BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [ ] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 15 May 2009

Case Number: T 1597/06 - 3.2.04

Application Number: 98956069.3

Publication Number: 1026943

IPC: A01J 5/017

Language of the proceedings: EN

Title of invention:
An apparatus for performing an animal related operation

Patentee:
DeLaval Holding AB

Opponent:
GEA WestfaliaSurge GmbH
Octrooibureau Van der Lely N.V.

Headword:
Railing/DELAVAL

Relevant legal provisions:
EPC Art. 54, 56, 123

Relevant legal provisions (EPC 1973):
-

Keyword:
"Added subject-matter (no)"
"Lack of inventive step"

Decisions cited:
-

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1597/06 **-** 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 15 May 2009

Appellant: (Opponent II)	Octrooibureau Van der Lely N.V. Weverskade 110 NL-3147 PA Maassluis (NL)
Respondent: (Patent Proprietor)	DeLaval Holding AB P.O. Box 39 SE-147 21 Tumba (SE)
Representative:	Schmidt, Karsten Albihns GmbH Bayerstrasse 83 D-80335 München (DE)
Other party: (Opponent I)	GEA WestfaliaSurge GmbH Siemensstrasse 25-27 D-59199 Bönen (DE)
Representative:	Schütte, Hartmut Beethovenstrasse 34 D-59302 Oelde (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted 7 September 2006 concerning maintenance of European patent No. 1026943 in amended form.**

Composition of the Board:

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

Summary of Facts and Submissions

I. In its interlocutory decision dated 7 September 2006, the opposition division found that, having regard to the amendments submitted by the patent proprietor, the European patent No. 1 026 943 met the requirements of the European Patent Convention.

Claim 1 held allowable by the opposition division reads as follows:

"1. An apparatus for performing an animal related operation, comprising a support means (2) fixedly connected to a railing (5) of an animal stall (6) and a robot arm (4) connected to a robot arm suspension means (3), wherein a teat locating means (18) is connected to a control means, **characterised in that** said robot arm suspension means (3) is hingedly connected to said support means (2) about a horizontal axis, said robot arm being arranged lower than said support means (2), for allowing said robot arm suspension means (3) to perform a substantially pendulum movement about said horizontal axis, wherein the connection between the robot arm suspension means (3) and the support means (2) is arranged at a level substantially above said animal."

II. Opponent II (hereinafter appellant) lodged an appeal against this decision on 12 October 2006 and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 10 January 2007.

With the grounds of appeal the appellant filed document SU-A-1 484 333 (D12). An English translation (T12) of this citation was filed on 20 February 2009.

III. Oral proceedings before the board were held on 15 May 2009. Opponent I, who had been duly summoned, did not appear at the oral proceedings. In accordance with Rule 115(2) EPC the oral proceedings were held without him.

During the oral proceedings the patent proprietor (hereinafter respondent) filed an auxiliary request based upon an amended claim 1, which reads as follows:.

"1. An apparatus for performing an animal related operation, comprising a support means (2) fixedly connected to a railing (5) of an animal stall (6) and a robot arm (4) connected to a robot arm suspension means (3), wherein a teat locating means (18) is connected to a control means, **characterised in that** said robot arm suspension means (3) is hingedly connected to said support means (2) about a horizontal axis, said robot arm being arranged lower than said support means (2), for allowing said robot arm suspension means (3) to perform a substantially pendulum movement about said horizontal axis,
wherein the connection between the robot arm suspension means (3) and the support means (2) is arranged at a level substantially above said animal,
wherein said robot arm (4) is pivotally connected to said robot arm suspension means (3), for allowing said robot arm (4) to perform a pivotal

movement in relation to said robot arm suspension means (3),
wherein a second driving means (8b) is connected between said support means (2) and said robot arm (4), for actively moving said robot arm in a substantially upward/downward direction; and
wherein a third driving means (8c) is connected between said robot arm (4) and said robot arm suspension means (3) for actively moving said robot arm in a substantially sideward direction."

