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**Datasheet for the decision
of 24 August 2017**

Case Number: T 2414/13 - 3.2.06

Application Number: 00309932.2

Publication Number: 1101473

IPC: A61F13/32, A61F13/26

Language of the proceedings: EN

Title of invention:
Applicator for tampons

Patent Proprietor:
Unicharm Corporation

Opponents:
KIMBERLY-CLARK WORLDWIDE, INC.
The Procter & Gamble Company

Headword:

Relevant legal provisions:
EPC Art. 100(c), 123(2)
RPBA Art. 13(1)

Keyword:

Amendments - added subject-matter (yes)

Late-filed auxiliary requests - request clearly allowable (no)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: T 2414/13 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 24 August 2017

Appellant: KIMBERLY-CLARK WORLDWIDE, INC.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 11 October 2013
rejecting the opposition filed against European**

patent No. 1101473 pursuant to Article 101(2)
EPC.

Composition of the Board:

Chairman	M. Harrison
Members:	P. Cipriano
	M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. An appeal was filed by the appellant (Opponent 1) against the decision of the opposition division rejecting the opposition to European patent no. 1 101 473. It requested that the decision be set aside and the patent be revoked in its entirety.
- II. In reply , the respondent (proprietor) requested that the patent be maintained unamended. It also filed seven auxiliary requests.
- III. The Board issued a summons to oral proceedings including a communication containing its provisional opinion, in which it indicated that the subject-matter of claim 1 of all the respondent's requests extended beyond the content of the application as originally filed.
- IV. With its letter dated 8 June 2017, the party as of right (Opponent 2) informed the Board that it did not intend to attend the oral proceedings. The party as of right filed no observations in the appeal proceedings.
- V. With a letter dated 24 July 2017, the respondent filed auxiliary requests 8 and 9.
- VI. Oral proceedings were held before the Board on 24 August 2017, during which the respondent withdrew its auxiliary requests 1 to 9 and filed a (new) auxiliary request 1.
- VII. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent requested that the appeal be dismissed or the patent be maintained according to auxiliary request 1 filed during the oral proceedings.

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

"1. A method for providing a tampon applicator, the method comprising:

a) injection-molding an outer cylinder (1) of thermoplastic resin, the outer cylinder including a large diameter portion (7) for fitting a tampon (3) therein and a small diameter portion (8) provided on the side of a rear end (9) of said outer cylinder and having a smaller diameter than that of said large diameter portion, a leading end of the large diameter portion having opened therein a protruding mouth (16) around which there is formed a plurality of valves (17) ;

b) inserting a movable push-out member (2) into the small diameter portion of the outer cylinder;

c) inserting a tampon (3) into the large diameter portion of the outer cylinder;

d) applying heat to the leading end of the large diameter portion of the outer cylinder to deform the valves thermally, the valves being deformed to converge to have a curved face portion (7a) to be diametrically gradually reduced toward the leading end of said outer cylinder,

wherein a ratio A/B is at most 0.8, when an inflection point for the boundary between the maximum diameter portion of said large diameter portion and said curved

face portion is designated by Z, a radius of the outer face at said inflection point Z is designated by A, and the axial length from said inflection point Z to the leading end of said curved face portion is designated by B, and

wherein a ratio L/W is within a range of 1.0 to 2.0, when the width size of root ends of said valves is designated by W and the length of said valves is designated by L."

IX. Claim 1 of auxiliary request 1 reads as follows:

"1. A method for providing a tampon applicator, the method comprising:

a) injection-molding an outer cylinder (1) of thermoplastic resin, the injection-molded outer cylinder having a smooth surface, the outer cylinder immediately after injection-molding having a cylindrical shape in which a large diameter portion (7) has a constant external diameter, the outer cylinder including the large diameter portion for fitting a tampon (3) therein and a small diameter portion (8) provided on the side of a rear end (9) of said outer cylinder and having a smaller diameter than that of said large diameter portion, a leading end of the large diameter portion having opened therein a protruding mouth (16) around which there are formed four valves (17) in a petal shape, the valves being converged to have their width sizes reducing gradually toward the leading end of the outer cylinder so that they have a generally conical shape at their leading ends, the thickness of the outer cylinder formed by the injection-molding is within a range of 0.6 to 1.0 mm,

wherein between the large diameter portion (7) and the small diameter portion (8) on the side of the rear end, there is formed an inflection plane (15) at which the external diameter gradually changes;

b) forming an inner cylinder provided as a movable push out member (2) by extrusion-molding a thermoplastic resin into a cylindrical shape, then expanding its leading end to form a diverged push portion (11), inserting the rear end of the movable push-out member (2) into the protruding mouth (16) of the outer cylinder and guiding it through the small diameter portion of the outer cylinder until it protrudes rearwardly from an opening (10) in the rear end (9) of the outer cylinder, and after this forming a diverging portion (12) at the rear end of the push-out member protruding rearwardly from the opening (10),

