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D E C I S I O N
of 23 February 2006

Case Number: T 0650/04 - 3.2.04

Application Number: 95200150.1

Publication Number: 0666475

IPC: G01N 33/04

Language of the proceedings: EN

Title of invention:
A construction for milking animals

Patentee:
MAASLAND N.V.

Opponent:
DeLaval International AB

Headword:
Gauging/MAASLAND

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - (no) "

Decisions cited:
T 0389/86

Catchword:
-



Case Number: T 0650/04 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 23 February 2006

Appellant: DeLaval International AB
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Representative: Amery, Marcus James
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Respondent: MAASLAND N.V.
(Proprietor of the patent) Weverskade 10
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Representative: Corten, Maurice Jean F.M.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
19 March 2004 concerning maintenance of
European patent No. 0666475 in amended form.

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
M. B. Tardo-Dino

Summary of Facts and Submissions

- I. An opposition based *inter alia* upon Article 100(a) EPC was filed against the European patent No. 0 666 475. In its interlocutory decision dated 19 March 2004 the opposition division found that the patent in an amended version based upon claim 1 posted by letter dated 18 November 2003 met the requirements of the European Patent Convention.

This independent Claim 1 reads as follows:

"1. A construction including at least one implement for milking animals, such as cows, said implement being provided with a milk checking member (10) for the determination of the fat grade and/or albumen grade in the milk, obtained from the individual animals during milking, characterized in that the implement is constituted by a milking robot for automatically milking animals, and in that the checking member (10) is provided with a display screen (12) on which the fat grade and/or the albumen grade of milk obtained from an individual animal during milking can be read, and with gauging means, with the aid of which the milk checking member (10) can be gauged, said gauging means including an inlet (22) and an outlet (23), via which a liquid suitable for gauging the fat and/or albumen grade measurements, such as milk of a known grade, can be fed and discharged".

- II. The opponent (hereinafter appellant) lodged an appeal against this decision on 21 April 2004 and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 15 July 2004.

III. Oral proceedings before the board were held on 23 February 2006.

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

The patent proprietor (hereinafter respondent) requested that the appeal be dismissed.

V. The appellant essentially argued that the subject-matter of claim 1 did not involve an inventive step *inter alia* having regard to document GB-A-1 395 216 (hereinafter document D1) in combination with the article by Ph. Marchal et al "*Mains Project - Automatic Milking*", in "*Proceedings of the International Symposium on Prospects for Automatic Milking*", pages 33 to 39 (hereinafter document D3) and the general knowledge of the skilled person.

The respondent (patent proprietor) contested the appellant's arguments.

Reasons for the Decision

1. The appeal is admissible.

2. *Inventive step*

2.1 Document D1, which represents the closest prior art, discloses a construction including at least one implement for milking animals, such as cows. This implement, which is constituted by a milking machine 16

arranged in a milking station 12, is provided with a milk checking member (milk analysing unit 26) for the determination of the fat grade in the milk obtained from the individual animals. The milk checking member 26 is provided with a milk fat sensor 30 arranged within a transfer container 20. Moreover, the milk checking member 11 is associated with a master unit 36 and with a printing unit 94 which records the fat grade of the milk obtained from the individual animals and provide a printout (see Figure 9) on which these data can be read. The milk fat sensor 30 forming part of the milk checking member 11 of document D1 comprises (see Figure 3) an infrared transmitter 40 and a photoelectric cell 42, wherein the light emitted by the transmitter 40 and striking the photoelectric cell 42 causes a current to flow through two variable resistors 44 and 46 associated with the photoelectric cell. A voltage signal picked off at the junction point 48 between the two resistors provides a signal representative of the fat content of the milk in so far as the fat content depends on the transparency of the milk.

Document D1 discloses gauging (or calibrating) means associated with the milk fat sensor, in so far as it refers to the possibility of "varying the resistances of the two resistors 44 and 46" by means of which "the output signal from point 48 can be properly **calibrated**" (see page 3, lines 80 to 83; emphasis added). However, document D1 does not specifically describe the calibration of the milk fat sensor nor does it refer to the use of a gauging (or calibrating) liquid.

2.2 In respect of the gauging means referred to in claim 1, the respondent essentially argued that the gauging means is an additional structural unit including an inlet via which a gauging liquid can be fed and an outlet via which the gauging (or calibrating) liquid can be discharged, the gauging liquid being a reference liquid whose fat (and/or albumen) grade is previously known. Thus, the respondent assumed that the inlet and the outlet of the gauging means defined in claim 1 have to be construed as being additional structural elements which are separate from the inlet and the outlet of the checking member (i.e. the inlet via which the milk from a animal to be milked is fed to the checking member and the outlet via which the milk is discharged to the milk collecting tank).

2.3 Although claim 1 does not define the inlet and the outlet as additional structural elements, the board will base its considerations concerning inventive step upon the respondent's assumptions referred to above in section 2.2. It follows from the foregoing that the subject-matter of claim 1 differs from the construction known from document D1 in that:

- A) the implement is constituted by a milking robot for automatically milking animals,
- B) the milk checking member is provided with a display screen (12) on which the fat grade and/or the albumen grade of the milk obtained from the individual animals can be read,
- C) the gauging means of the milk checking member includes an inlet (22) and an outlet (23), via

which a liquid suitable for gauging the fat and/or albumen grade measurements can be fed and discharged.

2.4 Feature A solves in essence the problem of increasing the automation of the milking implement. Feature B solves in essence the problem of improving the access to the data determined by the milk checking member in so far as the information can be presented in real time.

Feature C solves in essence the problem of improving the accuracy of the measurements.

As is clear from the foregoing, the three distinguishing features have no interrelationship and each of them solves a partial problem. Accordingly, each partial problem can be considered separately for the assessment of inventive step, see decision T 389/86 (OJ 1988, 87).

2.4.1 Document D3, which was published in 1992, relates to the development of a system for automatically milking. The "introduction" (see page 33) of this document refers to the robotization of the attachment of the teat cups. The skilled person, when confronted with the problem of increasing milking automation, would provide the construction according to document D1 with a milking robot for automatically milking animals without exercising any inventive skill.

The use of a screen for displaying information in real time has to be considered as belonging to the general knowledge of the skilled person. Furthermore, the use of the monitor of a computer unit is implicitly

disclosed in document D3 (see particularly Figure 4). The skilled person wishing to provide more immediate information would replace the printing unit of the construction of document D1 by a display screen without exercising any inventive skill.

Therefore, none of features A and B involves an inventive step.

In this respect, it has to be noted that the respondent did not submit any arguments in support of the inventiveness of these features.

2.4.2 Calibrating fluids are well known. The description of the patent (column 1, paragraph [0004]) refers to document FR-A-2 691 259, which concerns a liquid whose properties are similar to the properties of milk and which is suitable for calibrating instruments of measurement.

The skilled person wishing to improve the accuracy of the milk checking member of document D1 would therefore use a reference liquid for calibrating the checking member. In doing so, he would immediately realize that a gauging liquid, such as milk of a known grade, requires the provision of an inlet via which the liquid can be fed and an outlet via which the liquid can be discharged. It is namely self evident that the device must be gauged by putting the gauging liquid inside (via an inlet) and that the liquid must be dischargeable via an outlet. The choice of how to arrange inlet and outlet is only a matter of design which does not imply any inventive activity.

In this respect, the respondent argued essentially as follows:

- (a) According to claim 1, the inlet can be arranged immediately upstream of the analysing unit of the checking member and the outlet can be arranged immediately downstream of this analysing member so as to avoid or minimize contamination of the checking member (which has to test the milk obtained from the animals to be milked) by means of the gauging liquid.
- (b) Since the prior art does not address the problem of avoiding or minimizing contamination, it would not be obvious for the skilled person to provide the gauging means with an inlet and an outlet as defined by feature C.

The board cannot accept these arguments of the respondents for the following reasons:

- (c) Claim 1 which refers to "a checking member (10) for the determination of the fat grade and/or albumen grade in the milk" and to a gauging means "including an inlet (22) and an outlet /23) .." does not define any analysing member and consequently cannot define the position of the inlet and the outlet with respect to the analysing member.
- (d) Any skilled person in the technical field of milking knows that it is essential to avoid or to minimize contamination of the milk and this also applies when gauging or calibrating the checking

member. Therefore, the skilled person wishing to increase the accuracy of the measurements, would not only arrive in an obvious way at the idea of using a calibrating liquid but - knowing that any contamination of the milk by any other liquids has to be avoided or minimized - would also provide the gauging means of the construction disclosed in document D1 with an inlet and an outlet, via which a gauging liquid, such as a milk of known grade, can be fed and discharged, as defined in claim 1.

- 2.5 For the above reasons, the subject-matter of claim 1 does not involve an inventive step.

It follows that the respondent's request that the patent be maintained as amended on the basis of such a claim 1 cannot be allowed.

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:

G. Magouliotis

M. Ceyte