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**Datasheet for the decision  
of 8 September 2022**

**Case Number:** T 1014/19 - 3.2.06

**Application Number:** 10760180.9

**Publication Number:** 2477521

**IPC:** A46B9/04, A61C17/02

**Language of the proceedings:** EN

**Title of invention:**

ORAL CARE PRODUCTS

**Patent Proprietor:**

The Gillette Company LLC

**Opponent:**

Trisa Holding AG

**Headword:**

**Relevant legal provisions:**

EPC Art. 54, 56, 84

RPBA 2020 Art. 13(2)

**Keyword:**

Novelty - (yes)

Inventive step - (yes)

Late-filed objection - circumstances of appeal case justify  
admittance (no)

Claims - support in the description (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

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**Case Number: T 1014/19 - 3.2.06**

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.06**  
**of 8 September 2022**

**Appellant:** The Gillette Company LLC  
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**Representative:** Latscha Schöllhorn Partner AG  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 28 January 2019  
revoking European patent No. 2477521 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** P. Cipriano  
**Members:** M. Hannam  
C. Almberg

## Summary of Facts and Submissions

- I. An appeal was filed by the patent proprietor (appellant) against the decision of the opposition division revoking European Patent No. 2 477 521. The proprietor requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or according to one of auxiliary requests 1 to 7.
- II. The opponent (respondent) requested that the appeal be dismissed.
- III. The following documents are relevant to the present decision:
- D1 WO-A-2008/135953  
D2 US-A-2002/0004964  
D4 US-A-5 531 582  
D5 WO-A-03/079849
- Written statement from Dr. Uwe Jungnickel from Procter and Gamble
- IV. With letter of 21 May 2021, the Board issued a summons to oral proceedings and, subsequently, also a communication containing its preliminary opinion, in which it indicated *inter alia* that the term 'out-gassed edge' seemed to be a feature defined by its process of manufacture thus failing to provide any identifiable structural limitation on the claimed product (point 1.4). It also questioned whether D1 truly disclosed a range with the wording 'less than 0.003 inches' (point 3.2). Should the subject-matter of claim 1 of the main request be found novel, the Board preliminarily further noted the presence of an inventive step in the subject-

matter of claim 1 of each of the main request and auxiliary requests 2 to 7 when starting from D1 and combining with the technical teaching of D4 or D5 (points 2.1, 2.2 and 3.5).

- V. With letter of 27 August 2021, the opponent filed an inventive step attack to the subject-matter of claim 1 of the main request and auxiliary requests 2 to 7 respectively starting from D1 and combining with common general knowledge.
- VI. With letter of 15 August 2022 the proprietor withdrew its main request, auxiliary requests 1 to 7 on file becoming the new main request and auxiliary requests 1 to 6, respectively. It further filed a new auxiliary request 7.
- VII. Oral proceedings were held as a videoconference before the Board on 8 September 2022. During the oral proceedings, the opponent withdrew its inventive step objection to the subject-matter of claim 1 of the main request starting from D1 and combining this with the technical teaching of D4, whilst the proprietor withdrew its auxiliary requests. At the close of the oral proceedings the requests of the parties were as follows:

The proprietor requested that the decision under appeal be set aside and that the patent be maintained as amended according to the claims of the main request as filed with the letter of 15 August 2022.

The opponent requested that the appeal be dismissed.

VIII. Claim 1 of the main request reads as follows:

"An oral care implement (1) comprising:  
a base portion (20) sized for insertion into an oral cavity; and  
a plurality of flexible, elastomeric elements (10) extending from the base portion (20), wherein:  
each of the plurality of flexible, elastomeric elements comprises an edge (18),  
at least one of the edges (18) comprises a micro edge having a tip radius (R) of less than 0.0254 mm, and  
the plurality of flexible, elastomeric elements (10) comprises an element density of less than about 5 mm and wherein at least one of the edges comprises an out-gassed edge."

