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Datasheet for the decision of 21 February 2013

Case Number: T 1824/09 - 3.2.02

Application Number: 05019146.9

Publication Number: 1602391

IPC: A61M 21/00

Language of the proceedings: EN

Title of invention:
Light therapy device

Applicant:
The Litebook Company Ltd.

Headword:
-

Relevant legal provisions:
EPC Art. 56
EPC R. 124(1)
RPBA Art. 13(1)

Keyword:
"Inventive step (no; main request and auxiliary requests 2 and 3)"
"Admissibility (no; auxiliary requests 1, 4 and 5)"
"Request to record a statement in the minutes of oral proceedings (refused)"

Decisions cited:
T 0071/06

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1824/09 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 21 February 2013

Appellant: (Applicant)
The Litebook Company Ltd.
233 - 5th Street SE
Suite 107
Medicine Hat
Alberta T1A 0M5 (CA)

Representative:
Hill, Justin John
Ipulse (IP) Ltd.
Carrington House
126-130 Regent Street
London W1B 5SE (GB)

Decision under appeal:
Decision of the Examining Division of the European Patent Office posted 23 March 2009 refusing European patent application No. 05019146.9 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: E. Dufrasne
Members: M. Stern
P. L. P. Weber

Summary of Facts and Submissions

I. The applicant lodged an appeal, by notice received on 19 May 2009, against the decision of the Examining Division dispatched on 23 March 2009 refusing European application No. 05 019 146.9 on the ground of lack of inventive step. The fee for appeal was paid on that same day and the statement setting out the grounds of appeal was received on 23 July 2009.

II. The Board presented its provisional opinion in a communication dated 19 September 2012, raising doubts about the inventiveness of the claimed subject-matter, mainly in view of documents D1 and D7 (point IV below).

III. Oral proceedings took place on 21 February 2013.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed on 5 February 2009 (during the examination proceedings) or, in the alternative, on the basis of one of the following requests: the first auxiliary request filed during the oral proceedings, the second and third auxiliary requests, both filed on 21 January 2013, or the fourth and fifth auxiliary requests, filed during the oral proceedings.

The appellant also requested that the minutes of the oral proceedings include a statement of its opinion regarding the fourth and fifth auxiliary requests filed at oral proceedings.

IV. The following documents are relevant for the present decision:

D1: US-A-5 149 184

D3: US-A-5 304 212

D6: US-A-5 923 398

D7: DE-U-296 00 470

A3: "Canadian Consensus Guidelines for the Treatment of Seasonal Affective Disorder: A Summary of the Report of the Canadian Consensus Group on SAD", Eds. R.W. Lam, A.J. Levitt, 19.08.99,

A11: Declaration of Prof. R.W. Lam

A12: Declaration of Prof. J. Arendt

A14: Declaration of Dr. Y. Meesters

A24: Declaration of Mr. L. Pederson

D9: Wikipedia article: http://en.wikipedia.org/wiki/Fluorescent-lamp_formats

V. Claim 1 of the different requests reads as follows (the differences to the main request are highlighted by the Board):

Main request:

"1. An ocular light therapy device comprising:
an outer housing (10) including an opening (22); and
a light emitting assembly (20) in the housing (10) and operable to emit light through the opening (22) in the housing, the light emitting assembly (22) including a plurality of LEDs (28) together capable of generating 538 lux to 7,500 lux at 30.48 cm (12 inches)."

First auxiliary request:

"1. An ocular light therapy device **for treatment of seasonal affective disorder, circadian sleep disorders,**

circadian disruptions, PMS, bulimia and fatigue, the device comprising:
an outer housing (10) including an opening (22); and
a light emitting assembly (20) in the housing (10) and operable to emit light through the opening (22) in the housing, the light emitting assembly (22) including a plurality of LEDs (28) **arranged in a pattern over an area and** together capable of generating 538 lux to 7,500 lux at 30.48 cm (12 inches) **in a substantially straight line directly towards the users [sic] eyes**."

Second auxiliary request:

"1. An ocular light therapy device comprising:
an outer housing (10) including an opening (22); and
a light emitting assembly (20) in the housing (10) and operable to emit light through the opening (22) in the housing, the light emitting assembly (22) including a plurality of LEDs (28) together capable of generating 538 lux to 7,500 lux at 30.48 cm (12 inches), **and wherein at least some of the LEDs (28) are capable of emitting white-light**."

