclosed in D2 which, like the present application, discloses a dental appliance for the treatment of dental arches and periodontal tissue, which appliance is composed of: a non-porous polymeric material (10) (see Figure 1, column 2, lines 4 to 9) forming an open trough for immersing the teeth of the dental arch, the dental appliance being adaptable to fit a range of variously sized dental arches (being flexibly resilient, see column 2, lines 4, 5 and 23), wherein the trough is defined by an anterior wall (38) and a posterior wall (40) of the appliance, the walls together forming an opening into the trough, wherein the walls are not in contact with each other at any time; and a premeasured amount of a dental agent predispensed within the trough of the dental appliance (see column 3, lines 9 to 13).

The dental agent may be hydrogen peroxide (see column 1, line 71 to column 2, line 3) which is well known as a bleaching agent.

The dental appliance according to claim 1 of the main request and according to claim 1 of the auxiliary

request differs from that which is disclosed in D2 by the provision of a packaging means for sealing the dental agent within the trough so as to provide a closed, individualised single-use system for the application of the dental agent to the user's dental arches and periodontal tissue. Instead, in D2 the dental agent is placed on the carrier just before use.

- 2.2 Starting from D2, the object underlying the patent application in suit may therefore be regarded as to improve the accuracy of dosage of the dental agent and to simplify the use of the dental appliance.

This object is achieved by the appliance defined in claim 1 of the main and auxiliary requests, in particular by that feature of these claims according to which the dental agent is sealed in packaging means within the trough.

- 2.3 The skilled person facing the above cited object would certainly have considered document D3, since it belongs to the same field of dental appliances as the invention and since it is directed among other things to the achievement of the same object as the present invention (see column 5, lines 51 and 52). In order to assure a proper dosage and ease of use, this document suggests sealing the dental agent in packaging means within the trough (see column 5, lines 44 to 52).

The skilled person would therefore have improved the dental appliance of D2 on the basis of the teaching of D3, and thus have arrived at the invention defined in claim 1 of the main and auxiliary request, without any inventive skill being involved.

2.4 The appellant's argumentation according to which D2 and D3 could only be combined with hindsight is not convincing. It is true that D3 deals with a particular problem, i.e. the reduction of the patient's exposure to excess fluoride or other therapeutics during treatment of the teeth, and with a particular solution to this problem, i.e. the provision of a therapeutic containing polymeric foam dental appliance. However, it is obvious for the skilled person that the additional teaching of D3, according to which this dental appliance may advantageously be packaged, is not restricted to this particular appliance. On the contrary, D3 describes that the unit-dose package assures proper dosage and ease of use. Since these advantages have nothing to do with the particular dental appliance according to D3, this document gives the clear general teaching to provide packaging means for sealing a dental agent within a dental appliance in order to create a closed, individual single-use system which is suitable to improve the accuracy of dosage of the dental agent and to simplify the use of a dental appliance. Therefore, D3 gave the skilled person confronted with the object underlying the present application, at the priority date of the application, a clear teaching how to achieve this object.

Furthermore, contrary to the assertion of the appellant, the appliance according to D3 is not only limited to professional use, but also, like the invention, to home use (see column 5, line 48 and 49).

2.5 With respect to the above findings, the board came to the conclusion that the subject-matter of claim 1 of

the main and auxiliary requests does not involve an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

V. Commare

T. Kriner