IX. The proprietor's arguments of relevance for this decision may be summarised as follows:

The subject-matter of claim 1 was novel over D1. The expression in claim 1 'a micro edge having a tip radius of less than 0.0254 mm' defined a single ended range without an implicit lower end point. The skilled person would interpret the expression as simply defining a tip radius less than 0.0254 mm without any inference of a lower end point. Similarly, D1 disclosed edge radii of 'less than 0.003 inch' (0.0762 mm) also without any inference of a lower end point. Consequently, with neither claim 1 defining nor D1 disclosing a range, claim 1 did not disclose a sub-range of tip radius within a broader tip radius range disclosed in D1. In disclosing edge radii of less than 0.003 inch, and lacking any indication as to how much lower the 'less than 0.003 inch' (0.0762 mm) would be, D1 failed to unambiguously disclose the claimed tip radius of less than 0.0254 mm.

As regards the outgassed edge, this defined a structural element of the claimed oral care implement. Outgassing, as described in paragraph [0012] of the patent, implied that the component was injection moulded which would result in physically distinguishable features of the component. Compared to an extruded component, the injection moulded or cast component would lack molecular orientation in the component and would display different mechanical properties.

The subject-matter of claim 1 also involved an inventive step. The sole inventive step attacks validly raised started from D1 in combination with the technical teaching of D4 or D5. The attack based on D1 in combination with common general knowledge was first filed with the opponent's letter of 27 August 2021 which, being after notification of the summons to oral proceedings, should therefore not be taken into account according to Article 13(2) RPBA 2020. An opposing party's appeal case could not rely on statements made by the patent proprietor, rather it had to itself expressly specify the facts, objections, arguments and evidence relied on. There were no exceptional circumstances justifying the late filed attack. With claim 1 not being a selection invention, which had been argued by the proprietor on page 6 of its statement of grounds of appeal, the changes in the Guidelines for Examination between the opponent filing its reply to said statement and its letter of 27 August 2021 were irrelevant to the present case and so could not justify the late filing.

When starting from D1, the objective technical problem was to provide an oral care implement which improved cleaning effect. Even if D5 disclosed the production of

sharp edges, there was no teaching that the sharp edges should have any particular tip radius. D5 thus offered no teaching going beyond that disclosed already in D1. Paragraph [0012] simply disclosed particular embodiments of the invention according to claim 1 which were not inconsistent with the claims.

X. The opponent's arguments of relevance for this decision may be summarised as follows:

Both claim 1 and D1 defined a range of tip radii with an upper limit and an implicit lower limit close to zero. This was a direct result of the 'less than' wording in both claim 1 and D1. Consequently a sub-range was claimed which fell fully within the broader range disclosed in D1. For the novelty of such a selection invention to be acknowledged, the criterion (b) for selection inventions had to be satisfied i.e. that the selected sub-range was narrow and sufficiently far removed from specific examples and end points. The common implicit end points in the sub-range of claim 1 and the broader range of D1 resulted in the criterion (b) not being met, such that novelty of the claimed subject-matter was lacking.

The proprietor's argument that an injection moulded component would be recognisable to the skilled person was raised for the first time at oral proceedings and was a mere allegation lacking proof. The out-gassed edge feature thus failed to define a structural feature of the claimed implement.

As regards the inventive step attack based on D1 in combination with common general knowledge, the essence of this objection was presented in point 3.2 of the reply to the statement of grounds of appeal. This



statement also made reference to such an attack on page 16, second paragraph. Even if the attack were considered not to be explicitly part of the opponent's complete appeal case, it should be seen as a simple development of its case. The change in the Guidelines for Examination should also be seen as an exceptional circumstance justifying the filing of this attack in reaction.

The subject-matter of claim 1 lacked an inventive step starting from D1 and combining with the technical teaching of D5. The objective technical problem to be solved was to improve the oral cleaning performance. Page 8, lines 18 to 21 of D5 disclosed that sharp edges improved the cleaning performance and the stacked mould plates depicted in Figs. 33 and 34 would produce sharp edges at the stepped reduction in area of the mould (see page 54, lines 30 to 33). Outgassing between any two mould plates would also promote the edges achieving the claimed tip radii. Both D1 (see page 8, third paragraph) and D5 (see page 12, lines 7 to 10) disclosed similar materials of the elastomeric elements thus not hindering the document combination.

