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**Datasheet for the decision
of 3 February 2011**

Case Number: T 0423/09 - 3.2.04

Application Number: 01918089.2

Publication Number: 1267609

IPC: A01J 5/04

Language of the proceedings: EN

Title of invention:

Milk sampling apparatus and method

Patentee:

DeLaval Holding AB

Opponent:

Octrooibureau Van der Lely N.V.

Headword:

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Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 100 a)

Keyword:

"Inventive step - all requests (no)"
"Enhanced effect inevitably achieved"

Decisions cited:

T 0296/87, OJ EPO 1990, 195

Catchword:

An enhanced effect cannot be regarded as an indication of inventive step if it results from the recommended practice prescribed in a Handbook (point 3.6 of the reasons).



Case Number: T 0423/09 - 3.2.04

DECISION
of the Technical Board of Appeal 3.2.04
of 3 February 2011

Appellant: Octrooibureau Van der Lely N.V.
(Opponent) Weverskade 110
NL-3147 PA Maassluis (NL)

Representative: Seerden, Adrianus Maria
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Respondent: DeLaval Holding AB
(Patent Proprietor) P.O. Box 39
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 17 December 2008
rejecting the opposition filed against European
patent No. 1267609 pursuant to Article 101(2)
EPC.

Composition of the Board:

Chairman: M. Ceyte
Members: C. Scheibling
T. Bokor

Summary of Facts and Submissions

I. By its decision posted 17 December 2008 the Opposition Division rejected the opposition. On 13 February 2009 the Appellant (opponent) filed an appeal against this decision and paid the appeal fee simultaneously. The statement setting out the grounds of appeal was received on 23 April 2009.

II. The patent was opposed on the grounds based on Article 100(a) EPC 1973 (lack of novelty and inventive step).

III. The following documents played a role in the present proceedings:

D3: "Mémento sur la conservation des échantillons"
O. Leray, 1983

D8: "Journal of Dairy Science; Instrumental Milk Fat Determination", 1971.

D9: "National Dairy Herd Improvement Handbook;
Weighing and Sampling of Milk for DHI Tests",
1985.

D13: EP-A- 0 749 681.

IV. Oral proceedings took place on 3 February 2011 before the Board of Appeal.

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

He mainly argued as follows:

D13 discloses the features of the prior art portion of the claimed apparatus and method. The problem to be solved with respect to this closest prior art is to

improve the milk sample preservation. It is common practice for a skilled person to add a preservative to the milk sample for its preservation. It is also common practice to agitate a liquid sample to aid dissolution of an additive in it. This step is also disclosed in D3, D8 and D9. Therefore the claimed apparatus and method of the main request lack an inventive step. The independent claims of the auxiliary requests 1 to 4 involve no further subject-matter which might be inventive.

The independent claims of auxiliary request 5 further require agitating to be performed subsequent to each taking of a milk sample. This is however one of the two possible options disclosed in the handbook D9.

The Respondent (patentee) mainly submitted that, starting from D13 as closest prior art, the idea underlying the invention is to enhance preservation of the quality of the milk sample by accelerating the dissolution of the preservative. This idea is neither disclosed nor suggested by any prior art document. D3 focuses mainly on the temperature of the samples, and even warns against excessive and repetitive stirring. Furthermore, D3 and D9 refer to a manual milk sampling system and thus cannot be combined with D13 which refers to an automated sampling system. The additional features of the auxiliary requests 1 to 4 further specify in which manner the dissolution of the preservative is accelerated. According to the auxiliary request 5 the claimed milk sampling method involves the successive steps of bringing the milk sample into a selected milk sample collecting element and then agitating the milk sample. None of the prior art documents suggests to proceed in such a manner.

The Respondent requested that the appeal be dismissed or in the alternative that the decision under appeal be set aside and the patent be maintained on the basis of any of the sets of claims filed as auxiliary requests 1 to 4 by letter dated 15 August 2008 or on the basis of the set of claims filed as auxiliary request 5 by letter dated 16 December 2010.

