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Datasheet for the decision of 9 June 2009

Case Number:
Application Number:
Publication Number:
IPC:
Language of the proceedings: EN
Title of invention:
A device for and a method of automatically supplying at least two sorts of feed to animals

## Patentee:

Lely Enterprises AG
Opponent:
DeLaval International AB
Headword:

Relevant legal provisions:

Relevant legal provisions (EPC 1973): EPC Art. 100(a)

## Keyword:

"Method - novelty (yes) - inventive step (no)"
"Device - novelty (yes) - inventive step (no)"
Decisions cited:
T 0396/99, T 0190/99, T 0501/01

## Catchword:

| Europäisches |  |
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| European |  |
| Patentamt | Patent Office européen |
| des brevets |  |

DECISION<br>of the Technical Board of Appeal 3.2.04<br>of 9 June 2009

| Appellant: <br> (Opponent) | $\begin{aligned} & \text { DeLaval International AB } \\ & \text { P 0 Box } 39 \\ & \text { SE-147 } 21 \text { Tumba (SE) } \end{aligned}$ |
| :---: | :---: |
| Representative: | Lerwill, John <br> A.A. Thornton \& Co. <br> 235 High Holborn <br> London WC1V 7LE <br> (GB) |
| Respondent: <br> (Patent Proprietor) | Lely Enterprises AG Bützenweg 20 CH-6300 Zug (DE) |
| Representative: | Corten, Maurice Jean F.M. <br> Octrooibureau Van der Lely N.V. <br> Weverskade 110 <br> NL-3147 PA Maassluis (NL) |
| Decision under appeal: | Interlocutory decision of the Opposition Division of the European Patent Office posted 14 June 2007 concerning maintenance of European patent No. 1300072 in amended form. |

## Composition of the Board:

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

## Summary of Facts and Submissions

I. In its interlocutory decision posted 14 June 2007, the Opposition Division found that, taking into consideration the amendments made by the patent proprietor, the European patent and the invention to which it relates met the requirements of the EPC. On 27 July 2007 the Appellant (opponent) filed an appeal; the corresponding appeal fee was paid on 6 August 2007. The statement setting out the grounds of appeal was received on 24 October 2007.
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:

D1: Alfa Laval Agri product brochure entitled "Feed Wagons"
D4: "Feeding Routines For Dairy Cows", by Urban Johnson, Swedish Institute of Agricultural Sciences, 1980, pages 13 and 14

D5: WO-A-00/38505
IV. Oral proceedings took place on 9 June 2009 before the Board of Appeal.

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

The Respondent requested that the appeal be dismissed, i.e. that the patent be maintained in the version held
allowable by the Opposition division (main request), or in the alternative that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of any of the third, fourth, seventh or eighth auxiliary requests filed during the oral proceedings before the Board. The first, second, fifth, sixth, and ninth auxiliary requests also filed during the oral proceedings before the Board were withdrawn.

Claims 1 and 37 of the main request read as follows:
"1. A device for automatically supplying at least two sorts of feed to animals, such as cows, said device being provided with a number of hoppers, each for containing a stock of a particular sort of feed, and with a feeding parlour accessible to an animal, characterized in that the device is provided with a control device, said control device generating a control signal for controlling the device in such a way that, seen in time, at least one sort of feed is supplied to the feeding parlour at least substantially separately from the other sorts of feed, in order that substantially the at least one sort of feed is not present in the feeding parlour simultaneously with the other sorts of feed and in that the device is provided with means for measuring the amount of a sort of feed consumed by an animal, and for issuing a consumed amount signal to the control device and in that the device is provided with a detection device for determining the amount of feed in the feeding parlour at a point of time after a supply of an amount of feed and for issuing a signal in dependence on the amountdetermination result."


#### Abstract

"37. A method of automatically supplying at least two sorts of feed to animals, such as cows, characterized in that the method comprises the step of supplying the at least two sorts of feed at least substantially successively to the animals, in order that the at least one sort of feed is not present in the feeding parlour simultaneously with the other sorts of feed, and in that the method comprises the step of supplying a next sort of feed when the previous sort of feed has been completely consumed by an animal.


Claims of the third auxiliary request:

With respect to claim 1 of the main request, the first sentence of claim 1 of the third auxiliary request has been amended to read "A device for automatically supplying at least two sorts of feed to an animal, such as a cow ..."
All method claims are deleted.

