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Datasheet for the decision of 19 January 2021

Case Number: T 0875/16 - 3.4.01

Application Number: 04744741.2

Publication Number: 1658113

IPC: A61N5/06, A61B18/18

Language of the proceedings: EN

Title of invention:
DEVICE FOR LOW INTENSITY OPTICAL HAIR GROWTH CONTROL

Patent Proprietor:
Koninklijke Philips N.V.

Opponents:
Babyliss Faco S.P.R.L.
Braun GmbH

Headword:
Optical Control of Hair Growth / Koninklijke Philips N.V.

Relevant legal provisions:
EPC Art. 83
RPBA Art. 12(4)

Keyword:
Sufficiency of disclosure - undue burden (yes) - combination of ranges - missing indication of how the claimed effect is measured

Decisions cited:
G 0001/03, T 0409/91, T 0939/92, T 0123/06, T 1610/08, T 2096/12

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Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0875/16 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 19 January 2021

Appellant: (Patent Proprietor)	Koninklijke Philips N.V. High Tech Campus 52 5656 AG Eindhoven (NL)
Representative:	Eisenführ Speiser Patentanwälte Rechtsanwälte PartGmbB Johannes-Brahms-Platz 1 20355 Hamburg (DE)
Respondent: (Opponent 1)	Babyliss Faco S.P.R.L. Avenue de l'Independance 25 4020 Liège (BE)
Representative:	Pronovem Office Van Malderen Parc d'affaires Zénobe Gramme- bâtiment K Square des Conduites d'Eau 1-2 4020 Liège (BE)
Respondent: (Opponent 2)	Braun GmbH Frankfurter Strasse 145 61476 Kronberg (DE)
Representative:	Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 28 January 2016 revoking European patent No. 1658113 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	P. Scriven
Members:	P. Fontenay
	R. Winkelhofer

Summary of Facts and Submissions

I. The appeal was filed by the patentee against the Opposition Division's decision to revoke European patent 1 658 113.

II. Two oppositions were filed against the patent. They relied on the grounds of lack of novelty and inventive step (Article 100(a) EPC), insufficiency of disclosure (Article 100(b) EPC) and added subject-matter (Article 100(c) EPC).

III. The Opposition Division held *inter alia* that the claims of the main request met the requirements of Articles 83 and 123(2) EPC.

IV. With regard to the question of sufficiency of disclosure, the Opposition Division considered that the term "pulse duration", objected to as unclear by both opponents, was routinely employed without further explanation in the field of hair reduction/removal. This suggested that the term had a recognised meaning in the field. It was further noted that, if the skilled person would nevertheless have considered the concept somehow unclear, they would simply have selected a well-known objective measure when implementing the claimed device.

V. The argument that claim 1 referred to three different ranges of parameters, thus defining an unreasonable

number of possibilities, was also rejected. The Opposition Division held that the recited ranges were not disproportionately large and that they did not amount to an undue burden on the skilled person attempting to implement the invention over the entire scope of protection.

VI. The Opposition Division, however, held that claim 1 of the main and first auxiliary requests lacked novelty in view of document

O1: US-A-2003/0069567.

VII. Claim 1 of the second and third auxiliary requests were considered to define methods of treatment by therapy, which were excluded from patentability under Article 53(c) EPC.

VIII. With the statement setting out the grounds of appeal, the appellant requested that the decision of the Opposition Division be set aside, and that the patent be maintained on the basis of the main request underlying the impugned decision, or, in the alternative, on the basis of one of auxiliary requests I, II, IIa, III, or IIIa. All of those requests were filed with the statement of grounds.

IX. Auxiliary requests I, II and III were identical to the correspondingly numbered requests underlying the impugned decision. Auxiliary requests IIa and IIIa were new requests.

X. Claim 1 of the appellant's main request reads:

A device (1) for reducing growth of hairs on human skin (12), which device comprises a pulsed source of electromagnetic radiation (13) that emits in a wavelength range between 550 and 1200 nm, characterized in that the device comprises control means (20) configured and arranged such that, during operation, the control means limit a deliverable energy density of the radiation on the skin to a maximum value between 5 and 9 J/cm^2, wherein during operation said maximum value is selectable by the control means in accordance with selected properties of the skin to be treated, and in that said maximum value of the deliverable energy density is delivered in the form of one single pulse of radiation (13) having a duration between 1 and 30 ms.

