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Datasheet for the decision of 6 October 2010

Case Number: T 0347/06 - 3.2.02

Application Number: 99954353.1

Publication Number: 1210043

IPC: A61F 9/01

Language of the proceedings: EN

Title of invention:
Apparatus for determining and ablating the corneal tissue volume for correcting visual ametropia

Patentee:
Ligi Tecnologie Medicali S.p.A.

Opponent:
WaveLight GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 123(2)(3)
RPBA Art. 13(1)(3)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Added subject-matter (yes)"
"Extension of scope of protection (yes, after amendments)"

Decisions cited:
G 0001/93

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0347/06 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 6 October 2010

Appellant: (Patent Proprietor)	Ligi Tecnologie Medicali S.p.A. Via Luigi Corsi, 50 I-74100 Taranto (IT)
Representative:	Bruni, Giovanni Laforgia, Bruni & Partners Corso Duca degli Abruzzi, 78 I-10129 Torino (IT)
Respondent: (Opponent)	WaveLight GmbH Am Wolfsmantel 5 D-91058 Erlangen (DE)
Representative:	von Hellfeld, Axel Wuesthoff & Wuesthoff Patent- und Rechtsanwälte Schweigerstrasse 2 D-81541 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted 19 January 2006 revoking European patent No. 1210043 pursuant to Article 102(1) EPC 1973.**

Composition of the Board:

Chairman: M. Noël
Members: C. Körber
M. J. Vogel

Summary of Facts and Submissions

I. By its decision posted on 19 January 2006 the Opposition Division decided to revoke European patent No. 1210043 as it comprised added subject-matter in breach of the requirements of Article 123(2) EPC.

II. An appeal was lodged against this decision by the patentee by notice received on 3 March 2006, with the appeal fee being paid on the same day. The statement setting out the grounds of appeal was received on 29 May 2006.

III. By communication of 31 May 2010, the Board forwarded its provisional opinion to the parties.

IV. On 6 October 2010 oral proceedings were held.

The appellant (patentee) requested that the impugned decision be set aside and that the patent be maintained as granted or, as an auxiliary request, that the patent be maintained in amended form with the preamble of claim 1 as well as claims 2 and 3 as granted and the characterising portion of claim 1 as filed on 6 September 2010.

The respondent (opponent) requested that the appeal be dismissed.

V. Claim 1 of the main request (as granted) reads:

"An apparatus for determining and ablating a corneal tissue volume of an eye of a patient necessary for correcting visual ametropia of said eye, comprising a

central control unit (1), a corneal topograph (2) for morphologically defining a corneal front surface, an infrared pupillometer (3) for measuring a diameter of a pupil of said eye and an excimer or solid-state laser (5) all of which are respectively operatively connected to said central control unit (1), **characterized in that** said apparatus further comprises a scansion laser (4) coupled to said central unit (1), said scansion laser being adapted to measure, point by point, an angular deviation of a light beam impinging on the eye cornea to match the projection of said light beam on the retina with the fovea or center of the vision to define a correcting dioptrical value to be applied to said corneal front surface to optimize a focalization, at foveal level, of the light beam source, arranged at an infinite distance, the impinging light beams of said light source crossing the corneal front surface, through an area of the pupillar diaphragm projection as detected under scotopic conditions."

The preamble of claim 1 according to the auxiliary request is the same as that of claim 1 as granted, with the characterising portion reading as follows:

"said apparatus further comprises a scansion laser (4) coupled to said central unit (1), said scansion laser being adapted to measure, point by point, the eccentricity, as measured in a radial direction, between the projection of a light beam impinging on the retina and the fovea or center of the vision, to define a correcting dioptric value to be applied to the corneal front surface to optimize a focalization, at foveal level, of the light beam source, arranged at an infinite distance, the impinging light beams of said light source

crossing the corneal front surface, through the area of the pupillar diaphragm projection as detected under scotopic conditions."

Claims 2 and 3 are dependent claims.

VI. The appellant's arguments are summarised as follows:

Main request:

From page 3, lines 17 to 26, of the description as filed it could be derived that the correcting dioptrical value for compensating the effect of the refractive error corresponded to a change of the incidence angle on the corneal surface such that the beam was refracted on the fovea, substantially without any eccentricity or focalization error. Accordingly, searching a correcting dioptrical value was nothing other than measuring the angular deviation of a light beam impinging on the cornea. The scope of the contested feature of granted claim 1, viz. the scansion laser being adapted to measure an angular deviation of a light beam impinging on the eye cornea to eliminate eccentricity, was exactly coincident with the teaching given in the above-mentioned text passage of the description.

