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**Datasheet for the decision
of 19 September 2022**

Case Number: T 1096/19 - 3.2.02

Application Number: 12161368.1

Publication Number: 2471481

IPC: A61B18/20, A61B18/18, A61N5/06

Language of the proceedings: EN

Title of invention:
PHOTO-EPILATION DEVICE

Patent Proprietor:
Koninklijke Philips N.V.

Opponents:
THE PROCTER & GAMBLE COMPANY
Babyliss Faco SRL

Relevant legal provisions:
EPC Art. 53(c), 54, 56, 57, 123(2)
RPBA Art. 12(4)
RPBA 2020 Art. 13(2)

Keyword:

Exceptions to patentability - method for treatment by therapy
- (no)

Amendments - extension beyond the content of the application
as filed (no)

Industrial application - (yes)

Novelty - (yes)

Inventive step - (yes)

Amendment of appeal's case after summons - cogent reasons (no)
- admitted (no)

Late-filed objection - should have been submitted in first-
instance proceedings (yes) - admitted (no)

Decisions cited:

T 0074/93, T 0261/15



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Case Number: T 1096/19 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 19 September 2022

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 1 February 2019
revoking European patent No. 2471481 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman M. Alvazzi Delfrate
Members: S. Dennler
 C. Schmidt

Summary of Facts and Submissions

- I. This appeal was filed by the proprietor against the Opposition Division's decision to revoke the contested patent.
- II. Oral proceedings before the Board were held on 19 September 2022.
- III. The appellant (proprietor) requested that the decision under appeal be set aside and that the patent be maintained according to one of the main request or auxiliary requests I to V on which the decision was based, all filed again with the statement of grounds of appeal.
- IV. The two respondents (opponents) both requested that the appeal be dismissed.
- V. Claim 1 of the **main request** ("claim 1") reads as follows:

"A non-therapeutic photo-epilation method of operating a photo-epilation device (1), the photo-epilation device (1) comprising:

a hand-held housing (10) with at least one light output window opening (11);

broadband intense pulsed light-generating means (20) accommodated in the housing for generating high-intensity light in a broad spectral range suitable for effecting photo-epilation;

a control device (70) for driving the light-generating means (20);

wherein the control device is adapted to control the light-generating means so as to switch on the light-generating means in brief pulses having a pulse duration in a range from 1 ms to 2 ms, preferably from 1.1 ms to 1.9 ms, more preferably about 1.8 ms;

wherein the control device is adapted to control the light-generating means such that a fluence on skin level is in a range from 2 to 7 J/cm² per pulse;

and wherein the control device (70) is adapted to control the light-generating means (20) at a pulse repetition frequency in a range from 0.1 Hz to 0.5 Hz,

*said method being **characterized in that** the photo-epilation device (1) is displaced by a user from one skin area to another skin area after each pulse and before the next pulse while the light-generating means (20) is repetitively driven by the control device (70) at said pulse repetition frequency."*

VI. The contested patent was granted from a divisional application of earlier European patent application No. 09718363.6 ("the parent application").

VII. This decision also refers to the following documents:

D1: US 7,044,959 B2

D2: US 2004/0167501 A1

D18: S. Pei et al., *Light-based therapies in acne treatment*, Indian Dermatology Online Journal, 6(3), May-June 2015, 145-57

E1: US 2004/0230260 A1

E2: WO 99/34867 A1

E3: US 2004/0167499 A1

VIII. The **appellant's arguments** relevant for this decision can be summarised as follows.

Exception to patentability

The subject-matter of claim 1 was explicitly limited to a "non-therapeutic" method. As held by the Opposition Division (point 2.2 of the decision under appeal), it was therefore not excluded from patentability under Article 53(c) EPC.

Added subject-matter

(a) Objection related to the skin to be treated

Contrary to the Opposition Division's conclusion (point 2.3.1.3 of the decision), the parent application and the application as filed did not include any limitations on whose skin was to be treated by the disclosed method. The method could be applied by the user either to their own skin or to the skin of somebody else, either in a private environment or at home. Thus, the first objection of added subject-matter was without merit.

