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**Datasheet for the decision  
of 31 March 2021**

**Case Number:** T 1876/17 - 3.2.08

**Application Number:** 10009889.6

**Publication Number:** 2286757

**IPC:** A61C8/00

**Language of the proceedings:** EN

**Title of invention:**

Implant

**Patent Proprietor:**

Nobel Biocare Services AG

**Opponent:**

Dentsply IH AB

**Relevant legal provisions:**

EPC Art. 54(2)

RPBA 2020 Art. 13(2)

**Keyword:**

Novelty - (no)

Amendment after summons - exceptional circumstances (no)

**Decisions cited:**

T 1480/16



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**Case Number: T 1876/17 - 3.2.08**

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.08**  
**of 31 March 2021**

**Appellant:** Nobel Biocare Services AG  
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**Representative:** AWA Sweden AB  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
13 June 2017 concerning maintenance of the  
European Patent No. 2286757 in amended form.**

**Composition of the Board:**

**Chairwoman** P. Acton  
**Members:** G. Buchmann  
Y. Podbielski

## **Summary of Facts and Submissions**

- I. With the decision posted on 13 June 2017 the opposition division decided that the subject-matter of claim 1 according to the then valid auxiliary request 1 fulfilled the requirements of the EPC.
- II. The patent proprietor (appellant 1) and the opponent (appellant 2) filed an appeal against that decision.
- III. Oral proceedings by videoconference took place before the Board on 18 February 2021. Due to technical problems, the proceedings were postponed to 31 March 2021. The oral proceedings of 31 March 2021 were conducted by videoconference.
- IV. Appellant 1 (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained as granted or, as an auxiliary measure, that the patent be maintained on the basis of one of auxiliary requests 1-3 filed with letter dated 18 January 2021 and auxiliary request 5 filed with letter dated 23 October 2017, or, in the event that auxiliary requests 1-3 filed with letter dated 18 January 2021 are not admitted into the proceedings, that the patent be maintained on the basis of one of auxiliary requests 1-5 filed with letter dated 23 October 2017.

Appellant 2 (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

Appellant 2 also requested that auxiliary requests 1 and 2 filed with letter dated 23 October 2017 and auxiliary requests 1-3 filed with letter dated 18

January 2021 be not admitted into the proceedings.

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

O4 WO 94/09717

VI. Claim 1 of the current requests reads:

(a) **Main Request (as granted)**

Numbering of the features as suggested by appellant 2.

**A**

"An implant (1) designed to be fitted in a hole (2a) formed in jaw bone (2) and overlying soft tissue (3), and comprising a portion (4b') to be placed against the upper edge (2b) of the jaw bone, wherein

**B**

along its peripheral extent, the portion (4b') is provided with grooves (9, 9') designed to stimulate bone movement and bone ingrowth (10) and, by means of said bone ingrowth, to form a barrier against substantial or visible subsidence, around the portion, of the bone (2) with overlying soft tissue (3), wherein

**C**

each groove (9, 9') has a cup-shaped cross section (9c),

**D**

having a depth (D) of 50 - 100  $\mu\text{m}$ , preferably ca. 70  $\mu\text{m}$ , and

**E**

a width (B) in the range of 70 - 160  $\mu\text{m}$ , preferably

ca. 110  $\mu\text{m}$ ,

**F**

at least one of said grooves forms a ring around said portion (4b') of the implant,

**G**

the implant is provided with an outer thread by means of which the implant can be screwed into the hole, and

**H**

the implant further comprises other grooves on another portion or other portions of the implant."

(b) **Auxiliary Request 1**

(filed with letter dated 23 October 2017)

Feature **F** has been amended to

**F1**

said groove includes a groove (9, 9') which extends all round the surface forming a ring around said portion (4b') of the implant.

(c) **Auxiliary Request 2**

(filed with letter dated 23 October 2017)

Feature **F** has been amended to

**F2**

said groove includes a groove (9) which extends all round the surface forming a ring around said portion (4b') of the implant and which extends substantially in a cross section substantially at right angles to the longitudinal axis (4e) of the implant.

(d) **Auxiliary Request 3**

(filed with letter dated 23 October 2017)

Feature **H** has been amended to

**H3**

the implant further comprises other grooves on another portion or other portions of the implant, wherein the grooves of said portion are coordinated with said other grooves.

