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D E C I S I O N
of 18 May 2006

Case Number: T 0197/05 - 3.2.02

Application Number: 96906222.3

Publication Number: 0806913

IPC: A61B 18/20

Language of the proceedings: EN

Title of invention:
Hair removal using optical pulses

Patentee:
THE GENERAL HOSPITAL CORPORATION

Opponent:
DANISH DERMATOLOGIC DEVELOPMENT A/S
Carl Zeiss Meditec AG

Headword:
-

Relevant legal provisions:
EPC Art. 100(c), 123(2)

Keyword:
"Extension of subject-matter (no, after amendment)"

Decisions cited:
-

Catchword:
-



Case Number: T 0197/05 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 18 May 2006

Appellant:
(Patent Proprietor)

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 21 December 2004
revoking European patent No. 0806913 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: T. Kriner
Members: S. Chowdhury
M. Vogel

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the decision of the opposition division to revoke European patent No. 0 806 913. The decision was dispatched on 21 December 2004.

The appeal was received on 11 February 2005 and the fee for the appeal was paid on 14 February 2005. The statement setting out the grounds of appeal was received on 15 April 2005.

The opposition was filed against the whole patent and based on Article 100(a) EPC (lack of novelty and inventive step), Article 100(b) EPC, and Article 100(c) EPC. The opposition division decided that the subject-matter of claim 1 of the patent as granted did not meet the requirements of Article 123(2) EPC and revoked the patent. The decision does not deal with the other grounds of opposition.

- II. Oral proceedings were held on 18 May 2006.

The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), or on the basis of claims of the fourth preference filed with the grounds of appeal on 19 April 2005 (auxiliary request).

The respondents (opponents (1) Danish Dermatologic Development A/S and (2) Carl Zeiss Mediatec AG) requested that the appeal be dismissed. The respondent (2) additionally requested apportionment of costs.

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

"Apparatus for the simultaneous removal of a plurality of hairs from a skin region, each hair being in a follicle extending into the skin from a surface, the apparatus comprising: an applicator (18) (46') comprising a surface adapted to be in contact with the skin surface in a skin region from which hair is to be removed; a source (12) of optical radiation; and an optical path (16) (114) from the source of optical radiation to the said surface of the said applicator; which path is substantially transparent to optical radiation at a selected wavelength, the optical radiation being passed through the said surface of the applicator to the said skin region, characterised in that the said radiation has a wavelength between 680 nm and 1200 nm, preferably between 680 nm and 900 nm, and a fluence of between 10 J/cm² and 200 J/cm², and in that the duration of the radiation on the said skin region is 2 ms to 200 ms."

Claim 1 of the first auxiliary request reads as follows:

"Apparatus for the simultaneous removal of a plurality of hairs from a skin region, each hair being in a follicle extending into the skin from a surface, the apparatus comprising: an applicator (18) (46') comprising a surface adapted to be in contact with the skin surface in a skin region from which hair is to be removed; a source (12) of optical radiation of a selected wavelength; and an optical path (16) (114) from the source of optical radiation to the said surface of the said applicator; which path is

substantially transparent to optical radiation at the selected wavelength, the optical radiation being passed through the said surface of the said applicator to the said skin region, characterised in that the selected wavelength is between 680 nm and 1200 nm, preferably between 680 nm and 900 nm, in that the radiation has a fluence of between 10 J/cm² and 200 J/cm², and in that the duration of the radiation on the said skin region is 2 ms to 200 ms."

In both sets of claims 2 to 11 are dependent claims.

IV. The parties argued as follows:

Appellant

There was no focus in the application as originally filed, particularly in claims 1, 20 and 23 and the Summary of the Invention on page 2, on the radiation source, only the properties and impact of the radiation at the skin was considered to be important, for which reason the source was not defined in these claims. The applicator was transparent to radiation at a selected wavelength so that the applied radiation at the skin would have the required wavelength, how it got there was immaterial.

The word "said" at line 31 of granted claim 1 went back to line 28 of the claim, so to state that said radiation had a selected wavelength would be tautological.