(b) Admittance of the further objection related to the "mandatory displacement" of the photo-epilation device

The second objection of added subject-matter had been raised on appeal for the first time during the oral proceedings before the Board. There were no exceptional circumstances under Article 13(2) RPBA 2020 that would justify the admittance of this objection at such a late

stage of the appeal proceedings. Moreover, this objection was *prima facie* not convincing.

Industrial application

For the same reason as argued for the first objection of added subject-matter, the claimed method was not for domestic use only but could be carried out in a professional environment as well, such as in a beauty salon. The method was therefore susceptible of industrial application.

Novelty

The subject-matter of claim 1 was novel in view of both E2 and E3, at least for the following reasons.

(a) Novelty in view of E2

E2 did not directly and unambiguously disclose the combination of 1 ms and 5 J/cm². More generally, the ranges defined in claim 1 were novel over those disclosed in E2.

(b) Novelty in view of E3

E3 did not directly and unambiguously disclose that the clinical results mentioned in paragraph [0182] had been obtained with the device described in the rest of E3. Rather, these results could well have been obtained with another device, the configuration of which was not further described in E3. Therefore, even if the ranges disclosed for the clinical results were assumed to be novelty-destroying for the ranges defined in claim 1, the remaining features of claim 1 would still not be

directly and unambiguously disclosed in E3 in combination with these ranges.

Inventive step

(a) Inventive step starting from D1 in combination with D2

From the header of Table 2 of D1, it was unclear whether the fluences indicated in the table were to be applied to a skin area only once before moving to another skin area. Rather, D1 suggested that the treatment might involve "multiple passes", potentially over the same skin area. Moreover, the disclosure in column 14, lines 18-20 that the photo-epilation device was "sequentially moved to selected treatment areas on the skin" was not direct and unambiguous disclosure either that only one pulse was applied to a given skin area and that the photo-epilation device was moved "after each pulse and before the next pulse" as required by claim 1. Thus, at least for this reason, the combination of D1 with D2 could not lead to the subject-matter of claim 1 in an obvious way.

(b) Inventive step starting from E2 in combination with paragraph [0196] of E3

The person skilled in the art proceeding from E2 would not have arrived at the combination of 1 ms and 5 J/cm² or at a combination of fluence and pulse duration falling within the ranges defined in claim 1 without inventive step.

As explained in the contested patent, these ranges indeed enabled achieving photo-epilation, i.e. epilation based on the application of light only.

By contrast, the epilation device of E2 was primarily based on thermal epilation. While light pulses could also be emitted by the device of E2, E2 explicitly taught that their energy had to be insufficient to destroy the hairs. The person skilled in the art would not have deviated from this teaching and implemented in the device of E2 values of fluence and pulse duration in the claimed ranges, which would have destroyed hair via photo-epilation.

Consequently, the combination of E2 with paragraph [0196] of E3 would not have led the person skilled in the art to the subject-matter of claim 1 without inventive step.

(c) Inventive step starting from E1 in combination with paragraph [0182] of E3

As held by the Opposition Division (point 6.3.5.1 of the decision under appeal), the person skilled in the art starting from E1 would have had no motivation to apply only one pulse on each skin area and to move the device to another skin area after each pulse and before the next one. This would have been against the explicit teaching of E1 of delivering multiple pulses on a treatment area over a relatively long period of time (paragraph [0020]). Starting from E1, the person skilled in the art would therefore not have arrived at the subject-matter of claim 1 without an inventive step, even considering E3.

(d) Admittance of the inventive-step objection starting from E3 in combination with paragraph [0182] of E3

Lack of novelty in view of E3 had been raised in the first-instance proceedings, but this objection had not convinced the Opposition Division. Thus, the inventive-step objection starting from E3 could and should have been raised in the first-instance proceedings. Moreover, it was *prima facie* not convincing. Therefore, this objection was not to be admitted into the appeal proceedings.

IX. The **respondents' arguments** relevant for this decision can be summarised as follows.

Exception to patentability

The method of claim 1 was a method of treatment of the human body by therapy excluded from patentability under Article 53(c) EPC. As supported by D18, the application to the skin of light pulses having the claimed parameters had a regulating effect on the growth of bacteria naturally present on human skin. Hence, the method had at least a prophylactic effect on healthy skin. Because this therapeutic effect could not be distinguished from a non-therapeutic cosmetic effect, a disclaimer specifying that the claimed method was "non-therapeutic" could not overcome the exception to patentability of Article 53(c) EPC.