Claims of the fourth auxiliary request:

With respect to claim 1 of the main request, claim 1 of the fourth auxiliary request comprises the following additional features: "that at least two sorts of feed are supplied successively to the feeding parlour, the control device permitting the supply of a sort of feed after it has been established that the complete amount of the previous feed has been consumed by the animal".

Claim 36 of the fourth auxiliary request is identical with claim 37 of the main request.

Claims of the seventh auxiliary request:

With respect to claim 1 of the fourth auxiliary request, the first sentence of claim 1 of the seventh auxiliary request has been amended to read "A device for automatically supplying at least two sorts of feed to an animal, such as a cow ..." All method claims are deleted.

Claims of the eighth auxiliary request:

The sole method claim of this request is identical to claim 37 of the main request.

All device claims are deleted.

The Appellant mainly argued as follows:
The independent method claim of the main request does not specify that the two sorts of feed are supplied to the same animal during one single feeding session and is therefore not novel over either D1 or D5. Even if the method claim were interpreted this way, it would not involve an inventive step having regard to D4 in combination with D5. D5 discloses all the technical features of claim 1 of the third and seventh auxiliary requests which therefore lack novelty. Even if the independent device claim were considered to imply that the control device has to be effectively programmed so as to successively supply two sorts of feed and to deliver the second sort of feed after the complete amount of first sort of feed has been consumed, the device as claimed in the third and seventh auxiliary request would still lack an inventive step having regard to D5 in combination with D4.

The Respondent (patentee) contested the arguments of the Appellant and submitted the following:
It is clear from the whole description that the two sorts of feed are supplied to the same animal during one single feeding session; this is not disclosed by D5. D1 does not teach that a next sort of feed is supplied when the previous sort of feed has been completely consumed.

D4 does not relate to an automatic feeding system. There is no hint in D4 or D5 that the previous sort of feed must be completely consumed before delivering the next one. Therefore the combination of D4 and D5 does not lead to the claimed method. The claimed device is novel with respect to D5 because it implies that at least two sorts of feed are supplied to the same animal during a feeding session. Furthermore, there is no hint in D5 or D4 of using control means for establishing whether the previous sort of feed has been completely consumed before delivering the next one. Therefore the combination of these documents cannot lead to the claimed device in an obvious manner.

## Reasons for the Decision

1. The appeal is admissible.
2. Novelty of the independent method claim:
2.1 D1 discloses a method for automatically feeding cows. The daily rations of feed mixed from different components are programmed and automatically delivered to each animal. When the feed wagon is stopped at a cow place, the dispenser starts to dispense a programmed
teaser (bait portion). The cow bends forward and her transponder comes in the immediate proximity of the transponder reader; the cow is identified and a feed ration specially tailored for this animal is dispensed.

D1 does not indicate whether the teaser is different or not from the feed mixture to be delivered; nevertheless since the composition of the ration is tailored for each cow (page 4, feeding advantages 1 and 2) and since the teaser is delivered before the cow has been identified, it can be assumed that the teaser does not have the same feed composition as the ration.

However, the feed ration is delivered as soon as the cow has been identified, i.e. has come in the proximity of the transponder reader regardless of whether the cow has consumed the teaser or not. Thus, D1 does not disclose the step of supplying a next sort of feed when the previous sort of feed has been completely consumed by an animal.

Accordingly, the method of claim 37 of the main request is novel with respect to D1.
2.2 D5 discloses a device for automatically supplying at least two sorts of feed to animals. This device comprises a number of hoppers, each for containing a stock of a particular sort of feed, and a feeding parlour accessible to an animal and comprising feeding troughs equipped with weighing devices for determining the amount of feed delivered and establishing and storing the eating speed of an animal.

In this document, the feed can be composed of ingredients emanating from different hoppers according to the nutritive need of the individual animal (page 4,
lines 14 to 17). This means that the feed composition may be different for each animal. It is also stated (page 5, lines 8 to 10) that the feed that has not been consumed by an animal is automatically removed from the feeding trough.

The Appellant considered that these passages disclose the steps of "supplying the at least two sorts of feed at least substantially successively to the animals, in order that the at least one sort of feed is not present in the feeding parlour simultaneously with the other sorts of feed" and of "supplying a next sort of feed when the previous sort of feed has been completely consumed by an animal".