The apparatus of Figure 1 employed a laser as an exemplary source only and did not limit the source, and

the statement on page 5, that one or more lasers may be used or that a filter may be used, pointed to the use of multiple wavelengths.

The discussion of the wavelength of the irradiating field on page 11 said that the wavelength was chosen or selected to be resonant with melanin, again showing that it was the properties applied radiation which were important, there was no focus on the source or on a single wavelength. The table on page 15 went back to page 11 and was not limited to lasers, and the person skilled in the art would know that difference sources could be used.

Respondent I (Danish Dermatologic Development A/S)

The amendment to claim 1 was allowable only if it were to be shown beyond a reasonable doubt that non-monochromatic light sources were disclosed originally. This was not the case since the application consistently disclosed only light sources having a specific wavelength. Original claims 1, 20, and 23 presupposed wavelength selection before the applicator, and claim 30 explicitly defined a selected wavelength.

The application disclosed only laser sources, and the specific description should also be interpreted in the context of lasers, no other light sources were explicitly mentioned. The filter mentioned on page 5 was not a wavelength selection filter, it could be used to vary the amplitude or pulse shape but not wavelength, given that it was also mentioned in the context of lasers.

The reference to wavelengths on page 19, line 3 was ambiguous, it could refer to the use of different wavelengths at different times and not necessarily to different wavelengths simultaneously. There was no basis in the application for the wavelength selection to be done by the optical path, the application as originally filed consistently stated that the source had a selected wavelength.

Respondent II (Carl Zeiss Meditec AG)

This respondent repeated some of the arguments of respondent I and additionally that there was no explicit mention in the application of a broad wavelength source, the application always said that the selected wavelength originated at the source and was passed through the applicator. The insertion of "selected" in claim 1 would not be a tautology since its use would alter the meaning of claim 1 and render the claim properly supported by the disclosure.

Reasons for the decision

1. The appeal is admissible.
2. Granted claim 1 is based on original claim 30, which defines apparatus comprising a source of optical radiation of a selected wavelength [emphasis added by the Board], which selected wavelength is ultimately applied to the skin. Granted claim 1, on the other hand defines apparatus comprising a source of optical radiation, without requiring that the radiation has a

selected wavelength or that radiation of a selected wavelength is applied to the skin.

The opposition division decided that this amendment to claim 1 was unallowable under Article 123(2) EPC and revoked the patent, accordingly. The decision of the Board will be devoted to this ground of opposition only.

Main request

3. *Interpretation of claim 1*

According to the appellant the term "said radiation" at line 31 of claim 1 (page 11 of EP-B-0 806 913) refers to "optical radiation" at line 28. The Board considers this term to be ambiguous in the context, but that it probably refers back to line 26 rather than to line 28 since line 28 defines a property of the optical path whereas line 26 defines the source radiation, and lines 31 to 33 define properties of the radiation.

Given this, the claim states that the optical path is transparent to optical radiation at a selected wavelength, not that the source emits a selected wavelength. The examples of materials of the applicator in the description (page 9, lines 23 and 24, for example) show that this feature of claim 1 means that the optical path is a broadband transmitter whose transmission characteristic includes the selected wavelength, and not that the optical path acts as a filter for the selected wavelength.

The consequence of this interpretation is that the apparatus of claim 1 does not necessarily apply a selected wavelength to the skin.

4. The appellant contends that the application as originally filed does not focus on the nature of the source, especially the wavelength, and that the only properties of the radiation of importance were those properties as applied to the skin.

- 4.1 The Board, however, not only finds no support in the application (WO-A-96/23447) for this argument, but finds support for the opposite viewpoint, that the application clearly and unambiguously mentions only on the property of the source in that it refers, either explicitly or implicitly, to a source of a selected wavelength or to a laser source.