Added subject-matter

Claim 1 comprised added subject-matter, contrary to the requirements of Articles 76(1) and 123(2) EPC.

(a) Objection related to the skin to be treated

Firstly, the method of claim 1 encompassed an embodiment in which a first person operated the device

on the skin of a second, different person. However, this embodiment was not directly and unambiguously derivable from the parent application and the application as filed, which both only disclosed the use of a photo-epilation device by a user on their own skin.

(b) Admittance of the further objection related to the "mandatory displacement" of the photo-epilation device

Secondly, claim 1 required the photo-epilation to be displaced over the skin "after each pulse and before the next pulse". However, this mandatory displacement in between successive pulses had not been disclosed originally either. So this also resulted in added subject-matter.

This second objection, raised by respondent 1 during the oral proceedings before the Board, was a reaction to point 4.2 of the Board's communication under Article 15(1) RPBA 2020. This objection had already been substantiated in point 3.8 of the notice of opposition of respondent 1 (opponent 1). It had not been repeated in its statement of grounds of appeal because, at that time, the first objection had been considered sufficiently convincing. However, this objection could not surprise the appellant, was not complex and was *prima facie* convincing. Therefore, it was to be admitted into the appeal proceedings.

Industrial application

The description of the contested patent as a whole made it clear that the claimed method was for domestic use only. The use of a photo-epilation device by consumers

at home was a private and personal activity not susceptible of industrial application. This constituted a violation of Article 57 EPC, similar to the conclusion reached in decision T 74/93.

Novelty

The subject-matter of claim 1 lacked novelty over each of E2 and E3.

(a) Novelty in view of E2

E2 disclosed all the features of claim 1. The ranges 1-75 ms and 1.5-5 J/cm² disclosed for the epilation device of E2 in the last paragraph of page 8 anticipated those defined in claim 1. In particular, the combination of 1 ms and 5 J/cm² was disclosed in E2.

(b) Novelty over E3

E3 disclosed in paragraph [0182] that temporary hair regrowth inhibition had been found clinically using light pulses with pulse durations and fluences in the ranges 0.3-3 ms and 4-5 J/cm². These ranges were novelty-destroying for those defined in claim 1. The person skilled in the art would have understood, for example from paragraph [0167], that the disclosure in paragraph [0182] also related to the photo-epilation device described in the rest of E3. Thus, E3 disclosed all the features of claim 1 in combination.

Inventive step

The subject-matter of claim 1 did not involve an inventive step over D1, E1 and E2, each taken as the starting point.

(a) Inventive step starting from D1 in combination with D2

For light pulses having a broad spectral range of 600-1200 nm, Table 2 of D1 disclosed the combination of light pulse parameters of 1 ms and 0.26-9.6 J/cm²; this combination of parameters took away the novelty of the fluence and pulse duration ranges defined in claim 1.

Moreover, the header of Table 2 explained that these pulse parameters were given "per pass", hence for a single pulse applied to a given skin area. D1 further referred to a rectangular light pulse in column 10, lines 37-38 and disclosed in column 14, lines 18-20 that the light source could be a pulsed source which was "sequentially moved to selected treatment areas on the skin".

The person skilled in the art would have therefore understood that the photo-epilation device disclosed in D1 not only used similar fluences and pulse durations as the device used in the claimed method, but also that this known photo-epilation device was to be operated in accordance with the same method, namely by displacing it from one skin area to another after each pulse and before the next pulse while the light-generating means was repetitively driven to periodically generate the light pulses.

It followed that the subject-matter of claim 1 differed from the disclosure of D1 only in that the pulse repetition frequency was in the range 0.1-0.5 Hz.

It would have been obvious to the person skilled in the art to select a pulse repetition frequency in this range, for example, based on the teaching in paragraphs [0202]-[0204] of D2 according to which operation of a photo-epilation device at a pulse repetition frequency between 0.25 and 1 Hz was a good compromise between ease of operation and the ability to treat large skin areas quickly.

