DECISION

of 23 September 2005

Case Number: T 0333/03 - 3.2.04
Application Number: 98900459.3
Publication Number: 0903978
IPC: A01J 5/013

Language of the proceedings: EN

Title of invention:
A method of establishing the presence of specific substances in milk as well as an implement for applying same

Patentee:
MAASLAND N.V.

Opponents:
DeLaval International AB
Prolion B.V.

Headword:
Colour measure/MAASLAND

Relevant legal provisions:
EPC Art. 100(a), 100(b), 114

Keyword:
"Novelty (yes)"
"Inventive step (yes)"
"Late filed documents (disregared)"
"Fresh ground for opposition (disregarded)"

Decisions cited:
G 0009/91, G 0010/91

Catchword:
-
Case Number: T 0333/03 - 3.2.04

DECISION
of the Technical Board of Appeal 3.2.04
of 23 September 2005

Appellant: DeLaval International AB
(Opponent I)
P.O. Box 39
S-147 21 Tumba (SE)

Representative: Harrison, Michael Charles
Albihns GmbH,
Bayer Strasse 83
D-80335 München (DE)

Party to the proceedings: Prolion B.V.
(Opponent II)
Kromme Spieringweg 277
P.O. Box 34
NL-2140 AA Vijfhuizen (NL)

Representative: Uittenbogaart, Gustaaf Adolf
P.O. Box 3
NL-2050 AA Overveen (NL)

Respondent: MAASLAND N.V.
(Proprietor of the patent)
Weverskade 10
NL-3155 PD Maasland (NL)

Representative: Corten, Maurice Jean F.M.
Octrooibureau Van der Lely N.V.
Weverskade 110
NL-3147 PA Maassluis (NL)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 30 January 2003 rejecting the oppositions filed against European patent No. 0903978 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
C. Heath
Summary of Facts and Submissions

I. Two oppositions filed against the European patent No. 903 978 (based upon Article 100(a) EPC) were rejected by decision of the opposition division dispatched on 30 January 2003.

II. After expiry of the time limit laid down in Article 99(1) EPC, opponent I also raised the ground of insufficiency of disclosure under Article 100(b) EPC. The opposition division in exercising its discretion under Article 114(2) EPC decided not to admit this fresh ground for opposition.

III. Opponent I (hereinafter appellant) lodged an appeal against this decision on 20 March 2003 and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 28 May 2003.


Two further documents, US-A-4 663 530 (D19) and WO-A-96/31764 (D21) were filed by the appellant by letters dated 8 March 2005 and 27 July 2005, respectively.

In the written phase of the appeal proceedings the appellant also relied on the following documents which had been considered during the opposition proceedings:


D6: DE-A-2 759 126;

D12: WO-A-95/22246;


V. Oral proceedings before the board were held on 23 September 2005.

Opponent II who had been duly summoned did not appear. Pursuant to Rule 71(2) EPC, the proceedings continued in his absence.

During the oral proceedings the patent proprietor (hereinafter respondent) submitted five sets of claims upon which a main request and four auxiliary requests were based.

The independent claims 1 and 5 of the main request read as follows:

"1. A method of establishing the presence of specific substances, such as contaminations, in the milk yielded from individual animals and obtained at consecutive milking runs, characterized in that with the aid of a colour sensor measuring system (9) the intensity of a number of defined colours in the milk is established; that the intensity values thus obtained are stored in a data file that is present for a relevant animal in a
computer (13); that these intensity values are compared both mutually and with corresponding intensity values recorded during one or more previous milking runs and that the results of this comparison process are indicated.

6. An implement for applying a method of establishing the presence of specific substances, such as contaminations, in the milk yielded from individual animals and obtained at consecutive milking runs, which method is described in any one of claims 1 to 5, characterized in that the implement is provided with a colour sensor measuring system (9) including one or more sensors (12) that are accommodated in the milk line circuit of an automatic milking system to establish the intensity of a number of defined colours in the milk, as well as a computer (13) connected to said colour sensor measuring system (9), in which computer (13) the intensity values thus obtained are stored in a data file present therein for a relevant animal, and these intensity values are furthermore compared both mutually and with corresponding intensity values recorded during one or more previous milking runs, while there are additionally provided means that are connected to the computer (13) for the purpose of indicating the results of this comparison process."