The description needed to be adapted to the amended claims. Col. 4, lines 1 to 25 of the patent should be deleted since these disclosed more specific tip radii than that defined in claim 1. The last sentence in paragraph [0012] was also to be excised since outgassing did not inherently result in micro edges being formed on the moulded component.

## Reasons for the Decision

### *Main Request*

#### 1. *Novelty*

1.1 The subject-matter of claim 1 is novel (Article 54 EPC).

1.2 The Board finds, and both parties agree, that D1 discloses the following features of claim 1:

"An oral care implement (10; see Fig. 1A) comprising: a base portion (14) sized for insertion into an oral cavity; and  
a plurality of flexible, elastomeric elements (22) extending from the base portion (14), wherein:  
each of the plurality of flexible, elastomeric elements comprises an edge (Fig. 1B; see edges at 'top' triangular surface of elements 22),  
the plurality of flexible, elastomeric elements (22) comprises an element density of less than about 5 mm (4th paragraph on page 10; 0.025" = 0.0635mm spacing between element centres)."

1.3 The presence of the following features in D1 is disputed between the parties:  
at least one of the edges comprises a micro edge having a tip radius of less than 0.0254 mm, and  
wherein at least one of the edges comprises an out-gassed edge.

1.4 The Board finds D1 not to unambiguously disclose that at least one of the edges comprises a micro edge having a tip radius of less than 0.0254 mm. Page 10 of D1

discloses 'In some embodiments, edge radii are maintained at less than 0.003 inch to maximize cleaning' (0.003 inch being 0.0762 mm). It is however not unambiguous that the disclosure in D1 of the edge radii being 'less than 0.003 inch' would include a value as low as 0.0254 mm. Without any additional embodiment with an edge radius below 0,0762 mm D1 fails to give any guidance in this regard, it therefore being possible that edge radii only between 0.0254 mm and 0.003 inch (0.0762 mm) are intended in D1, rather than edge radii as small as one third of the upper limit of 0.003 inch.

- 1.4.1 The opponent's contention that the 'less than' wording for the tip radii in both claim 1 and D1 suggested a common implicit lower limit of the ranges close to zero is not accepted. All that the expression 'less than 0.0254 mm' in claim 1 and the expression 'less than 0.003 inch' in D1 imply is a respective single ended range with an upper limit but no lower end point of the range. On reading the expressions, the skilled person would interpret these as simply indicating values less than the given upper limit, but with no inference of a lower end point. Consequently, contrary to the opponent's view, no implicit lower limit of the ranges close to zero common to both claim 1 and D1 is accepted.
- 1.4.2 With this finding, the opponent's argument that claim 1 defined a sub-range of the broad range of edge radii disclosed in D1 is found to be invalid. Consequently, the Board finds that the arguments relating to claim 1 being a selection invention of a range disclosed in D1 are not suitable as a valid basis for questioning the novelty of the subject-matter of claim 1.

1.5 The Board further finds that the feature of claim 1 'wherein at least one of the edges comprises an out-gassed edge' relates to the method of forming particularly the edge of an injection moulded component (see e.g. col. 4, lines 25 to 42 of the patent) and thus fails to unambiguously define a physical feature of the component itself. Whilst it is accepted that the outgassing process implies that the component is manufactured by injection moulding, the Board does not accept that this in itself would result in any recognisable technically relevant features of the component so formed, let alone any features resulting from injection moulding, such as molecular orientation, which would not also be present in the component known from D1 which may also be injection moulded (see page 11, third paragraph of D1. It is also noted that D1 additionally discloses components made by extrusion to impart molecular orientation to the component). The feature of claim 1 defining the outgassed edge thus fails to differentiate claim 1 from D1.

1.6 In conclusion, therefore, D1 fails solely to disclose the following technical feature of claim 1:

at least one of the edges comprises a micro edge having a tip radius of less than 0.0254 mm.

The subject-matter of claim 1 is thus novel over D1.

1.7 As regards the opponent's novelty objection based on D2, in its preliminary opinion the Board found D2 not to unambiguously disclose the following features of claim 1 of the then main request:

- each of the plurality of flexible, elastomeric elements comprises an edge; and

- at least one of the edges comprises a micro edge.