Original claim 1 defines the steps of (a) placing an applicator in contact with the skin surface in said skin region; and (b) applying optical radiation of a selected wavelength and of a selected fluence through said applicator to said skin region. The implication here, given that the optical path does not act as a filter (see point 3. above), is that the radiation has its wavelength selected before it enters the applicator, i.e. at the source.

Original claim 23 is to an applicator suitable for use in practicing the method of claim 1, and defines an optical path from said inlet to said surface which path is substantially transparent to optical radiation at said selected wavelength, which feature only makes sense if the wavelength selection is performed before

the radiation enters the applicator, and reinforces the implication of claim 1.

Original claim 30, on which granted claim 1 is based, explicitly defines apparatus comprising a source of optical radiation of a selected wavelength.

4.2 The tenor of the entire application is that laser sources are used, which have a single, i.e. selected wavelength. The apparatus of Figure 1 is a laser-based apparatus, and all the light sources specifically mentioned are laser sources (page 11, lines 25 to 28, for example).

4.3 Those passages of the application upon which the appellant relies to demonstrate that a multi-wavelength light may be used in the claimed apparatus do not clearly and unambiguously support its argument.

The sentence linking pages 5 and 6 states: "Other properties of the field, such as the wavelength and pulse duration, may be varied by controls 26 which adjust components (e.g., gratings, mirror or filter positions, shutters, or pulse-forming means) of the light source 12; however, for preferred embodiments wavelength would not be adjusted". Bearing in mind that this is in the context of laser sources (see page 5, lines 14 and 30 and page 6, line 4), if the filter is for adjusting the wavelength, then this would only shift the wavelength, not cause the simultaneous emission of multiple wavelengths, i.e. the source wavelength would still be selected.

The description on page 11, lines 1 to 24 is a general discussion of the mechanism of light absorption, and is based on the known phenomenon that light is best absorbed by a substance having a matching absorption spectrum so that an appropriate light source should be used. This passage does not say anything about a specific light source, but the next paragraph again cites laser sources. The following pages up to and including page 15 also mention laser sources exclusively, and table 1 is to be interpreted in this context, i.e. it tabulates the optical parameters of the laser radiation.

The alternative embodiment described on pages 18 and 19 discusses the use of a chromophore and states that the chromophore must absorb light at the wavelength or wavelengths used for irradiation. This is not an unambiguous statement that a plurality of wavelengths may be used simultaneously; it could also mean that a different wavelength is used at different times, the only condition being that in each case the wavelength must be absorbed by the chromophore.

4.4 Had the author of this document envisaged the use of a plurality of wavelengths simultaneously he would have included a clear and unambiguous statement to that effect, but such a statement is absent from the application as originally filed, nor does the application employ expressions such as "broadband source", "conventional light source" etc to cover this option.

5. Therefore, the Board considers that the application as originally filed discloses apparatus for the

simultaneous removal of a plurality of hairs comprising only a source of optical radiation of a selected wavelength, and that granted claim 1, by not including this feature, impermissibly extends the teaching of the original disclosure in this respect and is in violation of Article 123(2) EPC. The main request is not allowable, accordingly.

Auxiliary request

6. *Admissibility*

The Board does not consider the filing of the auxiliary requests for the first time at the appeal stage to be an abuse of procedure since it is normal for a party to try and reinforce its case on appeal, so long as any new material is filed with the grounds of appeal. The situation is analogous to that described in the Case Law of the Boards of Appeal of the EPO, 4th Edition, VI. F. 3.1.3, page 329, last complete paragraph.

7. *Article 123(2) EPC*

Claim 1 defines apparatus for the simultaneous removal of a plurality of hairs, comprising a source of optical radiation of a selected wavelength, and meets the above objection under Article 123 (2) EPC.

8. The auxiliary request is, therefore, allowable.

9. *Apportionment of costs*

Since no abuse of procedure has occurred the Board does not see any reason to order an apportionment of costs.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of the claims of the auxiliary request as filed on 19 April 2005 (claims of the fourth preference).
3. The request for apportionment of costs is rejected.

The Registrar

The Chairman

V. Commare

T. K. H. Kriner