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**Datasheet for the decision
of 26 February 2019**

Case Number: T 1178/14 - 3.2.06

Application Number: 06125515.4

Publication Number: 1930403

IPC: C11D13/22, C11D13/18, C11D9/44

Language of the proceedings: EN

Title of invention:
Method for manufacturing a shaped article

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Henkel AG & Co. KGaA

Headword:

Relevant legal provisions:
EPC Art. 54, 123(2)
RPBA Art. 13(1)

Keyword:
Novelty - main request (no)
Amendments - added subject-matter - Auxiliary requests (yes)

Decisions cited:

Catchword:



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Case Number: T 1178/14 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 26 February 2019

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 9 April 2014
revoking European patent No. 1930403 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman M. Harrison
Members: M. Hannam
W. Ungler

Summary of Facts and Submissions

- I. An appeal was filed by the appellant (patent proprietor) against the decision of the opposition division revoking European Patent No. 1 930 403. The appellant requested that the decision be set aside and the patent be maintained according to a main request, or, in the alternative, that it be maintained on the basis of one of auxiliary requests 1 to 3 filed with its grounds of appeal dated 8 August 2014.
- II. The respondent (opponent) requested that the appeal be dismissed.
- III. The following document, referred to by the parties in their submissions, is relevant to the present decision:

D1 US-A-2 343 829
- IV. The Board issued a summons to oral proceedings and a subsequent communication containing its provisional opinion, in which it indicated *inter alia* that the subject-matter of claim 1 of the main request appeared to lack novelty over D1. It further indicated that the subject-matter of claim 1 of each of the auxiliary requests 1 to 3 seemingly contravened Article 123(2) EPC.
- V. With letter of 7 February 2019 the appellant filed a replacement auxiliary request 1 and an auxiliary request 2A.
- VI. Oral proceedings were held before the Board on 26 February 2019. The requests of the parties were as follows:

The appellant requested that the decision under appeal be set aside and the patent be maintained in amended form according to the main request filed with letter dated 8 August 2014, or on the basis of auxiliary request 1 filed with letter dated 7 February 2019, or on auxiliary request 2 filed with letter dated 8 August 2014, or on auxiliary request 2A filed with letter dated 7 February 2019, or on auxiliary request 3 filed with letter dated 8 August 2014.

The respondent requested that the appeal be dismissed.

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

"A method for manufacturing a shaped article comprising the step of cutting a shaped article from a first article;

wherein as the shaped article is cut from the first article the shaped article's cross-section is deformed; and wherein the first article's cross-section is shaped such that it compensates for the deformation during the cutting step so as to achieve a shaped article with a desired cross-section, wherein the shaped article is cut from the first article using a blade at an angle of less than 45° to the cutting plane."

Claim 1 of auxiliary request 1 reads as follows:

"A method for manufacturing a shaped article comprising the step of cutting a shaped article from a first article; wherein the method comprises the step of forming the first article by extrusion, wherein the shaped article is cut from the first article as it is extruded by cutting the material extruded through a die immediately as it leaves said die; wherein as the shaped article is cut from the first

article the shaped article's cross-section is deformed; and wherein the first article's cross-section is shaped such that it compensates for the deformation during the cutting step so as to achieve a shaped article with a desired cross-section, wherein the shaped article is cut from the first article using a blade at an angle of less than 45° to the cutting plane; wherein the blade is tension-mounted against the surface of the die."

Claim 1 of auxiliary request 2 reads as for claim 1 of the main request except that the words "substantially annular" are inserted before the second recitation of "shaped article".

Claim 1 of auxiliary request 2A reads as follows:

"A method for manufacturing a shaped article comprising the step of cutting a shaped article from a first article; wherein as the shaped article is cut from the first article the shaped article's cross-section is deformed; wherein the first article's cross-section is shaped such that it compensates for the deformation during the cutting step so as to achieve a shaped article with a desired cross-section, wherein the shaped article is cut from the first article using a blade at an angle of less than 45° to the cutting plane; and wherein the shaped article has an annular cross-section."