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

The respondent (patent proprietor) requested that the appeal be dismissed (main request) or, in the alternative, that the decision under appeal be set aside and the patent be maintained on the basis of the auxiliary request filed during the oral proceedings before the board.

V. The appellant essentially submitted that the added feature (in claim 1 of both requests) that the support means is fixedly connected to a railing of an animal stall contravened the requirements of Article 123(2) EPC, that the subject-matter of claim 1 of the main request lacked either novelty or an inventive step over document D12 and that the subject-matter of claim 1 of the auxiliary request did not involve any inventive step in view of D12 and common general knowledge.

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

Reasons for the Decision

1. The appeal is admissible.

2. *Article 123 EPC 1973 (main and auxiliary requests)*

2.1 Claim 1 of the main request comprises the added feature that "[the support means (2) is] fixedly connected to a railing of an animal stall".
According to the appellant, Figures 1 and 2 of the application as filed show a welded connection between the support means and the railing of the animal stall, while the term "fixedly connected" covers all kinds of connections which were not originally disclosed. Furthermore, the term "connected to a railing" represents an unallowable generalisation of what is disclosed in the embodiments of Figures 1 and 2 of the application as filed, which show a support means connected to a railing portion at a longitudinal side of the animal stall.

The board cannot accept such reasoning:

The skilled person when considering Figures 1, 2, 5 and 6 would immediately realize that the support means is fixedly connected to the animal stall in so far as the support means cannot move with respect to the animal stall. Whether (or not) the support means is connected to the animal stall by welding or by other kinds of connection is clearly not an essential feature of the invention.

In this respect, it has to be noted that each of the embodiments of Figures 1 to 3, 5 and 7 relates to an apparatus having a robot arm serving a single stall, while Figures 4 and 8 of the application as filed (which are no longer contained in the amended version of the patent held allowable by the opposition division) relate to apparatuses having a robot arm serving a plurality of stalls in which the support means 2 is movable along guide means 2a in the form of horizontal "guide members" or "elongated bars" arranged "at a level substantially above the stall" such that the support means is movable with respect to the animal stall (see page 7, line 30 to page 8, line 2; see page 8, lines 24 to 26).

The amendment that "the support means is connected to a railing of an animal stall" is supported by the application as filed (page 6, lines 5 and 6).

2.2 Claim 1 of the auxiliary request differs from claim 1 of the main request by the additional features of granted claims 4 and 7 which correspond to claims 4 and 5 of the application as filed.

2.3 Thus, amended claim 1 of the main request as well as of the auxiliary request do not contravene the requirements of Article 123(2) EPC.

3. *Novelty (main and auxiliary requests)*

3.1 D12 (see particularly Figure 1 and the corresponding description in T12) discloses an apparatus for performing an animal related operation, comprising a support means ("platform") 1 and a "rod" 6 carrying a "teat cup holder" 3, the rod 6 being connected to an arm suspension means ("animal fixing device") 2. The arm suspension means 2 is hingedly connected to the support means 1 about a horizontal axis, the arm 6 being arranged lower than said support means 1 to perform a substantially pendulum movement around said horizontal axis, the connection between arm suspension means 2 and the support means being arranged at a level substantially above the animal.

3.2 This apparatus (see page 3, paragraphs 3 to 10) is suitable for automatically attaching a teat cup to a teat of the animal. For this purpose, the teat cup holder 3 is provided with a lid assembly 15 having a plurality of slots. In each slot a teat cup 12 and a lid assembly seal 17 provided with rollers 18 are installed. In operation, the teat cup holder 3 is brought under the udder of the animal, is lifted and turned (back and forth) such that the teat may be introduced into the lid assembly seal 17, whereafter, if a pressure sensor 20 senses the presence of a teat in the lid assembly seal 17, a signal is transmitted to the bobbin 22 of a vacuum distributor 15 so that the teat cup is connected to the teat by means of the vacuum. Since the teat cup holder 3 is brought under the teats of the animal inter alia by the upward movement of the rod 6, the rod and the teat cup holder 3 constitute a "robot arm". Furthermore, a

pressure sensor 20 can be considered as being a "teat location means" which determines whether a teat cup is located in the lid assembly seal 17 in which the sensor 20 is arranged. Moreover, the bobbin 22 of the vacuum distributor can be considered as a "control means" to which the teat location means is connected in order to control the application of vacuum and thus the attachment of the teat cup to the teat.

