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Consulenti in Proprietà Industriale*

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Sara Morabito, Giulia Pietra

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DISCLAIMER

- The following presentation contains private opinions of the tutor. It is intended to provide the best advice according to the knowledge of the tutor.
- Each paper is different, and there is no single „methodology“ guaranteed to yield the correct solution of the paper. The best methodologies are called „knowledge“ and „common sense“.
- This presentation is not intended as a „methodology“



WHAT DO YOU RECEIVE?

- Client's letter
- Annex 1 – patent to be opposed
- Annexes A2 to A? (typically A2 to A6) – documents provided by the client, can be used in attacking the Annex 1



WHAT ARE YOU REQUIRED TO PREPARE?

- A notice of opposition against Annex 1
- Attack all claims that can be attacked
- Art. 100(a) grounds: not patentable under Art. 52-57
- Art. 100(c) grounds: added subject-matter
- Do NOT use Art. 100(b) ground



STEPS

1. Read the client's letter
2. Establish the number of claims and their dependency
3. Establish effective dates of the claims
4. Establish dates of the prior art annexes and their usability
5. Read the claims
6. Read and analyze Annex 1
7. Read and analyze prior art annexes A2 – AX (X = 5 or 6 typically)
8. Establish attacks
9. Draft the Notice of Opposition



ANNEX 1

- problem: removing dirt from teats of dairy animal - par. [0001]-[0004]
- solution: soaking teats to soften dirt by a device with soaking means - par. [0005], [0007]
- rotating brushes - par. [0008]-[0009]
- checking means to verify that a teat has been soaked (sensor) - par. [0010]-[0011]
- means for reaching cows outside the milking robot - par. [0012]-[0016]
- marking of clean animals - par. [0017]-[0018]
- conditioning - par. [0020]-[0023]

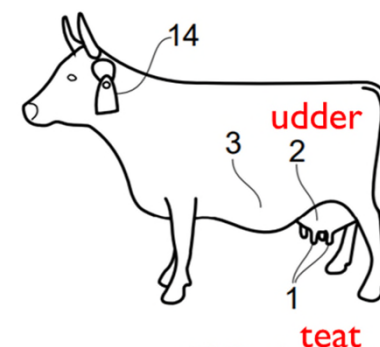


FIG. 1

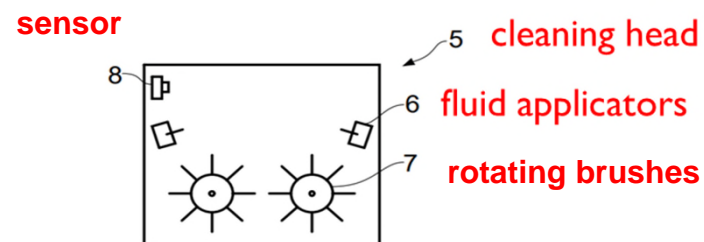


FIG. 3

CLAIM 1

1. A device (4) for soaking and cleaning the teats of a dairy animal outside a milking robot (10), comprising:
 - soaking means (6) for applying a soaking fluid, and
 - at least one rotating brush (7) which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid.



CLAIM 2

2. The device according to claim 1, further comprising:
- a reservoir for storing the soaking fluid,
 - wheels (11),
 - electronic location indicating means for supplying information about the positions of both the device (4) and the animal,
 - an individual electric motor for each wheel (11), and
 - a control unit arranged such that, in response to said information about the positions of both the device (4) and the animal, it actuates said individual electric motors.



CLAIM 3

3. The device according to claim 1, further comprising:

- checking means (8) for verifying outside the milking robot (10) that the soaking fluid has actually been applied onto the teats; and
- means to apply at least two litres of soaking fluid per dairy animal per application.