The description (page 4, lines 9 to 14) disclosed only one way of determining the correcting dioptrical value, namely by minimising the eccentricity, the correcting dioptrical value thus corresponding to a change of the incidence angle on the corneal surface such that the beam was refracted on the fovea without any eccentricity, thereby optimizing the focalisation. Angular deviation

was hence "directly and biunivocally" correlated to the correcting dioptrical value.

The contested feature of measuring an angular deviation was only a better explanation of what was originally described and did not add any technical contribution. According to G 1/93, the addition of a feature not providing a technical contribution to the invention did not contravene Article 123(2) EPC since it did not give an unwarranted advantage to the patentee.

Auxiliary request:

The feature "to measure ... an angular deviation" in claim 1 as granted had been replaced by an originally disclosed equivalent, namely the feature "to measure ... the eccentricity, as measured in a radial direction". There was a "biunivocal correspondence" between these parameters, and the replacement feature had exactly the same scope. According to G 1/93, the scope of the claims was not broadened, and there was no violation of Article 123(3) EPC.

VII. The respondent's arguments are summarised as follows:

The feature of the scansion laser "being adapted to measure, point by point, an angular deviation of a light beam impinging on the eye cornea to match the projection of said light beam on the retina with the fovea or center of the vision" in claim 1 as granted was not originally disclosed. The only parameter described as to be measured was eccentricity. The correlation between eccentricity and angular deviation was not trivial and required the knowledge of further properties of the eye

which varied from individual to individual. The primary parameter to be measured had to be distinguished from secondary quantities derived or calculated therefrom, such as the "correcting dioptrical value". Furthermore, it could not be derived from the original disclosure that the projection of the light beam on the retina was to be matched with the fovea.

As to claim 1 of the auxiliary request, there was no basis in the application documents as filed for the eccentricity to be measured "point by point". This feature was only disclosed in relation to the determination of the "dioptrical corrective value" at page 3, lines 17 to 21. Moreover, the scope of protection had been extended since the feature "to match the projection of said light beam on the retina with the fovea" had been deleted from claim 1 as granted. Furthermore, the replacement feature of measuring eccentricity was not identical to measuring angular deviation as previously defined in claim 1 as granted, and could not be exchanged without violating Article 123(3) EPC. The fact that there was no basis in the original disclosure for the scansion laser being adapted to measure angular deviation did not imply that this feature was void of any technical significance or contribution.

Reasons for the Decision

1. The appeal is admissible.

2. In spite of its late filing, the Board admits the auxiliary request into the proceedings in exercise of

its discretion under Article 13(1) and (3) RPBA, since this request is clearly aimed at overcoming the objections raised in the Board's communication annexed to the summons to oral proceedings, and since it can be dealt with without further delay of the appeal proceedings.

3. *Amendments*

In the following, the Board relies on the English text of the WO publication (WO 01/03621 A1), which is considered as the application as originally filed. The appellant had no objections in this regard.

3.1 Main request

The feature of the scansion laser "being adapted to measure, point by point, an angular deviation of a light beam impinging on the eye cornea to match the projection of said light beam on the retina with the fovea or center of the vision" comprised in claim 1 as granted is not disclosed in the application documents as originally filed.

A measurement of "an angular deviation of a light beam impinging on the eye cornea", i.e. the measurement of an angle, is nowhere explicitly mentioned in the original disclosure, nor are any means for this purpose described. The only parameter expressly indicated as to be measured is the eccentricity between the projection of the light beam impinging on the retina and the foveal center, i.e. a length (page 4, lines 11 to 14).

The determination of a "dioptrical corrective value", as described at page 3, lines 17 to 26, **may** well be done by changing the incidence angle of the light beam impinging on the cornea, as convincingly indicated in the statement of grounds of appeal. However, the original disclosure is entirely silent in this respect. The explanations provided by the appellant cannot be considered as general knowledge and cannot be used to complete the respective lack of information in the application as filed. Furthermore, changing an incidence angle does not necessarily imply its measurement. A primary parameter to be measured, such as an angle or a distance, has to be distinguished from secondary quantities derivable therefrom, such as a "correcting dioptrical value". Such a derivation generally implies further operations and/or calculations. At page 3, lines 22 et seq. of the original disclosure it is in fact stated that the dioptrical corrective value is "determined" by "searching" the diopter value "optimizing" the focalization at foveal level. However, no indication is given in this quoted passage about how exactly this is to be done.