However when interpreting the claims of a patent a skilled person should rule out interpretations which are illogical or which do not make technical sense. He should try to arrive at an interpretation which is technically sensible and takes into account the whole of the disclosure of the patent. Interpretations of the wording of a claim should at least be such that the aims of the patent are met, i.e. that the problem to be solved is indeed solved. Interpretation of the wording of a claim which does not contribute anything to the solution, although according to the patent this wording should clearly do so, cannot reasonably be accepted by the Board (T 396/99, T 190/99, and T 501/01).

In the present case, it is stated in the patent specification, paragraph [0004], lines 20 to 29: "The invention is based on the insight that, although with the known device a sufficient amount of feed is offered to the animals, the feed intake of the animals is not optimal, just because the feed is mixed. Long research
has revealed that animals, because of the uniform, possibly one-sided flavour of the mixed feed, do not consume an optimal amount of feed. Providing variation in the offered feed, by offering other sorts of feed, is only possible to a very limited extent..." and lines 50 to 56 : "Thus the at least one sort of feed is offered separately, i.e. non-mixed, and at the same time the order in which the sorts of feed are offered to the animal can be varied. This makes it more attractive for an animal to consume more feed, while the feed combination for obtaining the desired economic result needs not to be changed."

It is thus clear that the aim of the invention is to supply one sort of feed separately from the other sorts of feed to one and the same animal, whereas in D5 two different feed mixtures are supplied separately to two different animals which successively access to the same feeding parlour.

Consequently, novelty of the subject-matter of claim 37 of the main request is also given with respect to D5.
3. Inventive step of the independent method claim:
3.1 D4 is a handbook dealing with "The influence of the feeding sequence and frequency on milk production, rumen fermentation pattern and eating behaviour". This handbook discusses various trials performed in connection with different animal feeding sequences including one trial by Kaufmann (1964) conducted with cows wherein there was a 15 minutes lapse between concentrate feeding and feeding with hay. The final two paragraphs on page 14 mention the need of supplying
both kinds of feed during the same meal and four possible sequences for supply of concentrate (C), hay (H), and silage (S).

Thus, D4 discloses to supply different sorts of feed in sequence to a same animal during a single feeding session.
3.2
3.3 Starting from D4 as closest prior art the problem to be solved by the claimed method may be seen in the automation of the feeding method disclosed therein in which at least two sorts of feed are sequentially supplied to an animal during the same feeding session (see also patent specification column 1, lines 13 to 16).
3.4 D5 (page 4, line 9 to page 5, line 10) discloses an automatic device for supplying different sorts of feed to animals. This device is provided with a weighing device in the feeding trough to deliver the adequate
amount of feed and to establish the eating speed of an animal, i.e. the amount of feed eaten per time unit. It further comprises a memory to store this value. Feed that has not been consumed is removed. Consequently, the weighing device is also able to determine whether the delivered amount of feed has been completely consumed or not. Since the amount of feed to be delivered to a given animal is tailored to match the nutritive needs of this specific animal, it is obvious for a skilled person that the amount of feed is calculated such that normally the animal (if not ill) consumes it completely.

Thus, D5 teaches a skilled person how to automate feed distribution and to control whether the distributed amount has been completely consumed or not.
3.5 It is therefore obvious for a skilled person to automate a feeding method as disclosed in D4 by using a programmable feed delivering device according to D5. In this respect there are in essence only two possibilities to ensure that no mixing of feed occurs (complete consumption or removal of the amount left). The first claimed possibility would be the preferred choice of a skilled person since the further step of removing and recycling the amount of the feed offered first and which has not been consumed is not required. Thus the presently claimed sequence of supplying the next sort of feed after the first one has been completely consumed by a single animal is merely one of a very limited number of possibilities the skilled person would choose according to the circumstances and in the light of his general technical knowledge.