ANNEX 2

Annex 2 / Page 1 of 4

(19) Hellenic Industrial Property Organisation
 (21) Application number: 20000100297
 (11) Publication number: GR 1 003 623 B
 (22) Date of filing: 10.08.2000
 (45) Publication of the patent: 04.07.2001
 (51) Int. Cl.: A01J7/04
 (71) Proprietor: Tilemachos Ltd.
 (72) Inventor: Eumaeus Ctesiopoulos
 (74) Representative: Kastoras Guestpateras

Portable teat cleaner

[0001] The invention concerns a portable cleaner for cleaning the teats of a cow before said cow is milked in a milking robot.

[0002] Milking robots comprise a robot arm which automatically places teat cups in contact with the teats of a cow, where they are attached by suction. Modern milking robots incorporate very advanced technological solutions, such as readers obtaining information from electronic ear tags. However, the cleaning of the teats before attaching the teat cups is still manually carried out by an operator. The cleaning step is slow and cumbersome, and its efficiency largely depends on the skill of the operator. Therefore there is a need to make cleaning easier and faster.

[0003] Experience has shown that the application of water alone is not enough to dislodge dirt which is sticking to the teat. The present invention addresses this problem and provides a fast and reliable cleaning of the teats of a cow inside a milking robot before milking takes place.

[0004] The present invention relates to a portable cleaner having a cleaning mechanism comprising at least one nozzle 4 and at least one hair roller 5.

2018/C/EN/13

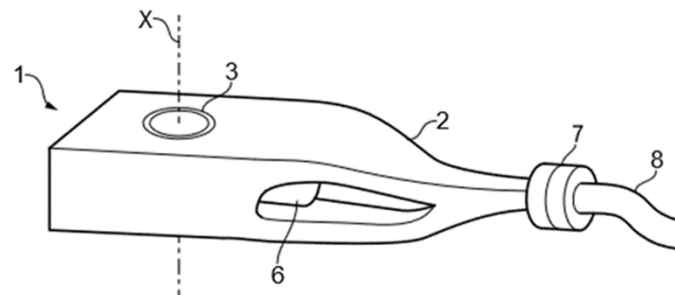


FIG. 1

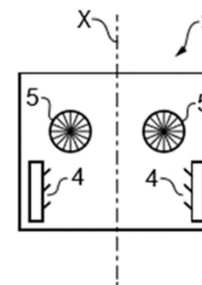


FIG. 2

Portable teat cleaner

- intended for use within milking robot
- spray cold water
- rotatable hair rollers
- no built in water tank

ANNEX 3

Annex 3 / Page 1 of 5

(19) The Netherlands Patent Office
 (21) Application number: 1020255
 (11) Publication number: NL 1020255 C
 (22) Date of filing: 11.03.2002
 (45) Publication of the patent: 04.09.2003
 (51) Int. Cl.: A01J7/04
 (73) Proprietor: Hades Livestock Management
 (72) Inventor: Teiresias Thebanaar
 (74) Representative: Circe van Aea

Mobile cleaner for teats

[0001] The use of milking robots in recent years has dramatically increased the automation level of dairy farms. However, some steps of the procedure in dairy farms are still performed manually.

[0002] One of those steps which are still performed manually is that of cleaning the teats of a cow to be milked, which is usually carried out by an operator equipped with a piece of cloth and a bucket containing a cleaning solution. This manual cleaning takes place while the cow is inside the milking robot, or on its way towards it.

[0003] The current invention seeks to partially automate the cleaning procedure by furnishing a mobile cleaner which can clean the teats of a cow present in a particular milking robot. In order to do so, the mobile cleaner 1 comprises four wheels 2 driven by a central electric motor controlled by a central unit. A single electrical motor is sufficient, which optimises the electricity consumption.