(b) Inventive step starting from E2 in combination with paragraph [0196] of E3

The subject-matter of claim 1 would, in any event, not be inventive over the combination of E2 with paragraph [0196] of E3.

It would have been obvious for the person skilled in the art starting from E2 to try the combination of the end-points 1 ms and 5 J/cm² of the ranges disclosed in E2.

Moreover, the feature that the control device was adapted to control the light-generating means at a pulse repetition frequency in a range from 0.1 to 0.5 Hz merely solved the objective technical problem of automating the device of E2. The person skilled in the art facing this problem would have learned from paragraph [0196] of E3 that operating a photo-epilation device so that it generates periodic pulses at a pulse repetition frequency between 0.25 and 1 Hz was a good compromise between ease of operation and the ability to treat large skin areas quickly.

Therefore, the person skilled in the art starting from E2 would have arrived at the subject-matter of claim 1 without an inventive step.

(c) Inventive step starting from E1 in combination with paragraph [0182] of E3

The photo-epilation device defined in claim 1 was not novel in view of the photo-epilation device disclosed in E1.

As E1 disclosed that multiple light pulses should be applied to the same skin area to be treated, the subject-matter of claim 1 differed from the disclosure of E1 only on account of the characterising feature of claim 1, according to which the photo-epilation device was to be displaced from one skin area to another after each pulse and before the next pulse.

This solved the objective technical problem of reducing the time required for treating a given skin area.

The person skilled in the art facing this problem would have inevitably considered E3, which taught in paragraph [0182] that one single light pulse with the appropriate fluence and pulse duration described was sufficient to treat a given skin area by photo-epilation. The combination of E1 with E3 would therefore have led to the subject-matter of claim 1 in an obvious way.

(d) Admittance of the inventive-step objection starting from E3 in combination with paragraph [0182] of E3

If the subject-matter of claim 1 were to be found novel over E3, it would not, in any event, be inventive. It would have been obvious to the person skilled in the art proceeding from E3 to combine the light pulse parameters disclosed in paragraph [0182], clinically established and validated, with the other features of the photo-epilation device disclosed in the rest of the document to achieve temporary hair regrowth inhibition.

This objection had not been raised in the first-instance proceedings but had appeared particularly relevant in the course of the oral proceedings before the Board. This justified the admission of this objection in the appeal proceedings.

Reasons for the Decision

1. The subject-matter of the contested patent

The contested patent relates to a non-therapeutic method for operating a photo-epilation device. As explained in paragraphs [0001] and [0002], photo-epilation consists in damaging or destroying hair and hair follicles by applying light on the skin, typically in form of intense pulses. Melanin contained in the hair and the follicles selectively absorbs light, heats up and eventually vaporises. The resulting hair removal can be temporary or permanent.

Due to their high light energy density, or fluence, professional systems are typically bulky, heavy and expensive, and may lead to skin damage or high levels of pain if they are not used with care. This is why they are generally not suitable for the consumer market (paragraphs [0006] and [0007]).

By contrast, the method for operating a photo-epilation device provided by the contested patent can be comfortably and safely used by consumers at home, without the need for professional training. For this purpose, the photo-epilation device uses a comparatively low fluence which is still effective for achieving photo-epilation. This keeps heat generation low and thus ultimately allows for a smaller size of the device (paragraphs [0008]-[0011], [0039]).

In detail, the photo-epilation device includes a broadband intense pulsed light-generating means for generating high-intensity light in a broad spectral range suitable for effecting photo-epilation and a control device adapted to control the light-generating means to switch it on in brief pulses having a pulse duration in the range from 1 to 2 ms, at a pulse repetition frequency in the range from 0.1 to 0.5 Hz, and such that the fluence on skin level is in the range from 2 to 7 J/cm² per pulse. The claimed method entails that the photo-epilation device be displaced from one skin area to another after each pulse and before the next pulse while the light-generating means is repetitively driven by the control device at the given pulse repetition frequency (paragraph [0038]).

