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**Datasheet for the decision
of 13 July 2021**

Case Number: T 1108/17 - 3.2.08

Application Number: 08021597.3

Publication Number: 2042123

IPC: A61C13/15, A61C19/00, G02B6/00,
G02B6/42, G02B6/04

Language of the proceedings: EN

Title of invention:
Curing light instrument

Patent Proprietor:
Kerr Corporation

Opponent:
Ivoclar Vivadent AG

Relevant legal provisions:
EPC Art. 54(2), 76(1), 87
RPBA 2020 Art. 13(2)

Keyword:
Novelty - (yes)
Divisional application - added subject-matter (no)
Priority - basis in priority document (yes)



Beschwerdekammern

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 1108/17 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 13 July 2021

Appellant: Ivoclar Vivadent AG
(Opponent) Bendererstrasse 2
FL 9494 Schaan (LI)

Representative: Baronetzky, Klaus
Splanemann
Patentanwälte Partnerschaft
Rumfordstrasse 7
80469 München (DE)

Respondent: Kerr Corporation
(Patent Proprietor) 1717 West Collins Avenue
Orange, CA 92867 (US)

Representative: Findlay, Alice Rosemary
Reddie & Grose LLP
The White Chapel Building
10 Whitechapel High Street
London E1 8QS (GB)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 6 March 2017 rejecting the opposition filed against European patent No. 2042123 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairwoman P. Acton
Members: G. Buchmann
P. Schmitz

Summary of Facts and Submissions

- I. With the decision posted on 6 March 2017, the opposition division rejected the opposition against European patent No. EP-B-2 042 123.
- II. The opponent filed an appeal against that decision.
- III. Oral proceedings by videoconference took place before the Board on 13 July 2021.
- IV. The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked.

The respondent (proprietor) requested that the appeal be dismissed and that D3 not be admitted into the proceedings.

- V. In the present decision, reference is made to the following documents:

P US 10/215,210
Priority document of the patent,
filed on 8 August 2002

D1 EP 1 320 135
published on 18 June 2003

D2 US 2003/0036031
published on 20 February 2003

D3 EP 0 798 788
published on 1 October 1997

VI. Claim 1 of the patent as granted reads (numbering as suggested by the appellant):

"An instrument for curing light-curable compounds comprising

A1

a housing (12),

A2

a light emitting structure (20) positioned in the housing and including a plurality of light emitting dies (32)

A3

forming an array on a substrate (22),

A4

a lens structure (33),

A5

and a reflector (40) configured for being positioned with the light emitting structure;

characterized in that

B

the lens structure (33) is positioned over the array of dies (32) to capture light collectively from the dies (32) and extends forwardly of the array to refract light

C

and in that the reflector is a tubular structure having open proximal and distal ends (42, 43),

D

the lens structure (33) positioned proximate to the open proximal (42) end of the reflector (40)

E

and surrounded by the reflector (40) at the open proximal end of the tubular structure so the light is refracted into the reflector (40)

F

to be directed out of the distal end (43) onto a light-curable compound."

VII. The arguments of the appellant can be summarised as follows.

Added subject-matter - Article 76(1) EPC

Feature C of claim 1 could not be derived from the parent application, in particular Figures 3 and 6.

The parent application did not disclose the spatial relationship of the lens structure and the proximal end of the reflector as defined in Feature D of claim 1.

Priority - Article 87 EPC

The priority claimed from document P was not valid for the same reasons as given in view of Article 76(1) EPC.

Lack of disclosure - Article 83 EPC

The skilled person could not carry out the invention because there was a contradiction between claim 1 and Figure 3.

Novelty - Article 54(2) EPC

The subject-matter of claim 1 lacked novelty over D2.

The subject-matter of claim 1 lacked novelty over D3. In particular, Figure 3 showed an array of light emitting dies with a lens structure over which a reflector 30 could be positioned in order to capture

light collectively from the dies.

VIII. The arguments of the respondent can be summarised as follows.

Added subject-matter - Article 76(1) EPC

Feature C was derivable from the parent application, in particular from paragraphs [0014] and [0031] and from Figures 3-5 in view of paragraph [0019].

Feature D was derivable from the parent application, in particular from paragraphs [0026], [0031] and [0039] and from Figures 3-5 in view of paragraphs [0019] and [0024].

