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D E C I S I O N
of 14 May 2004

Case Number: T 0468/01 - 3.2.4

Application Number: 93200754.5

Publication Number: 0564023

IPC: A01J 5/04

Language of the proceedings: EN

Title of invention:
A method of and an implement for automatically milking animals

Patentee:
MAASLAND N.V.

Opponents:
DeLaval International AB
Prolion B.V.

Headword:
Sampling/MAASLAND

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (no)"

Decisions cited:
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Catchword:
–

Case Number: T 0468/01 **-** 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 14 May 2004

Appellant I: (Opponent I)	DeLaval International AB P.O. Box 39 S-147 21 Tumba (SE)
Representative:	Harrison, Michael Charles Albihns GmbH Bayerstrasse 83 D-80335 München (DE)
Appellant II: (Opponent II)	Prolion B.V. Kromme Spieringweg 248B NL-2140 AA Vijfhuizen (NL)
Representative:	Uittenbogaart, Gustaaf Adolf Indeig B.V. P.O. Box 3 NL-2050 AA Overveen (NL)
Respondent: (Proprietor of the patent)	MAASLAND N.V. 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: **Interlocutory decision of the Opposition Division of the European Patent Office posted 14 February 2001 concerning maintenance of European patent No. 0564023 in amended form.**

Composition of the Board:

Chairman: M. Ceyte
Members: P. Petti
               H. Preglau

Summary of Facts and Submissions

I.   Two oppositions were filed against the European patent
      No. 564 023. By the interlocutory decision of the
      opposition division dispatched on 14 February 2001 the
      patent was maintained on the basis of an amended
      version submitted by the patent proprietor.

II.   On 6 April 2001 opponent I (hereinafter appellant I)
      lodged an appeal against this decision and
      simultaneously paid the appeal fee. A statement setting
      out the grounds of appeal was received on 15 June 2001.

      On 13 April 2001 opponent II (hereinafter appellant II)
      lodged a further appeal against this decision and
      simultaneously paid the appeal fee. A statement setting
      out the grounds of appeal was received on 25 June 2001.

III. Oral proceedings before the board were held on 14 May
      2004.

      The appellants requested that the appealed decision be
      set aside and the patent be revoked.

      The respondent requested that the appealed decision be
      set aside and the patent be maintained on the basis of
      an amended claim 1 filed during the oral proceedings
      (hereinafter referred to as the present claim 1), which
      reads as follows:

      "1. An implement for use in a method of computer-
      controlled automatically milking animals in a milking
      parlour, the method comprising successively the steps
      of: identifying an animal entering a milking parlour;

using an animal identification system, recalling the instant at which a previous sample was taken of said animal from a computer memory and determining by means of the computer, on the basis of a time table, and said data, whether a sample of milk should be taken of the animal; milking the animal; collecting in a sample-taking device a fraction of the milk obtained from the animal, before the milk is discharged to a storage tank; and storing the data of the sampled animal, together with the instant at which the sample was taken, in the memory of the computer; said implement comprising said animal identification system and said milk sample-taking device (9, 35), wherein the milk sample-taking device (9, 35) is connected to a milk line (13, 17; 27) for discharging milk to said storage tank, the milk sample-taking device (9, 35) comprising a milk collecting element (55) in which a fraction of the milk passing through the milk line (13, 17; 27) can be collected, the computer of the implement determining based on the identity of the animal, the instant at which a previous sample was taken and the time table if a milk sample is to be taken."

Auxiliarily, the appellants requested that the case be remitted to the first instance for further examination on the basis of the present claim 1.

IV.   In support of their requests, both appellants submitted that the amendments leading to the present claim 1 contravened the requirement of Article 123(2) EPC and resulted in an extension of the protection conferred (Article 123(3) EPC). This was contested by the respondent.

After deliberation on these issues, the board came to the conclusion that the present claim 1 did not contravene the requirements of Article 123(2) and (3) EPC.