Third auxiliary request:

"1. An ocular light therapy device **for treatment of seasonal affective disorder, circadian sleep disorders, circadian disruptions, PMS, bulimia and fatigue, the device** comprising:
an outer housing (10) including an opening (22); and
a light emitting assembly (20) in the housing (10) and operable to emit light through the opening (22) in the housing, the light emitting assembly (22) including a plurality of LEDs (28) together capable of generating

538 lux to 7,500 lux at 30.48 cm (12 inches), **and wherein at least some of the LEDs (28) are capable of emitting white-light.**"

Fourth auxiliary request:

"1. An ocular light therapy device **for treatment of seasonal affective disorder, circadian sleep disorders, circadian disruptions, PMS, bulimia and fatigue, the device** comprising:
an outer housing (10) including an opening (22); and
a light emitting assembly (20) in the housing (10) and operable to emit light through the opening (22) in the housing, the light emitting assembly (22) including a plurality of LEDs (28) together capable of generating 538 lux to 7,500 lux at 30.48 cm (12 inches) **wherein the housing (10) is mounted into a vehicle passenger compartment so as to provide light treatment to vehicle passengers or operators.**"

Fifth auxiliary request:

"1. An ocular light therapy device **for treatment of seasonal affective disorder, circadian sleep disorders, circadian disruptions, PMS, bulimia and fatigue, the device** comprising:
an outer housing (10) including an opening (22); and
a light emitting assembly (20) in the housing (10) and operable to emit light through the opening (22) in the housing, the light emitting assembly (22) including a plurality of LEDs (28) together capable of generating 538 lux to 7,500 lux at 30.48 cm (12 inches) **wherein the housing (10) accommodates a therapy calculator for determining a treatment regime based on an input of**

information, and wherein the calculator a pause function [sic] **capable of recording a time of treatment interruption and capable of outputting from memory the portion of the treatment remaining when treatment is resumed."**

VI. The arguments of the appellant are summarised as follows:

(i) Inventive step

The skilled person intending to further reduce the size of the light box of D1 would not have needed to search for other types of light sources since smaller fluorescent T5 light tubes of 15 cm length were in use worldwide, as shown in the Wikipedia article D9.

The skilled person would not have considered LEDs as a therapeutically effective alternative to fluorescent tubes or bulbs as the latter were the "gold standard" for ocular light therapy at the priority date of the application. This was testified in expert declarations A11, A12, A14 and A24. The skilled person having read D1 would have had no reason to consider LEDs to be a possible alternative to the "gold standard" of fluorescent tubes. Although LEDs were acknowledged to be a well-established light source at the priority date for different applications, this fact did not make it obvious to replace fluorescent tubes in an ocular therapy device, since the light emitted by the LEDs had to be effective for ocular therapy. The aforementioned written expert declarations indicated that the skilled person would not have considered a light box with LEDs to have had a reasonable expectation of success for

ocular light therapy. Hence, an LED-containing device in ocular therapy was clearly surprising to experts. In particular, the spectra of fluorescent tubes and LEDs were not remotely the same. Moreover, there was a prejudice against the use of LED light, particularly in view of possible damage to the eye.

Consequently, the combination of D1 and D7 did not render obvious the subject-matter of claim 1 of the main request. This was particularly so for the subject-matter of claim 1 of the second and third auxiliary requests, due to the explicit additional definition of white-light emitting LEDs and the treatment of, for example, seasonal affective disorder (SAD). D7 was concerned with the treatment of different disorders, for which the use of coloured instead of white-light LEDs was indicated.

(ii) Admissibility of late-filed requests

The first, fourth and fifth auxiliary requests were filed during the oral proceedings as a response to the objections discussed during oral proceedings and should therefore be admitted. The features added to claim 1 of the first auxiliary request were based on page 2, lines 18 to 21 of the description. The features added to claim 1 of the fourth auxiliary request were found in original dependent claim 8, and the features added to claim 1 of the fifth auxiliary request were based on original dependent claim 4 and the sentence bridging pages 8 and 9 of the description. The latter two auxiliary requests were clearly inventive, in particular over document D3.

Reasons for the Decision

1. The appeal is admissible.

2. *Inventive step - main request*

2.1 Undisputedly, document D1 is the closest prior art. D1 discloses an ocular therapy device (column 1, lines 9 to 16) comprising a light-emitting assembly in a housing (30) including an opening, the light-emitting assembly including a plurality of fluorescent lamps (35) and being operable to emit light through the opening with a luminous intensity of 3,300 or 10,000 lux (column 3, lines 50 to 57), presumably at a "normal working distance" as mentioned in claim 14 of D1. Undisputedly, at least the luminous intensity of 3,300 lux at such a normal working distance would obviously fall within the range of 538 to 7,500 lux at 30.48 cm (12 inches) defined in claim 1 of the main request.

2.2 The subject-matter of claim 1 of the main request differs from D1 in that the light-emitting assembly includes a plurality of LEDs.

2.3 The objective technical problem to be solved by this feature is the problem stated on page 2, lines 5 to 8 of the application, namely to provide a smaller, simpler and more durable ocular therapy device that is more resistant to damage during normal transport.