V. Claims 1 and 21 of the main request (as granted) read as follows

"1. A milk sampling apparatus for use with an automated milking system, said apparatus comprising a cassette (7) wherein milk sample collecting elements (9) are placed, and at least one filling member (27) capable of being placed above a selected one of said milk sample collecting elements (9) by means of a positioning system, and capable of bringing a milk sample, representatively taken from milk yielded during the milking of an animal by means of said automated milking system, into said selected one of said milk sample collecting elements (9), characterized in that said milk sampling apparatus comprises agitating means (5) capable of agitating said milk sample."

"21. A method for milk sampling in a milk sampling apparatus comprising a cassette (7) wherein milk sample collecting elements (9) are placed, and at least one filling member (27) movable above said milk sample collecting elements (9) by means of a positioning system, and capable of bringing a milk sample, representatively taken from milk yielded during a milking of an animal by means of an automated milking

system, into anyone of said milk sample collecting elements (9), characterized by

- bringing said milk sample into a selected one of said milk sample collecting elements (9); and
- agitating said milk sample."

Auxiliary request 1

Claims 1 and 21 of auxiliary request 1 are amended to state that the agitating means is capable of agitating said milk sample "in said selected one of said milk sample collecting elements (9)".

Auxiliary request 2

Independent claims 1 and 21 of this request are amended to add with respect to the independent claims as granted the following feature "in said selected one of said milk sample collecting elements (9) to which a preservative has been added or which has been prepared with a preservative and" and to include the features of granted claims 10 and 28 respectively.

Auxiliary request 3

Claims 1 and 21 of this request are amended to add with respect to claims 1 and 21 as granted the following feature "in said selected one of said milk sample collecting elements (9) by movement of the collecting element (9) containing the milk sample".

Auxiliary request 4

The independent claims 1 and 21 of this request are a combination of the features of the independent claims 1 and 21 as granted and the additional features of auxiliary requests 2 and 3.

Auxiliary request 5

Claims 1 and 21 of this request are amended to add with respect to claims 1 and 21 as granted the following feature "whereby agitation is performed subsequent to each taking of a milk sample".

Reasons for the Decision

1. The appeal is admissible.
2. *Admissibility of D8 and D9*

The Respondent no longer objects to the introduction of D9 into the proceedings, but requests that D8 be rejected as late filed.

D8 was submitted with the grounds of appeal, that is at the earliest possible moment in the appeal proceedings. This document is an article from the "Journal of Dairy Science" and thus illustrates the common general knowledge of the skilled person.

On page 736, left hand column, second paragraph, this citation discloses that the preservative tablet in the plastic sample bag is dissolved "by gentle shaking" that is by agitating "on closing the bag".

Thus this citation is obviously relevant and since its consideration would not delay the proceedings in any way, the Board in exercising its discretion in particular under Article 12 (4) of the Rules of Procedure of the Boards of Appeal (RPBA) has decided to admit this citation into the proceedings.

3. *Main request and auxiliary request 1*

3.1 D13 is undisputedly the closest prior art document and discloses the prior art portion of claims 1 and 21.

Auxiliary request 1 further specifies with respect to the main request that said milk sample is: "in said selected one of said milk sample collecting elements (9)". This further feature is also disclosed in D13.

3.2 The milk sampling apparatus of claim 1 according to the main and first auxiliary request differs from that of D13 in that it comprises agitating means capable of agitating said milk sample.

The milk sampling method of claim 21 according to the main and first auxiliary request differs from that of D13 by the step of agitating said milk sample.

3.3 As stated in the patent specification, paragraph [0007] and [0074] "... the sample tubes are typically prepared with a preservative prior to sampling ..." or paragraph [0075] "The sample tubes are typically delivered to the farmer in a cleaned and preservative prepared condition...".

It is therefore implicit that a standard milk sample collecting element already contains a preservative before the milk sample is added.

- 3.4 Starting from D13 as closest prior art, the problem the invention seeks to solve may thus be seen in improving preservation of the milk quality of the milk samples, when using an automated milk sampling system of the kind disclosed in D13.

D3 is a document intended to serve as a field manual on preservation of milk samples which gives guidance as to the best practice for manual collection of samples.

This document thus illustrates the common general knowledge of the skilled person in relation to milk sample preservation. D3 recommends inter alia the following practice (page 11, section 3.2):

i) the milk tubes into which the milk samples are to be delivered are provided with a chemical preservative and
ii) after milking, the sample box should be turned over three or four times in order to mix the preservative and the milk well. Thus common general knowledge in relation to milk sample preservation does include the step of agitating the collected milk sample, so as to mix the milk sample with the preservative.

D9 (page 2, "Protect Sample Quality") states: "Make sure you mix the milk and preservative well by rotating the bottles as they are filled... Thorough mixing with the preservative is especially important in the summer months".

D8 (page 736, second paragraph of the left hand column, lines 1 to 3 and 5 and 6) specifies "Milk ... was dispensed ... into ... plastic bags..." and "Thus, on closing

the bags [sample collecting element] and dissolving the tablets [preservative] by gentle shaking ..."

3.5 The fact that D3, D8 or D9 refer to manual collection of milk samples is irrelevant. These citations define the recommended practice for the preservation of milk quality of collected milk samples which includes agitating the sample collecting element so as to mix or dissolve the preservative in the collected milk sample.

3.6 The Respondent argued that the idea underlying the present invention is to improve the preservation of the milk quality of the collected milk samples by enabling strongly accelerated dissolution of the preservative in the milk samples and that this idea is not taught by the cited prior art.

However, D9 "National Dairy Herd Improvement Handbook" deals with practices to be followed with regard to milk sample preservation. On page 2 of the handbook "Protect sample quality" the recommended practice is as follows: "Make sure you mix the milk and preservative well by rotating the bottles as they are filled or by gently rotating the whole box after you complete milking". It goes without saying that the skilled person following this recommended practice would also consider agitating the milk sample collecting element as it is filled and would thus "strongly" accelerate the dissolution of the preservative in the milk sample.

Under established Board case law an enhanced effect cannot be adduced as evidence of inventive step if it emerges from obvious tests, see in particular T296/87 (OJ EPO 1990, 195, point 8.4.1). In the present case

the enhanced effect, that is the strongly accelerated dissolution of the chemical preservative, does not emerge from routine tests but from the practice to be followed according to the rules and recommendations of the handbook D9. The skilled person following the recommended practice prescribed in this handbook, and thus acting only routinely would inevitably obtain this enhanced effect which therefore cannot be taken as an indication of inventive step.

- 3.7 The Respondent submitted that D3 does not provide a clear teaching since it also warns the reader against any rough handling of the milk samples such as shaking or stirring. However, this article addresses the skilled practitioner who knows that excessive agitation might be detrimental to the milk sample and that only a gentle agitation is required (as indicated in D8, page 736, second paragraph of the left hand column).

The Respondent submitted also that it would not have been obvious to equip the automated sampling apparatus of D13 with an agitating means. However, according to the routine described in particular in D3, the sample collecting box containing the sample collecting elements has to be agitated such as to thoroughly mix the preservative with the milk sample in the sample collecting elements. There would be no difficulty for the skilled person, here the specialist of automated sampling apparatuses who also knows the procedures to be followed with regard to milk sample preservation to provide these sampling apparatuses with automated agitating means.

3.8 Consequently, the subject-matter of claims 1 and 21 according to the main request or the first auxiliary request does not involve an inventive step.

4. *Auxiliary requests 2 to 4*

4.1 With respect to the independent claims of the first auxiliary request, the independent claims according to auxiliary request 2 are amended to add that the milk sample is agitated in a milk sample collecting element "to which a preservative has been added or which has been prepared with a preservative and said agitating means is effective to accelerate the dissolving of the preservative in the milk sample".

The problem to be solved by the independent claims according to auxiliary request 2 with respect to the closest prior art D13 remains the same, i.e. may still be seen in further improving the preservation of the milk quality of the milk samples.

As stated in the patent specification "the sample tubes are typically delivered to the farmer in a cleaned and preservative prepared condition" which means that adding a preservative or having the sample collecting element prepared with a preservative is the normal standard procedure which therefore cannot provide inventiveness to the claimed subject-matter.

The further added feature ("said agitating means is effective to...") only indicates the effect to be achieved by the agitating means which is to accelerate the dissolution of the preservative in the milk sample. However, as has been explained the handbook D9 recommends "Make sure you mix the milk and preservative

well by rotating the bottles as they are filled or by gently rotating the whole box after you complete milking". It goes without saying that the skilled person following this recommended practice would also consider agitating the milk sample collecting element as it is filled and would thus inevitably accelerate the dissolution of the preservative in the milk sample. Thus the discovery, if any, of the claimed enhanced effect does not involve an inventive step.

For these reasons, the subject-matter of claims 1 and 21 of auxiliary request 2 does not involve an inventive step.

- 4.2 With respect to the independent claims of the first auxiliary request, claims 1 and 21 of the auxiliary request 3 add "in said selected one of said milk sample collecting elements (9) by movement of the collecting element (9) containing the milk sample".

However D3, D8 and D9 clearly teach to agitate the milk sample by movement of the sample collecting element containing the milk sample. In D9 the sample collecting bottles containing the milk sample and the preservative are "rotated" as they are filled.

For these reasons, the subject-matter of claims 1 and 21 of auxiliary request 3 does not involve an inventive step.

- 4.3 The independent claims 1 and 21 of auxiliary request 4 comprise in combination the features of the independent claims 1 and 21 as granted and the additional features of auxiliary requests 2 and 3.

As has been already stated, the additional features of the auxiliary requests 2 and 3 cannot make an inventive contribution to the claimed method and apparatus.

It is not apparent that the combination of these features would provide any unexpected advantage over and above the sum of their effects.

Accordingly the subject-matter of claims 1 and 21 of auxiliary request 4 does not involve an inventive step.

5. *Auxiliary request 5*

5.1 Claims 1 and 21 of this request are amended to add with respect to claims 1 and 21 as granted the following feature "whereby agitation is performed subsequent to each taking of a milk sample".

5.2 Although it is implicit that the sample collecting elements of D13 are prepared with a preservative as it is usually the case, there is no indication in this citation that agitation is performed subsequent to each taking of a milk sample.

The problem to be solved by the subject-matter of auxiliary request 5 with respect to the closest prior art D13 may still be seen in improving preservation of the milk quality of the milk samples when using an automated milk sampling system of the kind disclosed in D13.

The Respondent submitted that the apparatus defined in claim 1 and the method defined in claim 21 of auxiliary

request 5 provides for improved quality of the collected milk samples enabling accelerated dissolution of the preservative, since agitation is performed subsequent to each taking of a milk sample.

However, D9 recommends the following "Make sure you mix the milk and preservative well by rotating the bottles as they are filled or by gently rotating the whole box after you complete milking".

This handbook thus proposes two alternatives agitating either after each taking of a milk sample or after all milk samples have been taken.

When using a milk sampling apparatus as disclosed in D13 comprising a cassette in which a plurality of milk sample collecting elements are placed and a filling member capable of bringing milk samples into the collecting elements, it is clear for the skilled person that a large period of time will elapse between the moment a sample is brought into the first collecting element and the moment a sample is brought into the last collecting element in the cassette.

D9 (page 2, "Protect Sample Quality") however gives the additional recommendation "Thorough mixing with the preservative is especially important in summer months". Accordingly, waiting until all collecting elements of the cassette are filled with a milk sample is clearly not a preferred option so that the skilled person would be prompted to perform mixing as soon as possible, i.e. according to the first alternative disclosed in D9, subsequent to each taking of a milk sample.

Reference is also made to D8, which discloses on page 736, second paragraph that the preservative tablet in the plastic sample bag is dissolved by gentle shaking "on closing the bag" that is after a milk sample has been dispensed into the plastic sample bag.

Accordingly the subject-matter of claims 1 and 21 of auxiliary request 5 does not involve an inventive step.

Order

For these reasons it is decided that:

The decision under appeal is set aside.

The patent is revoked.

The registrar:

The Chairman:

G. Magouliotis

M. Ceyte