2018/C/EN/17

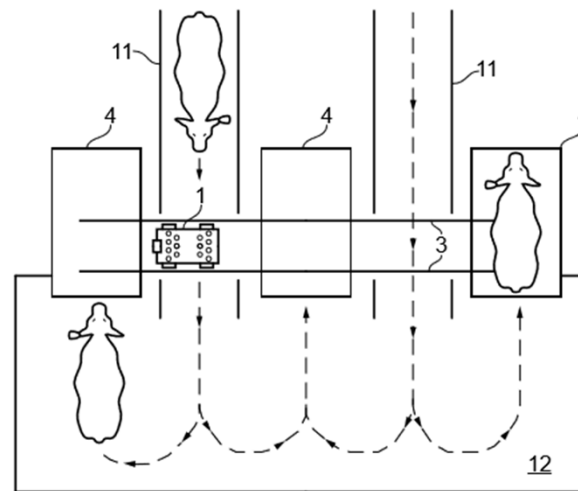


FIG. 1

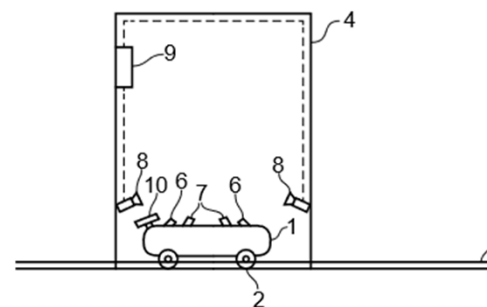


FIG. 2

Mobile cleaner for teats

- wheels
- on rails
- spray cleaning solution
- no brushes

ANNEX 4

Annex 4 / Page 1 of 5

(19) European Patent Office
(12) European Patent Application
(21) Application number: 08153434.0
(11) Publication number: EP 2 105 899 A1
(22) Date of filing: 27.03.2008
(43) Date of publication: 30.09.2009 Bulletin 2009/40
(51) Int. Cl.: A61D7/00
(73) Applicant: Philétios L'ithaquier
(72) Inventor: Pénélope Patiente
(74) Representative: Aède de la Phéacie

Mobile treatment device using a soaking solution

[0001] One of the major problems concerning dairy animals such as cows is the presence of infections of the teats of the animal, which seriously compromise the health of the animal and pose a public health risk. Teats must be cleaned and disinfected.

[0002] Early detection of infections is of utmost importance when addressing the problem, and therefore the present invention seeks to provide means for removing sources of infection from the animals as early as possible, such that said infections cannot be passed into the milk. A key point for early detection is the constant supervision of the animals, but that would normally require to collect the animals at a place where they can all be inspected.

[0003] As dairy animals usually spend most of their time in quite large areas within which they can walk freely it is difficult to check their teats on a regular basis. Animals go regularly to the milking robot. If an infection is discovered at the milking robot it is too late to carry out a disinfection before milking, and the milk has to be discarded.

2018/C/EN/22

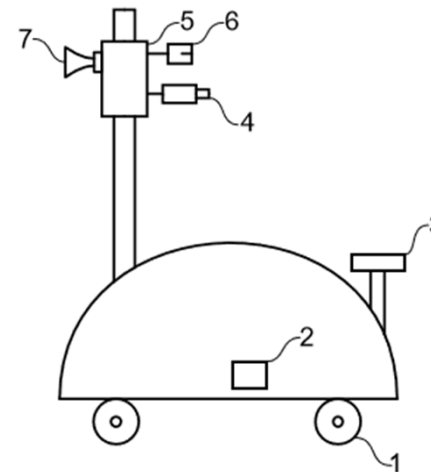


FIG. 1

Mobile treatment device

- intended to treat infections
- spray aqueous solution of disinfectant
- wheels and navigation means

ANNEX 5

Annex 5 / Page 1 of 4

Journal "A Odisseia do campo", PAC Lançamentos, Lisbon (Portugal),
Ed. February 2013, "Modernising Traditional Milking Facilities in Spain".

It is a common need for farmers of traditional milking facilities to modernise in order to stay at a reasonable level of profitability. Our magazine recently learned of an experiment in Galicia, North-West Spain, which might be of interest for our readers. Mrs Lampetia Pazos, the owner of the farm, explained to us the basics of her project.

