

**Internal distribution code:**

- (A) [ ] Publication in OJ  
(B) [ ] To Chairmen and Members  
(C) [ ] To Chairmen  
(D) [X] No distribution

**D E C I S I O N**  
of 11 April 2002

**Case Number:** T 0557/99 - 3.2.6

**Application Number:** 92916652.8

**Publication Number:** 0552339

**IPC:** A61F 13/15

**Language of the proceedings:** EN

**Title of invention:**

Method of making curved, shaped absorbent article

**Patentee:**

THE PROCTER & GAMBLE COMPANY

**Opponent:**

SCA Research AB

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54, 56

**Keyword:**

"Novelty (yes)"  
"Inventive step (yes)"

**Decisions cited:**

-

**Catchword:**

-



Case Number: T 0557/99 - 3.2.6

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.6  
of 11 April 2002

**Appellant:** SCA Research AB  
(Opponent) S-40503 Göteborg (SE)

**Representative:** Harrison, Michael Charles  
Albihns GmbH  
Grasserstrasse 10  
D-80339 München (DE)

**Respondent:** THE PROCTER & GAMBLE COMPANY  
(Proprietor of the patent) One Procter & Gamble Plaza  
Cincinnati, Ohio 45202 (US)

**Representative:** Duffy, Assumpta Dympna  
F. R. Kelly & Co.  
27 Clyde Road  
Ballsbridge  
Dublin 4 (IR)

**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office posted  
15 March 1999 concerning maintenance of European  
patent No. 0 552 339 in amended form.

**Composition of the Board:**

**Chairman:** P. Alting van Geusau  
**Members:** H. Meinders  
M. J. Vogel

## Summary of Facts and Submissions

- I. The appeal is from the interlocutory decision of the Opposition Division posted on 15 March 1999, maintaining European Patent No. 0 552 339 in amended form.
- II. In its decision the Opposition Division considered that the subject-matter of claims 1 and 4 as amended in the first auxiliary request presented at the oral proceedings before it fulfilled the requirements of novelty and inventive step. In particular it considered document:
- D1: EP-A-0 176 853,
- alleged by the Appellant (Opponent) to be novelty destroying for the subject-matter of claim 4.
- III. Against this decision an appeal was filed by the Appellant (Opponent) on 19 May 1999, with payment of the appeal fee on that same day. The statement of grounds of appeal was filed on 19 July 1999. The appeal was limited to only the subject-matter of independent claim 4 and its dependent claims 5 to 7.
- IV. Oral proceedings were held on 11 April 2002, in which the Respondent (Patentee) requested that the decision under appeal be set aside and the patent maintained with claims 1 to 4, columns 1 to 47 and Figures 1 to 18 as filed in the oral proceedings. Claims 1 to 3 correspond to claims 1 to 3 upheld by the Opposition Division.

Claim 4 reads:

"A method of making a curved absorbent article comprising the steps of:

- (a) providing the components for an absorbent article, said components comprising at least a first component wherein said first component comprises a liquid pervious topsheet, and a second component that is extensible wherein said second component comprises a liquid impervious backsheet, each of said components having a pair of opposed faces;
- (b) placing the first and second components in a facing relationship and positioning an absorbent core between said first and second components;
- (c) securing at least a portion of said first and second components together to form a pre-formed absorbent article having a secured portion and an unsecured portion wherein said pre-formed absorbent has two end regions, a central region disposed between said end regions, and a periphery which comprises a pair of longitudinal side margins, wherein the longitudinal side margins comprise portions that lie within the central region and portions that lie within the end regions, and the securing step comprises securing the first and second components along the portions of the longitudinal side margins of said pre-formed absorbent article that lie in the end regions of the pre-formed absorbent article;

said method being characterised in that it further comprises the steps of

- (d) placing said pre-formed absorbent article on a curved surface to lengthen the portions of said second component in said unsecured portion to form said pre-formed absorbent article into a curved configuration; and
- (e) securing the components in said unsecured portion."

The Appellant requested that the decision under appeal be set aside and the patent revoked.

- V. The arguments of the Appellant concern only claim 4 and can be summarised as follows:

In the method derivable from D1 the steps (a) and (b) of claim 4 were implied, the materials suggested for the second component (=backsheet) (polyethylene, polypropylene) being extensible. Further, the longitudinal side margins of the topsheet and backsheet, which each had a portion within the central region of the absorbent article and two portions within each end region of the absorbent article, were secured to each other by passing through the nip of two heated rolls. This meant that consecutively the transversal margins in the downstream end region, the portions of the longitudinal margins in the downstream end region, the portions of the longitudinal margins in the central region and then the remaining portions of the longitudinal margins in the upstream end region were secured to each other, before finally the transversal margins of the upstream end region were secured to each other. This mean that at that instant, just before the transversal margins in the upstream end region were secured, there was a secured portion and an unsecured

portion, the secured portion comprising the portions of the longitudinal margins that lie in both end regions of the pre-formed absorbent article, the unsecured portion being the remainder of the end region, i.e. the transversal margins in the upstream end region. Thus step (c) was also implicitly disclosed.

In the method as derivable from D1 the pre-formed absorbent article was placed on a curved surface 64, when passing between the two rolls. In performing this action the upper sheet (being the backsheet of the article) would be lengthened before it was secured to the lower sheet (the topsheet of the article), as no extra backsheet material to accommodate for this curvature could be supplied without disrupting the absorbent core held between the topsheet and the backsheet. Finally all margins of the absorbent article would have passed the nip of the rolls and would have been secured to each other. This meant that steps (d) and (e) were also known.

The present wording of the claim in no way excluded the step (d) being performed at the same time as step (c), therefore D1 disclosed all features of claim 4.

In case the Board considered the steps (c), (d) and (e) as claimed in claim 4 to be following one upon the other, novelty of the subject-matter of claim 4 had to be acknowledged. However, no inventive step could be seen in the separation of the securing step and the step in which the absorbent article was formed into a curved configuration. Any skilled person would be looking for an alternative manner of forming the product and of securing the backsheet to the topsheet and would have no difficulty in trying out different

changes to the method of D1.

VI. The Respondent's submissions can be summarised as follows:

By its wording claim 4 made very clear that the different steps claimed for the method were performed in the order as given in the claim. Further, from D1 it was not derivable that the portions of the backsheet upstream of the nip of the rolls were actually lengthened to form the absorbent article into a curved configuration. The backsheet could just as well be provided in excess of the topsheet, thus allowing for more material on the outside face of the curved article. There was no backsheet disclosed which could be lengthened; the only references available in D1 were to the backsheet being inelastic and "hence cannot lengthen". Thus novelty could not be challenged.

Regarding inventive step, the prior art provided no indication whatsoever to the skilled person that it was advantageous to secure the end regions first and only then place the article on a curved surface to lengthen the portions of the backsheet in the unsecured portion so as to form the article into a curved article (step (d)) and then to fix the unsecured portion (step (e)).

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Amendments (Article 123(2) EPC)*

Claim 4 as amended involves the combination of features

of claims 10 to 13 as originally filed in PCT/US92/06054, the application upon which the patent in suit was granted, there is thus no objection to this amendment under Article 123(2) EPC. Claim 4 as amended involves the combination into claim 10 as granted of the features of claims 11 to 13 as granted, thus the subject-matter of this claim also fulfils the requirements of Article 123(3) EPC. The description has been brought into agreement with the wording of the independent claims 1 and 4, this amendment thus neither needs to be objected against under Article 123 EPC.

3. *Novelty (Article 54 EPC)*

The subject-matter of claim 4 is novel as there is no prior art disclosing all features of this claim.

3.1 The method as disclosed in D1 involves the steps as mentioned in the preamble of claim 4 (steps (a) to (c)), however, according to D1 the absorbent article is formed into a curved configuration at the same time as the securing of the longitudinal side margins of the topsheet (first component) and backsheet (second component) takes place. By the time the portions of the longitudinal side margins that lie in the end regions are secured there is no more upstream backsheet material that needs to be lengthened as by that time the whole article has already been formed into a curved configuration on the curved surface 64 on bottom roll 60.

