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**Datasheet for the decision
of 29 March 2011**

Case Number: T 0719/08 - 3.2.04

Application Number: 94901058.1

Publication Number: 0619702

IPC: A01K 1/12

Language of the proceedings: EN

Title of invention:

A construction for automatically milking animals

Patentee:

MAASLAND N.V.

Opponent:

DeLaval International AB
Westfalia Landtechnik GmbH
Prolion B.V.

Headword:

Shed/MAASLAND

Relevant legal provisions:

EPC Art. 54, 56

Relevant legal provisions (EPC 1973):

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Keyword:

"Novelty (yes)"
"Inventive step (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 0719/08 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 29 March 2011

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
20 February 2008 concerning maintenance of
European patent No. 0619702 in amended form.

Composition of the Board:

Chairman: P. Petti
Members: A. de Vries
T. Bokor

Summary of Facts and Submissions

I. The opposition division, in its interlocutory decision dated 20 February 2008, decided that the European patent No. 0 619 702, in view of the amendments submitted by the patent proprietor during a previous appeal proceedings (T 420/03), met the requirements of the European Patent Convention.

Claim 1 filed with the letter of the proprietor dated 4 May 2005, which was held allowable by the opposition division, reads as follows:

"1. A construction for automatically milking animals, such as cows, comprising a milking box (14) with a milking robot (41) and a shed where the animals can freely move about, said shed, which is split into two parts by a feeding area (2), said feeding area (2) being provided in the longitudinal direction of the shed (1), being divided into four areas (4, 5, 6, 7), cubicles (3) being arranged on both sides of this feeding area (2) through substantially the overall length of said shed (1) along the inner side of the outer wall, which construction includes a system of doors, gates or suchlike means (8-12) in the shed (1), which open in one direction for defining the path and the direction in which the animals can walk to and from the milking box (14), said areas (4, 5, 6, 7) being connected successively to each other while the milking box (14) is arranged between two successive areas, and the system of doors, gates and suchlike means (12) are arranged in such a way that an animal can walk from a first area of the successive areas to a second area of the successive areas via the milking box (14),

characterized in that the animals can proceed from said second area (4) through doors (9) to a third area (5), from there through doors (10) to a fourth area (6), through doors (11) to said first area (7) and through doors (12) to area (13) where the milking box (14) is located and from the area (13) through doors (8) to said second area (4).

II. On 9 April 2008 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 16 June 2008.

A further appeal against this decision was lodged on 9 April 2008 by opponent II (hereinafter appellant II) who paid the appeal fee on 10 April 2008. A statement setting out the grounds of appeal was received on 17 June 2008.

By letter dated 20 January 2011 Opponent III withdrew his opposition.

III. Oral proceedings before the board were held on 29 March 2011.

IV. Both appellants requested that the decision under appeal be set aside and the patent be revoked.

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

VI. Both appellants submitted that the claimed subject-matter lacked novelty over the article by D. Swierstra et al, "*Modern dairy farming with automatic milking*

system", in "Agricultural Engineering", edited by V.A. Dodd et al, Volume 2, 1989, pages V to XI and 627 to 632 (hereinafter D24).

With respect to inventive step, appellant I submitted inter alia that the skilled person starting from the construction disclosed in the article by J. Mate, "Back to the Future", in *Dairy Farmer*, May 1986, pages 44 to 47 (hereinafter D20) in view of the teaching of D24 would have arrived at the claimed subject-matter without exercising any inventive skill.

Appellant II submitted inter alia

- that document D24 disclosed a construction with a shed divided into three successive areas, which construction solves the technical problem of providing a construction in which the animals, after being milked, cannot easily return to the milking box entrance, as stated in the patent specification (column 1, lines 39 to 43),
- that the claimed subject-matter differed from D24 only in that the shed is divided into four successive areas and
- that this distinguishing feature did not involve an inventive step in view of the common general knowledge of the skilled person.

The respondent essentially submitted that the construction according to claim 1 differed from that of D24 not only in that the shed is divided in four successive areas but also by further distinguishing

features and that the skilled person would not have arrived at the claimed subject-matter without hindsight knowledge of the invention.