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

He also requested that documents D17, D18, D19 and D21 be introduced into the proceedings.
VII. The respondent requested that the decision under appeal be set aside and that the patent be maintained as amended in the following version (main request):

- claims 1 to 8 filed as main request during the oral proceedings;

- description, column 1 filed during the oral proceedings and columns 2 to 4 of the patent specification;

- single sheet of the patent specification.

Auxiliarily, the respondent requested that the decision under appeal be set aside and that the patent be maintained as amended on the basis of claims of one of the sets of claims according to the first to fourth auxiliary requests submitted during the oral proceedings.

Furthermore, the respondent requested that the documents D17, D18, D19 and D21 not be admitted into the proceedings.

VIII. The appellant essentially argued that

(i) the ground for opposition according to Article 100(b) EPC prejudiced the maintenance of the patent as amended in accordance with the main request,

(ii) the subject-matter of claims 1 and 6 of the main request did not involve an inventive step having regard to documents D6, D10 and D16,
(iii) documents D17 and D21 were highly relevant because the subject-matter of claims 1 and 6 according to the main request lacked an inventive step with respect to the combination of either documents D17 and D6 or documents D10 and D21 or documents D21 and D17.

The respondent contested the arguments of the appellant.

Reasons for the Decision

1. The appeal is admissible.

2. Admissibility of the fresh ground of insufficiency of disclosure under Article 100(b) EPC

2.1 According to the jurisprudence of the boards of appeal (see decision G 9/91 and opinion G 10/91, OJ 1993, 408 and 420), an opposition division may in application of Article 114(1) EPC consider a ground for opposition raised by the opponent after expiry of the time limit laid down in Article 99(1) EPC. However, the consideration of this ground should only take place in cases where, prima facie, there are clear reasons to suspect that this ground is relevant and would in whole or in part prejudice the maintenance of the European patent.

The opposition division, in exercising its discretion under Article 114(2) EPC, disregarded the ground for opposition according to Article 100(b) EPC as being
"prima facie not withstanding the maintenance of the patent".

Thus, in the present case, the board does not have to consider the issue of whether the ground for opposition according to Article 100(b) EPC would have prejudiced the maintenance of the patent (which it might have) but only the issue of whether the opposition division correctly exercised its discretion in disregarding this ground for opposition.

2.2 In the decision under appeal the opposition division considered that a skilled person was "able to establish the specific substances without undue burden" (emphasis added).

The appellant essentially argued that the patent specification does not provide the skilled person with sufficient information as to how the presence of specific substances can be established and submitted that revocation of the patent due to the ground under Article 100(b) EPC was fully justified.

The respondent submitted that with the aid of trial and error experiments the presence of specific substances could be established easily and without undue burden.

In the present case, it does not appear that there are strong prima facie reasons for believing that the method claimed and described in the European patent does not permit without undue burden the determination of the presence of specific substances, such as contaminations in the milk. On the contrary, in particular in column 2, lines 48 to 51 of the patent
specification the skilled reader is taught that for a milk of a constant composition the three intensity values (in frequency bands for red, green and blue) will "have a fixed mutual relation, which relation, however is disturbed as soon as the milk contains contamination". Thus, the depicted method is, at least *prima facie* able to easily establish the presence of contaminations in the milk.

Moreover, the appellant, who has the burden of proof, did not submit any evidence concerning an undue burden.

2.3 Therefore, the board considers that the opposition division properly exercised its discretion under Article 114(2) EPC in disregarding this fresh ground for opposition.

3. *Amendments (main request)*

3.1 Claim 1 as granted as well as claim 1 of the application as filed specified that "with the aid of a colour sensor measuring system (9) the intensity of frequencies in a number of defined frequency bands, in particular the intensity of a number of defined colours in the milk is established". Due to the words "in particular" the reference to "defined colours" is considered as being optional.

Claim 1 of the main request differs from claim 1 as granted in that the above quoted feature has been replaced by the feature according to which "with the aid of a colour sensor measuring system (9) the intensity of a number of defined colours in the milk is established".
This amendment clearly limits the scope of the claim in so far as the expression "intensity of a number of defined colours" is more specific \((\text{species})\) than the expression "intensity of frequencies in a number of defined frequency bands" \((\text{genus})\).