(e) **Auxiliary Request 4**

(filed with letter dated 23 October 2017)

Feature **F** has been amended to

**F4**

~~at least~~ one of said grooves forming a ring around said portion (4b') of the implant,

and feature **H** has been amended to feature

**H4=H3.**

(f) **Auxiliary Request 5**

(filed with letter dated 23 October 2017)

Feature **F** has been amended to

**F5**

said grooves includes [sic] a groove (9) which extends all round the surface forming a ring around said portion (4b') of the implant and which is located at the upper part of the portion (4b') and extends substantially in a cross section substantially at right angles to the longitudinal

axis (4e) of the implant,

and feature **H** has been amended to feature

**H5=H3.**

(g) **Auxiliary Requests 1-3  
filed with letter of 18 January 2021**

Auxiliary requests 1-2 are based on the auxiliary requests 1-2 of 23 October 2017 wherein the features F1 and F2 have been amended in a way that the groove (9, 9') is located at the upper part of the portion (4b') (Features **F1<sub>2021</sub>** and **F2<sub>2021</sub>**).

Auxiliary request 3 is based on auxiliary request 3 of 23 October 2017, further including feature **F1<sub>2021</sub>**.

VII. The arguments of appellant 1 can be summarised as follows:

*Novelty over O4 - Article 54(2) EPC*

O4 did not disclose the functional part of Feature B which resulted in a reduced subsidence.

Moreover, O4 did not disclose the beads to form grooves having a constant cross section with a cup shape (Feature C). The interpretation of the term beads was not unambiguous.

Furthermore, O4 did not unambiguously disclose that the circumferential beads form complete rings (Feature F). This could neither be concluded from the term "circumferential" nor from the term "tangential" which

were mentioned e.g. on page 1, line 37. Additionally, O4 described also the threads as being "oriented circumferentially". Therefore, the term "circumferential" could not lead to the conclusion that the beads formed closed rings.

The term "beads" meant short elliptic or circular bumps on the surface of the implant. The illustration presented in the letter of 18 January 2021 and another illustration presented during the oral proceedings showed an example.

In O4, the disclosed width and depth ranges were only applicable to the micro-threads, not to the circumferential beads. Only claim 5 defined the micro-roughness to be formed of circumferential beads. This claim depended exclusively on claim 1 which stipulates that the micro-roughness has a height of 20-200  $\mu\text{m}$ . The range required by Feature D (50-100  $\mu\text{m}$ ) was narrow compared to said 20-200  $\mu\text{m}$ , and the end points of the claimed range were remote from the end points of said the range claimed in O4. Hence, O4 did not disclose Feature E.

The same was valid for the width range of 40-400  $\mu\text{m}$  which resulted from the definition of claim 7 of O4 (Feature E).

The features added in the auxiliary requests distinguished the subject-matter more clearly from the prior art.

*Admittance of auxiliary requests*

Auxiliary requests 1-3 filed with letter of 18 January 2021 did not amend the case of appellant 1



because the subject-matter introduced by these requests was already implicitly present in claim 1 of the previously filed requests. Therefore, they should be admitted. This view was supported by the decision T 1480/16.

The filing of the new auxiliary requests was a reaction to the provisional opinion of the Board which differed from the decision of the opposition division. This represented an exceptional circumstance which allowed the admittance of the requests.

VIII. The arguments of appellant 2 can be summarised as follows:

*Novelty - Article 54(2) EPC*

Document D4 disclosed all features of claim 1 as granted, in particular features C, D, E and F.

The claimed cup shape of the grooves was vague because anything being able to hold some liquid could be regarded as cup shaped (Feature C).

O4 disclosed a dental implant having two embodiments, one with micro-threads and the other with circumferential beads. The circumferential beads had the same features as the micro-threads, with the exception that they did not have a helical shape (page 2, lines 19-24). Hence, O4 disclosed ring grooves, formed by the tangentially oriented beads (Feature F). The dimensions disclosed on page 4, lines 1-7, fell within the width and depth ranges defined by claim 1 (Features D and E).

Also the features added in the auxiliary requests did

not contribute to novelty.

*Admittance of auxiliary requests*

Auxiliary requests 1-2 filed with the grounds of appeal could and should have been filed already in the first instance proceedings. There were no reasons to admit them.