V.   The appellants also argued that the subject-matter of the present claim 1 did not involve an inventive step with respect to the prior art known from document EP-A-91 892 (hereinafter referred to as document D12) and to the content of the article by J. Lärn-Nilsson and I. Bjäresten, "*Lantbruketshusdjur*" *(Farm Animals)*,1982, pages 157 and 158, for which an English translation had been filed (hereinafter referred to as document D19).

The respondent rejected the arguments brought forward by the appellants and submitted the reasons for which the subject-matter of present claim 1 was considered as implying an inventive step over the combination of documents D12 and D19.

Reasons for the decision

1.   The appeals are admissible.

2.   *Analysis of the claimed subject-matter*

2.1   The present claim 1 recites the following features:

        A)   The implement is suitable for use in a method of
             computer-controlled automatically milking animals
             in a milking parlour,

wherein the method comprises successively the
steps of

Aa)   identifying an animal entering a milking
       parlour,
Ab)   using the animal identification system,
       recalling the instant at which a previous
       sample was taken of said animal from a
       computer memory and determining by means of
       the computer, on the basis of a time table,
       and said data whether a sample of milk
       should be taken of the animal,
Ac)   milking the animal,
Ad)   collecting in a sample-taking device a
       fraction of the milk obtained from the
       animal, before the milk is discharged to a
       storage tank,
Ae)   storing the data of the sampled animal,
       together with the instant at which the
       sample was taken, in the memory of the
       computer;

B)   the implement comprises said animal
       identification system;

C)   the implement comprises said milk sample-
       taking device (9, 35);

C1)   the milk sample-taking device (9, 35) is
       connected to a milk line (13, 17; 27) for
       discharging milk to said storage tank;

C11)   the milk sample-taking device (9, 35)
       comprises a milk connecting element (55) in

which a fraction of the milk passing through
the milk line (13, 17; 27) can be collected;

D)   the computer of the implement determines
        based on the identity of the animal, the
        instant at which a previous sample was taken
        and the time table if a milk sample is to be
        taken.

2.2   The above mentioned steps Aa to Ae implicitly define
        the following features of the implement:

A1)   The implement is provided with means for computer-
        controlled automatically milking animals in a
        milking parlour (see feature A and step Ac)

B1)   the animal identification system (referred to in
        feature B) is suitable for identifying an animal
        entering the milking parlour (see step Aa),

C111)   the milk sample-taking device (referred to in
        features C, C1 and C11) is suitable for collecting
        said fraction of the milk passing through the milk
        line (13, 17; 27) before the milk is discharged to
        the storage tank (see step Ad),

D1)   the computer (referred to in feature D) is
        suitable for storing the identification data of a
        sampled animal together with the instant at which
        the sample was taken (see step Ae),

D2)   the computer is suitable for recalling the instant
        at which the sample was taken from its memory and
        for determining whether a sample of milk should be

taken on the basis of a time table and by means of
the instant at which the previous sample was taken
(see step Ab).

2.3   Therefore, the present claim 1 defines an implement
provided with features A, A1, B, B1, C, C1, C11, C111,
D, D1 and D2.

2.4   Features D and D2 refer to the expression "time table".
This expression can also be found in the description of
the patent (see column 7, lines 40 to 44) and in that
of the application as filed (see page 10, lines 10 to
16). However, neither the patent nor the application as
filed contains a specific definition or an example of a
"time table". Therefore, it can be assumed that any
schedule defining a planned sequence of times
represents a time table.

3.   *The prior art*

3.1   Document D12 discloses an implement provided with means
for computer-controlled automatically milking animals
in a milking parlour. This implement comprises an
animal identification system for identifying an animal
entering the milking parlour 1, milking means 6, a
device 8 for automatically applying the milking means
to the udder of the animal and a computer 5 (see
claim 1 on page 12) which, using the animal
identification system, controls the milking operation.

It is clear from document D12 that the computer of the
implement is suitable for recording in its memory the
identification data of any milked animal, together with
the points of time at which the animals were milked,

and for determining, based on the identity of an animal entering the milking parlour and on the instant of the previous milking of the animal, whether this animal is to be milked again (see page 2, lines 10 to 20).

Moreover, document D12 refers to a milking plant to which the milking means are connected (see page 5, lines 13 to 18). Thus, it can be assumed that this document implicitly discloses a milking plant provided with a milk line for discharging milk to a storage tank.

Furthermore, document D12 refers to "means for sampling test volumes" (i.e. a milk sample-taking device) which "can also be connected to the computer". (see page 3, lines 20 to 24).

3.2 In the section headed "*Cow Monitoring*" of document D19 (see particularly page 157), it is referred to the sampling of the milk production of each individual cow of a herd and it is stated that the amount of milk is monitored "at sample milkings 11 times per year". Moreover, according to this document, "with hose and pipe plants, measuring instruments are used which extract a proportional part of the milk flow …".

It is clear from document D19 that the sampling is made manually. The document also refers to a monitoring assistant who "determines on what day the milking test is to be done and, as a rule, visits the farms to take care of the milk samples …".

4.   *Inventive step*

4.1   The parties considered document D12 as representing the
       primary source of information (i.e. the closest prior
       art) and referred to document D19 which was considered
       by the appellants as being an important secondary
       source of information.

4.2   The appellants, when they argued that the subject-
       matter of the present claim 1 lacked an inventive step,
       based their arguments upon the assumption that the
       claimed subject-matter differs from the prior art
       disclosed in document D12 only in that the
       determination of whether the animal identified at the
       entrance of the milking parlour is to be sampled again
       is based upon the instant of the previous sampling and
       a time table.

4.3   The respondent asserted that the subject-matter of the
       present claim involved an inventive step over documents
       D12 and D19 essentially by arguing as follows:

       (i) The skilled person starting from an implement for
            automatically milking animals as disclosed in
            document D12, which was published in 1983, would
            not take into consideration the prior art known
            from document D19 which was published in 1976 and
            refers to a manual milking. Therefore, it would
            not be logical to combine documents D12 and D19.

(ii) The idea of determining or deciding by means of a
      computer whether an animal entering the milking
      parlour is to be sampled is not disclosed either
      in document D12 or in document D19.

(iii) The claimed subject-matter differs from the prior
      art disclosed in document D12 not only in that
      "the determination of whether the animal
      identified at the entrance of the milking parlour
      is to be sampled again is based upon the instant
      of the previous sampling and a time table" (this
      feature will be referred to hereinafter as the
      first distinguishing feature) but also in that
      "the milk sample-taking device is connected to the
      milk line for discharging milk to the storage tank
      and comprises a milk connecting element in which a
      fraction of the milk passing through the milk line
      can be collected" (this feature will be referred
      to hereinafter as the second distinguishing
      feature).

(iv) Document D19 does not suggest the use of a time
      table as defined in the first distinguishing
      feature and does not disclose the second
      distinguishing feature.

4.4   The board cannot accept the arguments of the respondent
      for the following reasons:

(a)   Document D12 concerns an implement in which a
      computer determines, on the basis of the
      identification data of an animal entering the
      milking parlour and the time elapsed since the

previous milking of said animal, whether the
animal is to be milked again.

The passage on page 3, lines 20 to 24 of document
D12 indicates that a milk sample-taking device can
be connected to the computer. In the context of an
automatic milking system, this passage implicitly
discloses the idea of using the computer to
determine whether a sample of milk of the animal
entering the milking parlour is to be taken.

(b)   The idea of determining (or deciding) by means of
the computer whether an animal is to be sampled
was already known in 1983 from document D12 in the
context of an automatically performed milking.
However, this document does not specifically
indicate the criteria on the basis of which the
above mentioned determination (or decision) was
based. Therefore, it would be logical for a
skilled person to consider any document indicating
a criterion on the basis of which the decision of
taking a milk sample is taken, even a document
published before the publication date of document
D12 and concerning manual sampling. Thus, the
skilled person confronted with the problem of
defining how to determine when an animal is to be
sampled would take into consideration document D19.