wherein the push portion is diverged to push a tampon (3) from its rear end and to prevent the push out member (2) from being withdrawn from the rear end (9) of the outer cylinder;

c) inserting a tampon (3), with a take-out cord (4) connected thereto, from the protruding mouth (16) into the large diameter portion of the outer cylinder, at this time pulling the take-out cord through the push-out member rearwardly from the rear end of the push-out member so that the take-out cord is extended rearwardly from the inside of the outer cylinder (1) through the push-out member (2);

d) applying heat using a heated press die to the leading end of the large diameter portion of the outer cylinder to deform the valves thermally at a temperature over the glass transition temperature of

the resin, the valves being deformed to converge toward the leading end to form a curved face portion (7a) to be diametrically gradually reduced toward the leading end of said outer cylinder, the valves being in a plastically deformed curved state, and then cooling the resin in the curved state;

wherein a ratio A/B is at most 0.8, when an inflection point for the boundary between the maximum diameter portion of said large diameter portion and said curved face portion is designated by Z , a radius of the outer face at said inflection point Z is designated by A , and the axial length from said inflection point Z to the leading end of said curved face portion is designated by B , and

wherein a ratio L/W is within a range of 1.0 to 2.0, when the width size of root ends of said valves is designated by W and the length of said valves is designated by L ;

wherein said root ends of said valves are located substantially at the same position of said inflection point Z ;

wherein said curved face portion has two curvatures, and the curvature at the leading end portions (7b) of said valves within a length range Y in the axial direction of the outer cylinder is larger than that at the root ends of said valves in a length range X in the axial direction of the outer cylinder,

such that the outer cylinder has the inflection point Z at which the large diameter portion (7) leads into the curved face portion (7a), and a second inflection point

S which is located in front of the inflection point Z and leads into the leading end portions (7b); and

wherein the axial length Y of the valve portions having the larger curvature is one half or less than the axial length B from said inflection point Z to the leading end of said curved face portion."

- X. The arguments of the appellant relevant to the decision may be summarised as follows:

Main request - Article 100(c) EPC

The subject-matter of claim 1 of the main request extended beyond the content of the application as originally filed, since at least the feature "a plurality of valves" could not be derived unambiguously from the whole content of the application as originally filed. The only disclosure of a method comprising injection-moulding of thermoplastic resin was the specific embodiment starting on page 9, final paragraph which foresaw only four valves as well as other sequential steps concerning inter alia the push-out member, all of which were not in claim 1. Example 3 of Table 1, including 6 valves/petals, did not fall within the scope of the claim because the ratio A/B in the claim was not met.

Auxiliary request 1 - Article 123(2) EPC

The feature "cooling the resin in the curved state" had no basis in the description as originally filed and was not unambiguously disclosed. The request should not be admitted into the proceedings since *prima facie* it did not meet the requirements of Article 123(2) EPC.

XI. The arguments of the respondent may be summarised as follows:

Main request - Article 100(c) EPC

The subject-matter of claim 1 did not extend beyond the content of the application as originally filed. No new subject-matter had been presented to the skilled person. Example 3 of Table 1 fell within the scope of claim 1 since the ratio A/B was met. This taught the skilled person that the present invention was disclosed as including the leading end of the outer cylinder formed with six valves. The skilled person would thus derive from the application as a whole that the number of valves did not need to be four and could be "a plurality".. Thus there was no added subject-matter.

Auxiliary request 1 - Article 123(2) EPC

It was clear for the skilled person when reading the paragraph bridging pages 12 and 13 that the curved state was established through the heating and that the resin was cooled in the curved state. The wording was not *verbatim* in the description but would be deduced by the skilled person from the above paragraph when taking the whole context into consideration.

Reasons for the Decision

Main request

1. Article 100(c) EPC
 - 1.1 The Board came to the conclusion that claim 1 as granted includes subject-matter which extends beyond the content of the application as originally filed in respect of at least the feature "there is formed a plurality of valves" and that the ground of opposition under Article 100(c) EPC thus prejudices the maintenance of the patent, for the following reasons.
 - 1.2 The wording of this feature is extracted from page 4, lines 23-24 of the application as filed. However, this disclosure is not in the context of a method having the other features of claim 1. This claim is directed to a method for providing a tampon applicator comprising injection-moulding an outer cylinder of thermoplastic resin. Such a method is only disclosed in the "description of the preferred embodiment" on page 7 up to page 14, line 2. The part of the description under "Summary of the invention" from pages 4 to 6 concerns a molded applicator of resin and, although it implies that method steps must have been carried out so as to arrive at this product, the skilled person would not directly and unambiguously derive the method defined in the claim from this part of the description. For example, the claimed method step of injection-moulding an outer cylinder of thermoplastic resin is not disclosed here. Only a broad reference to molding is present and the skilled person knows that other molding

processes and materials such as thermosetting materials are technically pertinent.