Thus, this amendment does not extend the protection and is self-supported by claim 1 of the application as filed.

3.2 Claim 6 as granted as well as claim 6 of the application as filed specified that "the implement is provided with a colour sensor measuring system (9)... to establish the intensity of frequencies in a number of defined frequency bands, in particular the intensity of a number of defined colours in the milk".

Claim 6 of the main request differs from claim 1 as granted in that the above quoted feature has been replaced by the feature according to which "the implement is provided with a colour sensor measuring system (9)... to establish the intensity of a number of defined colours in the milk".

Therefore, the same considerations in section 3.1 above also apply to claim 6 of the main request.

3.3 The amendments to the description were made in order to adapt the description to the wording of the amended claims.

3.4 These amendments do not contravene the requirements of Article 123, paragraphs (2) and (3) EPC.
4. **The claimed subject-matter**

4.1 The features in claims 1 and 6 which contain the expression "intensity of a number of defined colours" clearly refer to the intensity of the radiation in a number of defined frequencies bands in the visible range of the light spectrum. This also implies that the intensity of at least two different colours is established.

This interpretation is consistent with the description of the patent in so far as it refers to sensors which "are sensitive for frequencies in frequency bands for red, green and blue" (see column 2, lines 44 to 46) without referring to other frequency bands which are outside the visible range of the light spectrum.

This interpretation was also explicitly agreed with by the respondent during the oral proceedings.

4.2 According to claims 1 and 6 of the main request, the intensity values, i.e. the intensities of at least two defined colours, "are compared both mutually and with corresponding intensity values recorded during one or more previous milking runs ... ", wherein the results of this comparison are indicated.

Thus, claims 1 and 6 define a first comparison which is "mutual", i.e. a comparison of the intensity values (measured during the current milking run) with each other, and a second comparison between the intensity values (measured during the current milking run) and the corresponding historical intensity values. It is
also clear that each of the comparisons is a logical operation having its own result which provides information concerning the presence of specific substances in the milk yielded from an individual animal. It has to be assumed that this logical operation is performed in the computer between at least two current intensity values "stored in a data file that is present for a relevant animal in the computer".

5. The prior art

5.1 Document D10 is a scientific article describing research made in order to examine the feasibility of the use of near-infrared (NIR) spectroscopy for checking the milk quality. The aim of the research was to find whether there is a high correlation between NIR absorbance data of the milk samples determined by means of a NIR spectrophotometer and the milk constituents (fat, protein, lactose, solid non fat and somatic cell count) analyzed in a laboratory.

According to a first experiment referred to in document D10, 200 samples of milk yielded from 20 individual animals and obtained once a month after morning and evening milking runs were analyzed in order to obtain transmittance spectra of the animals in the frequency band between 680 and 1230 nm. The absorbance data (in terms of the optical density) of the samples were stored in a data file present in a computer for a relevant animal. Figure 1 (on page 188) shows ten absorbance spectra of the milk samples obtained from a mastitis cow and a healthy cow during five months. The five spectra of each of the two cows can be compared with each other. The correlation between the spectral
data and the laboratory data was analyzed on the basis of the second derivative of absorbance curve.

According to a second experiment referred to in document D10, 160 samples of quarter foremilk obtained from 5 mastitis cows for four consecutive days were analyzed in order to establish whether there is a high correlation between NIR absorbance data and the somatic cell count (SCC), which represents a parameter indicative of mastitis. It is understood that the correlation between the spectral data and the SCC data was analyzed on the basis of a function (F1, see page 188) according to which for each sample a value corresponding to the absorbance intensity in the whole frequency band (680-1230 nm) was calculated.

Moreover, document D10 in the second paragraph of the "Introduction" suggests the possibility of applying "the use of near-infrared (NIR) principles and equipment for on-line milk control ...".

5.1.1 With respect to this document, the appellant argued that each of spectral curves represented in Figure 1 of this document is constituted by a plurality of intensity values representative of the intensities of the radiation in a variety of frequency bands of the near-infrared portion of the light spectrum. Each of these spectral curves intrinsically represents a mutual comparison of intensity values in so far as it is the relative intensities at respective frequency bands which reveal information as to the composition of the milk samples being examined.
5.1.2 The board cannot accept this argument for the following reasons:

Each of the spectral curves represented in Figure 1 of document D10 can be arrived at by establishing a plurality of intensity values at a variety of frequencies. Each of these curves could allow a comparison between the represented intensity values. However, no information can be derived from this document suggesting that a comparison (as a logical operation) is actually performed in the computer in order to compare intensity values corresponding to defined frequency bands with each other.