XI. Claim 1 of auxiliary request I differs from claim 1 of the main request in that the pulsed source of electromagnetic radiation comprises a flash lamp.

XII. Claim 1 of auxiliary request II is directed to the use of the device according to claim 1 of the main request. It reads:

Use of a device (1) to reduce growth of hairs on human skin (12), which device comprises a pulsed source of electromagnetic radiation (13) that emits

in a wavelength range between 550 and 1200 nm, characterized in that the device comprises control means (20) configured and arranged such that, during operation, the control means limit a deliverable energy density of the radiation on the skin to a maximum value between 5 and 9 J/cm2, wherein during operation said maximum value is selectable by the control means in accordance with selected properties of the skin to be treated, and in that said maximum value of the deliverable energy density is delivered in the form of one single pulse of radiation (13) having a duration between 1 and 30 ms.

XIII. Claim 1 of auxiliary request IIa differs from claim 1 of auxiliary request II in that it is directed to a "Non-therapeutic use".

XIV. Claim 1 of auxiliary request III differs from claim 1 of auxiliary request II in that the pulsed source of electromagnetic radiation in the device to be used comprises a flash lamp. It corresponds to the use of the device of claim 1 according to auxiliary request I.

XV. Claim 1 of auxiliary request IIIa, combines the amendments of claim 1 according to auxiliary requests IIa and III.

XVI. Both respondents requested that the appeal be dismissed.

XVII. In their replies to the grounds of appeal, both respondents reiterated the objections, raised before the Opposition Division, regarding added subject-matter, insufficiency of disclosure, and lack of novelty and inventive step.

XVIII. With regard, specifically, to the issue of sufficiency, both opponents expounded on the difficulties faced by the skilled person in consequence of the absence of definition for the concept of duration of the pulse. Opponent I underlined that different ways existed of measuring pulse width for flash lamps, which give rise to significantly different measured values. Reference was again made to Document A1c (*What's Up With "Flash Duration"?*, posted on June 2011 by Matt Beardsley), which had been cited in the course of the opposition proceedings as illustrating of the difficulties encountered by manufacturers when faced with two different standards.

XIX. At the requests of the parties, the Board arranged oral proceedings.

XX. In a communication pursuant to Article 15 RPBA 2007, the parties were informed of the Board's provisional opinion.

In essence, the Board shared the analysis of the Opposition Division with regard to added subject-matter.

The opponents had particularly relied on the original claims in order to establish the existence of subject-matter beyond the content of the application as filed. However, the Board noted that various passages in the description appeared to provide a strong basis for the combination of a single pulse and the various parameter ranges defined in claim 1 of the appellant's requests.

With regard to the issue of sufficiency of disclosure, the Board acknowledged that the concept of pulse duration was vague in the context of the invention, when the pulsed source of electromagnetic radiation comprised a flash lamp. Even though claim 1 of the main request was not limited to this kind of radiation source, the issue appeared relevant, since a flash lamp reflected the preferred choice for a pulsed radiation source. The slow decay of electromagnetic radiation associated with the discharge of a flash lamp lead to pulse durations that differed substantially, depending on the chosen cut-off intensity selected with regard to the peak intensity.

The absence from the description of any clear indication as to the measurement of said pulse duration did not resolve the vagueness resulting from the unclear concept.

The question to be answered was, thus, whether the skilled person would have faced an undue burden when designing devices that were both safe and efficient. It was stressed, in favour of sufficiency, that the claim specified the energy density to be applied to the skin

and that the pulse duration could have been determined in view of the effect to be achieved. It was, however, also observed *a contrario* that the pulse duration possibly defined the contribution made by the invention in order to achieve the intended effects.

With regard to the objection of lack of novelty in view of document O1, it was acknowledged that O1 was primarily concerned with the permanent removal of hair. Its suitability for operating within the claimed range of energy densities implied, however, that it was also adapted for reducing hair growth, assuning zhat said effect is indeed achieved over the claimed range. This was a direct consequence of the deterministic principle according to which the same causes were expected to generate the same effects. According to O1, the pulse duration was selected on the basis of the energy density to be delivered. The Board concurred with opponent I that, if the reduction of hair growth was indeed intended to define an additional functionality of the claimed subject-matter over said background, then an issue with Article 83 EPC would arise. This resulted from the absence, in the patent specification, of any indications as to the other parameters required for said function to be fulfilled.