(c)   Document D19 refers to a milk sampling occurring
11 times per year. Having regard to the comments
in section 2.4 above, the indications in document
D19, that the sampling occurs 11 times per year
and that the day on which the test milking is to
be done is determined by the monitoring assistant,

implicitly define that the sampling is decided by
an operator on the basis of a time table which
includes information concerning the points of time
at which the sampling occurs, i.e. which also
takes into consideration the instant at which the
previous sampling occurred.

(d)   Document D19 suggests the possibility of
      extracting a proportional part of the milk flow by
      means of a measuring instrument in a hose and pipe
      plant. This represents an implicit disclosure of a
      milk sample-taking device connected to a milk line
      and of a milk collecting element in which a
      proportional part of the milk flow (i.e. a
      fraction of the milk passing through the milk line)
      can be collected.

(e)   According to the passage on page 3, lines 20 to 24
      of document D12, "means for sampling test volumes
      for checking with respect to bacterial content,
      the presence of mastitis and the like, can also be
      connected to the computer". The skilled person
      reading this passage is aware that milk obtained
      from an animal with mastitis has to be separated
      from the milk obtained from healthy animals.
      Therefore, this passage has to be understood as
      defining a milk sample-taking device which is
      suitable for collecting a fraction of milk passing
      through the milk line before the milk is
      discharged to the milk storage tank and, thus, is
      connected to the milk line.

4.5   Having regard to the above comments, the closest prior
        art is reflected by document D12 which suggests the
        idea of using a milk sample-taking device connected to
        the computer in order to determine whether a milk
        sample is to be taken.

        If it assumed that document D12 also discloses the
        second distinguishing feature as referred to in the
        above section 4.3(iii), the subject-matter of the
        present claim 1 would be distinguished from the closest
        prior art only by the first distinguishing feature as
        referred to in section 4.3(iii).

        The first distinguishing feature results in the
        practical definition of a criterion for determining
        when a sample is to be taken. Thus, the objective
        problem to be solved is to find a practical way to use
        the computer when milk samples are to be taken.

        The skilled person confronted with this problem would
        consider document D19, which teaches the use of a time
        table according to the first distinguishing feature as
        a criterion for determining whether an animal is to be
        sampled (see the above section 4.4(c). As a result, the
        skilled person would apply this teaching to the
        implement known from document D12 and arrive at the
        subject-matter of the present claim 1 without
        exercising any inventive skill.

        It has to be noted that even if it were to be assumed
        that document D12 does not disclose the above mentioned
        second distinguishing feature, the subject-matter of
        the present claim 1 would not involve an inventive step
        for the following reasons:

(i)   Having regard to the comments in the above
      sections 3.3 and 4.4(d), document D19 also
      discloses the second distinguishing feature.
      Therefore, it would be obvious for the skilled
      person combining the contents of documents D12 and
      D19 to arrive at the claimed subject-matter.

(ii) The second distinguishing feature represents the
      only practical constructive possibility of
      arranging a milk sample-taking device in an
      implement for automatically milking animals. The
      skilled person applying the teaching concerning
      the time table as disclosed in document D19 to the
      implement according to the closest prior art would
      arrive with the help of his specialist knowledge
      in an obvious way at an implement provided not
      only with the first distinguishing feature but
      also with the second one.

Therefore, the subject-matter of the present claim 1 is
rendered obvious by the combination of documents D12
and D19 and thus does not involve the inventive step
required by Article 56 EPC.

5.   Having regard to the above comments, the patent cannot
      be maintained on the basis of the present claim 1.
      Therefore, there is no need to examine the auxiliary
      request of the appellants referred in the above
      section III, last paragraph.

6.   Since the arguments submitted by the appellants with
        respect to Article 123 EPC (see the above section IV)
        are not relevant for the findings of the present
        decision, there is no need to deal with these arguments
        in the present decision.

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