5.2 Document D6 discloses a method of establishing the presence of blood in the milk yielded from individual animals and obtained on consecutive milking runs, in which a colour sensor measuring system (comprising a light source and a photodiode) is used. It is understood (see page 14, lines 18 to 24) that the photodiode is capable of detecting a change of the milk colour during the milk cycle. However, document D6 does not specify how the colour change is detected.

Document D16 discloses a method of establishing the presence of blood in the milk yielded from individual animals and obtained on consecutive milking runs, in which a sensor measuring unit for establishing the colour of the milk is used without specifying how the colour is established.

Therefore, neither document D6 nor document D16 disclose the measures of establishing (for an individual animal) intensity values each corresponding
to a defined colour and of comparing the intensity values both mutually and with previous historical values concerning the same animal.

5.3 Document EP-A-301 699 (D1) discloses a method of determining the bioactivity of a sample of milk, in which the intensity of the colour components of the light reflected from the sample in a number of defined colours with the aid of a colour sensor measuring system is established over a period of time in order to determine changes in the bioactivity of the sample. It is understood that the intensity values thus obtained are stored and processed in a computer.

6. **Novelty (main request)**

The board is satisfied that the claimed subject-matter (claims 1 and 6) is novel with regard to the documents considered by the opposition division in the previous proceedings referred to by the appellant in the appeal proceedings.

In the oral proceedings, the appellant did not object to the novelty of the claimed subject-matter.

7. **Inventive step (main request)**

7.1 In the oral proceedings, the appellant essentially argued that the skilled person would arrive at the claimed subject-matter in an obvious way by starting from the prior art known from document D10 and having regard to the prior art known either from document D6 or from document D16.
7.1.1 As has been already explained, document D10 discloses a method of establishing the presence of specific substances in samples of milk yielded from individual animals and obtained on consecutive milking runs, in which with the aid of a spectrophotometer the intensity of the light in a number of defined frequency bands in the near-infrared portion of the light spectrum is established, the spectral data of the milk sample (i.e. intensity values) thus obtained are stored in a data file which is present for the relevant animal in a computer, wherein a spectral curve of the milk sample is obtained, this spectral curve being compared with a historical spectral curve, i.e. with a spectral curve recorded during a previous milking run.

Thus, the subject-matter of claim 1 as well as that of claim 6 differ from this prior art at least in that

- the intensity of a number of defined colours in the milk is established with the aid of a colour sensor measuring system, i.e. a system measuring the intensity of the light in a number of defined frequency bands in the visible portion of the light spectrum, wherein the intensity values (i.e. the intensities of the defined colours) are compared mutually (i.e. with each other).

Due to these distinguishing features, the presence of specific substances in the milk may be established in a very simple and non-expensive way (for instance by using a colorimeter). Moreover, due to the double comparison, namely the mutual comparison of the colour intensities with each other, on the one hand, and the historical comparison of the colour intensities with
corresponding values obtained during previous milking runs, the presence of specific substances can be established with a higher level of accuracy.

Thus, starting from this prior art, the technical problem to be solved by the present invention may be seen in providing a method of and an implement for establishing the presence of specific substances, such as contaminations, in the milk yielded from individual animals in a simplified and inexpensive way and with a high level of accuracy.

7.1.2 The research on which document D10 reports concerns the examination of the "feasibility of the NIR range for on-line milk quality control" (see page 186, last sentence of the paragraph headed "Introduction"; pages 191 and 192, paragraph headed "Conclusions"). Therefore, the skilled person starting from document D10 would be reluctant to accept the idea of shifting the measures of the light intensities from the near-infrared portion to the visible portion of the light spectrum because the use of the near-infrared range represents the essence of the teaching of document D10.

Furthermore, although document D6 specifically refers to a photodiode capable of detecting a colour change and document D16 refers in a general way to a sensor measuring unit for establishing the colour of the milk, none of these documents suggests to the skilled person that the spectroscopy technique referred to in document D10 can be applied also in the visible portion of the light spectrum in order to detect colour changes of the milk.
Therefore, the skilled person would not combine the teaching of document D1 with that of either document D6 or document D16.