Claim 1 of auxiliary request 3 reads as follows:

"A method for manufacturing a shaped article comprising the step of cutting a substantially circular ring shaped article from a first article; wherein the method

comprises the step of forming the first article by extrusion, and wherein the shaped article is cut from the first article as it is extruded by cutting the material extruded through a die immediately as it leaves said die

wherein as the shaped article is cut from the first article the shaped article's cross-section is deformed; and wherein the first article's cross-section is shaped such that it compensates for the deformation during the cutting step so as to achieve a shaped article with a desired cross-section by use of a die orifice that is an elliptical ring in shape and has a greatest diameter parallel to the cutting direction that (sic) in the range 3-7mm and a smallest diameter that is in the range 2-4mm and has an elliptical pin having a greatest diameter in the range 2.5 to 5mm and a smallest diameter in the range 0.5 to 2mm, wherein the shaped article is cut from the first article using a blade at an angle of less than 45° to the cutting plane; and wherein the shaped article comprises from 60 to 99% wt soap of C₈-C₂₀ fatty acids."

VIII. The appellant's arguments may be summarised as follows:

Main request

The subject-matter of claim 1 was novel over D1. D1 failed to disclose a compensation for deformation during cutting. The angle of the cutting blade was not stated. The intention of the patent was for the die shape to be different from that of the shaped article's cross-section yet, in D1, the die plates 102 and 107 had the same shaped apertures and so did not allow a deformation of the cross-section. With no deformation occurring, no compensation could be present in D1 either.

Auxiliary request 1

The subject-matter of claim 1 met the requirement of Article 123(2) EPC, the tension mounting of the blade finding basis in para. [0013] of the application as filed. It was not necessary to define a flush arrangement. If a flush arrangement were however considered necessary, the skilled person would implicitly understand that a flush mounting of the blade to the die face was present if it were tension mounted since this was the only technically reasonable arrangement.

Auxiliary request 2

The subject-matter of claim 1 found basis in a combination of claims 1, 7 and 9 as filed. With these claims disclosing both a substantially annular shaped article and a method for manufacturing a shaped article. Nothing was missing in present claim 1.

Auxiliary request 2A

The request should be admitted as no objection under Article 123(2) EPC was justified. Para. [0014] of the application as filed disclosed a preferable annular cross-section for the shaped articles.

Auxiliary request 3

In combination with para. [0019], para. [0008] of the application as filed provided a basis for the greatest diameter of the die orifice to be measured parallel to the cutting direction. The requirement of Article 123(2) EPC was thus met by the subject-matter of claim 1.

IX. The respondent's arguments may be summarised as follows:

Main request

The subject-matter of claim 1 lacked novelty with respect to D1. Claim 1 was drafted more broadly than the specific disclosures in the patent as a whole. As a consequence, the claimed terms 'deformation', 'compensation' and 'desired cross-section' had to be interpreted as broadly as technically reasonable and were thus anticipated by the Fig. 14 embodiment of D1.

Auxiliary request 1

The tension mounting of the blade was disclosed only in combination with the blade being mounted flush to the die. It was technically reasonable for solely a point of the blade to be in contact with the die face when the blade was tension-mounted against the surface of the die, which clearly did not satisfy a flush mounting, it being noted that the form of the blade was not at all specified. The omission of flush mounting of the blade to the die in claim 1 thus contravened Article 123(2) EPC.

Auxiliary requests 2 and 2A

The subject-matter of claim 1 of both of these requests failed to meet the requirement of Article 123(2) EPC.

Auxiliary request 3

The subject-matter of claim 1 did not meet the requirement of Article 123(2) EPC at least since the greatest diameter of the die orifice being measured parallel to the cutting direction was not disclosed in the application as filed.

