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File Number: T 323/90 - 3.2.4

Application No.: 82 304 362.5

Publication No.: 0 073 137

Title of invention: Process for increasing the filling power of tobacco lamina  
filler

Classification: A24B 3/18

D E C I S I O N  
of 4 June 1992

Proprietor of the patent: Philip Morris Products Inc.

Opponent: B.A.T. Cigarettenfabriken GmbH

Headword:

EPC Articles 87, 104, 112(1) and 54, 56 EPC

Keyword: "Priority right" (valid)  
"Novelty and inventive step" (confirmed)

Headnote



Case Number : T 323/90 - 3.2.4

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.4**  
**of 4 June 1992**

**Appellant :**  
(Opponent)

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**Representative :**

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**Respondent :**  
(Proprietor of the patent)

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**Representative :**

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**Decision under appeal :**

Decision of Opposition Division of the European Patent Office dated 16 January 1990 and dispatched to the parties on 20 February 1990 rejecting the opposition filed against European patent No. 0 073 137 pursuant to Article 102(2) EPC.

**Composition of the Board :**

**Chairman :** C.A.J. Andries  
**Members :** R.E. Gryc  
J.C. De Preter

## Summary of Facts and Submissions

- I. European patent No. 73 137 comprising seven claims was granted to the Respondent on 28 October 1987 on the basis of European patent application No. 82 304 362.5 filed on 18 August 1982. A priority from national US application No. 294 814 filed on 20 August 1981 was claimed.

Claim 1 as granted reads as follows:

"A process for increasing the filling power of tobacco lamina filler comprising contacting the moist lamina filler with a heat transfer medium containing steam wherein the filler has an initial OV value of from 10 to 20%, except 20%, and is contacted with a gas containing 50 to 100% steam at a temperature of at least 232°C for a total contact time sufficient to stiffen and expand the filler, while reducing its final OV value to less than 5%".

- II. After an Opposition filed by the Appellant had been rejected by a decision of the Opposition Division dated 16 January 1990 and dispatched to the parties on 20 February 1990, the Appellant lodged an appeal on 3 April 1990 and paid the appropriate fee simultaneously.

In his Statement of Grounds filed on 19 June 1990, the Appellant argued in particular the following:

- the protection of Claim 1 as granted has been inadmissibly extended in comparison with that of Claim 1 as originally filed;

- the subject-matter of the impugned patent was already described in US application No. 145 824 filed prior to US application No. 294 814 from which priority is thus improperly claimed;
- document D1 (DE-A-3 117 335) corresponding to US application No. 145 824 was published (18.2.82) before the filing date of the present European patent (18.8.82) and therefore anticipates totally the invention;
- the invention is also completely anticipated by the state of the art described in the following documents:

D2: DE-A-2 834 501 and

D4: GB-A-1 138 899;

- in view of the teaching of document D4 taken in combination with that of document D2 or with the disclosure of any one of the following documents:

D5: Tobacco Reporter, Vol. 96, November 1969,  
P.S. Meyer, "Puffing in Perspective", pages 17, 20  
and 40;

D6: DE-A-2 253 882

D7: US-A-2 656 841

the subject-matter of Claim 1 does not involve an inventive step.

III. In reply, the Respondent (Patentee) expressed the opinion that:

- the Appellant should have relied on documents D4 and D5 already during the opposition proceedings; the new argumentation based on these documents should be considered as late filed and be disregarded;

- Claim 1 in the light of the specification is clearly confined to water as the sole expansion agent; the extent of the protection has thus not been increased;
- since the present invention is considering a different range of numerical values from those disclosed in the US application No. 145 824, the inventions are not the same and this previous US application cannot be considered as a previous first application for claiming the right of priority. Priority is in the present case properly claimed from US application No. 294 814;
- the content of document D1 does not belong to the state of the art and document D2 concerns a process using CO<sub>2</sub> as puffing agent. As far as document D4 is concerned, it describes a process for increasing the filling power of tobacco stems instead of tobacco lamina.
- the skilled person would have no reason to combine the teaching of documents D2 and D4 or those of documents D4 and D7.

IV. In a communication sent by facsimile on 25 May 1992, the Board expressed its provisional opinion according to which:

- the priority seems to be properly claimed from US application No. 294 814;
- without being confined to water as a sole expansion agent Claim 1 appears to be totally anticipated by document D2;

- if Claim 1 were to be amended to distinguish from document D2, the following document:

D8: US-A-3 357 436

cited in the search report as particularly relevant would then seem to disclose the state of the art closest to the invention.

V. Oral proceedings took place on 4 June 1992. The Appellant mainly repeated the argumentation expressed in his Statement of Grounds (cf. section II) and additionally contended the following:

- the priority may be valid but only for the range of OV values from 10 to 12%;
- Claim 1 as granted does not specify that tobacco is not treated prior to the process;
- from document D2, the skilled person learns as a general teaching independent of the use of CO<sub>2</sub> that in order to optimise the increase of the tobacco filling power, its final OV value should be under 6% and even under 3%;
- the state of the art closest to the invention can be found in document D8 referred to in the Board's communication;
- starting from this closest state of the art, and with the teaching of document D2, the skilled person knows that the final OV value should be less than 5% and that the steam content of the heat transfer medium should be very high in order to create the heat shock needed.

On the contrary, the Respondent maintained the following:

- when considered as a whole, the subject-matter of Claim 1 is not supported by the teaching of US application No. 145 824 which recommends to start the process with over-moisturised tobacco appreciably above the normal 12% processing moisture level i.e. about 20% and upwards;
- the advantage of the process according to the invention is that no pre-processing of the tobacco is needed;
- document D8 concerns a drying process and not a process for increasing the filling power of the tobacco and this known process uses a slow operating system with three stages of drying through which it takes time to progress;
- in the process known from document D8, the moisture of the tobacco is recirculated with very little steam injected, injection being taught as an undesirable approach (cf. column 2, lines 13 to 23); and
- a very little increase of the filling power can be obtained (cf. column 6, line 52 = 2.3%);
- no reference to stiffening and expanding the filler can be found in document D8.

Consequently, according to the Respondent, the skilled person would have no reason to combine the teachings of documents D8 and D2.

The Respondent filed an auxiliary request based on an amended Claim 1 and a description modified accordingly.

Claim 1 of the auxiliary request reads as follows:

"A process for increasing the filling power of tobacco lamina filler comprising contacting the moist lamina filler with a heat transfer medium containing steam wherein the filler is free of exogenous impregnants and has an OV value, immediately before treatment, of from 10

to 20%, except 20%, and is contacted with a gas containing 50 to 100% steam at a temperature of at least 232°C for a total contact time sufficient to stiffen and expand the filler, while reducing its final OV value to less than 5%".

VI. At the end of the oral proceedings, the Appellant requested that the decision under appeal be set aside, that the European patent No. 73 137 be revoked and that a question relating to priority be referred to the Enlarged Board.

The Respondent requested as a main request that the appeal be dismissed and as an auxiliary request that the patent be maintained on the basis of the documents filed during the oral proceedings. Furthermore, he requested an apportionment of costs.

#### Reasons for the Decision

1. Admissibility:

The appeal complies with the requirements of Articles 106 to 108 and Rule 64; it is admissible.

2. Priority (Article 87)

2.1 To be able to be considered as "a first application" in the sense of Article 87 EPC for the purpose of determining a priority, a prior application should in particular concern the same invention as the subsequent European application claiming the priority of the prior one.



2.2 In the present case, the process according to European patent No. 73 137 is undoubtedly for increasing the filling power of tobacco filler having an OV value immediately before treatment of from 10 to 20% except 20%, whereas the US patent application No. 145 824 clearly teaches that the tobacco to be processed has to be overwettted first such that the moisture content of said tobacco, immediately before treatment, is above that which is normally encountered in tobacco processing and should not be less than 20%.

The range of numerical OV values immediately before treatment according to the present European patent thus does not overlap but is contiguous to the range of values recommended in the prior above-mentioned US application and the process according to the European patent permits the avoidance of the initial over-moisturisation of the tobacco required by the process of said US application No. 145 824.

The processes therefore are different not only with respect to the moisture ranges involved but also with respect to the process steps involved.

2.3 The Appellant emphasised that also the range between 12 and 20% OV has been disclosed in the US application No. 145 824. The Board cannot accept this argument, since the range 12 to 20% OV has only to be cited in the context of the normal or conventional moisture content, which is clearly distinct from the required process starting moisture level after moisturising. For a person skilled in the art, the whole disclosure of the US application No. 145 824 clearly teaches that the first process step has to consist in a moisturising of the tobacco with water such that a moisture content from about twenty to eighty percent is obtained.

2.4 Therefore, the two inventions cannot be considered as being the same and previous US application No. 145 824 could not have served as a basis for claiming a right of priority for the subject-matter of the present European patent.

On the contrary, the subject-matter of the claims of the European patent is clearly identifiable in the previous US application No. 294 814 as a whole. That the same invention was disclosed in the present European patent on the one hand and in the US application No. 294 814 on the other hand was not disputed by the parties.

Priority is thus properly claimed from US application No. 294 814.

3. Referral to the Enlarged Board (Article 112(1) EPC)

Since the Board was able to decide the question of priority by reference to the European Patent Convention in such a manner as to leave the Board in no doubt, and since the Board is not aware of any legal viewpoints expressed in prior decisions of the Boards of Appeal of the EPO which are contrary to the above position of the Board, there is no reason to refer a question of law relating to priority claiming to the Enlarged Board as requested by the Appellant.

Furthermore, the Board notices, as stated during the oral proceedings, that no concrete formulated question of law was put forward by the Appellant.

4. Main Request

During the examination proceedings, the expression "the filler being free of exogenous impregnants" has been replaced in the present Claim 1 by the expression "moist filler".

The definition of the first-mentioned expression, as given in the application as originally filed (page 5, lines 31 to 34) and in the granted patent (page 3, lines 48 to 50) as well as the whole content of the application as originally filed made it clear for a person skilled in the art that the invention was initially limited to a process which functions solely with water as a puffing or blowing agent instead of with other substances (e.g. exogenous impregnants).

Due to the amendment (i.e. moist filler), the wording of present Claim 1 now covers not only the use of water but also the use of other substances (e.g. exogenous impregnants) as puffing or blowing agents. Indeed, even if the term "moist" were restricted only to water as emphasised by the Respondent, the present wording of Claim 1 would not exclude the use of other substances in addition to water.

The Board therefore is of the opinion that Claim 1 according to the main request contains subject-matter which extends beyond the content of the application as filed (Art. 123(2) EPC) and cannot thus be accepted.

5. Auxiliary request

5.1 Amendments (Article 123 EPC)

5.1.1 In comparison with Claim 1 as granted, the new Claim 1 is more precisely drafted and specifies in addition explicitly that:

"the filler is free of exogenous impregnants",

and that the given OV value of from 10 to 20%, except 20% is to be considered:

"immediately before treatment".

This last expression replacing the term "initial" used in Claim 1 as granted.

Both features were disclosed in Claim 1 of the application as originally filed and supported in the original description on page 1, lines 5, 6 and page 7, lines 24 and 34.

5.1.2 The introduction of these two features into Claim 1 moreover restricts the protection conferred by the claims of the patent.

Consequently no objection related to Article 123 EPC is to be raised against said amended Claim 1.

5.1.3 The description has been adapted to the wording of the present Claim 1, and to acknowledge document D8.

5.2 Novelty (Article 54 EPC)

5.2.1 Since document D1 was published after the validly claimed priority date of the patent in suit (see section 2), it does not form part of the state of the art within the meaning of Art. 54(2) EPC.

Since the subject-matter of Claim 1 is clearly confined to the use of water as the sole expansion agent, the process known from document D2 using CO<sub>2</sub> as a puffing agent also cannot anticipate the process according to the invention.

Document D3 (DE-A-2 103 669 cited during the opposition proceedings) and document D5 do not describe a process wherein the filler has an OV value immediately before treatment of from 10 to 20% and is contacted with a gas containing 50 to 100% steam at a temperature of at least 232°C.

Documents D4 and D6 concern processes for increasing the filling power of tobacco stems instead of lamina and the final OV value of the processed filler is more than 5%.

According to the process described in document D7, the processed tobacco filler is not contacted with a heat transfer medium containing steam to be dried but with a flame. As far as document D8 is concerned, neither the percentage of steam, nor the percentage of the final OV value disclosed correspond to the values indicated in Claim 1.

- 5.2.2 Consequently, none of the available documents discloses a process comprising in combination all the characteristics present in Claim 1.

The subject-matter of Claim 1 is thus to be considered as novel in the meaning of Article 54 EPC.

5.3 The closest state of the art

- 5.3.1 Since the aim of the invention clearly appears to be to increase the filling power of tobacco lamina filler without the use of an exogenous puffing agent other than

water, the closest state of the art is to be searched among known methods of the same type i.e. using solely water as an expansion agent and implemented for processing preferably tobacco lamina rather than tobacco stems.

5.3.2 Such a process is to be found in document D8. This document discloses in particular:

- a process for improving the filling power of tobacco in particular lamina filler while drying it (see Column 1, lines 37, 47 to 50 and 64 and 65),
- a process comprising contacting the filler with hot air containing a high proportion of steam (Column 1, lines 67 and 68)
- wherein the filler has an initial OV value of from 13 to 35% (column 5, lines 29 to 37),
- and is contacted with a gas containing steam at a temperature which can reach 315°C (Column 6, line 6 and Claim 10).

5.4 The problem and its solution

5.4.1 Since the process known from document D8 comprises three stages of drying, it appears to be a relatively slow operating system compared to the one according to the invention.

Also, it should be noticed that the increase in filling power which can be expected from said known method does not seem to be very high (cf. Column 6, lines 50 to 53). This method appears to be more a process for compensating a loss of filling power of the tobacco when drying it, rather than a process for substantially increasing said filling power.

These deficiencies of the process known from document D8 can be regarded as disadvantages for the treatment of tobacco lamina filler and thereby as a technical problem that the invention should obviate.

- 5.4.2 In order to improve this known method, the solution proposed in Claim 1 consists on the one hand of substantially increasing the steam content of the drying medium up to at least 50% so that more heat can be transferred more rapidly to the tobacco and on the other hand to further dry the filler so that its final OV value be less than 5%.

The Board is satisfied that the aforementioned measures taken in combination can solve the problem.

5.5 Inventive step (Article 56 EPC)

- 5.5.1 The question to be answered now remains whether his general common knowledge or the prior art would provide the person skilled in the art starting from a process according to document D8 with enough information to lead him to the solution proposed in Claim 1.

- 5.5.2 First the following should be observed:

- according to the teaching of document D8, not less than 1,5 parts of moisture to 10 parts of dry air (i.e. about 13% of the transfer medium) should be present and one part to five (i.e. 16.7%) would give a greater filling power than those obtained by well-known methods (Column 2, lines 1 to 4).
- the approach of increasing more the content of steam in the transfer medium is presented in Column 2, lines 14 to 23 as an undesirable approach and not recommended.

- the only document which teaches not only the use of a gas containing more than 50% steam but also a reduction of the final OV value under 5% is document D2 but, according to the teaching of said document, these measures are only to be taken in combination with the use of liquid carbon dioxide as an impregnant and in combination with a pre-treatment of the impregnated filler to solidify the impregnant before the filler is contacted by the moist heat transfer medium.