XXI. In a reply to the Board's communication, Opponent II further requested that the new requests IIa and IIIa not be taken into considereration. It was emphasised that the requests were late-filed and that the appellant had had the opportunity of filing them before the Opposition Division, but had chosen not to do so.

In Opponent I's reply to the Board's communication, it was stressed that the mere finding that one document

(O1) contained a definition of pulse duration at Full Width Half Maximum (FWHM) was no evidence that this definition applied generally across the field of the invention. A further problem with the concept of pulse duration was that it was not possible to determine whether its energy referred to that contained in the entire pulse or only to that contained in the particular definition of duration.

XXII. All the parties were represented at the oral proceedings before the Board.

At the end, the patentee maintained its main request and auxiliary requests I, II, IIa, III and IIIa filed with the grounds of appeal.

Both opponents confirmed their requests that the appeal be dismissed.

XXIII. Regarding the issue of sufficiency, the patentee submitted that the skilled person did not face an undue burden in carrying out the claimed invention. The concept of "duration of the pulse" had a clear meaning in the field of photoepilation with flash lamps, as evidenced by the fact that most documents containing references to this type of sources did not even bother to reproduce the definition of a measure at FWHM. The objection of lack of sufficiency was also without substance in view of the other embodiment of the invention, in which the radiation source was a laser. In the field of lasers, the concept of pulse duration was well established, and the patentee referred to the definition provided by international Standard IEC-60825-1 (safety of laser products - Part 1 -

Equipment classification, requirements and user's guide, edition 1.2, August 2001).

Concerning the various ranges of parameters defined in claim 1 of the patentee's requests, it was stressed that the effect to be achieved was not black and white but that a certain degree of reduction of the growth of hair was obtained when operating within the recited ranges.

Concerning the method claims of requests II, IIa, III and IIIa, they merely required a maximum energy density to be selected in accordance with the properties of the skin to be treated. This could be achieved automatically, on the basis of an information provided by an integrated sensor in the claimed device, as disclosed in the application; or by appropriate selection by the user of the maximum energy density value for the type of skin being treated, on the basis of instructions provided by a user manual. No undue burden or any particular difficulty was identified there.

In the course of the oral proceedings, following the deliberation regarding the main request and the chair's announcement that the requirements of Article 83 EPC were not met by said request, the appellant raised an objection, claiming that their right to be heard had not been properly honoured, as not all aspects relevant to this provision had been discussed.

Reasons for the Decision

The disclosed invention

1. The invention concerns, primarily, a device for reducing the growth of hairs on human skin. In contrast to known photo-epilation devices, the invention does not aim at inducing permanent damage to the hair follicles. A further object of the invention is the use of such a device.

2. The inventors have conceived a device that intervenes in the growth cycle of hair follicles (see paragraph [0028] of the patent specification). The first phase in this cycle is called the anagen (growing) phase, in which the follicle produces a hair. At the end of the anagen phase, the follicle switches to the catagen (intermediate) phase, which is followed by the telogen (resting or inactive) phase. Some time after the end of the telogen phase, the follicle will automatically enter the anagen phase again (see paragraph [0028]).

3. By appropriate selection of the spectrum provided by a source of electromagnetic radiation, of the energy densities applied on the surface of the skin, and of the pulse duration, follicles in the anagen phase can be induced to switch to the telogen phase, thereby contributing to temporary hair growth reduction (see paragraph [0014]).

4. Compared with known photo-epilation devices, the disclosed device makes use of low energy densities. This reduces discomfort to the person being treated, and causes little damage to skin tissues (see paragraphs [0012], [0014] and [0032]).

The claimed invention

5. Claim 1 of the main request and auxiliary request I are directed to a device for reducing hair growth on human skin. Claim 1 of Auxiliary requests II, IIa, III, and IIIa are directed to the use, or non-therapeutic use, of such devices. None of the independent claims of the requests refers *expressis verbis* to a reduction of discomfort or to any limitation of the damage to the skin.