The only part of the description referring to an injection-moulding method of an outer cylinder of thermoplastic resin is entitled "Description of the preferred embodiment" and discloses a single embodiment from page 7, line 12 to page 14, line 2. However, the method disclosed in this embodiment refers exclusively to the formation of four valves on page 10, line 3 and there is no direct and unambiguous disclosure that would lead the skilled person to infer that the number of valves could be different in such a moulding method and thus generalized to "a plurality".

- 1.3 The respondent argued that example 3 of table 1 corresponded to an applicator provided by a method according to claim 1 having six valves. As the disclosure comprised embodiments directed to four valves (page 10 of the description and examples 1 and 2 of Table 1) and six valves (example 3 of Table 1), the skilled person would, according to the respondent, infer that the whole teaching of the description was not limited to four valves and would recognize that a "plurality of valves" was a possibility that applied to the method in the context of the application as originally filed.

The Board cannot follow this argument. For an applicator to have been provided according to the method of the invention, the resulting ratio A/B needs to be at most 0.8. Whilst the description states on page 17 that the results were "excellent" for the range L/W from 1.0 to 2.0, the Board notes that the disclosure including also Table 1 does not give any value for the ratio A/B for any of the examples.

The Board is also not convinced that the ratio A/B of example 3 would inevitably be at most 0.8. The calculations performed by the respondent do not lead to a different conclusion. There is no reason to assume that dimension B can be equal to L. The Board can concur with the respondent that, as disclosed in Fig. 3, it is not necessary for the valves to close the opening completely and thus perform the calculations (as done by the appellant) to arrive at a value for the ratio A/B of 1.09. However, the skilled person can derive from the whole disclosure including Fig. 3 that the valves have to be curved to some extent to stop the tampon from falling out, which makes the assumption B=L unrealistic. Fig. 3 is schematic and the skilled person cannot infer from it exactly how big the opening is and consequently if the ratio A/B would fall above or below 0.8. The skilled person cannot infer from any part of the disclosure that the ratio A/B for example 3 is at most 0.8 and thus example 3 does not necessarily fall within the scope of claim 1. The Board notes that even if example 3 with 6 valves/petals were to be considered as having a ratio A/B of at most of 0.8 and thus to fall within the scope of claim 1, the skilled person would anyway not derive from embodiments with 4 valves and one embodiment with 6 valves directly and unambiguously that the whole disclosure allowed the method to be applied to provide applicators with simply "a plurality of valves", this meaning any number of valves with two or more valves. The Board thus concludes that at least the feature "a plurality of valves" is not directly and unambiguously disclosed and that the subject-matter of claim 1 extends beyond the content of the application as originally filed.

- 1.4 Since the Board already finds that the subject-matter of claim 1 extends beyond the content of the

application as originally filed for the reasons *supra*, there is no need to provide reasoning as to whether any other features of claim 1, as argued by the appellant, results in subject-matter extending beyond the content of the application as originally filed.

1.5 The main request is therefore not allowable.

Auxiliary Request 1

2. Admittance of the request

2.1 The wording "cooling the resin in the curved state" as such is not to be found in the application as filed. Also, the paragraph bridging pages 12 and 13 states that the resin is cooled to have its orientation "changed into" the curved state, which implies that the cooling has an effect on the orientation of the valve that is missing from the feature as added to claim 1. The Board also cannot see any other disclosure that would serve as a direct and unambiguous basis for the feature in the form now added.

2.2 The Board is also not persuaded by the respondent's argument that the skilled person would deduce from the whole paragraph that the curved state is established through the heating and that when the resin is cooled it is already in the curved state. That is simply an assumption and it is not borne out by the rest of the paragraph. The wording of the feature on page 13, line 4 states, for example, that the resin is "oriented" in some way "at this time" (i.e. when its orientation is changed). Whilst it is true that the paragraph states that the heating deforms the resin, the subsequent cooling step and its effects as stated in the description cannot be simply ignored. Whilst it may be

that a lack of clarity is present in this part of the description, this merely serves to emphasise that no direct and unambiguous basis is present for the now claimed subject-matter.

- 2.3 The Board thus concludes that the text passage on page 13, as argued by the appellant, provides no basis for the feature as claimed, let alone for its combination with the other features defined in claim 1. The requirement of Article 123(2) EPC is not met by the subject-matter of the sole claim of this request in view of the feature "cooling the resin in the curved state" as this method step feature has no literal or implicit basis in the description as originally filed. The request is therefore not *prima facie* allowable, and thus it was not admitted into proceedings without further examination needed. Claim 1 of the auxiliary request thus contravenes Article 123(2) EPC. For this reason, the Board exercised its discretion under Article 13(1) RPBA not to admit auxiliary request 1 into the proceedings.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



M. H. A. Patin

M. Harrison

Decision electronically authenticated