Claim 1 of the present main request is further limited through defining the tip radius to be less than 0.0254 mm. Nonetheless, to the Board's preliminary finding, the opponent presented no counter-argument such that the Board confirms its preliminary opinion herewith, that the subject-matter of claim 1 is novel over D2.

1.8 In conclusion, therefore, the subject-matter of claim 1 is novel (Article 54 EPC).

## 2. *Inventive step*

### 2.1 *Admittance of new attack*

2.1.1 According to Article 13(2) RPBA 2020, 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.

2.1.2 With letter of 27 August 2021 (see points 2.1 to 2.5), thus filed after notification of the summons to oral proceedings, the opponent submitted an inventive step attack starting from D1 and combining this with common general knowledge. With no such inventive step attack having been on file before this submission, the reply to the statement of grounds of appeal solely having presented such attacks starting from D1 in combination with the teaching of either D4 or D5, this new attack presented an amendment to the opponent's appeal case.

2.1.3 The opponent's contention that this attack did not present an amendment to its appeal case, since the

essence of this objection was presented in point 3.2 of said reply, is not accepted. Points 3.2 to 3.5 of the reply identify D1 as the closest prior art before analysing the technical effect of the differentiating feature and formulating the objective technical problem to be solved. These paragraphs thus indeed present the starting point for an inventive step attack and subsequently continue to attack inventive step through combination with D4 and D5, but they fail to suggest any combination with common general knowledge as depriving the subject-matter of claim 1 of an inventive step. There is also nothing in the reply to suggest an implicit inventive step attack starting from D1 and combining with common general knowledge as being intended, no 'essence' of such an attack thus being recognisable.

2.1.4 That the proprietor's statement of grounds of appeal refers to an inventive step attack starting from D1 and combining with common general knowledge is of no relevance in regard to the complete case presented by the opponent. Article 12(3) RPBA 2020 requires that the statement of grounds of appeal and the reply contain a party's complete appeal case. Accordingly, they must set out clearly and concisely the reasons why it is requested that the decision under appeal be reversed, amended or upheld, and should specify expressly all the requests, facts, objections, arguments and evidence relied on. From this it thus follows that an objection made by a party cannot be considered reasoned through mere belated reference to a prior submission of the opposite party.

2.1.5 The opponent's further contention that its objection starting from D1 and combining with common general knowledge was a simple development of its presented

case does not prove the absence of an amended appeal case. Irrespective of how 'simple' the objection filed at a point after the filing of its complete case may be, the objection starting from D1 and combining with common general knowledge is a new line of attack that had just not been present in the opponent's complete case, and its presentation at a later point in time thus amounted to an amendment of its appeal case.

2.1.6 Having identified an amendment to the opponent's appeal case, it is thus necessary to consider whether there are exceptional circumstances which have been justified with cogent reasons by the opponent. The Board fails to see these to exist. Indeed, after the opponent's reply to the statement of grounds of appeal, the proprietor filed its defence to the inventive step attacks raised therein, namely D1 in combination with D4, and D1 in combination with D5. In doing so, the proprietor was simply defending its patent in respect of the inventive step attacks raised by the opponent in its reply to said statement. Nothing in this defence filed by the proprietor can be seen as an exceptional circumstance justifying the filing of a new inventive step attack by the opponent.

2.1.7 The opponent's argument regarding a change in the Guidelines for Examination justifying the new inventive step objection is not accepted. The change in question related to the criteria to apply when deciding whether a claimed sub-range was novel over a broader disclosed range, yet this was at dispute between the parties solely in respect of novelty of the subject-matter of claim 1. This change had no application specific to the opponent's inventive step objections filed with the reply to the grounds of appeal. Already therefore, no exceptional circumstances could have been seen in the

changed Guidelines for Examination justifying the amendment to the opponent's appeal case.

2.1.8 In summary, therefore, the lack of exceptional circumstances justifying the amendment to the opponent's appeal case leads the Board not to take account of the inventive step objection, starting from D1 and combining with common general knowledge (Article 13(2) RPBA 2020)

2.2 *D1 in combination with the technical teaching of D5*

2.2.1 As found in point 1.6 above, D1 fails to disclose solely the following feature of claim 1:

at least one of the edges comprises a micro edge having a tip radius of less than 0.0254 mm.