2. Exception from patentability

- 2.1 Although D18 attributes some bactericidal effects to pulsed light under certain conditions (page 1, section "*Mechanism of action of light-based therapies*"), there is no evidence that application of a light pulse having the characteristics defined in claim 1 would lead to any therapeutic effect. D18 indeed refers to "determined wavelength spectrum, fluence, and pulse duration" (page 2, last paragraph) but does not specify

any concrete values which fall within the ranges specified in the claimed method. D18 also explains that "[t]here is insufficient data to determine the precise optimal device, dosing, and number of treatments required in using these procedures for acne treatment" (page 8, first paragraph of the section "Summary").

- 2.2 Moreover, even if some bactericidal effect were achieved by the method of claim 1 as alleged by the respondents, the method would not inevitably have a prophylactic effect on healthy skin.

Removal of bacteria from healthy skin is indeed not necessarily prophylactic. Even if potentially pathogenic bacteria are present on their skin, a healthy individual is not likely to develop a pathological state only because of the presence of such bacteria. Only on the skin of a patient having a pathological disorder could the claimed method have a therapeutic effect.

The two different situations, however, can be clearly distinguished, especially because they involve two groups of individuals that are themselves readily distinguishable: those who have a pathological skin disorder and who might receive a therapeutic benefit from the claimed method, and people who have healthy skin and would thus receive no such therapeutic benefit.

- 2.3 Due to the disclaimer "non-therapeutic" in claim 1, the claimed method is unambiguously limited to a non-therapeutic photo-epilation method. It follows that claim 1 is not directed to subject-matter excluded from

patentability under Article 53(c) EPC, contrary to the respondents' view.

3. Added subject-matter

3.1 It is undisputed that the descriptions of the parent application and the divisional application as filed are substantially identical and differ mainly in their page numbering. Reference is made below to passages from the description of the parent application as filed ("the original description"); similar citations can be found on the corresponding pages of the description of the divisional application as filed.

3.2 Objection related to the skin to be treated

3.2.1 It is true, as argued by the respondents, that several passages of the original description relate to the situation of a user operating the device on their own skin, as illustrated, for example, by references to "the user's skin type" (page 5, line 6) and "his or her skin" (page 6, line 24). However, these passages merely illustrate optional features of the device used in the claimed method, such as a user input member to enter a skin type or a skin-contact sensor to prevent the generation of light pulses if no contact with the skin is detected.

The Board concurs with the appellant that the method of claim 1 is generally supported, *inter alia*, by page 8, lines 1-13 of the original description. This passage essentially discloses applying the fluence to "the skin" or "a skin area", displacing the device "from one skin area to another" and then repeating the treatment, without specifying whose skin is treated. The person skilled in the art thus derives that what matters for

the disclosed photo-epilation device and the associated photo-epilation method are (i) the characteristics of the light pulses emitted by the device and (ii) the way the device is displaced from one skin area to another between each pulse. It is irrelevant whether the skin being treated is the user's own skin or the skin of a different person.

- 3.2.2 It is also true that the original description emphasises the advantages of the disclosed photo-epilation device in terms of safety and its small size and ease of use compared to professional systems typically used in beauty salons. These advantages suggest indeed that the photo-epilation device and the claimed method are particularly suitable to be used by a consumer on their own skin, safely and easily, in their home environment.

However, the original description does not limit these advantages to this situation only. Rather, the person skilled in the art understands that the claimed method could equally be performed not only in a home environment by a user on the skin of another user but also in a professional environment, where a user typically treats the skin of somebody else, while still bringing out the same advantages.

- 3.2.3 The Board therefore concludes that, contrary to the respondents' argument and the Opposition Division's view (point 2.3.1.3 of the decision under appeal), claim 1, in not restricting the method to the situation where a user operates the photo-epilation device on their own skin, does not present the person skilled in the art with new information extending beyond the original disclosure.

3.3 *Admittance of the further objection related to the "mandatory displacement" of the photo-epilation device*

During the oral proceedings before the Board, for the first time on appeal, respondent 1 brought forward a further objection of added subject-matter against claim 1, related to the "mandatory displacement" of the photo-epilation device defined in the characterising portion.

This objection is an amendment to respondent 1's appeal case made after the notification of the summons to attend oral proceedings before the Board. Accordingly, its admittance into the appeal proceedings is subject to Article 13(2) RPBA 2020, under which any amendment to a party's appeal case made at this stage of the proceedings must, in principle, not be taken into account unless there are exceptional circumstances justified with cogent reasons by the party concerned.