In contrast to this the method according to claim 4 requires that first the longitudinal side margins that lie in the end regions are secured so as to form a pre-formed absorbent article and only after that has been



achieved the pre-formed absorbent article is placed on a curved surface to lengthen the portion of the backsheet in the unsecured portion between these end regions so as to form the pre-formed absorbent article into a curved configuration.

3.2 The wording of claim 4 indicates clearly that in the securing step (c) a portion of the first and second components (topsheet and backsheet) of the article is left unsecured. According to the wording of claim 4 "said unsecured portion", i.e. the portion described in step (c), is lengthened in step (d) and finally secured in step (e). This wording can only be interpreted as meaning that step (d) follows on step (c) and does not take place at the same time.

3.3 The Respondent argued that the disclosure of D1 did not provide a disclosure of the backsheet being lengthened. It could just as well be provided in excess of the topsheet, so as to allow for more material on the curved outer face of the article. The materials suggested for the backsheet were not extensible, e.g. paper, therefore could not be lengthened.

The Board cannot agree with the Respondent in this. Firstly the reference on page 1 of D1 is to the materials used for the backsheet in the prior art products being inelastic and "hence cannot lengthen". For the Board the latter has to be interpreted as "cannot lengthen elastically", which does not exclude plastic lengthening. The backsheets of the prior art can be lengthened plastically, as do the materials which D1 suggests for the backsheet: polyethylene and polypropylene.

3.4 Neither can the Board support the opinion that the skilled person would understand D1 to be disclosing the backsheet as being supplied in excess of the topsheet. This would firstly involve a particular technical arrangement of the supply and transport rolls and the transport belts, for which there is no indication whatsoever in D1. Secondly the method as disclosed in D1 cannot work properly if there is a speed difference between the backsheet and the topsheet; the fluffy absorbent core between the two would disintegrate.

3.5 Thus the subject-matter of claim 4 is novel as D1 does not disclose all features of this claim. The other available prior art in the file is less relevant than D1.

4. *Inventive step (Article 56 EPC)*

4.1 In the method as disclosed in D1 the backsheet is first secured to the topsheet by the transversal margin in the downstream end region when it passes the nip of the rolls 60, 62. The absorbent article is curved and the backsheet is lengthened by placing the absorbent article over a curved surface 64 on the periphery of the bottom roll 60. Thus the backsheet accommodates for the longer distance the backsheet has to cover over the radially outward face of the absorbent article. As the longitudinal margins of the article pass the nip of the roll, they are secured together. Only after the complete curved form of the article is achieved the remaining transversal margins of topsheet and backsheet in the upstream end region are secured to each other.

4.2 The method according to claim 4 involves securing those portions of the longitudinal margins of the topsheet

and backsheet which are located in **both** end regions first, before the article is placed on a curved surface to lengthen the portions of the backsheet which are not yet secured to the respective portions of the topsheet. This is an alternative manner of producing the curved form of the absorbent article, which has for example the further advantage that the topsheet and the backsheet can less easily move with respect to each other, thus providing an easier securement of the longitudinal margins.

- 4.3 In none of the available prior art documents the skilled person can find an indication of this alternative solution as claimed in claim 4.

The Board finds that the manner in which the two sheets are secured together as disclosed in the method of D1 cannot be changed to perform the method as claimed in claim 4 without a comprehensive redesigning of the part of the production apparatus in which the absorbent article is curved and the margins are secured to each other. Such an effort cannot be made without employing inventive skills.

- 4.4 Thus the subject-matter of claim 4 also fulfils the requirement of inventive step (Article 56 EPC) and the patent can be maintained in the amended form as requested by the Respondent.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent on the basis of the following documents:

claims 1 to 4,

columns 1 to 47,

drawings, Figures 1 to 18,

all documents as filed during the oral proceedings.

The Registrar:

The Chairman:

M. Patin

P. Alting van Geusau