Reasons for the Decision

1. The appeals are admissible.
2. *Novelty*
 - 2.1 Document D24 discloses (see particularly pages 928 to 930 and Figures 1 and 3) a construction for automatically milking animals, such as cows, comprising a milking box located in a milking box area and provided with a milking robot ("Milking parlour [1] with AMS") and a shed where the animals can freely move about, said shed, which is split into two parts by a feeding area ("feeding passage" 13) provided in the longitudinal direction of the shed, being divided into three areas (a "feeding area" 17, a "resting area" 16 and a "collecting area" 5), cubicles being arranged on both sides of this feeding area (13) through substantially the overall length of said shed along the inner side of the outer wall, which construction includes a system of gates or doors ("selector units" 18 and "one-way gates" 15) in the shed, which open in one direction for defining the path and the direction in which the animals can walk to and from the milking box, said areas (5, 16 and 17) being connected successively to each other, while the milking box is arranged between two successive areas ("collecting area" 5 and "resting area" 16), the system of gates or doors (15, 18) being arranged in such a way that an

animal can walk from a first area (5) of the successive areas to a second area (16) of the successive areas via the milking box, wherein the animals can proceed from said second area (16) through doors (15) to a third area (17), from there through doors (18) to said first area (5) and through doors to the area (1) where the milking box is located and from the area (1) where the milking box is located and through doors (18) as well as through a passageway to said second area (16).

2.2 The subject-matter of claim 1 differs from the construction of D24 in that it comprises a further successive area so that the shed is divided into four areas.

2.3 In this respect, the appellants essentially submitted the following arguments:

- Claim 1 is directed to a shed "where the animals can freely move about" and "divided into four areas (4, 5, 6, 7)" without specifying that in each of the four areas the animals can freely move about. Moreover, the shed referred to in claim 1 comprises a further area (13) where the milking box (14) with the milking robot (41) is located. Since an animal milked in a milking box provided with a milking robot cannot freely move within the milking box, claim 1 cannot be construed as defining a shed in which the animals can freely move in each of the areas of the shed.
- In the construction disclosed in D24, the shed also comprises a separation area 6 located between the milking box area 1 and the resting area 16, in

which separation area animals which are ill or need any treatment are automatically diverted and from which the animals are directed back to the resting area 16 (see page 628, left hand column, last paragraph). Thus, D24 implicitly discloses a gate between the area where the milking box is located and the resting area 16. The separation area 6 constitutes a further successive area.

- Therefore, the claimed subject-matter lacks novelty over D24.

The board does not find these arguments convincing for the following reasons:

- Claim 1 defines a construction comprising an area where a milking box with a milking robot is located as well as a shed which is divided into four areas and in which the animals can freely move about, wherein the four areas are successively connected to each other by doors arranged to define a path so that the animals, after been milked in the milking box, can leave the area where the milking box is located and return again to the milking box entrance by walking along a circular path through the four successive areas in which the shed is divided. This implies not only that the animals can freely move from the exit of the milking box area to its entrance via the four successive areas of the shed but also that in each of the four successive areas they can freely move about. The fact that an animal present in the milking box cannot freely move is an inherent feature of a milking box

provided with a milking robot but cannot imply that in the successive areas defined in claim 1 the animals may also not be free to move. The interpretation of claim 1 according to which the animals can freely move about in each of the four successive area is consistent with the whole patent specification which describes a so called "loose house" system in which the animals are not tied when they rest and eat and can voluntarily walk to the milking box.

- In D24, the separation area 6 is an area provided with self-catching provisions" (see page 929, left-hand column, paragraph 3.2). In other words, the animals cannot freely move in the separation area. Therefore, the separation area is not a successive area of the shed within the meaning of claim 1.

2.4 Therefore, the claimed subject-matter is novel (Article 54 EPC) over document D24.

3. *Inventive step*

3.1 By analyzing document D24 (in comparison with the claimed subject-matter) the respondent submitted that the claimed subject-matter also differs from D24 by further distinguishing features, for the following reasons:

- a) The collecting area 5 of D24 is a small area and thus cannot be considered as one of the successive areas defined in claim 1.

- b) In D24, the system of gates (15, 18) comprises selector units (18) which define a plurality of possible paths, while the construction of claim 1 includes a system of gates "which open in one direction" and are arranged to define "one" path, i.e. only one path. Moreover, the symbols provided with the reference "18" in Figure 3 do not clearly define how the selection unit is arranged.