Respondent 1 argued that this objection had been raised in reaction to point 4.2 of the Board's communication under Article 15(1) RPBA 2020. However, in this passage, the Board merely pointed out that what appeared to matter for the photo-epilation method was not whose skin was treated by the method but rather the characteristics of the light pulses emitted by the device and the way the photo-epilation device was displaced from one skin area to another between each pulse. Contrary to the respondent's view, the Board's statement cannot justify admitting the new objection into the appeal proceedings.

The fact that this objection had been substantiated in the notice of opposition filed by respondent 1 indicates that the respondent was able to file this

objection at the earliest stage of the appeal proceedings. The fact that other objections may have appeared sufficiently convincing to lead to the revocation of the patent did not prevent the respondent from substantiating all of its objections in its reply to the appellant's statement of grounds of appeal.

For these reasons, the Board decided not to admit the objection of added subject-matter related to the mandatory displacement of the photo-epilation device into the appeal proceedings.

- 3.4 It follows from the above considerations that claim 1 meets the requirements of Articles 76(1) and 123(2) EPC, contrary to the Opposition Division's view (point 2.3.1.3 of the decision under appeal).

4. Industrial application

- 4.1 Like in the discussion in point 3.2.2 above, the disclosure that the photo-epilation device can be used safely and easily by an end consumer in the private sphere does not mean that the device cannot be used in a commercial environment, such as a beauty salon, by professionals on their clients. As argued by the appellant, the person skilled in the art understands, from the nature of the method of claim 1, that it is also suitable for being exploited commercially in this kind of environment.

- 4.2 The reference to T 74/93 is not persuasive. This case concerned the application of a contraceptive composition to the cervix of a human female. This differs in essence from a method of operating an epilation device, a common activity in professional cosmetic and beauty salons.

4.3 The Board thus concurs with the appellant's view, also shared by the Opposition Division (point 2.4 of the decision under appeal), that the claimed method is susceptible of industrial application as required by Article 57 EPC.

5. Novelty

5.1 *Novelty over E2*

5.1.1 According to the respondents, the ranges 1-75 ms and 1.5-5 J/cm² disclosed in the last paragraph of page 8 of E2 deprived of novelty the ranges 1-2 ms and 2-7 /cm² defined in claim 1. In particular, the respondents argued that the combination of 1 ms and 5 J/cm² was disclosed in E2.

5.1.2 When assessing the novelty of a numerical range selected from or overlapping with another range known from the prior art, the following criteria must be met for the range to be novel (see *Case Law of the Boards of Appeal of the EPO*, 10th edn. 2022, I.C.6.3.1 and I.C.6.3.2):

(a) The range should be narrow.

(b) The range should be sufficiently far removed from the known range illustrated by means of examples.

These two criteria compare the invention as claimed to the disclosure of the prior art, as is required for the examination of novelty. This Board takes the view, also taken in the majority of recent case law (see e.g. T 261/15, point 2.2.2 of the Reasons), that whether the selected or overlapping area provides an arbitrary

specimen from the prior art or another invention - an aspect on which the parties also relied in their submissions - is in fact a question of inventive step rather than novelty.

Moreover, since the fluence on skin level and the pulse duration jointly influence the way the hair and hair follicles are damaged or destroyed by the light pulse, their ranges are not to be considered in isolation but in combination when assessing the prior art.

- 5.1.3 While the ranges defined in claim 1 indeed overlap to varying degrees with the ranges of E2, considering them in combination as discussed above results in a narrow range of overlap with the light pulse characteristics disclosed in E2, especially due to the claimed pulse duration range 1-2 ms, which is considerably narrower than the corresponding range 1-75 ms of E2. Criterion (a) is thus met.

Furthermore, as argued by the appellant, the combination of 1 ms and 5 J/cm² is not directly and unambiguously disclosed in E2. Although each is explicitly disclosed in E2, the end-values of the known ranges cannot be combined with each other arbitrarily to suit the case being made. Moreover, in the absence of further teaching in this direction, the person skilled in the art would not seriously contemplate working in the region of the end-values of the prior-art ranges (see T 261/15, fourth paragraph of point 2.3.2 of the Reasons). The combination of the claimed ranges is therefore far removed from the combination of ranges disclosed in E2. Thus, criterion (b) is met as well.