In this respect, the appellant based his arguments upon the assumption that the spectral curves referred to in document 10 implicitly disclosed a mutual comparison. Having regard to the considerations in sections 4.2 and 5.1.2. above, the board cannot accept these arguments.

7.1.3 Furthermore, having regard to the considerations in section 5.2 above, none of documents D6 or D16 disclose a mutual comparison between different intensity values, each corresponding to a defined colour. Therefore, even if the skilled person starting from document D10 were to take either document D6 or document D16 into consideration, he would not arrive at the claimed subject-matter.

In this respect, the appellant argued that colour measuring devices as the photodiode detecting a colour change as referred to in document D6 or as the sensor measuring unit for establishing the colour as referred to in document D16 implicitly describe a mutual comparison between colour intensities. This argument cannot be accepted by the board because documents D6 and D16 are completely silent with respect to the methodology used for measuring the colour.

7.1.4 The appellant had argued in writing that that the claimed subject-matter did not involve an inventive step having regard to combination of documents D10 and D1.
Although it can be assumed that the colorimeter described in document D1 - in so far as it determines the "trimistulus values" (i.e. the coordinates L*, a* and b* representing lightness, redness-greenness and yellowness-blueness respectively) - not only measures colour intensities in the visible portion of the light spectrum but also compares the measured intensities with each other, the board cannot accept these arguments of the appellant for the following reasons:

(i) The skilled person would not combine documents D1 and D10 because none of these document suggests that the near-infrared technique spectroscopy technique referred to in D10 is interchangeable with the colour measuring technique referred to in D1.

(ii) Furthermore, document D1 which relates to a method of determining bioactivity of a biological sample does not suggest the idea of adapting the method to establish the presence of specific substances in the milk yielded from individual animals and obtained at consecutive milking runs.

7.1.5 The further arguments submitted by the appellant during the written phase of the appeal proceedings were based upon the interpretation of the claims according to which the term "colour sensor measuring system" is a system capable of measuring the intensity of the light not only in the visible portion but also in the non-visible portion of the light spectrum. Having regard to the considerations in section 4.1. above, these arguments are irrelevant for the findings of the present decision.
7.2 Therefore, the prior art documents considered in the opposition proceedings and referred to by the appellant in the appeal proceedings do not render the subject-matter of claims 1 and 6 according to the main request obvious to a skilled person.

8. The late filed documents

8.1 The appellant submitted document D17 with the statement of grounds of appeal and requested that this document be admitted into the proceedings because it was *prima facie* relevant and would in whole or in part prejudice the maintenance of the European patent.

8.1.1 During the oral proceedings the appellant essentially argued as follows:

(i) Document D17 discloses a method for controlling the quality of the milk yielded from individual animals and obtained at consecutive milking runs by means of an automatic milking system, according to which a milk sample is automatically taken during the milking run of an individual animal and spectral analysis in the near-infrared portion of the spectrum is conducted in real time with the aid of an infrared spectrometer analyzer so that analysis data from the current milking run of the individual animal are stored in a computer and compared with the analysis data from previous milking runs. Thus, this document - in so far as it discloses an online milk control - has to be considered as being more relevant than document D10.
(ii) Furthermore, according to this document, it is also possible to conduct the spectral analysis so as to "use other frequency ranges at least somewhat beyond the known near-infrared frequency range" (page 16, line 35 to page 17, line 4). Thus, this document is more relevant than document D10 also because it suggests the possibility of working outside of the near-infrared range.

8.1.2 The board cannot accept the appellant's arguments for the following reasons:

(i) Document D10 - as submitted by the appellant himself in the statement of grounds of appeal (page 12, 3rd paragraph) - discloses the possibility of applying the method to on-line milk control (see section 5.1 above, last paragraph).

(ii) The expression "somewhat beyond the known near-infrared frequency range" in document D17 does not unambiguously imply the use of frequencies in the range of visible light. Moreover, document D10 refers to a "Pacific Scientific Spectrophotometer", Model 6250 working in the wavelength range 680-1230nm, which extends somewhat (680-700nm) in the range of visible light.