- c) Figure 3 of D24 represents cubicles which are arranged only in the resting area 16 and not in the feedings area 17, while claim 1 implies that cubicles are arranged in each of the four successive areas.

The board does not find these arguments convincing for the following reasons:

- a') Claim 1 does not specify any features concerning the dimensions of the successive areas.

- b') Claim 1 does not specify the feature that the doors open in only one direction and define only one path. In this respect, it observed that the patent specification makes it clear that "[t]he expression 'which open in one direction' refers to the direction in which the animals can pass through such openings [i.e. through the doors]" (see column 1, lines 54 to 56). Thus, this expression defines doors or gates allowing an animal to pass from an area to a successive one but preventing the animal from coming back to the previous area. Moreover, claim 1 does not refer to only one path.

The reference "18" with which the triangular symbols in Figure 3 of D24 are provided is referred to in the "Legend" on page 930 as "Selection unit". A similar symbol is used to represent a selection unit (SU) in Figure 1 on page 928. It can be clearly and unambiguously derived from D24 that a first selection unit is arranged to provide access from the feeding area 17 to either the collecting area 5 or the resting area 16 and a second selection unit is arranged to provide access from the area 1 (where the milking box is located) to either the resting area 16 or the separation area 6.

The selection units of D24 are gates "which open in one direction" for defining - in conjunction with the one-way gates 15 connecting the resting area 16 to the feeding area 17 - "the path and the direction in which the animals can walk to and from the milking box".

- c') Claim 1 refers to a shed provided with cubicles arranged on both side of the feeding area (2) and divided into four successive areas without specifying the feature that the cubicles are arranged in each of the four successive areas. Moreover, since claim 1 does not specify how the four successive areas are spatially arranged relative to the inner side of the outer wall along which the cubicles are arranged, it does not imply this feature.

3.1.1 Therefore, the subject-matter of claim 1 differs from the construction of D24 only in that it comprises a further successive area so that the shed is divided into four areas.

3.1.2 The construction of D24 solves the technical problem (stated in the patent specification, column 1, lines 39 to 43) of "providing a construction ... in which the animals, after having been milked, cannot easily return to the milking box entrance, but still have an opportunity of visiting the milking robot" in so far as the animals which, starting from the collecting area 5, i.e. from a first successive area, have reached the milking box can proceed - after having been milked - from the milking box to the resting area 16, i.e. to a second successive area, whereafter they have to walk from the resting area 16 to the feeding area 17, i.e. to a third successive area, which is successively connected to the first area 5, from which they have the opportunity of visiting the milking box.

The respondent's argument that the construction of D24 does not solve this problem because the animals from the resting area 16 can walk along a very short path to the feeding area 17 and thus can easily have access to the milking box is not convincing because

- i) claim 1 does not define either explicitly or implicitly the length of the path along which the animals can walk, and
- ii) this argument is inconsistent with a statement in the patent specification (column 1, lines 44 to 50), according to which the object of the

invention is achieved in that the animals cannot directly return to the milking box since it has to pass "at least one other successively connected area" arranged between the two which are successively connected via the milking box.

Therefore, starting from D24, the objective technical problem to be solved by the invention as defined in claim 1 may be seen in providing a further construction for automatically milking animals in which the animals, after having been milked, cannot easily return to the milking box entrance, but still, have an opportunity of visiting the milking robot.

- 3.1.3 Before the publication of document D24 (September 1989), which concerns a shed divided into three successive areas, further constructions of the "loose house" type for automatically milking animals which could voluntarily have access to a milking box provided with a milking robot had been developed. A construction of this type is described in EP-A-432 148 (D11), a European patent application claiming the priority of the Dutch patent application filed November 1986, which relates to a non-divided shed where the animals can freely move about and have direct access to the milking box (see particularly Figures 3 and 8). A further construction of the "loose house" type is described in DE-A-3 702 465 (D2), a German patent application filed January 1987, which relates to a shed divided into two successive areas, namely into a resting area 2 connected to the milking box via a selector gate 12 and a feeding area 4 connected to the resting area 2 by a one-way gate, the gates being arranged to define a circular path along which the animals can walk (see

particularly Figure 5). In other words the prior art shows a trend in the development of sheds for dairy animals according to which - starting from a shed including a single area where the animals can freely move - constructions were developed in which the shed is divided into a plurality of successively connected areas.