Reasons for the Decision

1. *Main request*

1.1 *Novelty*

The subject-matter of claim 1 lacks novelty over the Fig. 14 and 15 embodiment of D1.

1.2 D1 discloses (see page 5, left hand column, lines 3 to 25; Figs. 14 and 15) all features of claim 1 as follows, the references in parentheses referring to D1:

A method for manufacturing a shaped article (see e.g. page 1, left hand column, lines 1 to 6) comprising the step of cutting a shaped article (ringlets; see page 5, left hand column, line 16) from a first article (the tube of soap, see also line 16); wherein as the shaped article (ringlet) is cut from the first article (tube of soap) the shaped article's cross-section is deformed (this must implicitly occur due to the plastic deformation of a soap composition when a blade of any sort passes through the soap, irrespective of the pressure); and wherein the first article's cross-section is shaped such that it compensates for the deformation during the cutting step (the annular cross-section of the tube of soap in the uncut - and thus still-joined - part of the tube to ringlet connection provides a resistance, or in other words a compensation, to the deformation being instigated by the cutting blade) so as to achieve a shaped article (ringlet) with a desired cross-section (that of the produced ringlets), wherein the shaped article (ringlet) is cut from the first article (the tube of soap) using a blade at an angle of less than 45° to the cutting plane (Fig. 15 indicates the thin

bladed knife 110 passing flush - essentially at an angle of about 0° to the cutting plane - over the aperture 101 in the die plate 102).

- 1.3 In this regard it is noted that the terms 'deformation', 'compensate' and 'desired cross-section' are not further detailed in claim 1 and so, when establishing the breadth of claim 1, must be given their broadest, technically reasonable interpretation. It is thus perfectly reasonable to interpret the claimed 'deformation' as any change, however slight, to the cross-section of the shaped article; the claimed 'compensation' as any resistance, even if only slight, to the deformation induced during the cutting step; and the claimed 'desired cross-section' as the achieved cross-section, whatever this may be, of the shaped article. As indicated above, D1 discloses, at least implicitly, all these features of claim 1:
- a deformation of the ringlets' cross-section due to any soap composition being plastically deformable under a cutting force;
 - the cross-section of the tube of soap compensating for the deformation by way of exerting resistance forces to the deformation; and
 - the desired cross-section being that of the ringlets produced.

- 1.4 The appellant's contention that D1 prevented any deformation of the shaped article's cross-section due to the identically shaped apertures in the die plates each side of the knife is not accepted. As the thin bladed knife 110 cuts the tube of soap, the ringlet being severed from the tube will deform as a consequence of the force exerted on the tube and the plastic properties of the soap composition. Even if this deformation is limited circumferentially within

the aperture downstream of the knife (see D1, page 5, lines 21 to 25), a deformation will necessarily occur during cutting as the ringlet is supported at the aperture downstream of the knife at one of its ends, while the other end of the ringlet is subject to the force of the blade. During the cutting step, the tube of soap, through its cross-sectional shape, will necessarily 'compensate' for the deformation of the ringlet by way of resisting deformation itself so as to therefore achieve a ringlet with a 'desired cross-section'.

1.5 The same conclusion is reached with respect to the appellant's argument that the cross-sectional shape in D1 is the same for the tube of soap and the ringlet. Irrespective of the fact that the patent itself also contemplates such identical cross-sections before and after the cutting step (see e.g. para. [0007] of the patent where a difference in cross-section is only disclosed as being present in a preferred embodiment), a complete lack of deformation of the ringlet of D1 during the cutting step is not technically realistic due to the plastic nature of the extruded soap. Even though the deformation in D1 is radially limited by the circumference of the aperture 109 in the downstream die plate 107, no such restriction limits deformation of the cross-section in any manner between the die plates nor within the circumference of the aperture e.g. a compression of the inner diameter of the ringlet due to plastic deformation of the soap.