2.4 Document D1 already addresses the problem of reducing the size and improving the transportability of the disclosed light box (column 4, lines 50 to 59).

Figures 3 and 4 show an example of such a reduced size light box. Therefore, the formulation of the problem itself does not involve any inventiveness.

2.5 If the skilled person intended to implement a further reduction of size or a further improvement in the transportability of the devices disclosed in D1, it would be self-evident for the skilled person that the bulky fluorescent tubes of D1 would need to be replaced by a smaller appropriate alternative light source.

Even if the skilled person was aware of the availability of shorter fluorescent tubes (the so-called T5 tubes mentioned in the Wikipedia article D9; first sentence of chapter "T5 tubes"), as argued by the appellant, these tubes with a length of 15 cm were of considerably lower light intensity than those of D1 (4 W in D9, against 30 W in D1, column 4, lines 44 to 49 and 59 to 61). Hence, a device with such T5 tubes would require a considerable number of such tubes to achieve the luminous intensity of the two or three 30 W tubes in Figure 3 of D1 (column 4, lines 59 to 61). Therefore, the skilled person would still find it self-evidently necessary to search for a smaller appropriate alternative light source in order to solve the aforementioned problem of further reducing the size or improving the transportability of the known fluorescent-tube-based devices.

2.6 In search of such a light source, the skilled person would consider document D7, which discloses an ocular light therapy device (page 1, lines 9 to 17) which is indeed smaller, namely reduced to the size of a face

mask, and which is provided with LEDs as light sources (page 7, lines 8 to 14; page 14, lines 14 to 16).

2.7 Consequently, in order to solve the objective technical problem mentioned above, the skilled person would be led to replace the bulkier fluorescent tubes of D1 by the evidently much smaller LED light sources used in D7. When doing so, the skilled person would self-evidently maintain the intensities disclosed in D1 as effective for the particular light therapies envisaged (e.g. seasonal affective disorder, SAD, disclosed on column 1, lines 14 to 16). Even if D7 is concerned with ocular light therapy of disorders which differ from those addressed in D1, the skilled person would readily understand from D7 that the choice of LEDs as light sources directly responds to the need to fit the light sources into a small-sized face-mask device.

2.8 The appellant's argument that the skilled person would have been reluctant to consider LEDs as an effective alternative to fluorescent tubes or bulbs since the latter were the "gold standard" for ocular light therapy at the priority date of the application fails to convince the Board. The fact that most studies mentioned by the appellant may have used a fluorescent light box cannot be seen as a deterrent for the skilled person to investigate further. In fact, document A3 (edited inter alia by Prof. R.W. Lam, a technical advisor of the appellant) discloses that other light devices including head-mounted units or incandescent light visors had also been studied and had shown good clinical responses for ocular light therapy (page 8, last paragraph).

The appellant's assertion that there was even a prejudice against the use of LEDs for light therapy has not been convincingly substantiated. Declarations A11, A12, A14 and A24 merely reflect individual views held by some researchers in the field (including, inter alia, one of the inventors, Mr. L. Pederson, and one of the technical advisors of the appellant, Prof. R.W. Lam). They are however insufficient to demonstrate the existence of a general prejudice, i.e. a widely or universally held opinion by experts in that field, which is normally demonstrated by reference to the literature or to encyclopaedias published before the priority date ("Case Law of the Boards of Appeal", 6th edition 2010, I.D.9.2).

The Board is also not convinced by the appellant's assertion that the skilled person would have considered that a light box fitted with LEDs could not have had a reasonable expectation of success in ocular light therapy, since this assertion is merely based on the mentioned individual expert opinions without any further convincing technical or clinical tests or explanations concerning the nature of the perceived technical shortcomings of such a light box.

The Board finds moreover that the appellant's further contention that LEDs were thought to be ineffective for (any) ocular light therapy, and were even considered to be dangerous to the eyes, is contradicted by the fact that for example document D7 (page 1, lines 11 to 17) and document D6 (column 3, lines 57 to 59; column 5, lines 18 to 22) disclose the use of LEDs for ocular light therapy.

2.9 In conclusion, the device of claim 1 of the main request does not involve an inventive step within the meaning of Article 56 EPC.

3. *Inventive step - second and third auxiliary requests*

3.1 Claim 1 of the third auxiliary request additionally defines that the device is suitable for the treatment of, inter alia, seasonal affective disorder (SAD) and that at least some of the LEDs are capable of emitting white light.

3.2 As indicated under point 2.7 above, the device of D1 is likewise suitable for the treatment of SAD (column 1, lines 14 to 16). Moreover, the fluorescent tubes of D1 are disclosed to emit light which closely matches that of the natural daylight spectrum (column 3, lines 28 to 34), which is generally considered to be a white spectrum.