Having regard to this trend, it would be obvious for the skilled person seeking for an alternative solution to the above mentioned technical problem to re-design the construction of D24 so as to increase from three to four the number of successive areas into which the shed is divided.

- 3.1.4 The respondent essentially submitted that there is no disclosure or suggestion in the prior art to divide a shed into four successive areas and that starting from D24 the skilled person "could" have increased the number of successive areas only with hindsight knowledge of the invention but he "would" not have done it because there was no hint in the prior art that such an increase would contribute to the solution of the problem to be solved.

The board does not find this argument convincing because the choice of the specific number of successive areas into which the shed referred to in claim 1 is divided has not been presented as providing additional advantages other than those referred to in the patent specification, which are actually provided by the construction according to the prior art (D24) in which the shed is divided into three areas. As has been explained above, the granted patent itself, see claim 1

and paragraph [0006] of the description, considered that the lower limit of three successive areas (one other successively connected area in addition to the first and second successive areas) already achieved the desired effect. Thus, the question of whether the skilled person "could" have increased the number of areas from three to four but "would" not have done it in the expectation of some advantages is irrelevant.

3.1.5 Therefore, starting from document D24 the skilled person would have arrived at the claimed subject-matter without exercising any inventive skill.

3.2 Even if the skilled person were to start - as submitted by appellant I - from document D20, he would have arrived in an obvious way at the claimed construction.

Document D20 is an article relating to milking systems making use of milking robots capable of automatically milking animals without any human intervention, the robots being located in a housing area from which the animals wanting to be milked make their way to the milking robot (see page 44, left hand column, first and second paragraph). D20 suggests (see particularly Figure 2 on page 47) a diagrammatic layout of a construction for automatically milking a plurality of animals ("180 to 200 cows": see page 45, left hand column, fourth paragraph), the construction comprising a milking box with four milking robots (milking units MU) and a shed where the animals can freely move about, which shed is divided into a plurality of areas, the construction including a system of gates which open in one direction for defining the path and the direction in which the animals can walk to and from the milking

box. The areas of the shed are connected successively to each other while the milking boxes (MU) are arranged between two successive areas, namely between an entrance area ("Waiting area for milking") and an exit area, wherein the gates are arranged in such a way that animals can walk from the entrance area to the exit area via the milking boxes and proceed from there through a selection gate C to a further non-represented area (referred to in Figure 2 as "shed or pasture"), from there through selection gates A and B to the entrance area, from there through the entrance gate of a milking box to the area where the milking boxes are located and from there through the exit gate of the milking box to the exit area.

The layout suggested in D20 solves the technical problem of "providing a construction ... in which the animals, after having been milked, cannot easily return to the milking box entrance, but still have an opportunity of visiting the milking robot". However, D20 is silent as to how the construction is implemented to take account of the animal's need for fodder and for rest.

The claimed construction differs from that disclosed in D20 in that the shed is split into two parts by a feeding area provided in the longitudinal direction of the shed, in that cubicles are arranged on both sides of the feeding area through substantially the overall length of the shed along the inner side of the outer wall and in that the shed is divided into four successive areas.

Thus, the objective problem to be solved is that of providing a construction implementing the layout suggested in D20 so as to satisfy the resting and eating necessities of the animals.

The skilled person seeking for a solution to this problem would consider the construction of D24, which comprises a shed comprising a "resting area" 16 and a "feeding area" 17, the "resting area" being provided with cubicles arranged on both sides of a "feeding passage" 13 through substantially the overall length of the shed along the inner side of the outer wall, wherein said "feeding passage" 13 splits the shed into two parts so as to allow the animals present in the "feeding area" to have access to the feed, wherein the "feeding area" 17 and the "resting area" 16 are successively connected to each other and the milking box is located between these two areas. In the D24 layout the animals thus enter the milking box from the feeding area 17 and exit it into the resting area 16. In order to solve his technical problem, the skilled person would in realizing the construction as in D20, in which the milking boxes are located between two successive areas (entrance area and exit area), adopt the layout of D24 with an additional "feeding area" provided with the longitudinal "feeding passage" as well as with an additional "resting area" provided with cubicles with the milking box located between the "feeding area" and the "resting area" and arrive thus at a construction falling within the terms of claim 1 without exercising any inventive skill.

- 3.3 Therefore, the subject-matter of claim 1 does not involve an inventive step (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

P. Petti