1.6 The appellant's argument that the blade in Fig. 14 and 15 of D1 was not at an angle of less than 45° to the cutting plane is not accepted. Fig. 15, which depicts the thin bladed knife 110 in most detail, clearly shows its blade running essentially parallel to the face of

the die plate 102 and, being a rotating knife depicted and described as 'thin' passing over the aperture 101, the skilled person would unambiguously understand the blade of the knife 110 as running at an angle of less than 45° to the cutting plane.

1.7 It thus follows that all features of claim 1 are known from D1 such that its subject-matter lacks novelty (Article 54 EPC). The main request is thus not allowable.

2. *Auxiliary request 1*

2.1 *Article 123(2) EPC*

The subject-matter of claim 1 fails to meet the requirement of Article 123(2) EPC.

2.2 Relative to the main request, claim 1 of the present request includes *inter alia* the feature that 'the blade is tension-mounted against the surface of the die'. According to the appellant this finds basis in the first two sentences of para. [0013] of the application as filed which read as follows:

'Typically the shaped article will be cut from the first article by running the blade flush to the die. Preferably the blade will be tension mounted against the die's surface so as to ensure it runs as closely over the face of the die as possible.'

The Board does not accept that these two sentences should be read independently such that solely the tension mounting of the blade can be included in claim 1. Rather, a natural reading of these two sentences is that the 'typical' arrangement of having the blade running flush to the die will also be present in the 'preferable' tension mounting arrangement. Indeed, this

is exactly as also disclosed at the end of para. [0020] and the skilled person would understand nothing else from the overall disclosure of the application as filed. The omission of the blade running flush to the die from claim 1, disclosed in combination with the tension mounting of the blade, thus extends the claimed subject-matter beyond that included in the application as filed as further exemplified below.

- 2.3 Claim 1 simply requires that 'the blade', not the cutting edge of the blade, is tension-mounted against the surface of the die. An embodiment in which solely the tip of the blade is in contact with the surface of the die, as also argued by the respondent during oral proceedings, would thus fall under the scope of claim 1 yet is not disclosed in the originally filed application in which the blade is solely disclosed to be flush to the surface of the die. Although the appellant argued that the blade would anyway be understood inherently as running flush with the die, it is first noted that there is no figure in the application as filed showing any such arrangement of the blade and die. Further, an embodiment in which the tip or end of the blade is in contact with the die, but not the remainder of the blade, would also be technically reasonable for the skilled person, as cutting the extruded article non-perpendicularly to the direction of extrusion is not excluded by claim 1 and would, in certain arrangements, even enable a perpendicular cut if deflection of the blade tip (e.g. as a result of extrusion forces on a radially outwardmost tip, where the lever arm on the blade is greatest) were to bring the entire blade parallel to the die face during use. It thus follows that the omission of the feature relating to the blade running flush to the die when it is tension mounted relates to

subject-matter not derivable from the content of the application as filed.

2.4 It follows therefore that the subject-matter of claim 1 fails to meet the requirement of Article 123(2) EPC. Auxiliary request 1 is consequently not allowable.

3. *Auxiliary request 2*

3.1 *Article 123(2) EPC*

The subject-matter of claim 1 fails to meet the requirement of Article 123(2) EPC.

3.2 The sole basis for the subject-matter of claim 1 was stated by the appellant during oral proceedings to be the combination of claims 1, 7 and 9 as filed. This combination would however provide an unambiguous basis solely for a 'product claim' i.e. a claim to 'a substantially annular shaped article obtainable by a method according to at least claim 1', such an article being a final, manufactured product. The present claim 1, however, is directed to 'a method for manufacturing a shaped article comprising the step of cutting a substantially annular shaped article ...', such article potentially being an intermediate product of the method, not necessarily a final product. Whilst this alone indicates the lack of a direct and unambiguous basis for the claimed subject-matter, it is furthermore noted that in none of originally filed claims 1, 7 or 9 is the now claimed method step of 'cutting a substantially annular shaped article' disclosed, and indeed the appellant did not direct the Board to any other part of the application as filed where this might be disclosed.