3.2.1 In this respect, the respondent submitted that the pressure sensors 20 do not determine the location of a teat but only establish whether a teat is present in a teat cup when the teat cup is already attached to the teat and, therefore, D12 does not disclose an apparatus for attaching teat cups to the teats, in the sense of a robotic milking procedure, and thus the rod 6 does not constitute a "robot arm".

The board cannot accept these arguments for the following reasons:

- Claim 1 refers to a "teat locating means" in general terms without specifying any structural or functional feature of this "teat locating means".

- According to D12, a pressure sensor 20 does not establish whether a teat is present in the teat cup 12 but determines its presence in the lid assembly seal 17, when the teat cup is not yet connected. If the signal of presence of the teat is transmitted to the bobbin 22, vacuum is applied and "[u]nder action of vacuum the teat is being taken deep inside teat cup 12" (see T12, 3rd page, 10th paragraph).

– In D12, the "rod" provided with the "teat cup holder" permits the teat cups to be automatically connected to the teats of an animal and can thus be considered as a "robot arm" within the meaning of claim 1.

3.3 Figure 1 of D12 also represents a structure forming an animal space having two vertical elements connected by an upper horizontal element or roof, on which the support means 1 is arranged.

Having regard to the whole content of document D12 and particularly to the fourth paragraph on the third page, according to which "[a]n animal with the help of side fixing devices 2, which situate on the platform 1, is restricted in movement", it is understood that the support means ("platform") 1 is fixedly connected to the structure forming the animal space. The parties in fact agree with this interpretation.

However, D12 does not disclose an animal stall provided with a railing.

3.4 Therefore, the subject-matter of claim 1 of the main request as well as that of the auxiliary request are novel over D12.

4. *Inventive step (main request)*

4.1 Having regard to the above considerations, in D12 the support means ("platform") 1 is fixedly connected to the structure forming the animal space. However, D12 is silent as to how this structure is embodied.

4.2 Thus, the subject-matter of claim 1 of the main request differs from the prior art apparatus of D12 in that

(i) the animal space is **an animal stall provided with a railing.**

4.3 Starting from document D12 as closest prior art the technical problem to be solved is to further develop the apparatus of D12 with respect to the animal space in which the animal related operation has to be carried out so as to limit the movements of the animal within the animal space and to prevent other animals from accessing that space when an animal is present in it.

4.4 As submitted by the appellant, milking stalls the structure of which comprises railings are well known.

The skilled person starting from D12 would immediately realize that a well known animal stall having railings limits the movements of the animal within the space in which an animal related operation (e.g. milking) has to be performed and so prevents other animals from having access to that space. Moreover, a milking stall with railings (instead of e.g. walls) has the advantage of being a simple and robust construction. Thus, it would be obvious for the skilled person to arrive at the claimed subject-matter.

4.5 In this respect, the respondent essentially submitted the following arguments:

(a) The technical significance and the main advantage of railings are described in paragraph [0016] of the patent specification and consist in achieving

that "the suspension is protected from less gentle movements of animals".

(b) A further advantage of an animal stall having railings is also that of keeping the floor of the stall relatively free so that it can be easily cleaned.

(c) In D12 the "animal fixing devices" 2 are essential and cannot be removed.

The board cannot accept these arguments for the following reasons:

(a') Paragraph [0016] of the patent specification relates to the features of dependent claim 12 of the granted patent which have not been incorporated into claim 1. Moreover, it has to be noted that claim 1 does not specify that the robot arm suspension means is located outside the animal stall.

