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**Datasheet for the decision
of 19 September 2016**

Case Number: T 0521/13 - 3.2.03

Application Number: 02254949.7

Publication Number: 1278007

IPC: F21V8/00

Language of the proceedings: EN

Title of invention:

Light delivery systems and applications thereof

Applicant:

LUMITEX, INC.

Headword:

Relevant legal provisions:

EPC Art. 54, 56

Keyword:

Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:



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Case Number: T 0521/13 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 19 September 2016

Appellant: LUMITEX, INC.
(Applicant) 8443 Dow Circle
Strongsville, OH 44136 (US)

Representative: Robinson, David Edward Ashdown
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 1 August 2012
refusing European patent application No.
02254949.7 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman G. Ashley
Members: C. Donnelly
E. Kossonakou

Summary of Facts and Submissions

- I. The appeal lies from the decision of the examining division to refuse European Patent application No. 02 254 949. The applicant (hereinafter: the "appellant") filed an appeal against this decision in due form and time.

- II. In its decision the examining division held that the subject-matter of claim 1 lacked novelty in view of US 2001/0001260 (D1). In reaching its conclusion the examining division reasoned that paragraphs [0116] and [0147] of D1 teach that the embodiments of figures 25A-D and figures 29A and 29B have "freely exchangeable" features. It added that, even if it were argued that in D1 the malleable member does not have a width "substantially corresponding" to the width of said light emitter, this difference would not be seen as involving an inventive step with regard to the embodiments shown in D1 (figures 25A-D and figure 29B).

- III. The appellant requests that the decision be set aside and that the application be granted on the basis of the claims as considered by the examining division (main request) or, alternatively on the basis of the first auxiliary request filed with the grounds of appeal or on the basis of the second auxiliary request filed with letter of 22 August 2016. An amended description in respect of the main request was filed with letter dated 9 September 2016.

- IV. Claim 1 as examined by the examining division reads as follows (NB: reference numerals relate to figures 31 to 33 of the application):

"A lighting device (3100) comprising a light distributor (3160) for receiving light from an associated light source (90) and propagating light therethrough via internal reflection, a flexible light emitter (3110) for emitting light propagated by said light distributor, said light emitter having a greater width than thickness and opposite ends and sides and top and bottom surfaces, a protective cover (3200) surrounding said light emitter and a malleable member (3230) disposed within said protective cover and extending along a portion of the length of said light emitter, characterized by said malleable member being made of a flat sheet of malleable material inserted within the protective cover adjacent one side of said light emitter and having a width substantially corresponding to the width of said light emitter and being bendable to hold the shape of said light emitter once arranged in a desired position, and a flexible back reflector (3240) disposed within said protective cover (3200) between said light emitter (3110) and said malleable member (3230)."

Dependent claims 2 to 12 define preferred embodiments of the lighting device of claim 1.

The appellant argues that D1 does not disclose the features of:

- a malleable member being made of a flat sheet of malleable material having a width substantially corresponding to the width of a light emitter; and
- a flexible back reflector disposed within the protective cover between the light emitter and the malleable member.

It submits that the shape of the light emitter in combination with a malleable member of substantially corresponding width gives the light emitter increased flexibility to allow it to be easily shaped to conform to the shape of an associated device such as an instrument or tool. By disposing the flexible back reflector within the protective cover between the light emitter and the malleable member interference by the malleable member with reflection of light in the light emitter is prevented.

Reasons for the Decision

1. Main request, Basis for the claims, Article 123 (2) EPC

No objections were raised by the examining division under Article 123(2) EPC. The board notes that claim 1 of the main request is based on claims 1, 2 and 4 as originally filed as well as the description, page 37, lines 13 to 15.

Dependent claims 2 to 12 correspond to originally filed dependent claims and find support in the description.

2. Novelty

2.1 The examining division appears to have taken the embodiment shown in figures 29A and 29B of D1 as the starting point for its analysis. It should be noted that these figures are identical to figures 29A and 29B of the application and that paragraphs [0141], [0142] and [0143] of D1 describing this embodiment are

identical to the corresponding paragraphs of the present application.

2.2 Feature 2920 referred to by the examining division in its analysis as the "light distributor" is in fact a "connector member" (see paragraph [0143]) of D1. Distinct light emitter and light distributor components are not present in figures 29A and 29B of D1 since these functions are performed by different sections of the "light transmitting member" 2910. This is in contrast to the embodiment shown for example in figure 4a of D1 which has distinct light distributor 60 and light emitter 10 components.

2.3 The embodiment shown in figures 29A and 29B can be seen to disclose:

a lighting device comprising a light transmitting member 2910 with a light distributor section for receiving light from an associated light source and propagating light therethrough via internal reflection and a flexible light emitter section (distal end of 2910 including lens L - see paragraph [0142]) for emitting light propagated by said light distributor, a protective cover (2902) surrounding said light emitter and a malleable member (W) disposed within said protective cover (2902) and extending along a portion of the length of said light emitter (2910),
wherein

said malleable member W is made of a flat sheet of malleable material (see figure 29B) inserted within the protective cover (2902) adjacent one side of said light emitter and being bendable to hold the shape of said light emitter once arranged in a desired position.