3.3 With no alternative basis having been provided by the appellant from which the subject-matter of claim 1 could be directly and unambiguously derived, and none being found by the Board, it follows that the subject-matter of claim 1 contravenes Article 123(2) EPC. Auxiliary request 2 is thus not allowable.

4. *Auxiliary request 2A*

4.1 *Admittance - Article 13(1) RPBA*

With this request having been filed less than a month before the scheduled oral proceedings, it may be admitted and considered at the Board's discretion, which is set out in Article 13(1) RPBA, such discretion being exercised *inter alia* in view of the need for procedural economy. As is established case law of the Boards of Appeal, such procedural economy implies that amended requests should at least be *prima facie* allowable in order to be admitted.

4.2 The subject-matter of claim 1 differs from that of claim 1 of auxiliary request 2 in that the qualification of the shaped article being 'substantially annular' has been deleted and instead appended to the end of the claim in the expression 'wherein the shaped article has an annular cross-section'.

4.3 It should be noted that, despite having been re-drafted relative to claim 1 of auxiliary request 2, the present claim 1 still includes the possibility of a method step of cutting a shaped article with an annular cross-section from a first article; the qualifier regarding the annular cross-section being placed at the end of the claim changes nothing with respect to what was

included in claim 1 of auxiliary request 2 i.e. a method step of cutting an annular shaped first article. It thus follows that the objection under Article 123(2) EPC to the subject-matter of claim 1 of auxiliary request 2 has not been overcome by the subject-matter of claim 1 of the present request.

4.4 The basis for this amendment was stated by the appellant to be para. [0014] of the application as filed, which indicates however only that the shaped article can preferably have an annular cross-section. However, irrespective of where the disclosure of a shaped article having an annular cross-section is to be found, the application as filed fails to directly and unambiguously disclose a method step of cutting a shaped article having an annular cross-section from a first article. Indeed, only in particular embodiments using an elliptical tube shaped first article is the cutting of an annular cross-section described, such additional features not being included in the present claim however. The subject-matter of claim 1 thus *prima facie* does not meet the requirement of Article 123(2) EPC.

4.5 Therefore, the subject-matter of claim 1 is not *prima facie* allowable. Accordingly, the Board exercised its discretion under Article 13(1) RPBA not to admit this request into the proceedings.

5. *Auxiliary request 3*

5.1 *Article 123(2) EPC*

The subject-matter of claim 1 fails to meet the requirement of Article 123(2) EPC.

- 5.2 Claim 1 has been amended relative to claim 1 of the main request in that *inter alia* the following feature has been added:
'a die orifice that is an elliptical ring in shape and has a greatest diameter parallel to the cutting direction that (sic) in the range 3-7mm'.
- 5.3 The feature is alleged by the appellant to have its basis in para. [0019] of the application as filed, yet this paragraph fails to disclose that the greatest diameter of the die orifice should be measured 'parallel to the cutting direction'; no indication at all is provided in the paragraph as to which direction the greatest diameter of the die orifice lies. The addition of the feature 'parallel to the cutting direction' in relation to the claimed greatest diameter of the die orifice thus lacks basis in this part of the application.
- 5.4 The appellant's further reference to para. [0008] of the application as filed in this regard fails to change the Board's finding. Whilst the second sentence of the paragraph does mention a 'cutting direction', no link, implicit or otherwise, to the claimed greatest diameter of the die orifice is present in this paragraph which could lead to a direct and unambiguous disclosure of the claimed feature.
- 5.5 It thus follows that the subject-matter of claim 1 fails to meet the requirement of Article 123(2) EPC. Auxiliary request 3 is consequently not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



M. H. A. Patin

M. Harrison

Decision electronically authenticated