Auxiliary requests 1-3 filed with letter of 18 January 2021 were late filed and not suitable to overcome the novelty objection based on O4. Therefore, they should not be admitted to the proceedings.

**Reasons for the Decision**

**1. Main Request - Novelty - Article 54(2) EPC**

Appellant 2 raised an objection according to which the subject-matter of claim 1 of the patent as granted was not novel with respect to document O4.

**1.1 Features A, B, G, H**

Document O4 undisputedly discloses an implant (1) designed to be fitted in a hole formed in jaw bone and overlying soft tissue (page 1, lines 1-19), and comprising a portion (10) to be placed against the upper edge of the jaw bone (Feature **A**).

Moreover, O4 discloses that along its peripheral extent, the portion (10) is provided with a circumferential micro-roughness designed to stimulate bone movement and bone ingrowth and, by means of said bone ingrowth, to form a barrier against substantial or visible subsidence, around the portion, of the bone

with overlying soft tissue (page 1, line 21 - page 2, line 3). In this respect, appellant 1 referred to page 3, lines 33-36 and page 4, lines 28-36, and argued that these passages did not disclose the functional aspects of Feature B. However, appellant 1 did not take page 1, line 21 - page 2, line 3 into consideration which discloses the functional parts of feature B.

Said micro-roughness is disclosed in O4 as being either in the form of circumferential beads or of micro-threads (page 2, lines 5-7). The circumferential beads or micro-threads form corresponding grooves (page 4, line 28, "spaces") between their projections.

Therefore, O4 discloses the whole of Feature **B**.

The implant of O4 is further provided with an outer thread (2) by means of which the implant can be screwed into the hole (Feature **G**), and the implant comprises other grooves on another portion or other portions of the implant (Feature **H**), for example the chip-collecting cavities (3) or the internal threads (6).

With the exception of the functional parts of feature B appellant 1 had not disputed that document O4 discloses the features A, B, G and H of the claim 1.

## 1.2 **Features C and F**

### **Feature F**

The passage on page 2, lines 19-25 of O4 indicates that "in the description below, the invention is illustrated by means of micro-threads," but "the description in the relevant parts ... also is applicable to the embodiment featuring the circumferential beads." An explicit

exception is made for the features "relating directly to the helical nature of the threads".

Therefore, the skilled reader of O4 understands that the circumferential beads have the same features as the threads, with the only exception that they do not have a helical shape. Starting from threads which completely surround the implant portion, the skilled person understands that the circumferential beads form complete rings around the portion of the implant.

Appellant 1 submitted that from the term "circumferential beads" in O4, it could not be concluded that the beads formed closed rings because also the threads were described as "circumferential" but certainly did not form closed rings (page 4, line 23). As mentioned above, the only difference between threads and circumferential beads is, according to O4, the fact that the former are helical while the latter are not. Hence their circumferential extension has to be the same, i.e. completely around the portion of the implant.

It is correct that - as put forward by appellant 1 - in the context of page 1, line 37, the terms "circumferential" and "tangential" mainly describe the orientation of the micro-roughness and not the extension thereof. However, the combined term "circumferential beads" in the context of the two embodiments described in O4, is to be understood as forming complete rings.

Appellant 1's alternative interpretation that the term "circumferential beads" in O4 means small elliptic or circular bumps which are arranged in circumferential rows on the surface is not convincing. It is true that

the word "beads" taken on its own has several different meanings and might be understood as small bumps like those of the illustration presented by appellant 1 in the letter of 18 January 2021. However, in the context of 04, such an interpretation of the term "beads" would not be considered by the skilled person. 04 does not disclose "beads" but "circumferential beads" which according to page 2, lines 19 to 25 have the same characteristics as threads (apart from their helical shape). A circumferential arrangement of small circular bumps is, however, not similar to a thread.

Therefore, 04 discloses Feature **F**.

#### **Feature C**

Feature C, according to which the cross section of the grooves is "cup-shaped", is vague. The fact that claim 4 of the patent specifies that the cross section is "semi-circular", "hyperbola [shaped]", "semi-elliptical" or "rectangular with rounded corners" does not allow the conclusion that "cup shape" in its most general meaning has to represent something close to these particular shapes. To the contrary, any convex cross section of the grooves may be regarded as "cup-shaped".