8.1.3 Therefore, document D17 is not considered as being more relevant than document D10.

The filing of this document cannot be seen as being a reaction of the appellant to previous comments of the board or the respondent. The appellant submitted that this document "was identified ... during a search for documents in a different, related case". In this respect, it has to be noted that document D21 is a patent application of ALFA LAVAL AGRI AB, a firm of same group as DELAVAL INTERNATIONAL AB, i.e. the appellant.

As this document was filed extremely late and in addition is a document of a company related to the appellant, it has to be established whether this document is prima facie highly relevant, i.e. whether it can reasonably be expected to change the outcome of the decision.

8.2.1 The appellant referred to various passages of the introductory part of document D21, i.e. of the section headed "Disclosure of invention" (pages 3 to 16) and argued that these passages read in conjunction with each other define a method of establishing the presence of specific substance in the milk from which the method according to claim 1 differs only in that the intensity values measured are historically compared, i.e. are compared with corresponding intensity values which were recorded during a previous milking run.

In particular, the appellant referred to page 14, lines 17 and 18 and argued that according to this passage the intensity of the light is established in a
number of defined frequencies not only in the infrared portion but also in the visible portion of the electromagnetic spectrum. Furthermore, the appellant argued that the sentence on page 15, lines 3 to 5 discloses a mutual comparison between intensity values.

8.2.2 The board cannot accept these arguments for the following reasons:

(i) Document D21 is a very complex document relating to an apparatus and a method for quantitative particle determination in fluids and describes in the section headed "Best modes for carrying out the invention" (pages 17 to 31) many embodiments. According to document D21, "in some instances it may be necessary to move outside of the infrared through the visible region of the electromagnetic spectrum" (page 14, lines 17 and 18).

However, neither did the appellant identify an embodiment operating in the visible portion of the light spectrum nor does the section headed "Best modes for carrying out the invention" clearly indicate such an embodiment. In this respect, it has to be noted that the term "colour" does not occur in document D21. Moreover, the fact that light emitters are referred in document D21 as comprising light emitting diodes (LED's) does not necessarily imply that visible light emitting diodes are meant, because infrared emitting diodes (IR LED's) are well known (IR LED's are for instance referred to in document D21, see page 27, line 19).
(ii) The sentence on page 14 (lines 3 to 5) referred to by the appellant ("By suitable analysis and comparison of the detector responses at different frequencies, a clearer picture can be obtained of the effect of just the presence of particles on the detectors output") refers to a mutual comparison of intensity values. However, this sentence has to be read in conjunction with the subsequent sentence according to which "it is envisaged however that such modifications will not necessarily be used in all embodiments though for some sample fluids it may be desirable, or necessary, to incorporate such improvements" (page 14, lines 5 to 8).

However, document D21 does not make it clear whether a mutual comparison is desirable or necessary for milk. Thus, it is not immediately clear whether this document discloses a mutual comparison in the context of an embodiment relating to milk analysis.

8.2.3 Therefore, document D21 is not considered as being prima facie highly relevant.

8.3 Document D18 concerns an apparatus for monitoring a milk flow in a real time manner which includes two lines of sources of infrared light, each source being aligned with a detector. Document D19 concerns a method of measuring fat concentration in dairy product using an infrared spectrophotometric technique.
In the written phase of the appeal proceedings the appellant referred to these documents essentially in order to argue that the claimed subject-matter lacked inventive step over the teaching of document D10 combined with the teaching of either document D18 or document D19. These arguments were based upon the interpretation of the claims according to which the term "colour sensor measuring system" is a system capable of measuring the intensity of the light not only in the visible portion but also in the non-visible portion of the light spectrum. Therefore, documents D18 and D19 are not considered to be relevant in so far as they refer to measurement techniques using electromagnetic radiation in the infrared portion of the light spectrum.

8.4 For the above reasons the board has decided not to admit the late filed documents D17, D18, D19 and D21 into the appeal proceedings.

9. Therefore, the patent can be maintained as amended on the basis of the respondent's main request.

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 8 filed as main request during the oral proceedings;

- description, column 1 filed during the oral proceedings and columns 2 to 4 of the patent specification;

- single sheet of the patent specification.

The Registrar: 

The Chairman:

G. Magouliotis 

M. Ceyte