Priority - Article 87 EPC

The criteria of disclosure were the same under Article 76 EPC and Article 87 EPC. Since the priority application included the same relevant disclosure as the patent, the claimed priority right was valid.

Lack of disclosure - Article 83 EPC

There was no inconsistency between claim 1 and Figure 3, and the invention could be carried out by a skilled person.

Novelty - Article 54(2) EPC

D2 did not form part of the prior art.

D3 disclosed a sign made up of individual light emitting diodes, each provided with a separate optical element. There was therefore no lens structure

positioned over an array of dies to capture light collectively from the dies.

Reasons for the Decision

1. Added Subject-Matter - Article 76(1) EPC

The appellant argued that the parent application did not disclose

- Feature C according to which "the reflector is a tubular structure having open proximal and distal ends", and
- Feature D according to which "the lens structure [is] positioned proximate to the open proximal end of the reflector".

1.1 Feature C

Figure 3 of the parent application shows a section of the "reflector - light emitting structure interface" (paragraph [0019]). Even though the drawing is not strictly in accordance with the rules of technical drawings, it is directly and unambiguously derivable from Figure 3 that the tubular reflector has open ends. The side walls of the reflector are shown in cross section as hatched areas, whereas no proximal or distal end walls nor any similar parts of the reflector 40 which might close the ends of the tubular structure are present in the drawing.

Additionally, paragraph [0014], which is the beginning of the general description of the invention, refers to the reflector as a "generally tubular passage having proximal and distal ends". The reflector would not be called a "tubular passage", if the ends of the

reflector were closed.

Therefore, it is directly and unambiguously derivable from the parent application that the reflector is a tubular structure having open proximal and distal ends (Feature C).

The question of whether Feature C could be derived from Figure 6, which was objected to by the appellant, is not relevant as long as this feature can be derived from other places in the parent application.

The appellant further referred to Feature C as representing an intermediate generalisation of the figures. The appellant, however, has not specified which features shown in the figures were inextricably linked to Feature C and might not therefore be omitted when adding Feature C to the claim.

1.2 **Feature D**

It is noted that Feature D, according to which "the lens structure [is] positioned proximate to the open proximal end of the reflector", does not specify an exact location of the lens structure. The term "proximate" allows for a certain distance between the proximal end and the lens structure. For falling under the definition "proximate", it is sufficient, if the lens structure is somewhere near the proximal end, not the distal end.

This is the case in Figure 3 of the parent application, even if the lens 33 as a whole extends from the proximal end along about one third of the length of the reflector.

Paragraph [0031] describes that the proximal end of the reflector surrounds the light emitting structure. Paragraphs [0026] and [0039], referring to Figure 5, describe that the light emitting structure is encapsulated by a lens and the lens is surrounded by the reflector. This description refers to Figure 5, which does not show the reflector. It is however clear that the arrangement shown in Figure 5 is essentially the same as the one included in Figure 3 because the corresponding structures in Figures 3 and 5 are drawn identically. It is also clear that the structure of Figure 5 and the corresponding description may be applied to Figure 3 because paragraph [0024] mentions that Figure 4 (and 5) shows a light emitting structure suitable for the invention. Figure 3, however, shows the reflector in its relation to the lens and the light emitting structure.

Therefore, from Figure 3 in connection with the description, it can be directly and unambiguously derived that the lens structure (is) positioned proximate to the open proximal end of the reflector (Feature D).

The appellant had argued that the wording of the claim represented an intermediate generalisation of the disclosure of Figure 5. According to the figure, the legs 27 were indispensable to position the lens relative to the array of dies. The legs had been unallowably omitted in the claim. However, according to the description, paragraph [0039], the legs are an optional feature representing only an example of "conventional means" for holding the lens in place. Therefore, the legs 27 may be omitted in the claim.

1.3 Therefore, Features C and D are directly and unambiguously derivable from the parent application and claim 1 of the patent in suit fulfils the requirements of Article 76(1) EPC.

2. **Priority - Article 87 EPC**

The priority document P has the same text of the description and the same figures as the parent application.

As the subject-matter of claim 1 is directly and unambiguously derivable from the description and the drawings of the parent application, it is derivable in the same way from the priority document.

Therefore, the priority document P discloses the same invention as the patent and the priority right claimed from document P is valid.