6. As a consequence of the claims' wording, reduction of discomfort and damage to the skin are without bearing on the question of sufficiency of disclosure, at least insofar as the damage to the skin does not interfere with the express purpose that the claim does define, that is, limitation of hair growth. This excludes devices, or uses of such devices, that produce permanent damage to the hair follicles, as is the case with known methods of photo-epilation (see paragraph [0002]).

7. As outlined in point 2.5.2 of the decision of the Enlarged Board of Appeal G 1/03, "Disclaimer/PPG", OJ 2004, 413, by reference to decision T 939/92, "Triazoles", OJ 1996, 309, if an effect is not expressed in a claim, but is part of the problem to be solved, the question of reproducibility becomes relevant with regard to inventive step. Applied to the present situation, the effects of reducing pain and damage are only relevant when deciding on the inventive merits of the claimed invention (and only then if they are achieved over the whole scope of protection).

8. Under the present circumstances, the question of sufficiency of disclosure boils down to determining

whether the application contains sufficient information to allow the skilled person to reproduce a device for reducing hair growth on human skin over the whole scope of the claims. As the nature of the source is not specified (main request, auxiliary requests II and IIa), this encompasses, among other things, the alternatives of laser sources as well as flash lamps. It further encompasses all devices, the radiating characteristics of which correspond to a combination of wavelength(s), energy densities and pulse duration, specified by the recited ranges.

Main request - Sufficiency of disclosure

"duration of the pulse"

9. Claim 1 recites that the "maximum value of the deliverable energy density is delivered in the form of one single pulse of radiation having a duration between 1 and 30 ms". The patent specification sets out two embodiments of the claimed device, with lasers or flash lamps as pulsed sources of electromagnetic radiation, respectively. It fails, however, to provide any definition of the duration of the pulse.

10. In contrast to laser sources, which produce pulses characterised by steep and rather symmetrical leading and trailing edges, the radiation of a flash lamp is characterised by a steep increase of emitted radiation followed by a slow decay over an extended period of time. Depending on the cut-off amplitude selected for defining the pulse width, the measured pulse duration can produce substantially diverging results.

11. In the absence of any definition in the patent specification, the concept must be given the meaning generally recognised in the technical field of photo-epilation for devices relying on the use of laser sources and flash lamps or other sources.

12. The concept of pulse duration appears to have a clear and accepted meaning for laser sources. It derives from the definition provided by International standard IEC 60825-1 (Edition 1.2). Section 3.65 of the norm is dedicated to the definition of the term "pulse duration", which is defined as "the time increment measured between the half peak power points at the leading and trailing edges of a pulse."

13. Evidence of a similar or corresponding definition for flash lamps was not provided.

14. In the patentee's view, this is without consequence, since the skilled person would understand that the pulse duration always referred to the full width at half maximum (FWHM) of the pulse. The standard IEC 60825-1 for laser sources constituted only one illustration of that common understanding. It was even irrelevant whether the skilled person would consider optical, electrical, or other sorts of pulse. It also did not matter whether the pulse originated from a laser or an incoherent light source.

15. In the patentee's further understanding, there was no doubt that the application referred to the generally-recognised definition of a pulse defined by reference to the FWHM. This was confirmed by the very fact that most documents in the field of photo-epilation relying on the use of flash lamps did not even consider it necessary to reproduce said definition. With regard to

the prior art referred to in the framework of the present proceedings, only two documents out of 25 specified that definition as FWHM.

16. Although the arguments put forward by the patentee confirm that the concept of pulse duration is commonly used in relation with flash lamps, they do not appear to be conclusive and sufficient to resolve the ambiguity resulting from the absence, in the patent specification, of a clear definition. The absence of definition in relation with photo-epilation may just result from the fact that a precise definition would be meaningless in the context of said prior art. According to known photo-epilation devices, energy densities are selected so as to guarantee permanent damage to the hair follicles, the exact duration of the pulse being without significance, as long as the energy delivered exceeds a minimum needed. Whether the pulse duration incorporates a more or less long tail is less relevant in this context.

17. This is different in the context of the invention, for which the duration of the pulse constitutes, in combination with the energy density applied to the skin, a key feature in order to interfere in the hair growth cycle and induce follicles into a resting (telogen) stage while avoiding permanent damage. While pulse durations that are too short would lead to permanent damage because of the resulting high power densities, pulse durations exceeding a certain threshold, on the other hand, would just not induce the follicle to enter the telogen phase.

18. Document A1c, stemming from the field of photography, elaborates on the consequences of manufacturers referring to two different standards for the pulse

duration of flash lamps. As correctly observed by the Opposition Division, A1c is not relevant in the context of the invention. It underlines, however, the necessity, in general, of an agreed definition for the pulse duration. This is all the more true in view of the need for a pulse that is neither too short nor too long.

19. Moreover, as put forward by opponent I, it is not possible to determine, from the claim's wording, whether the range of energy densities to be applied to the skin refer to the energy delivered over the entire pulse, or only to the part of the pulse within the limits that define its duration, whatever those may be. According to the former understanding, the pulse duration (independently of its actual meaning) would just serve to define the pulse in question, the total energy of which should correspond to the recited range of energy densities. According to the latter understanding, the energy density to be applied would then correspond to the energy produced during the time interval defined by the (undefined) cut-off amplitudes. In the particular case of pulse duration defined as full width at half maximum, the difference between the two measures would be quite significant.

20. All in all, the concept of duration of the pulse, as it appears in the claim, is vague. Its use in claim 1 affects the claim's clarity. While the presence of this unclear parameter in the claim is not, in itself, sufficient to show that the skilled person could not reproduce the claimed device without undue burden, its presence is not without consequences on the question of sufficiency, since the skilled person will not be able to rely on a clear definition of said parameter when

attempting to reproduce the invention over the whole ambit of the claim.

Carrying out the invention over the whole ambit of the claim

21. The claimed device is defined by reference to three different ranges of parameters. The pulsed source of electromagnetic radiation emits in a wavelength range extending from 550 to 1200 nm. The energy density on the skin is limited to a maximum value between 5 and 9 J/cm^2; and the pulse has a duration between 1 and 30 ms. These ranges define three degrees of freedom in the selection of the operating parameters, thus encompassing a large family of devices and operating conditions.

22. The skilled person would have had no difficulty in selecting a pulsed source emitting in the recited bandwidth, and in conceiving circuits fulfilling the requirements as to energy density on the skin and duration. The skills required for that do not extend beyond what can be expected from an engineer who is expert in designing electronic circuits. The claimed device, however, is not defined just by these three requirements but requires, in addition, that the purpose of effectively reducing hair growth on human skin be fulfilled.

23. The patentee's view, that it would be enough for sufficiency of disclosure that the device achieve its effect somewhere within the recited settings, has to be rejected in its very principle. The argument is tantamount to the assertion that, if an effect can be obtained with some specific combination of values, that would amount to support for any combination of values

selected from said combinations. The patentee's view is, furthermore, in contradiction with established case law of the boards of appeal.

24. Article 83 requires that the skilled person be able to identify this "somewhere within the recited settings" without undue burden (see decisions T 409/91, "Fuel oils", OJ 1994, 653; T 123/06, point 2; and T 1610/08, point 2). Concretely, under the present circumstances, this requires that the skilled person be able, on the basis of the patent specification and common general knowledge, to determine, for a given spectrum of radiation and without recourse to extensive experimentation, which energy densities and durations would provide the recited effect.

25. Absorption of electromagnetic radiation by the skin depends on the wavelength of the radiation. This is acknowledged in paragraph [0017] of the patent specification which reads:

> *A particular embodiment of a device according to the invention is characterized in that the wavelength range is between 600 and 950 m [*sic*]. For these wavelengths, there is a good absorption by elements of the follicle to be stimulated, such as melanin bodies. Advantageously, the wavelength range is adapted to the skin type and hair color of the person being treated. Different skin types may need a different approach. For instance, it is preferable to use longer wavelengths, such as short wave infrared from about 800 to about 1200 nm, for persons with a dark skin, in order to prevent too much*

absorption by melanin in the skin, which is undesirable.

26. The patentee stressed, during the proceedings, that the effect produced by the claimed device was not black or white, but presented different degrees of efficacy. This reflects the fact that the claim extends beyond the preferred range of 650 to 950 nm (paragraph [0017]) and encompasses wavelengths down to 550 nm and up to 1200 nm. This is further confirmed by the reference (also in paragraph [0017]) to the band from 800 to 1200 nm, for which a lesser absorption by melatonin is expected.

27. It can be seen, from the statement in paragraph [0018] of the specification, that the radiation actually emitted may comprise other parts of the spectrum than the claimed range of 550 to 1200 nm, that the absorption of the radiation by the skin below 550 nm or above 1200 nm is sufficiently low to be considered negligible. A different finding would imply interference with the effect expected over the claimed ranges, making it even more difficult for the skilled person to predict any reproducible behaviour.

28. The patent specification fails, however, to provide any information as to the means required to determine the spectrum of the emitted radiation and as to the amount of energy density that might indeed contribute, for the determined radiation, to the claimed effect. This latter parameter would require precise knowledge of the efficacy of radiation over the claimed range of wavelengths. Under the present circumstances, it is not possible to derive, from the simple indication regarding the energy density on the skin, what amount

of said energy indeed contributes to reducing the growth of hairs on the skin.

29. This difficulty is further exacerbated by the fact that the sources of radiation have substantially different emission spectra. This is acknowledged in paragraph [0018], according to which

> *It is noted that the radiation may be continuous spectrum radiation, line spectrum radiation, monochromatic radiation, or a combination thereof. This also holds for the general range of 550-1200 nm.*

30. It is, in particular, to be expected that monochromatic radiation close to the upper limit of 1200 nm will provide limited effects compared to what can be expected from monochromatic radiation in the preferred, narrower, range. In the case of a spectrum incorporating various wavelengths, it would be expected that the effects of the various wavelengths would combine. Each contribution would reflect both the relative weight of the wavelength in the radiation spectrum and its relative efficacy in reducing hair growth. The patent specification is, however, silent as to the means that would be required for such measures.

31. The difficulties faced by the skilled person are worsened by the unclear concept of pulse duration. The effect to be achieved requires not only a certain amount of energy to affect the growth cycle of hair follicles, but further requires that the power density of the radiation not lead to their permanent damage, as is the case with known photo-epilation devices (cf. paragraph [0009] of the patent specification). Contrary

to the view expressed by the Opposition Division (see point 2.2.3 of the refusal), a range extending from 1 ms to 30 ms is disproportionately large in view of the consequences the claimed range presents for the power densities involved. A factor of 30 in terms of power densities is implied between the two extremes. The absence of a clear definition for the concept of pulse duration makes it even more difficult for the skilled person to determine what this additional requirement, with regard to avoiding too high power densities, implies.

32. A further difficulty results from the finding that the spectrum emitted by a flash lamp is expected to vary over the duration of the pulse. Whether a large portion of the trailing edge of the emitted pulse is to be taken into account or not would thus interfere with its efficacy, due to the evolving spectrum.

33. It follows that the provision of a maximum energy density on the surface of the skin is arbitrary, since it is not possible to derive from this sole setting which portion of the energy contributes to the claimed effect. In order for the effect to be achieved, the skilled person would have required, under these circumstances, a precise indication of the means necessary to measure the emitted spectrum over the duration of the pulse, and the knowledge of the characteristic of efficacy over the claimed spectrum. None of these aspects is actually addressed in the patent specification, making it impossible for the skilled person, without further investigation, to reproduce the claimed subject-matter.

34. The patentee submitted that the objection under Article 83 EPC could not apply, since the patent

specification contained a further embodiment with a laser. The alleged shortcoming regarding the pulse duration did not affect this embodiment.

35. This submission is not persuasive. Firstly, the argument put forward by the patentee does not challenge the analysis made above with regard to the use of flash lamps. While it is established case law that non-working embodiments may be of no harm when the patent specification contains sufficient information for finding appropriate alternatives over the claimed range without unreasonable efforts (cf. G 1/03, OJ 2004, 413, point 2.5.2), this does not apply where only two embodiments were envisaged and where the problematic embodiment is presented as the preferred one.

36. Secondly, while the skilled person would have faced fewer difficulties when reproducing the invention with a laser source, it would still have to be determined, for the wavelengths actually generated, the parameters of efficacy required for the energy density and duration of pulsation.