The modernisation of the farm began with the incorporation of a milking robot 1, which for logistical reasons had to be placed on the west side of a river 9 which divides her fields. The milking robot 1 comprises a typical robot arm 8 and a vertically movable integrated cleaner 2, in which two hair rollers 10 with polymer bristles are installed to clean the teats of the cow inside the milking robot 1 by rotation. The hair rollers 10 can remove all the dirt present on the skin, even if dirt is sticking to the teats. Hair rollers are a well known soft kind of brush.

An important feature is the presence of a paint roller 3 before the railings 11 which lead to the entrance of the milking robot 1. Said paint roller 3 descends and applies a green stripe on the back of the cow before it enters the milking robot 1. The green stripe is applied using a colourant composition. The aqueous colourant composition comprises a green colourant and 24-44% by volume of a lower alcohol such as ethanol or isopropanol. The green stripe gradually fades out after application.

By means of this visual indication, Mrs Pazos can identify the cows which were prompted to go to the milking robot in the previous hours - since cows do not spontaneously go to the milking robot -, and identify cows which should be prompted to go to the milking robot as soon as possible. In this way cows can be checked, and prompted to go to the milking robot when needed. The check is carried out at a place where a salt block 4 is located, since cows regularly go there during the day to lick it.

2018/C/EN/27

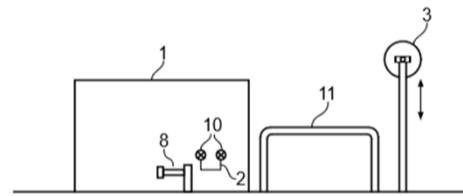


FIG. 1

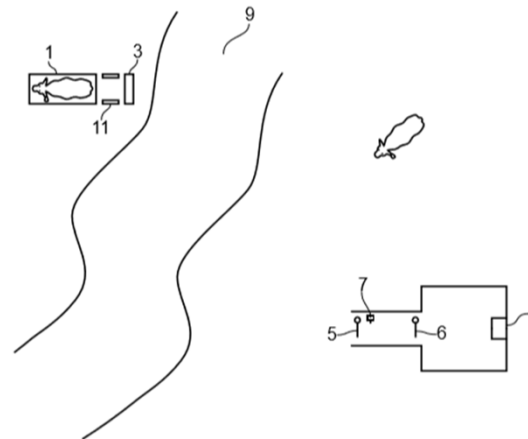


FIG. 2

Milking facility

- cows conditioned (powder with irritant agent) at salt block 4
- cows cross river to go from salt block to milking robot
- application of green stripe at the entrance of milking robot, allows to identify cows milked recently
- teat cleaner with hair rollers integrated in milking robot

ANNEX 6

Annex 6 / Page 1 of 3

(19) World Intellectual Property Organisation
(12) International Application published under the Patent Cooperation Treaty (PCT)

(21) International Application Number: PCT/US2013/041265
(10) International Publication Number: WO 2014/185937 A1
(22) International Filing Date: 15.05.2013
(43) International Publication Date: 20.11.2014
(51) International Patent Classification: A01J7/04

(71) Applicant: ODYSSEUS GmbH
(72) Inventors: Euriloco von Leucades
(74) Agents: O. Nobody
(81) Designated States: CN, JP, US
(84) Designated States: European (AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR)

A cleaning solution

[0001] Hygiene regulations in dairy farms are becoming more and more restrictive in order to ensure safety of final consumers of dairy products. The teats have to be clean for milking, which is usually ensured by application of a cleaning solution compatible with human consumption.

[0002] Said application has been gradually automated by means of devices which can be used once the cow is inside a milking robot. However, automatic cleaning may fail, resulting in polluted milk being mixed with the rest of the daily production.

[0003] In order to detect such failure, the present invention proposes adding a colourant called European Blue to a cleaning solution, which can be composed of a water-based solution of soap and ethanol.