Appellant 1 further argued that the cross section of a recess between beads formed of small elliptic or circular bumps was not constant and could not be regarded as a "cup shaped" cross section of a groove. This argument is not convincing because it is based on an incorrect interpretation of the term "circumferential beads" (see above, Feature F).

Therefore, the grooves between the microthreads or the

circumferential beads of O4 can be regarded as falling under the definition of **Feature C**.

### 1.3 **Features D and E**

Appellant 1 argued that only claim 5 defined the micro-roughness to be formed of circumferential beads. Claim 5 depended exclusively on claim 1 which defined a broader height range of 20-200  $\mu\text{m}$ . The range claimed in the patent (50-100  $\mu\text{m}$ ) was narrow compared to said 20-200  $\mu\text{m}$ , and the end points of the claimed range (50 and 100) were remote from the end points of said 20-200  $\mu\text{m}$ . Therefore, Feature D was novel over O4.

These arguments of appellant 1 rely entirely on the claims of O4. However, when looking at the description of O4, the depth value of 50  $\mu\text{m}$  is disclosed. According to page 4, lines 1-7, of O4, the height of the micro-threads is 20-200  $\mu\text{m}$ . A preferred embodiment is 50-150  $\mu\text{m}$ . Therefore, O4 explicitly discloses the claimed value of 50  $\mu\text{m}$ .

As discussed above, the features of the micro-threads apply also to the circumferential beads of O4. Therefore, the depth values disclosed for the microthreads on page 3, line 22 to page 4, line 7 of O4 are also valid for the embodiment having circumferential beads, even if this passage contains information on the pitch which is specific for a thread.

Hence, O4 discloses circumferential beads having a height of 50  $\mu\text{m}$  which corresponds to a groove there between, having a depth of 50  $\mu\text{m}$ .

### **Feature E**

Claim 7 of O4 defines that "the distance between adjacent threads or beads, crest to crest, is twice the height of the threads or beads".

Appellant 1 argued that applying this teaching of claim 7 to the height range of 20 to 200  $\mu\text{m}$  specified in claim 1 led to a width range of 40 to 400  $\mu\text{m}$ , which was far remote from the range of 70 to 160  $\mu\text{m}$  defined in claim 1 of the patent.

However, Claim 7 depends on claim 3 which discloses a height range of 50-150  $\mu\text{m}$  and claim 7 explicitly refers not only to threads but also to beads. Applying the definition of claim 7, this results in a width range between the circumferential beads of 100-300  $\mu\text{m}$ . The lower end point of this range, namely 100  $\mu\text{m}$ , falls within the range of 70-160  $\mu\text{m}$  which is required by Feature E.

Therefore, O4 discloses Feature E as well.

- 1.4 In summary, all features **A-F** of claim 1 of the main request are disclosed in O4, and claim 1 lacks novelty under Article 54(2) EPC.

## **2. Admittance of Auxiliary Requests**

### **2.1 Auxiliary Requests 1-3**

filed with letter dated 18 January 2021

These requests were filed after the summons to oral proceedings issued on 7 July 2020. Their admission is thus governed by Article 13(2) RPBA 2020, which stipulates that "Any amendment to a party's appeal case

made [...] after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned".

Appellant 1 argued that the amendments in auxiliary requests 1-3 did not represent an amendment of the parties case in the sense of Article 13(2) RPBA 2020. The feature according to which "the groove (9, 9') is located at the upper part of the portion (4b')" had been explicitly added to the claim of these requests, but it had implicitly been present already before.

The objection based on Article 76 EPC against the omission of said feature from the claim, was, however, already present in the decision of the opposition division (point 3.2). From that decision it was also clear that said feature was not implicitly present in the claim. The Board concurs with this finding. Therefore, there were no cogent reasons to allow an amendment at this late stage of the proceedings.

In order to support its argument, appellant 1 cited T 1480/16. In that case the Board allowed a deletion of claims falling within one category (process claims) on the basis that this deletion did not amount to an amendment of the party's appeal case, especially as no new discussion was to be held as regards to novelty and inventive step. That situation differs, however, fundamentally from the present case which concerns the addition of a feature to claim 1. An addition of a feature to a claim which is not an implicit feature does require additional considerations and amounts to an amendment to a party's appeal case. In the present case such additional considerations include the



question how the amendment of the claim (filed to overcome an objection under Article 123(2) EPC) could overcome the novelty objection against the subject-matter of claim 1 of the main request.