5.1.4 It follows that the fluence and pulse duration ranges disclosed in E2 do not anticipate the corresponding combination of ranges specified in claim 1. At least for this reason, the subject-matter of claim 1 is therefore novel over E2.

5.2 *Novelty over E3*

The ranges 0.3-3 ms and 4-5 J/cm² mentioned in paragraph [0182] of E3 that the respondents considered novelty-destroying are disclosed in the context of clinical results ("found clinically"). As put forward by the appellant, E3 does not directly and unambiguously disclose that these clinical results were obtained with the device described in the rest of the document. The clinical results could well have been obtained with another device, the configuration of which is not disclosed in E3.

This view is reinforced by the fact that for the preferred device, E3 systematically discloses pulse durations above 3-10 ms or even higher (paragraphs [0176], [0185]), i.e. much higher than those specified in paragraph [0182]. Pulse durations below 10 ms are even explicitly qualified as "not desired" in E3 (paragraph [0200]).

Therefore, even if the ranges in paragraph [0182] were assumed to anticipate those of claim 1, E3 would still not directly and unambiguously disclose the remaining features of claim 1 in combination with these ranges.

The subject-matter of claim 1 is therefore novel over E3.

6. **Inventive step**

6.1 *Inventive step starting from D1 in combination with D2*

It is true that the header of Table 2 of D1 mentions that the fluences indicated in the table are "generally per pass". However, the same sentence also discloses that the treatment may involve "multiple passes". As argued by the appellant, this includes multiple passes applied successively to the same skin area.

The Board acknowledges that, according to paragraph [0038] of the contested patent, a light pulse may also be formed as a train of sub-pulses. However, if a series of N passes, each having a duration of 1 ms and a fluence in the range 0.26-9.6 J/cm² referred to by the respondents were applied to a given skin area and were regarded as forming, in combination, a single train of N sub-pulses, the overall pulse parameters characterising this single train of sub-pulses would be the cumulated duration and fluence (i.e. N times the duration and the fluence per pass), thus potentially well above the pulse duration and fluence ranges defined in claim 1.

The Board therefore concurs with the appellant that D1 does not directly and unambiguously disclose that a pulse having the combination of parameters stated by the respondents is to be applied to each skin area to be treated only once before the photo-epilation device is moved to another skin area.

Moreover, the disclosure in column 14, lines 18-20 that the photo-epilation device is "sequentially moved to selected treatment areas on the skin", to which the respondents also referred, is not direct and unambiguous disclosure either that only one pulse or

pass is applied to a given skin area and that the photo-epilation device is moved "after each pulse and before the next pulse" as required by claim 1. The photo-epilation device could well be sequentially displaced from one skin area to another only after having applied a certain number of passes, as discussed above.

It follows that D1 does not directly and unambiguously disclose the characterising feature of claim 1 in combination with the feature that the light pulses generated by the photo-epilation each have a pulse duration and a fluence in the ranges defined in claim 1, contrary to the respondents' view.

The respondents' inventive-step objection starting from D1, based on this assertion, therefore fails for this reason alone.

Moreover, the Board notes that paragraphs [0202]-[0204] of D2 simply correlate the pulse repetition frequency with the time needed to treat a large skin area but do not disclose that the photo-epilation device must be displaced from one skin area to another "after each pulse and before the next pulse" as defined in the characterising portion of claim 1.

The combination of D1 with D2 thus cannot lead to the subject-matter of claim 1 in an obvious way. The Board therefore concludes that the subject-matter of claim 1 involves an inventive step starting from D1.

6.2 *Inventive step starting from E2 in combination with paragraph [0196] of E3*

Contrary to the respondents' assertion, the combination of light pulse parameters of 1 ms and 5 J/cm² would not have been obvious to the person skilled in the art starting from E2. Indeed, these values are merely the end-points of the ranges disclosed in E2. E2 contains no teaching that suggested using these particular values specifically or, *a fortiori*, the combination of these values.