3. **Novelty - Article 54 EPC**

3.1 **Novelty over D2**

During the written proceedings, the appellant had argued that the subject-matter of claim 1 was not novel over D2.

D2 is a US patent application which was filed on 15 May 2002 and published on 20 February 2003.

Having been published after the valid application date of the patent in suit (8 August 2002), it does not form prior art under Article 54(2) EPC. Being a US publication, it does not form prior art under Article 54(3) EPC either.

Therefore, the novelty objection based on D2 is not applicable.

3.2 **Novelty over D3**

3.2.1 Admission of D3

With the grounds of appeal, the appellant had filed document D3. The respondent requested not to admit this document under Article 12(4) RPBA 2007 because it could already have been filed during the opposition proceedings.

In the present case, the Board regards the filing of D3 as a legitimate reaction of the appellant to the decision of the opposition division which concluded that D2 did not form prior art for the patent in suit. It is also noted that D3 was filed at the earliest possible point in time for the appeal proceedings.

Therefore, D3 is admitted to the proceedings.

3.2.2 The appellant was of the opinion that D3 disclosed the subject-matter of claim 1.

However, D3 at least does not disclose Feature B, according to which the lens structure is positioned over the array of dies to capture light collectively from the dies and extends forwardly of the array to refract light.

In D3, individual light emitting diodes 10 are used which are encapsulated in a clear resin capsule 11 with a domed end 12, which has the function of a lens (Figures 1 and 11). According to column 4, lines 35 ff,

the individual light emitting diodes 10 are fitted with an optical element (which has the function of a reflector within the meaning of the patent) and mounted on a single printed circuit board.

Hence, there is no lens structure positioned over an array of dies to capture light collectively from the dies. To the contrary, there is a plurality of lens structures each positioned over an individual light emitting diode.

The appellant argued that an array of light emitting diodes was shown in Figure 3 of D3 which could also be used for the display sign of the invention of D3. However, with Figure 3 showing an example of a prior-art message sign, it cannot be concluded that the display sign of the invention of D3 could also comprise such arrays of dies instead of the described single light emitting diodes.

The appellant interpreted the term "collectively" in a way that it meant the lens structure to work as a collecting lens as opposed to a diverging lens. From the wording of the claim, however, it is clear that "collectively" being an adverb cannot refer to the intrinsic structure of the lens but must refer to the way the light is captured by the lens structure, i.e. collected from all dies of the array into one single lens structure. Also, the patent as a whole does not use the term "collective" at all in the sense of a collecting lens.

For these reasons, the subject-matter of claim 1 is novel over D3.

4. **Inventive Step**

4.1 During the written proceedings, the appellant had argued that the subject-matter of claim 1 was not inventive over D2 in combination with D1. Since D2 does not form prior art under Article 54(2) EPC, this line of argument is not applicable.

4.2 During the oral proceedings, the appellant declared that it intended to make submissions regarding lack of inventive step starting from the prior-art document cited in paragraph [0014] of the patent (D1_{ex}: WO02/11640).

This submission constitutes an amendment to the appellant's appeal case because D1_{ex} had never been mentioned during the appeal proceedings. For the admission of such an amendment on the day of the oral proceedings, Article 13(2) RPBA 2020 requires the presence of exceptional circumstances.

The appellant did not present any exceptional circumstances which would justify the admission of the amendment of the case.

To the contrary, D1_{ex} had already been discussed during the opposition proceedings, and the opposition division had decided that the subject-matter of claim 1 was novel and inventive over D1_{ex}. The appellant had, however, abstained from raising objections against this decision in the grounds of appeal.

Therefore, the submission based on D1_{ex} was not admitted into the proceedings.

5. **Sufficiency of Disclosure - Article 83 EPC**

The appellant argued that Features C and D contradicted Figure 3. In particular, the essential parts of the lens structure shown in Figure 3 were not proximate to the proximal end of the reflector. This resulted in a lack of disclosure under Article 83 EPC.

The Board cannot find any contradiction between the claim and Figure 3. To the contrary, Figure 3 shows the reflector being a tubular structure having open proximal and distal ends and the lens structure being proximate to the proximal end of the reflector (see the discussion regarding Article 76(1) EPC).

Therefore, the subject-matter of claim 1 is sufficiently disclosed for being carried out by a skilled person.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated