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D E C I S I O N
of 12 May 2005

Case Number: T 0962/03 - 3.2.4

Application Number: 95935599.1

Publication Number: 0741512

IPC: A01J 5/017

Language of the proceedings: EN

Title of invention:
A method of and an implement for automatically milking animals, such as cows

Patentee:
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Opponent:
DeLaval International AB
Prolion B.V.

Headword:
Foremilking/MAASLAND

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty - main request (no)"
"Novelty - auxiliary request (yes)"
"Inventive step - auxiliary request (no)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0962/03 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 12 May 2005

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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 8 July 2003 concerning maintenance of European patent No. 0741512 in amended form.**

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
T. Bokor

Summary of Facts and Submissions

I. Two oppositions were filed against the European patent No. 741 512. The opposition division by its decision dispatched on 8 July 2003 maintained the patent on the basis of an amended version.

II. The patent proprietor (hereinafter appellant I) lodged a first appeal against this decision on 2 September 2003 and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 10 November 2003.

A second appeal was lodged on 9 September 2003 by Opponent I (hereinafter appellant II) who simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received on 12 November 2003.

Opponent II lodged a further appeal against this decision on 8 September 2003 and simultaneously paid the appeal fee. No statement setting the grounds of appeal was received within the time limit defined by Article 108 EPC.

III. Oral proceedings before the board were held on 12 May 2005.

Opponent II, who had been duly summoned to oral proceedings, informed the board (by letter dated 21 March 2005) that he would not attend the oral proceedings. He was not present at the oral proceedings which, according to Rule 71(2) EPC, continued without him.

IV. Appellant I requested that the decision under appeal be set aside and the patent be maintained as granted (main request). With letter dated 28 April 2005, appellant I auxiliarily requested that the patent be maintained on the basis of the amended claim 1 filed by letter dated 24 April 2003 and indicated in this letter as second auxiliary request.

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

V. Claim 1 as granted reads as follows:

"1. A method of milking animals, such as cows, whereby, by means of a milking robot (11), at least one teat cup (27) is connected to a teat of an animal to be milked, characterized in that, after foremilking, the teat cup (27) is cleaned."

The amended Claim 1 according to the auxiliary request reads as follows:

"1. A method of milking animals, such as cows, whereby, by means of a milking robot (11), at least one teat cup (27) is connected to a teat of an animal to be milked, characterized in that, after foremilking, the teat cup (27) is disconnected and cleaned, whereupon the teat cup (27) is reconnected to the teat and the corresponding udder quarter is milked out, after which the teat cup (27) is cleaned again."

VI. Appellant II essentially argued that

(i) the subject-matter of claim 1 as granted lacked novelty with regard to document EP-A-527 509 (hereinafter D5),

(ii) the subject-matter of claim 1 of the auxiliary request lacked novelty with regard to the content of the article "*Robot milker with human touch*", in *Dairy Farmer*, November 1991, pages 20 and 21 (hereinafter document D1),

(iii) the subject-matter of claim 1 of the auxiliary request did not involve an inventive step because the combination of the prior art known either from document EP-A-213 660 (hereinafter D7) or from document D1 with the teaching of document DD-A-261 300 (hereinafter D2) - would lead the skilled person directly to the claimed subject-matter.

VII. Appellant I rejected the arguments of appellant II and essentially submitted that

(i) the subject-mater of claim 1 as granted was novel over document D5 because this document did not disclose a cleaning of the exterior of the teat cup, and

(ii) the subject-matter of claim 1 of the auxiliary request involved an inventive step because document D2 did not teach that the teat cup, after foremilking, has to be disconnected in order to be cleaned.

Reasons for the Decision

1. *Admissibility of the appeal*

The appeals of appellants I (patent proprietor) and II (opponent I) are admissible.

The appeal of opponent II is inadmissible, because no statement setting out the grounds of appeal was received (see section II above).

2. *Novelty (main request)*

2.1 Document D5 discloses a method for cleaning the teats of an animal in which the teats are cleaned when the teat cups of a milking apparatus are connected to them. This method ensures a cleaning not only of the teats but also of the interior of teat cups.

According to a passage of the description (column 3, lines 51 to column 4, line 1) the cleaning method can be employed "in an automatically operating milking system as described in the European patent application 86 202 389.1 [document D7]... the content of which must be considered as interpolated herein".

Thus, the use of a milking robot is clearly incorporated in document D5, whereby by means of this milking robot at least one teat cup is connected to a teat of an animal to be milked.

According to document D5 (see column 2, lines 56 to column 3, line 24; Figure 3), when the teat cup is

connected to the teat (27) of the animal, the teat is washed, "whereby washing is performed optimally by way of a pulsating via conduit 26 and milking is simultaneously started up; it will take 5 - 15 secs [*sic*] before milk will flow fully out of teat 27 after generating of a pulsating movement, this period of time being sufficient for complete cleaning of teat 27" (column 3, lines 4 to 11).

Therefore, this document also discloses a method step according to which the cleaning of the teat and of the teat cup starts simultaneously with the generation of the pulsating movement of teat cup liner (which movement produces the milk flow).

2.1.1 Appellant II (opponent I) essentially argued as follows:

(i) In the description of the patent, "foremilk" is defined as "the squirts of milk being the first ones obtained by means of the teat cup" (column 1, lines 13 to 15).

(ii) It is well known to the skilled person that foremilk is obtained in a time interval of 3 to 5 sec after starting of the pulsation movement of the teat cup liner.

(iii) The passage in column 3, lines 4 to 11 of the description of document D5 makes it clear that the cleaning of the teat cup begins simultaneously with the start of the pulsation movement of the teat cup liner and has a duration of 5 to 15 sec. Therefore, the skilled reader would immediately understand that the cleaning

step continues after the first squirts of milk, i.e. after foremilking.

(iv) Thus, document D5 discloses a method in which, the teat cup, which has been connected to the teat by means of a milking robot, is cleaned also after foremilking.

2.1.2 Appellant I (patent proprietor) did not substantially respond to the above mentioned arguments of Appellant II which are accepted by the board.

Appellant I only argued that claim 1 must be interpreted only in a particular manner, such that "cleaning" means that "cleaning takes place not only in the interior but also in the exterior of the teat cup. In this respect, he mentioned the description of the patent specification (column 1, lines 3 to 7) which refers to document EP-A-0 536 836 (hereinafter document D6) as disclosing a method according to the pre-characterising portion of claim 1 and pointed out that according to document D6, "cleaning of the teat cups is important, namely in the sense that dirt is removed from the exterior of the teat cups ..." (column 1, lines 3 to 10).

However, claim 1 contains no such limitation and the description does not give a definition of the term "cleaning" in accordance with the interpretation of the patent proprietor. Furthermore, according to the description of the patent is suit, the teat cup is cleaned by means of a spray head 43, by which "a cleaning and/or disinfecting liquid can be sprayed into **or** along the teat cup 27 ..." (column 4, lines 34 to 36;

emphasis added). Thus, the patent in suit, although it indicates the possibility of cleaning the exterior of the teat cup by spraying liquid along the teat cup, due to the term "or" does not unambiguously defines a cleaning of the exterior **and** of the interior of the teat cup.

2.2 Having regard to the above considerations, the board finds the subject-matter of claim 1 is novel with respect to document D5.

3. *Novelty (auxiliary request)*

3.1 Novelty was disputed only with regard to document D1.

In this respect appellant II essentially argued as follows:

(i) Document D1 discloses a method of milking animals comprising the following successive steps:

- the teat cups are connected to the teats of the animal by means of a milking robot,
- the quality of the foremilk is determined (in order to lead suspect milk into a separate tank),
- after milking, the teat cups are removed by the robot by pulling them back into cup holders,
- the teat cups are cleaned by means of a flush-head.

(ii) According to document D1, "if a cow kicks off a cup either while they are being attached or during milking, then the robot takes off all the cups, cleans them and re-attaches them". Thus, document D1 also discloses a further cleaning step of the teat cups which occurs after foremilking, before the end of the whole milking process.

In other words, if a cow kicks off a teat cup after foremilking, the teats are disconnected and cleaned, whereupon they are reconnected to the teats and the quarters of the udder are milked out, after which the teat cups are cleaned again.

(iii) Therefore, the subject-matter of claim 1 of the auxiliary request lacks novelty with respect to document D1.

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

(i) Document D1, which clearly discloses a method in which the teat cups are cleaned at the end of the milking process, also refers to the possibility of a further cleaning of the teat cups before the end of the whole milking process.

However, the skilled reader of document D1 understands that this further cleaning occurs only "if a cow kicks off a cup...". In other words, if no teat cup is kicked off, no further cleaning occurs.

(ii) Claim 1 of the auxiliary request is directed to a method in which the step of cleaning the teat cup after foremilking always occurs, i.e. irrespective of the circumstances that a teat cup is kicked off by the animal.

3.3 Therefore, the subject-matter of claim 1 is novel with regard to the content of document D1.

4. *Inventive step (auxiliary request)*

4.1 Document D7 discloses a method for milking animals in which by means of a milking robot at least one teat cup (1) is connected to a teat (6) of an animal to be milked. Moreover, according to this method, after milking (i.e. upon termination of the milking) the teat cup is disconnected and cleaned by means of an external cleaning device. This document does not explicitly refer to "foremilking". Thus, it has to be understood that according to the method disclosed in document D7 the foremilk is mixed with the milk obtained subsequently (i.e. the milk coming from the *alveoli*). This would result in a milk of a lower quality because the foremilk of some animals may have a high germ count.

4.2 A method of milking in which by means of a milking robot the teat cups are connected to the teats of an animal to be milked and the udder of the animal is milked out is also known from document D1. According to this document, cleaning is performed after termination of the milking. Document D1 refers to foremilking in so far as it states that the quality of foremilk is

determined. However, this known method does not prevent contact between the milk and foremilk.

4.3 The subject-matter of claim 1 differs from the prior art known from document D7 (or from document D1) in that, after foremilking, the teat cup is disconnected and cleaned, whereupon the teat cup is reconnected to the teat and the corresponding udder quarter is milked out.

These distinguishing features result in preventing that any mixture between the foremilk and the milk (i.e. the *alveoli* milk) takes place. Therefore, the problem to be solved by the present invention may "be seen in providing a method by which it is feasible to obtain milk of high purity and quality" (see paragraph [0005] of the patent specification).

4.4 The skilled person, seeking to solve such problem, would turn to document DD-A-261 300 (D2). This document, which concerns the problem of increasing the quality of the milk (see page 2, lines 2 and 3; "Das Ziel der Erfindung besteht darin, ... die Qualität der Milch zu erheben"), explicitly relates to "foremilking" and implicitly indicates the aim of preventing any contamination between foremilk and milk (see particularly page 2, lines 42 and 43: "Ein kurzzeitiger Lufteinlass zum Schluss der Zitenreinigung sorgt für die vollständige Entfernung der Flüssigkeitsreste aus dem Melkzeug").

In order to solve this problem, document D2 teaches that, after foremilking, the teat, the teat cup and the milking line are cleaned (see page 2, lines 28 to 31:

Unmittelbar nach dem Absetzen der Melkbecher erfolgt das selbsttätige Abmelken des Vorgemelkes [....]. Danach beginnt die Zitzenreinigung."; Figure 1), whereupon the corresponding udder quarter is milked out, after which the teat cup is cleaned again (see particularly page 2, lines 56 and 57:"Nach der Abnahme der Melkbecher wird ...").

The skilled person, who starts from a method of milking in which the teat cup at the end of milking is cleaned by an external cleaning device as described in document D7 (or in document D1) and is confronted with the technical problem of obtaining a milk of high purity and quality, would find in document D2 the teaching of cleaning the teat cup after foremilking. He would apply this teaching to the prior art method known from document D7 (or from document D1), and would arrive - without exercising any inventive skill - at the claimed method in which, after foremilking, the teat cup is disconnected and cleaned, whereupon the teat cup is reconnected to the teat and the corresponding udder quarter is milked out.

4.5 In this respect, appellant I essentially argued as follows:

(i) document D2 discloses a method in which the teat, after foremilking, is cleaned while the teat cup is connected to the teat, and thus does not teach the features that the teat cup is disconnected after foremilking (in order to be cleaned), reconnected to the teat (so that the corresponding udder can be milked out) and

cleaned again (at the end of the milking procedure;

(ii) therefore, even if the skilled person were to apply the teaching of document D2 to the prior art known either from document D7 or from document D1, he would not arrive at the claimed subject-matter.

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

(i) The skilled person reading document D2 would immediately realize that this document discloses the **general teaching** of cleaning the teat cup after foremilking irrespective of the fact that this document shows a particular embodiment according to which the teat cup is cleaned when being connected to the teat.

(ii) The skilled person who applies this general teaching to a prior art method (as disclosed in document D7 or in document D1) in which the teat cups **after milking** are disconnected and cleaned by an external cleaning device, would readily come to the idea of employing the same external cleaning device for cleaning the teat cups **after foremilking** and thus would arrive at a method in which the teat cups are disconnected aftwer foremilking in order to be cleaned.

In these respects, it has also to be noted that document D1 explicitly indicates the possibility of disconnecting all the teat cups (by means of

the robot), cleaning then and reconnecting them, if during milking a cow kicks off a teat cup.

4.6 Therefore, the subject-matter of claim 1 of the auxiliary request does not involve an inventive step as required by Article 56 EPC.

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

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Case Number: T 0962/03 - 3.2.4

D E C I S I O N
of 24 June 2005
correcting errors in the decision
of the Technical Board of Appeal 3.2.4
of 12 May 2005

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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 8 July 2003 concerning maintenance of European patent No. 0741512 in amended form.**

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
T. Bokor

In application of Rule 89 EPC, the decision given on 12 May 2005 in case T 0962/03 is hereby corrected as follows:

In the reasons for the decision, point 2.2, replace

"Having regard to the above considerations, the board finds the subject-matter of claim 1 is novel with respect to document D5"

by

"Having regard to the above considerations, the board finds that the subject-matter of claim 1 is not novel with respect to document D5".

The Registrar: The Chairman:

G. Magouliotis M. Ceyte