It is further to be noted that even if the measurement of an angular deviation could be considered as an equivalent to the determination of a correcting dioptrical value, such equivalence could not be regarded as an acceptable basis for deliberately supplementing the teaching of the original disclosure and could not be added without violating the requirements of Article 123(2) EPC (see Case Law of the Boards of Appeal of the EPO, 6th edition (2010), paragraph bridging pages 317 and 318).

At page 4, lines 9 to 17, reference is made to an "ideal aconic surface". Even though the description is void of any clear statement in this respect, it is conceivable that this ideal surface is the corneal surface resulting from applying the "correcting dioptrical value", "point by point", to the front corneal surface, as mentioned at page 3, lines 17 to 21. In the cited passage of page 4, it is stated that the "ideal aconic surface" determines the "minimum of the sum function, as expressed in an absolute value, of the eccentricity, as measured in a radial direction, between the projection of the light beam impinging on the retina and the foveal center". This may suggest that the "ideal aconic surface", and possibly also the "correcting dioptrical value", is to be determined by measuring eccentricity and then - somehow - minimising this parameter. However, such a measurement of eccentricity, i.e. a length, at the level of the retina, i.e. within the eye, is fundamentally different from the measurement of an angular deviation, i.e. an angle, of a light beam impinging on the cornea, i.e. outside the eye. The physical measurement of an angle generally requires technical means which are quite different from those for measuring a length.

The two parameters "angular deviation" and "eccentricity" may be correlated, but such a correlation involves further geometrical and optical properties of the eye, which generally vary from individual to individual. The original disclosure is again entirely silent with respect to such a correlation.

Accordingly, the definition or determination of a correcting dioptrical value by means of the scansion laser "being adapted to measure, point by point, an

angular deviation of a light beam impinging on the eye cornea to match the projection of said light beam on the retina with the fovea or center of the vision" is not directly and unambigously derivable from the application documents as filed, thereby unjustifiably extending its subject-matter.

Contrary to the appellant's assertion, the added feature does provide a technical contribution to the subject-matter of the claimed invention.

The added feature of the scansion laser "being adapted to measure an angular deviation" is clearly of a technical nature. It comprises additional technical information which was not originally disclosed. Furthermore, it is technically meaningful and not incorrect or inconsistent with the disclosure as a whole, as convincingly demonstrated by the explanations given in the statement of grounds of appeal. Said feature provides a technical contribution to the subject-matter of the claim by interacting with the other features of the claim in order to obtain accurate correcting dioptrical values to properly perform the ablation operation (cf. page 1, lines 19 to 24, of the application as filed). Said added feature is even referred to as "the main feature of the present invention" in paragraph [0016], which was unduly incorporated into the granted patent during the examination proceedings. Accordingly, in the Board's view, the added feature clearly provides a technical contribution to the subject-matter of the claimed invention, and the amendment is thus not allowable, in line with the considerations presented in G 1/93, point 16 of the reasons, first alternative.

It follows that claim 1 as granted does not meet the requirements of Article 123(2) EPC.

3.2 Auxiliary request

Compared to claim 1 as granted, the feature of the scansion laser "being adapted to measure, point by point, an angular deviation of a light beam impinging on the eye cornea to match the projection of said light beam on the retina with the fovea or center of the vision" has been deleted and replaced by "being adapted to measure, point by point, the eccentricity, as measured in a radial direction, between the projection of a light beam impinging on the retina and the fovea or center of the vision".

The first part of the deleted feature, i.e. the scansion laser being adapted to measure an angular deviation, provides a technical contribution to the subject-matter of the claim as granted, as explained above (point 3.1) with respect to the main request. Since this part of the feature provides a technical contribution, its removal extends the scope of protection, contrary to the requirement imposed by Article 123(3) EPC.

In rare situations, the questionable feature could, in principle, be replaced by another feature disclosed in the application as filed, as long as the requirements of Article 123(3) are still met (G 1/93, point 13 of the reasons). In the present case, however, the replacement feature is not narrower or equivalent in scope as compared with the deleted feature. As mentioned above (point 3.1), the correlation between angular deviation

and eccentricity involves further geometrical and optical parameters of the eye which vary from individual to individual. Accordingly, the claim at issue has been amended in such a way as to extend the protection conferred, in breach of Article 123(3) EPC.

The second part of the deleted feature of the scansion laser being adapted "to match the projection of said light beam on the retina with the fovea or center of the vision" also clearly provides a technical contribution and limits the scope of protection. Its deletion from claim 1 is likewise in breach of Article 123(3) EPC.

It follows that the subject-matter claim 1 of the auxiliary request does not meet the requirements of Article 123(3) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Sauter M. Noël