Appellant 1 also referred to T 1480/16 to highlight the admittance of an amendment whereby an implicit feature was added to the claim in question. As explained above, the Board does not consider that the amendment proposed by appellant 1 seeks to introduce an implicit feature. A further distinction to T 1480/16 lies in the fact that in that case the request containing this particular amendment was filed with the reply to the appeal as a reaction to an objection raised in the grounds of appeal. Thus, for this particular amendment Article 12(4) RPBA 2007 and not Article 13(2) RPBA 2020 was relevant.

The fact that the preliminary opinion of the Board differed from the decision of the opposition division does also not form a cogent reason to allow the amendment.

Therefore, the auxiliary requests 1-3, filed on 21 January 2021 are not admitted into the proceedings.

## 2.2 **Auxiliary Requests 1 and 2**

filed with letter dated 23 October 2017

These requests were filed together with the grounds of appeal of appellant 1 so that in accordance with the transitional provisions (Article 25(2) RPBA 2020) Article 12(4) RPBA 2007 applies. The requests appear to represent a legitimate attempt to overcome objections raised during the proceedings before the opposition division and the Board does not see any reason why it

should exercise its discretion not to admit them into the proceedings.

2.3 Therefore, the present decision has been taken on the basis of auxiliary requests 1-5 as filed with the grounds of appeal, dated 23 October 2017.

3. **Auxiliary Request 5 - Novelty - Article 54(2) EPC**

In claim 1 of auxiliary request 5, Feature **F** has been amended to

**F5** (amendments with respect to the main request are underlined)

"said grooves includes [sic] a groove (9) which extends all round the surface forming a ring around said portion (4b') of the implant and which is located at the upper part of the portion (4b') and extends substantially in a cross section substantially at right angles to the longitudinal axis (4e) of the implant",

and Feature **H** has been amended to

**H5=H3**

"the implant further comprises other grooves on another portion or other portions of the implant, wherein the grooves of said portion are coordinated with said other grooves".

The feature according to which the groove extends all round the surface is regarded as a clarification of the fact that the groove forms a closed ring. As discussed above, such closed ring shaped grooves are already known from O4.

Figure 1 of O4 shows that the complete upper portion of the implant is provided with the circumferential

roughness (threads or beads). This includes the upper part of the upper portion. Therefore, also the grooves formed by the beads are located at the upper part of the portion to be placed against the upper edge of the jaw bone. Even if Figure 1 is described in the context of the embodiment having threads, such beads would look like the threads in the drawing, apart from the pitch which would be absent for the circumferential beads (see page 2, lines 19 to 25). For the disclosure of the feature, it is furthermore not necessary that the specification "located at the upper part of the portion" is mentioned in the description of O4 because the disclosure of Figure 1 is clear enough for the skilled person to derive that the implant of Figure 1 falls under this definition.

The threads (or circumferential beads) shown in Figure 1 of O4 extend "substantially in a cross section substantially at a right angle to the longitudinal axis of the implant". This requirement of claim 1 leaves some tolerance with respect to the angle with respect to the longitudinal axis of the implant. Therefore, even if the circumferential beads had a certain tilt to the axis, similar to a thread, this would still fall under the definition of the claim. The fact that the threads have a pitch is not in contradiction to the fact that they extend substantially at a right angle to the implant axis.

The feature according to which the grooves are "coordinated with said other grooves", does not render the subject-matter of the claim novel. The technical meaning of this feature is not self-evident and the patent does not elaborate on this wording either. As the implant of O4 comprises "other grooves" (see above), these other grooves can be regarded as being

"coordinated" with the grooves on the portion placed against the jaw bone.

Therefore, the subject-matter of claim 1 of auxiliary request 5 lacks novelty over O4.

4. **Auxiliary Requests 1-4 - Novelty - Article 54(2) EPC**

Each of the auxiliary requests 1-4 comprises some, but not all, of the features present in auxiliary request 5 which has been discussed above. Therefore, the subject-matter of these requests is broader than that of auxiliary request 5, and it lacks novelty for the same reasons as given in view of that request.

**Order**

**For these reasons it is decided that:**

The decision under appeal is set aside. The patent is revoked.

The Registrar:

The Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated