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**Datasheet for the decision
of 25 February 2014**

Case Number: T 1059/09 - 3.3.02

Application Number: 01908002.7

Publication Number: 1267650

IPC: A24B15/24, A24B15/26

Language of the proceedings: EN

Title of invention:

TOBACCO TREATMENT

Patent Proprietor:

British American Tobacco (Investments) Limited

Opponents:

Japan Tobacco, Inc.
Reemtsma Cigarettenfabriken GmbH

Headword:

Removal of nitrosamines from tobacco/BRITISH AMERICAN TOBACCO

Relevant legal provisions:

EPC Art. 54(2), 56, 114(2)

Keyword:

Novelty Main Request (no): all features of claim 1 anticipated
Inventive step First Auxiliary Request (no): arbitrary choice
Further Auxiliary Requests admitted (no): late filed

Decisions cited:

T 2343/08

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 1059/09 - 3.3.02

**D E C I S I O N
of Technical Board of Appeal 3.3.02
of 25 February 2014**

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
16 March 2009 concerning maintenance of the
European Patent No. 1267650 in amended form.**

Composition of the Board:

Chairman: U. Oswald
Members: H. Kellner
R. Cramer

Summary of Facts and Submissions

- I. European patent No. 1 267 650, based on international application PCT/GB2001/000945, published as WO 2001/065954 and having the application No. 01 908 002.7 at the EPO, was granted with 47 claims.

Independent claim 1 as granted read as follows:

"A tobacco treatment process wherein tobacco having a pH of less than 6.5 is subjected to treatment with a supercritical fluid extraction medium to extract nitrosamines from said tobacco, said tobacco being one or more of cut tobacco, whole leaf tobacco, tobacco dust and reconstituted tobacco."

- II. Opposition was filed against the granted patent under Article 100(a) EPC, lack of novelty and inventive step, and Article 100(b) EPC, insufficiency of disclosure.

The opposition division held that the patent as granted lacked inventive step. The set of claims of the first auxiliary request, however, met the requirements of the Convention.

- III. The documents cited during the proceedings before the opposition division and the board of appeal include the following:

- (1) Philip Morris U.S.A., "Inter-Office Correspondence", Richmond, Virginia, document pages 2056155818 to 2056155830

- (2) Printout from the Philip Morris U.S.A. internet portal <http://www.pmdocs.com>, stating that document (1) was published on 5 June 1998
- (3) Ernst Voges, "Tobacco Encyclopedia", Mainzer Verlagsanstalt und Druckerei Will und Rothe GmbH & Co. KG, Mainz 1984, pages 51, 132 and 138/139
- (4) Browne, C.L. et al., "The Design of Cigarettes", Hoechst Celanese Corporation, 1990, 24
- (13) Harlan, W.R. et al., "Tobacco" in Encyclopedia of Chemical Technology, Volume 14, Wiley & Sons, New York 1955, 242-261
- (19/2) Stahl, E. et al., "Verdichtete Gase zur Extraktion und Raffination", Springer Verlag Berlin, Heidelberg 1987, 1-4, 16-19, 61-62
- (21) Copy of table 2 of the patent in suit including two further columns containing the values of mass flow rate per kg of tobacco and the ratio of reduction in percent of tobacco-specific nitrosamines to reduction in percent of nicotine (selectivity of the reduction process) as calculated by appellant-opponent 01 and filed with the statement of grounds of appeal of 15 July 2009; received in the Office on 17 July 2009 and to be seen in the electronic file as the last page of the first "Patent Document cited during the appeal procedure", D20); The same results were filed by appellant-opponent 01 with letter of 22 July 2009, received in the Office on the same day, as an annexed table and chart (graphical illustration)

- IV. Both the opponents and the patentee filed appeals against the decision of the opposition division.
- V. With its statement of grounds of appeal, the appellant-patentee filed two sets of claims as its main request (claims as granted) and as its first auxiliary request. The first auxiliary request was identical to the request upheld by the opposition division.

Its claim 1 reads as follows (added text with respect to claim 1 as granted in bold):

"A tobacco treatment process wherein tobacco having a pH of less than 6.5 is subjected to treatment with a supercritical fluid extraction medium to extract nitrosamines from said tobacco, said tobacco being one or more of cut tobacco, whole leaf tobacco, tobacco dust and reconstituted tobacco, **and wherein the supercritical fluid extraction medium has a mass flow rate per kg of tobacco of about 1 - 55 kg/h.**"

- VI. By letter of 3 February 2014, the appellant-patentee summarised its requests currently on file as main request to maintain the patent as granted, first auxiliary request as the patent to be maintained with the claims as amended following opposition (which are the claims as maintained by the opposition division) and the second to fifth auxiliary requests as filed with submission of 5 January 2009 (submitted during the proceedings before the opposition division; annotations in brackets by the board).
- VII. Oral proceedings took place on 25 February 2014.

VIII. The appellants-opponents claimed that the second to fifth auxiliary requests were inadmissible for being late filed. According to appellant-opponent 02 the oral proceedings had to be postponed if the requests were admitted.

They raised objections concerning the novelty and inventive step of claim 1 of the main request and of the first auxiliary request that may be summarized as follows:

The subject-matter of claim 1 of the main request was anticipated by the teaching of document (1) in connection with the common general knowledge (represented by tables in documents (4) and (13)).

In addition, the teaching of claim 1 of the first auxiliary request at least lacked inventive step, because the single feature contained in the claim that went beyond the disclosure of the closest prior art, document (1), could be derived by combination with different documents, in particular document (19/2). On the other hand, from the experiments contained in the patent in suit, there was no trend or system to be seen in their results that allowed the claimed range of the mass flow rate to be derived consistently. The upper and lower limits of this range were thus without meaning and freely chosen, probably influenced by arguments of costs (upper limit) and minimum meaningful conditions to be necessary (lower limit), instead of being the result of the experiments.

IX. The appellant-patentee's arguments may be summarised as follows:

The second to fifth auxiliary requests should be admitted into the proceedings since they had now been on file for more than five years and because appellant-opponent 01 had already discussed them in its statement of grounds of appeal and obviously assumed that they were part of the appeal proceedings.

The teaching of claim 1 of the main request was new with respect to document (1) because no pH value was disclosed in this prior art, and common general knowledge represented by the cited tables was under the proviso that large variations occurred "within each individual type not only from farm to farm, but from year to year". Thus, tobacco of a pH value within the claimed range could have been used in the experiments described in document (1) but it was far from sure that it did in fact have such a pH value. However, a ruling on missing novelty based on probability was not in accordance with the case law of the boards of appeal.

The teaching of claim 1 of the main request also was not obvious with respect to document (1) in combination with documents (4) or (13) because nobody had recognized in the prior art that the selection of the correct pH value of the tobacco from which the tobacco-specific nitrosamines (TSNAs) were to be removed was important in order to reduce the TSNAs as much as possible and to leave as much nicotine as possible in the tobacco at the same time.

Inventive step with regard to claim 1 of the first auxiliary request was to be acknowledged because document (1) was totally silent on a mass flow rate per kg of tobacco and this feature was the basis for successfully moving the ratio of the reduction of

tobacco-specific nitrosamines and the reduction of nicotine in the direction of the TSNAs.

- X. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the set of claims filed as main request with the grounds of appeal, or alternatively that the appeals of the opponents be dismissed, or more alternatively that the decision under appeal be set aside and the patent be maintained on the basis of one of the second to fifth auxiliary requests filed with the letter of 5 January 2009.

The appellants (opponents) requested that the decision under appeal be set aside and that the European patent No. 1 267 650 be revoked.

Reasons for the Decision

1. The appeals are admissible.
2. Admissibility of the second to fifth auxiliary requests

The appellant-patentee sought to introduce these requests by letter of 3 February 2014 containing the wording "Finally, the requests of the patentee as currently on file are summarised as follows:" and mentioning under this wording in addition to the main request and the first auxiliary request "2nd to 5th Auxiliary Requests - amended sets of claims as filed with submission dated 5 January 2009".

During the appeal proceedings, up to the letter of 3 February 2014, these second to fifth auxiliary requests had never been filed or referred to. They had been filed during the proceedings before the opposition

division, shortly before the oral proceedings held on 3 February 2009, and even there, exactly as before the board, without any justification with regard to the point of time or the causes of their late filing, and lacking any explanation of the issue to which they were intended to be an answer.

As appeal proceedings are wholly separate and independent from the proceedings before the opposition division, requests filed before the opposition division are not automatically pending before the board of appeal (T 2343/08 of 11 February 2010, Reasons 3.2).

Therefore, the reference in the letter of 3 February 2014 amounts to the filing of an amendment to the appellant-patentee's case after the summons to oral proceedings were issued.

Under these circumstances, the board exercises its discretion according to Article 114(2) EPC, and does not admit the second to fifth auxiliary requests into the proceedings.

3. Claim 1 of the main request (identical to claim 1 as granted); Article 54(2) EPC

3.1 The subject-matter of this claim 1 relates to the provision of a

- tobacco treatment process wherein
- tobacco having a pH of less than 6.5
- is subjected to treatment with a supercritical fluid extraction medium
- to extract nitrosamines from said tobacco,

- said tobacco being one or more of cut tobacco, whole leaf tobacco, tobacco dust and reconstituted tobacco.

3.2 The subject-matter of document (1) relates to the provision of a

- tobacco treatment process (see page 1, paragraph 1, line 2) wherein
- tobacco having a pH of less than 6.5 (see page 1, paragraph 1, last two lines, and table on top of page 2, referring to bright tobacco alias bright Virginia and to Burley tobacco showing pH values of 5.45 and 5.8 according to common general knowledge)
- is subjected to treatment with a supercritical fluid extraction medium (see page 1, paragraph 1, line 2)
- to extract nitrosamines from said tobacco (see page 1, paragraph 1, lines 3 to 5, together with page 1, last paragraph),
- said tobacco being one or more of cut tobacco, whole leaf tobacco, tobacco dust and reconstituted tobacco (see page 1, paragraph 1, lines 3 to 5; filler is cut tobacco).

Since in claim 1 as requested no conditions for measuring and no process to be undertaken for adjusting the pH value are indicated, the wording in claim 1 of the main request "tobacco having a pH of less than 6.5" must refer to tobacco that usually shows this characteristic.

Taking into account documents (4) and (13) (text books that represent the common general knowledge), such tobaccos are the widely used bright Virginia and Burley

tobaccos (flue-cured tobacco is undisputedly synonymous with bright or bright Virginia according to document (3)), exactly the tobaccos used in document (1).

Consequently, since bright Virginia and Burley tobaccos are "tobaccos having a pH of less than 6.5", all features of claim 1 of the main request are anticipated by document (1).

4. Claim 1 of the first auxiliary request; Article 56 EPC

4.1 The closest prior art is undisputedly document (1).

The results disclosed at the bottom of page 1 of this document concerning reduction in tobacco-specific nitrosamines versus reduction in nicotine are >97% reduction in nitrosamines and 21% reduction in nicotine respectively. Thus, they are better than most of the results disclosed in the patent in suit, in particular table 2 relating to example 2.

4.2 As a consequence, the problem to be solved is to provide a further tobacco treatment process for selective reduction of tobacco-specific nitrosamines.

4.3 The proposed solution according to the features of claim 1 of the first auxiliary request is to choose a mass flow rate of the supercritical fluid extraction medium per kg of tobacco of about 1 - 55 kg/h.

In view of the experiments set out in the patent in suit, the problem can be considered to be solved.

4.4 Concerning example 2 of the patent in suit, explicit values for the mass flow rates and the ratio of

reduction of the content of tobacco-specific nitrosamines versus reduction of the content of nicotine (%TSNA reduction normalised to %nicotine reduction) are not presented in the patent in suit. From the data contained in the description, however, these values were calculated by appellant-opponent 02 and filed as document (21); identical results of appellant-opponent 01 are also on file (see comment on document (21) under point II of this decision). These values have never been contested by the appellant-patentee.

They show that relative selectivity of reduction of the content of tobacco-specific nitrosamines versus nicotine is best within the claimed range at very high and very low mass flow rates per kg of tobacco (see document (21), "3 run 11" and "4 run 6" versus "4 run 4"). The other "runs" are not comparable because other parameters differ.

Thus, the results of example 2 of the patent in suit lead to the conclusion that the claimed process works not only within the claimed range but also outside of it. In addition, looking at the percentages of removed tobacco-specific nitrosamines, it follows that the advantages in specificity are only possible at the cost of a higher content of the nitrosamines remaining in the treated tobacco.

- 4.5 Consequently, the selection of the claimed range is the result of an arbitrary choice: starting from the results of the experiments on file, a logical conclusion on this range is not possible.
- 4.6 Accordingly, the subject-matter of claim 1 of the first auxiliary request is not inventive over document (1).

5. Under these circumstances, the further arguments of the appellant-patentee cannot succeed:

The arguments supporting the request to admit the second to fifth auxiliary requests into the appeal proceedings were that these requests had been on file for such a long time and that appellant-opponent 01 had already commented on them in its statement of grounds of appeal.

However, in this statement of grounds of appeal appellant-opponent 01 had already argued on late filing, at least with respect to the second auxiliary request. Moreover, precautionary arguments filed by appellant-opponent 01 without knowledge of the real requests of the appellant-patentee cannot alter the fact that the second to fifth auxiliary requests were not expressly filed during the appeal proceedings up to three weeks before the oral proceedings before the board.

In relation to the substantive issues of the case, it is to be noted that claim 1 of the main request is silent on any step of measuring the pH of the tobacco to be treated and on any step of adjustment of the pH value of this tobacco. Even in the whole patent in suit there is no indication of particular circumstances of measurements of the pH value of tobaccos. Therefrom it can only be concluded that even the appellant-patentee (with the sole exception of example 2, "4 run 3" in table 2) relies on the **usual** pH value of the tobaccos that are used in its experiments, namely Virginia and Burley tobaccos (see also page 4 of the patent in suit, lines 33 to 40).

Nothing else is stated in document (1).

Under these circumstances it is also irrelevant whether the pH value or other parameters disclosed in table IV of document (13) vary and to what extent they may vary. The process according to the patent in suit relates in the same way as the process performed in document (1) to tobaccos usually "having" a particular pH value, namely to tables and general common knowledge instead of distinct measurements.

6. Consequently, the subject-matter of claim 1 of the main request is not new, and that of claim 1 of the first auxiliary request lacks inventive step.

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:



N. Maslin

U. Oswald

Decision electronically authenticated