5.5.3 When the person skilled in the art starts from the method known from document D8 with the desire of improving it in order to increase the filling power of the treated tobacco, it would not be reasonable to follow a teaching opposite to the one of document D8 itself and to increase the percentage of steam in the drying medium more than the given values of approximately one part to five (cf. Column 2, lines 1 to 4). Furthermore, when desiring not to use exogenous impregnants and to avoid a pre-treatment of the filler before being contacted by the heating medium, it would also be unreasonable to the skilled practitioner to consult a document like document D2 which concerns a more complex process using CO<sub>2</sub> as an impregnant with a pre-treatment phase of the filler.

For the foregoing reasons, without any hint, the skilled person would not naturally and logically combine the so different teachings of documents D2 and D8 and retain from the method according to document D2 just the features which lack in the process according to document D8 in order to reach the invention. Such a combination can only be the result of an ex post facto analysis.

5.5.4 Taking into account the above mentioned reasoning, and keeping in mind that the other disclosures are less relevant than document D2, the Board is thus convinced



that the further development of the process known from document D8 according to the teaching of Claim 1 does not follow plainly and logically from the prior art, but implies an inventive step within the meaning of Article 56 EPC.

5.6 Therefore, the subject-matter of Claim 1 is patentable within the meaning of Article 52 EPC. The patent may, therefore, be maintained based on this allowable independent Claim 1.

6. At the end of the oral proceedings, the Appellant had an opportunity to comment on the amendments submitted by the Respondent (auxiliary request). Therefore, it is not necessary to issue a communication pursuant to Rule 58(4) EPC.

7. Apportionment of costs (Article 104 EPC)

The Respondent requested that the Appellant be penalised by an appropriate apportionment of costs because of the late introduction of documents D6 and D7. However, with respect to document D6, it is undisputed that Philip Morris Inc. was the proprietor of the German patent DE-C-2 253 882 (document D6) and that this firm and the present Respondent are in common ownership. Furthermore, it is also undisputed that document D6 was already referred to not only in the Decision of the German Patent Court (Bundespatentgericht) of 25 July 1990 relating to the German patent DE-C-3 117 335 (document D1), but also in the Decision then under appeal which was rendered by the German Patent Office on 23 July 1987.

Furthermore, it appears from the first above-mentioned Decision of 25 July 1990 that the parties involved were the present Appellant and the present Respondent,

proprietor of the said patent DE-C-3 117 335. Thus the latter party knew document D6 very well and was fully aware of the arguments put forward by the Appellant in the German proceedings.

Moreover, as the German Patent Court set aside the Decision of the German Patent Office and revoked the patent as not being inventive, among other reasons on the basis of document D6, the Board finds it not unreasonable that the Appellant introduced such a document into the proceedings after 25 July 1990 i.e. in his letter of 5 December 1990.

With respect to document D7, which was only introduced by the Appellant in the above-mentioned letter, the Respondent made no mention of special expenses that would have been necessary to assure proper protection of the rights involved (R. 63(1) EPC). Moreover the Board notes that the Respondent merely briefly commented on document D7 in his letter of 29 January 1991.

So, having regard to document D7 as well as document D6, the Board sees no reasons of equity (Art. 104 EPC) to order the requested apportionment of costs.

#### Order

For these reasons, it is decided that:

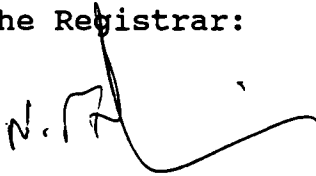
1. The contested decision is set aside.
2. The case is remitted to the first instance with the order to maintain the patent with the documents which form the basis of the auxiliary request:

Description: pages 2 and 5 to 16 as granted,  
pages 3 and 4 as filed during the oral  
proceedings

Claims: Claims 1 to 7 as filed during the oral  
proceedings

3. The request of apportionment of costs is rejected.
4. The request to have a question referred to the Enlarged Board is rejected.

The Registrar:



N. Maslin

The Chairman:

  
C. Andries