It is also observed that as mentioned above, in D5 the first sort of feed might be normally completely consumed before the next sort of feed is supplied.
3.6 The Respondent argued that waiting until the one sort of feed has been completely consumed before delivering the next sort of feed has the advantage of training the animal to completely consume the one sort of feed in expectation of the next more preferred one. Indeed it is stated in the patent specification, paragraph [0022]: "In this manner it can be ensured that the animal does not wait without eating until the feed attractive for him is offered". However, it is also clear therefrom, that in order to achieve the expected result (total consumption of the one sort of feed) the sort of feed which is attractive for the animal should be the last one. Clearly this would require a further method step, namely the step of establishing in advance the favourite sort of feed of a given animal. Since this step and this order of delivering feed is not required by the method claim, this advantage is not compulsorily obtained and thus, cannot plead for the presence of an inventive step.
3.7 It follows from the foregoing that the subject-matter of the independent method claim does not involve an inventive step.
4. Main request, fourth and eighth auxiliary requests:
4.1 All these requests comprise the independent method claim which was found to lack an inventive step. Accordingly, these requests must fail.
5. Third and seventh auxiliary requests:
5.1 Novelty of claim 1 for a device:

Novelty has been disputed with respect to D5. This document discloses a device for automatically supplying different sorts of feed to cows, said device being provided with a number of hoppers (page 1, lines 3 to 8), each for containing a stock of a particular sort of feed (page 4, lines 15 and 16), and with a feeding parlour accessible to an animal. The device is provided with a control device, which generates a control signal for controlling the device in such a way that at least two sorts of feed are supplied successively to the feeding parlour, such that seen in time, at least one sort of feed is supplied to the feeding parlour at least substantially separately from the other sorts of feed, in order that one sort of feed is not present in the feeding parlour simultaneously with the other sorts of feed (page 4, lines 13 to 16 and page 5, lines 8 to 10). This known device is provided with:
i) means for measuring the amount of a sort of feed consumed by an animal, and for issuing a consumed amount signal to the control device (page 4, line 24 and lines 29 to 35) and
ii) a detection device for determining the amount of feed in the feeding parlour at a point of time after a supply of an amount of feed (implicit for determining eating speed) and for issuing a signal in dependence on the amount-determination result (eating speed is stored).

The device of claim 1 of the third auxiliary request differs from that of D5 in that:
the different sorts of feed are supplied to a same animal.

The device of claim 1 of the seventh auxiliary request differs from that of D5 in that:
the different sorts of feed are supplied to a same animal, and
the control device permits "the supply of a sort of feed after it has been established that the complete amount of the previous feed has been consumed by the animal".

Accordingly, novelty of the subject-matter of claim 1 of both requests is given having regard to D5.
5.2 Inventive step of claim 1:
5.2.1 D5 is the closest prior art since it relates to an automatic feeding device capable of supplying at least two sorts of feed to cows. The problem to be solved with respect to D5 by the device according to the third and seventh auxiliary requests may be seen in optimising the feed intake of the animals (see patent specification, column 1, lines 23 and 24).
5.2.2 This problem has been addressed by D4 which studies the influence of the order of the sorts of feed delivered to an animal during the same feeding session.
5.2.3 It would therefore be obvious for a skilled person in order to benefit from the advantages of feeding in sequence (i.e. delivering at least two sorts of feed to an animal substantially separately, in order that
substantially the at least one sort of feed is not present in the feeding parlour simultaneously with the other sorts of feed) to program the control device of D5 so as to carry out the sequential feeding of D4.
5.2.4 The Respondent argued that D5 does not address the problem of feeding in sequence and that therefore a skilled person would have no reason to modify the program of the control device of D5.
5.2.5 However, D5 discloses a programmable device, which differs from the claimed device only by the way it has been programmed. D4 makes it clear that sequential feeding of different kinds of feed during the same feeding session may improve the feed intake of an animal and thus, this document prompts the skilled person to implement the corresponding method. Since D4 does not disclose an automatic device for implementing this method, a skilled person would rely on a known device which is suitable for implementing the method for feeding in sequence such as D5.
5.2.6 Accordingly, the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step.
5.2.7 The device according to the seventh auxiliary request further requires that the control device permits the supply of a sort of feed after it has been established that the complete amount of the previous feed has been consumed by the animal.

As explained above in section 3.2 , since the method of D4 excludes mixing the different sorts of feed which shall be supplied in sequence, it is obvious that no feed may be left in the trough before delivering the
next sort of feed. This can only be achieved by either waiting until all feed has been consumed or by removing any feed left. Thus, for the reasons already given in section 3.6 , choosing one of the two possible alternatives does not involve an inventive step.
5.2.8 Accordingly, the subject-matter of claim 1 of the seventh auxiliary request does not involve an inventive step.
5.3 Consequently, the third and seventh auxiliary requests must fail.

## 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