37. It could, alternatively, be argued, that the claimed effect is achieved for any combination of values of the wavelength employed (or combination of wavelengths), energy density on the skin, and pulse duration, as long as the values are selected within the recited ranges. In view of the different efficacy across the range of wavelength(s) considered, this would imply an effect that varies depending on the source used and the type of skin of the person treated. This was confirmed by the patentee who underlined that the claimed effect of reducing hair growth on human skin was meant to encompass various degrees of reduction.

38. This approach is, however, also not persuasive. It relies on an effect - a degree of reduction in growth - that is not specified and for which there is no indication, in the patent specification, as to how it is to be measured. It follows that any degree of reduction would be covered by the claim's wording. The lack of indication as to the criterion to apply when measuring said reduction in hair growth is particularly problematic, since it constitutes the technical contribution of the invention over known devices (see paragraphs [0002], [0012] of the patent specification).

39. In the absence of any such indication as to the degree of reduction to be achieved and as to the means to compare said reduction in growth with known epilation techniques, the skilled person is not even in a position to verify whether an effect in the sense of the present invention is achieved in the first place. The possibility of assessing whether the claimed effect is obtained is, however, a prerequisite under Article 83 EPC.

40. In conclusion, the invention as defined in claim 1 of the main request is not disclosed in a manner sufficiently clear and complete to be carried out by the skilled person, contrary to Article 83 EPC.

Auxiliary request I

41. Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that it specifies that the pulsed source of electromagnetic radiation comprises a flash lamp.

42. All considerations above with regard to this preferred embodiment of the invention apply.

43. The condition set out in Article 83 EPC, that the invention must be disclosed in a manner sufficiently clear and complete to be carried out by the skilled person, is also not met by claim 1 of auxiliary request I.

Auxiliary requests II, IIa, III and IIIa

Admissibility of auxiliary requests IIa and IIIa

44. Opponent II objected to auxiliary requests IIa and IIIa being considered. In their view, the patentee had had the opportunity of filing these requests at an earlier stage of the opposition proceedings. The minutes of the oral proceedings before the Opposition Division revealed that the patentee had explicitly chosen, following the announcement that auxiliary requests II and III were rejected, not to take advantage of the opportunity of making further submissions when invited to do so by the Opposition Division.

45. While acknowledging that requests IIa and IIIa were late filed, the Board notes that the amendment in claim 1, with regard to claim 1 of auxiliary requests II and III, merely consists in replacing the term "Use" by the terms "Non-therapeutic use". The amendments are straightforward, and directly address the substance of the objection that had led to requests II and III being rejected.

46. Thus, in exercising its discretion under Article 12(4) RPBA 2007, the Board admits both requests into the appeal proceedings.

Sufficiency of disclosure

47. Claim 1 of auxiliary requests II, III, IIa, and IIIa refer to the use, or the non-therapeutic use, of the device of claim 1 of the main and first auxiliary requests.

48. It was emphasised, during oral proceedings before the Board, that the use of said device only implies that the user selects the maximum energy density by way of a knob or slider. Alternatively, this could be performed automatically. According to this alternative embodiment, a sensor integrated in the device measured biophysical properties of the skin, by analysing the light it reflected. Control means then selected the maximum energy density accordingly. In the case of a manual implementation, the value to be selected was to be provided in a user manual.

49. While it is true that a skilled person would have had no difficulty in using a device in which all parameters were determined automatically, or in selecting an energy density to be produced on the skin, by simply selecting the position of a knob in accordance with instructions provided by a user manual or similar information, the argument is still not persuasive.

50. The "use of a device reducing growth of hairs on human skin" or the "non-therapeutic use of a device reducing growth of hairs on human skin" requires, in the first place, that a device adapted to said purpose be

available, or that the patent specification contain sufficient information for it to be reproduced by a skilled person. The analysis above with regard to the main request shows that this is not the case.

51. In the absence of a sufficient teaching for such a device, the use or non-therapeutic use as defined in claim 1 of auxiliary requests II, IIa, III and IIIa is also not disclosed in a manner sufficiently clear and complete to be carried out by the skilled person (Article 83 EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

H. Jenney P. Scriven

Decision electronically authenticated