Thus, when solving the objective technical problem mentioned under point 2.3 above and replacing the bulky fluorescent tubes of D1 by smaller LED light sources as used in D7, the skilled person would naturally attempt not only to preserve the light intensity of D1 as mentioned above, but also to emulate the characteristics of the light spectrum used in D1 in order to guarantee the effectiveness of the treatment of, for example, SAD. As indicated in A3 (page 9, third paragraph), which sets guidelines for the treatment of SAD, the wavelength or type of light is not as important as its intensity, but white light may be superior to narrow band wavelengths. Consequently, the provision of LEDs emitting white light would be an

obvious choice. It is thus of no relevance that D7, which is concerned with the ocular light treatment of different disorders, consequently proposes the use of coloured LEDs rather than white-light LEDs.

3.3 As a consequence, the device defined in claim 1 of the third auxiliary request lacks an inventive step within the meaning of Article 56 EPC.

The same applies, a fortiori, to the broader device definition given in claim 1 of the second auxiliary request.

4. *Admissibility of the first, fourth and fifth auxiliary requests*

4.1 The first, fourth and fifth auxiliary requests were filed during the oral proceedings.

It is the established jurisprudence of the boards of appeal that the appeal procedure is designed to ensure that the proceedings are as brief and concentrated as possible and ready for decision at the conclusion of oral proceedings. Therefore, amendments to the claims must be filed at the earliest possible moment and the Board may disregard amended claims if they are not submitted in good time prior to oral proceedings ("Case Law of the Boards of Appeal", 6th edition 2010, VII.E. 16.3.1). This practice corresponds to the provisions of Article 13(1) RPBA, which gives a board the discretion to admit and consider new requests presented by an appellant after it has filed its grounds of appeal. The Board must exercise that discretion in view inter alia of the complexity of the new subject-matter submitted,

the current state of the proceedings and the need for procedural economy.

4.2 In the present case, the Board sees no justifiable reason for filing the first, fourth and fifth auxiliary requests as late as during the oral proceedings. It rejects the appellant's assertion that they should be seen as a response to the objections discussed during oral proceedings, since the objection of lack of inventive step over D1 in combination with D7 as discussed during oral proceedings had already been detailed in the Board's communication attached to the summons to oral proceedings. As a consequence, especially in view of the Board's explicit caveat regarding late filings, set out in point 11 of its communication and citing the provisions of Article 114(2) EPC and Articles 12 and 13 RPBA, the appellant should have filed the belated auxiliary requests as soon as possible after receiving said communication, at least one month before the oral proceedings (e.g. together with the admitted second and third auxiliary requests).

4.3 Each of the auxiliary requests filed during the oral proceedings shifted the claimed invention to subject-matter which had not yet been examined during the appeal proceedings.

Whilst the appellant contended that the additional features in claim 1 of the first auxiliary request had a direct and unambiguous basis on page 2, lines 18 to 21 of the description, the Board was unable to confirm this assertion in its prima facie assessment of what the claim defines.

The features added to claim 1 of the fourth auxiliary request (stemming from original dependent claim 8), as well as the features added to claim 1 of the fifth auxiliary request (stemming from original dependent claim 4 and the sentence bridging pages 8 and 9 of the description), were alleged to provide an inventive step particularly when account was taken of document D3. As this document had not been considered at all during the appeal proceedings, the Board found that it was inappropriate to perform a conclusive assessment of inventive step of this amended subject-matter for the first time during the oral proceedings. The Board also dismisses the appellant's view that a simple prima facie plausibility assessment would have sufficed.

4.4 For the aforementioned reasons, the first, fourth and fifth auxiliary requests are not admissible under Article 13(1) RPBA.

5. *Request to include a statement in the minutes*

5.1 At the oral proceedings, following the announcement that the Board found the fourth and fifth auxiliary requests to be inadmissible, the appellant requested that the minutes state its (orally presented) opinion that the subject-matter claimed in these auxiliary requests was fairly simple, partly already claimed and highly likely to be patentable over the prior art on file.

5.2 Pursuant to Rule 124(1) EPC, the minutes of oral proceedings must contain the essentials of these proceedings and the relevant statements made by the

parties. According to the jurisprudence of the Boards of Appeal (e.g. T 71/06, Reasons, point 6), it is not the function of the minutes to record statements - such as the one in question - which a party considers to be possibly relevant. This statement does not relate, for example, to the definition of the subject-matter of the application on which the Board has to decide in these proceedings. It does not form part of the essentials of the oral proceedings and is not relevant for the present decision, apart from reflecting an opinion of the appellant which was duly taken into consideration when the Board decided on the admissibility of the auxiliary requests concerned (see points 4.2 and 4.3 above).

5.3 The Board consequently decides that the statement is not a proper subject for the minutes according to Rule 124(1) EPC, and the appellant's request to include the statement in the minutes is therefore refused.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Hampe E. Dufrasne