More generally, as argued by the appellant, the person skilled in the art proceeding from E2 would not have arrived at a combination of fluence and pulse duration falling within the ranges defined in claim 1 without inventive step.

The epilation device disclosed in E2 is indeed based primarily on thermal epilation: heat is transferred to the hairs from the hot air heated by the flash lamp and then conducted along the hair shafts down to the follicles (page 2, lines 1-6). Light pulses as involved in the contested patent may also play a role, albeit only a secondary one (page 2, lines 13-16); E2 explicitly teaches that the light pulses must have an energy insufficient to destroy the hairs (page 2, lines 32-33).

By contrast, as explained in the contested patent, light pulses having a fluence and a pulse duration in ranges defined in claim 1 have an energy sufficient to destroy the hairs since they allow removing them by photo-epilation only. Therefore, the person skilled in the art starting from E2 would not have deliberately selected light pulse parameters in the ranges defined in claim 1 because this would have been contrary to the teaching of E2.

Paragraph [0196] of E3 merely relates to the choice of a pulse repetition frequency. Therefore, even when considering this paragraph, the person skilled in the art starting from E2 would not have arrived at the subject-matter of claim 1 without an inventive step.

6.3 *Inventive step starting from E1 in combination with paragraph [0182] of E3*

It is common ground that E1 entails applying multiple light pulses to the same skin area to be treated (see, for example, paragraphs [0020] and [0022]).

The subject-matter of claim 1 thus differs from the method disclosed in E1 at least on account of the characterising feature of claim 1, which requires the photo-epilation device to be displaced from one skin area to another after each pulse and before the next pulse, i.e. to apply one single pulse to a given skin area before moving to the next one.

In contrast, E1 underlines throughout its description the advantages of "delivering multiple low power pulses on a treatment area over a relatively long period of time", not only in terms of "economy and reduction in system complexity" but also a "less painful treatment" compared to "single pulse treatments" (see for example paragraph [0020]).

Given this explicit opposite teaching, the Board shares the Opposition Division's view in point 6.3.5.1 of the decision under appeal that the person skilled in the art starting from E1 would have had no motivation to apply only one pulse on each skin area and to move the device to another skin area after each pulse and before the next one.

Therefore, contrary to the respondents' view, the person skilled in the art starting from E1 would not have arrived at the subject-matter of claim 1 without inventive step, even considering E3.

6.4 *Admittance of the inventive-step objection starting from E3 in combination with paragraph [0182] of E3*

As acknowledged by the respondents, no inventive-step objection starting from E3 was raised in the first-instance proceedings. The decision under appeal is silent on this issue.

Pursuant to Article 12(4) RPBA 2007, which applies in this case by virtue of the transitional provisions of Article 25(2) RPBA 2020, the Board has the power to hold inadmissible facts, evidence or requests which could have been presented in the first-instance proceedings.

Novelty over E3 was discussed in the first-instance opposition proceedings and acknowledged by the Opposition Division (point 6.2.3 of the decision under appeal). An inventive-step objection starting from E3 could therefore have been raised in the first-instance proceedings, at least in reaction to the finding of the Opposition Division on E3, especially considering that the Opposition Division had already acknowledged novelty in view of E3 in the communication of 5 April 2018 (point 8.2).

Moreover, this objection is *prima facie* not convincing. As discussed in point 5.2 above, the person skilled in the art starting from E3 would not have considered applying the pulse parameters disclosed in paragraph

[0182] but would have merely followed the explicit and consistent teaching in the rest of E3 that pulse durations above at least 3-10 ms should preferably be used (paragraphs [0176], [0185]). These pulse durations are, in any event, well above the pulse durations specified in claim 1.

For these reasons, the Board decided to hold the inventive-step objection against claim 1 starting from E3 inadmissible.

7. Conclusion

Given the above considerations, none of the respondents' objections admitted in the appeal proceedings prejudices the maintenance of the contested patent in amended form based on the appellant's main request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division with the order to maintain the patent in the following version:
 - claims 1 to 7 of the main request filed with the statement of grounds of appeal
 - description and drawings of the patent specification

The Registrar:

The Chairman:



A. Chavinier-Tomsic

M. Alvazzi Delfrate

Decision electronically authenticated