2.2.2 Based on paragraph [0023] of the patent, and as also held by both parties, the Board finds that the objective technical problem to be solved may be seen as how to provide an improved cleaning effect with the oral care implement.

2.2.3 D5 fails to guide the skilled person to the claimed tip radius not least since it fails to disclose any specific values for the tip radii of any edges. Indeed in this regard, D5 solely discloses 'sharp edges' (see page 8, lines 18 to 21 of D5) which, whilst being disclosed to improve the cleaning effectiveness of the bristles, offers no guidance as to what tip radius such an edge might display.

2.2.4 The opponent referred to Figs. 33 and 34 of D5, arguing that sharp edges would be found at the stepped reduction in area of the mould (see page 54, lines 30



to 33). This is not denied. However, this provides no guidance leading the skilled person to the specifically claimed tip radius of less than 0.0254 mm, rather solely to sharp edges in general. Such arguably sharp edges are also already disclosed in D1, albeit at a much larger edge radius than that claimed i.e. 'less than 0.003 inch' (corresponding to  $< 0.0762$  mm; see page 10 of D1).

2.2.5 With reference to page 54, lines 12 to 16 of D5, the opponent argued that the disclosed outgassing between any two mould plates would promote the edges achieving the claimed tip radii. This is not accepted in such generality. Whilst it may be possible for injection moulding with outgassing to produce edges with small tip radii, the process of outgassing in itself does not guarantee this. For small tip radii to be achieved, it would at least additionally be necessary for the mould plates to be particularly accurately machined (see e.g. Dr Jungnickel statement, particularly the paragraph bridging pages 1 and 2). Without such a tolerance placed on the gas path between any two mould plates the edge radii produced could be significantly greater than the claimed tip radius. Therefore, the moulding process disclosed in D5 including outgassing fails to have as a corollary that the resultant edge radii of the moulded product would necessarily reflect those of claim 1.

2.2.6 The opponent's further argument that both D1 and D5 disclosed similar materials of the elastomeric elements, thus not hindering the document combination, is not decisive for the disclosure of the claimed tip radius. Neither D1 nor D5 discloses an edge tip radius of the claimed dimension, nor do they hint towards a radius of the claimed magnitude being advantageous over a general 'sharp edge'. Consequently a combination of

D1 and D5 would not have lead the skilled person to the claimed subject-matter without exercise of an inventive step.

- 2.2.7 In the absence of any further inventive step attacks in the proceedings, the Board finds the subject-matter of claim 1 to involve an inventive step (Article 56 EPC).

3. *Adaptation of description - Article 84 EPC*

- 3.1 The opponent considered that the description required adaptation in order to remove inconsistencies relative to the amended claims of the main request found allowable.
- 3.2 The argument that col. 4, lines 1 to 25 of the patent should be deleted since these disclosed more limited tip radii than that specifically defined in claim 1 is not seen to present an inconsistency between the claims and description. These more limited tip radii in the description each fall within the scope of claim 1 such that no inconsistency between the description and claims is present.
- 3.3 The opponent's contention that the last sentence in paragraph [0012] was also to be excised, since outgassing did not inherently result in micro edges being formed on the moulded component, is not seen to be inconsistent with claim 1 either. The passage of paragraph [0012] in question (from col. 4, line 25 to line 42) is simply an example of how a micro edge may be formed through outgassing. Even if further conditions, such as the accurate machining of the mating mould plates, would be required in order to achieve the claimed small tip radius of the micro edge, the disclosure in paragraph [00132] of the description

that outgassing can produce micro edges is not incorrect.

- 3.4 In the absence of further objections to the description, this is found to be consistent with the amended claims of the main request (Article 84 EPC).

## 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 as amended in the following version:

#### Description

Columns 1 to 27 of the patent specification;

#### Claims

Nos. 1 to 14 according to the main request as filed with the letter of 15 August 2022;

#### Drawings

Sheets 18 to 39 of the patent specification.

The Registrar:

The Chairman:



D. Grundner

P. Cipriano

Decision electronically authenticated