(b') The advantage of keeping the floor of the animal space free can also be achieved by the apparatus of D12.

(c') To provide the apparatus of D12 with an animal stall having railings does not necessarily imply removal of the "animal fixing devices".

4.6 Therefore, the subject-matter of claim 1 of the main request lacks an inventive step (Article 56 EPC) and accordingly the main request has to be rejected.

5. *Inventive step (auxiliary request)*

5.1 The robot arm ("rod" 6) of the apparatus disclosed in D12 is pivotally connected to the robot arm suspension means ("animal fixing device" 2) for allowing the robot arm to perform a pivotal movement in relation to the robot arm suspension means.

Figure 1 of D12 represents diagrammatically a piston-cylinder unit connecting the robot arm and the robot arm suspension means. However, D12 does not clearly disclose that this piston-cylinder unit is a driving means for actively moving the robot arm in a substantially upward/downward direction.

5.2 Thus, the subject-matter of claim 1 of the auxiliary request differs from the apparatus of D12 not only by feature (i) as referred to in section 4.2 above but also in that

(ii) "a second driving means (8b) is connected between said support means (2) and said robot arm (4), for actively moving said robot arm in a substantially upward/downward direction" and

(iii) "a third driving means (8c) is connected between said robot arm (4) and said robot arm suspension means (3), for actively moving said robot arm in a substantially sideward direction".

5.3 In the apparatus of D12, due to the pendulum movement of the robot arm suspension means 2, there is a displacement of the outer end of the arm 6 not only in a direction transverse to the stall (so as to approach

the animal) but also in an upward direction (such that the position in height of the outer end of the robot arm changes). Feature (ii), in combination with the pendulum movement in a vertical plane, allows the outer end of the robot arm to be also moved in a substantially upward/downward movement.

D12 is silent as to whether the robot arm can be moved in a substantially sideward direction. Feature (iii) allows movement in a substantially sideward direction.

Thus, the technical problem to be solved by features (ii) and (iii) is to adjust the position of the robot arm in a three-dimensional space.

5.4 The position of a robot arm is normally three-dimensionally adjustable.

In fact, the skilled person, faced with the problem of adjusting the position in a 3-D space of a robot arm which is capable of performing a pendulum movement in a vertical plane, would easily arrive at the claimed connections according to features (ii) and (iii), without exercising any inventive skill.

Accordingly, in order to allow the outer end of the robot arm to be moved in a substantially upward/downward direction when the robot arm suspension means swings backwards and forwards about its horizontal axis, it would have been obvious for the skilled person to provide a second driving means between the robot arm and the support means, since this solution merely represents one of a very limited number

of possibilities for which no inventive skill is required.

Furthermore, for the skilled person seeking to move the robot in a third sideward direction, so as to design a robot arm which can reach any desired position in a 3-D space, it would have been obvious to provide a third driving means between the robot arm and the robot arm suspension means, since this solution also represents one of a very limited number of possibilities for which no inventive skill is required.

5.5 In this respect, the respondent submitted that by connecting a second driving means between the robot arm and support means the robot arm will be hung by a parallelogram structure formed by the support means 2 (as horizontal upper member of the parallelogram), the robot arm suspension means 3 (as a first vertical member), the robot arm 4 (as horizontal lower member) and the second driving means 8b itself (as a second vertical member). With such a parallelogram the robot arm would remain horizontal when the robot arm suspension means swings backwards and forwards.

The board cannot accept this argument since neither the description nor claim 1 defines such a parallelogram suspension.

5.6 Therefore, having regard to the above considerations, it would have been obvious for a skilled person to provide the apparatus known from D12 with a stall having a railing (feature (i)) and its robot arm with the above features (ii) and (iii) and thus to arrive at the subject-matter of claim 1 of the auxiliary request.

Accordingly, the subject-matter of claim 1 of this request lacks an inventive step (Article 56 EPC).

6. Thus, in the absence of an allowable request, the patent has to be revoked.

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