2.4 The following features are therefore not explicitly disclosed in D1 as being comprised in the particular embodiment illustrated in figures 29A and 29B:

(i) - said light emitter having a greater width than thickness and opposite ends and sides and top and bottom surfaces,

(ii) - the flat sheet forming the malleable member has a width substantially corresponding to the width of said light emitter; and

(iii) - a flexible back reflector is disposed within said protective cover between said light emitter and said malleable member.

2.5 As regards feature (i), the examining division intimated that paragraph [0116] of D1 led to disclosure of this feature in the embodiment of figures 29A and 29B, since the paragraph suggests that the lighting device 1104 "may have a cross-sectional area of other shapes, including a square and octagon". Apart from the fact that the reference in this passage is to the embodiment shown in figures 19A and 19B which relates to a different type of device fitted with a spring 1450 for returning the device its original shape after retrieval (see paragraph [0115]), neither a square nor an octagon has a greater width than thickness. The reference to "other shapes" cannot be considered to be a direct and unambiguous disclosure of a rectangle, as defined in claim 1.

2.6 As regards feature (ii), the examining division argued that the expression "substantially corresponding" was sufficiently broad to include any particular width of malleable member. However, since feature (i) is not

directly and unambiguously derivable, it follows that neither is feature (ii), since the width of the malleable member is related to that of the light emitter and there is no hint of any kind of relationship in D1 for the cross-section of light emitter as defined in claim 1.

- 2.7 Concerning feature (iii), the examining division briefly hints that this is disclosed in figure 2 by reference sign 34. The application of a back reflector 34 is discussed in D1 at paragraph [0078] where it is explained that "a back reflector may be attached or positioned against one side of the panel member 14 of figure 1 using a suitable adhesive 36 or other method in order to improve light output efficiency of light emitter 10 by reflecting the light emitted from that side back through the panel for emission through the opposite side." However, the device shown in figure 2 of D1 does not comprise a protective cover located between the light emitter and the malleable member.
- 2.8 This feature is also lacking in the embodiment shown in figures 29A and 29B and there is no reason to suggest that it is implicitly present. As the appellant pointed out in its letter of 1st June 2012, it is not permissible simply to combine arbitrarily features from entirely different embodiments in order to obtain the specific combination now claimed.
- 2.9 Hence, none of the features (i), (ii) or (iii) listed above is directly and unambiguously derivable from D1 as being present in the embodiment shown in figures 29A and 29B. The subject-matter of claim 1 is therefore new in accordance with Article 54 EPC.

3. Inventive step

- 3.1 The objective technical problem solved by the above features can be seen to be one of improving the handling and lighting quality of the device of D1.
- 3.2 The examining division argued that, even if the malleable member in D1 does not have a width "substantially corresponding" to the width of said light emitter, this difference would not be seen as involving an inventive step with regards to the embodiments shown in D1 (figures 25A-D and figure 29B).
- 3.3 Figures 25A-D illustrate an embodiment of the protective cover 2500 surrounding a light transmitting member 2510. Neither a malleable member nor a back reflector is shown. The examining division would therefore appear to be arguing that it would be obvious for the skilled person to replace the light emitter having a circular cross-section in the embodiment of figure 29B with one having a rectangular section, as shown in figures 25A-D, then modify the device such that it comprised a light emitter with opposite ends and adapt the width of the malleable member such that it substantially corresponded to the width of the cross-section in the light emitter so created and dispose a flexible back reflector within the protective cover between said light emitter and said malleable member.
- 3.4 This argument cannot be accepted since no reasons have been given as to why the skilled person would undertake such a series of steps. Furthermore, the embodiments of the protective cover shown in figures 24A-24D and 25A-25D of D1 use an air interface gap (2408; 2508) between the light transmitting member and the cover to

avoid interference with internal reflection (see paragraph [0126]). In the embodiment shown in figures 26A-26D this air gap is replaced by a coating 2600 to maintain the desired internal reflection.

- 3.5 The only embodiment in D1 to be provided with a back reflector is that shown in figures 2 and 4A. However, paragraph [0080] of D1 explains that there are problems associated with attaching the back reflector with adhesives because of the unpredictability of the interaction with the air-gap. Also, this embodiment does not in any case comprise a protective cover. The incorporation of a malleable member and a back reflector is therefore not an obvious straightforward modification to the device shown in figures 29A and 29B for the skilled person faced with the above objective technical problem.
- 3.6 Paragraph [0147] referred to by the examining division is a vague statement that the various features of the various embodiments may be combined, but provides no additional information as to how this may be achieved.
- 3.7 None of the other embodiments disclosed in D1 provide a suitable spring-board which the skilled person could take as a starting point to obtain the subject-matter of claim 1.
- 3.8 In conclusion, the distinguishing features (i), (ii) and (iii) identified above lead to the provision of a lighting device in which in particular the provision of the flexible back reflector within the protective cover between the light emitter and the malleable member prevents interference by the malleable member with reflection of light in the light emitter.

3.9 The subject-matter of claim 1 of the main request therefore meets the requirements of Article 56 EPC.

4. Dependent claims

The dependent claims 2 to 12 specify further embodiments of the device according to claim 1 and also meet the requirements Articles 54 and 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division with the order to grant a patent on the basis of the following documents:

- description: pages 1 to 37 filed with letter of 9 September 2016;

- claims: 1 to 12 of the main request filed with the grounds of appeal dated 10 December 2012;

- figures: 1 to 41 as originally filed.

The Registrar:

The Chairman:



C. Spira

G. Ashley

Decision electronically authenticated