2018/C/EN/31

- from same Applicant → priority issue for claim 6
- no filing fee paid → not prior art under Art. 54(3) for claims 1-5

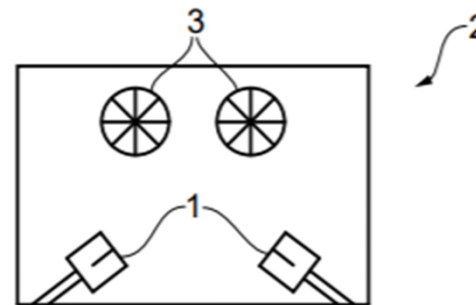


FIG. 1

Cleaning solution

- inside milking robot
- nozzles 1
- rotatable hair rollers
- marking by colourant

NOVELTY ATTACK (I)

- Basically copy the claim and for each feature explain in parentheses **where** it can be found in the cited AX and **why** it is the same (if not indicated by the same word)
- You gain marks for finding the feature (use of information marks), but more importantly for **arguing where it is found and why it is the same feature** (argumentation marks)
- In this argumentation you will sometime refer to another Annex, in which the definition is given



NOVELTY ATTACK (II)


- Generic vs. specific (specific disclosure takes away the novelty of generic disclosure, but not vice versa, e.g., „copper“ vs. „metal“; ranges)
- Implicit features – only if there is a strong case (sometimes hinted on by other documents) – do not speculate or overthink, do not use your specialist knowledge
- Equivalence of features is always provided in another document



CLAIM 1

1. A device (4) for soaking and cleaning the teats of a dairy animal outside a milking robot (10), comprising:
 - soaking means (6) for applying a soaking fluid, and
 - at least one rotating brush (7) which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid.

NOVELTY ATTACK TO CLAIM 1

CLAIM 1	Annex 1	Annex 2	Annex 3	Annex 5
A device (4) for soaking and cleaning the teats of a dairy animal	dairy animal e.g. cow (par. [0001]) soaking = applying fluid onto the surface of a part of an animal (par. [0005])	par. [0001]: portable cleaner for cleaning teats of a cow par. [0008]: cold water is sprayed on the teat		
outside a milking robot (10), comprising		par. [0010]: use outside (even if less preferred)		
soaking means (6) for applying a soaking fluid, and	soaking means in the form of fluid applicators (par. [0007])	par. [0008]: nozzles 4 spray cold water	par. [0005] : nozzles are commonly used fluid applicators on farms	
at least one rotating brush (7) which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid.		par. [0007]: hair roller rotates as liquid is supplied and, during use, it contacts the teat		pag. 1 line 15 : hair rollers are a well known soft kind of brush

GOOD ATTACK TO CLAIM 1?

A2 discloses a device for soaking and cleaning the teats of a dairy animal outside a milking robot, comprising:

- soaking means for applying a soaking fluid and
- at least one rotating brush which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid.

13 marks
available

Therefore A2 discloses all the features of claim 1 of A1, which thereby lacks novelty.



GOOD ATTACK TO CLAIM 1! (I)

A2 discloses a device for soaking and cleaning the teats of a dairy animal (the portable cleaner of A2 cleans the teats of a cow – see par. [0001] - by spraying cold water on it - see par. [0007]-[0008]. A cow is a dairy animal, see par. [0001] of A1. Applying a fluid onto the surface of a part of an animal corresponds to the definition of “soaking”, see par. [0005] of A1. Hence, the portable cleaner of A2 is a device for soaking and cleaning the teats of a dairy animal)
outside a milking robot (par. [0010] of A2) , comprising:

GOOD ATTACK TO CLAIM 1! (II)

- soaking means for applying a soaking fluid (the cleaner of A2 comprises nozzles spraying cold water, par. [0008]. Nozzles are commonly used fluid applicators, as known from par. [0005] of A3. Fluid applicators are a type of soaking means, par. [0007] of A1. The nozzles of A2 are therefore soaking means for applying a soaking fluid); and

GOOD ATTACK TO CLAIM 1! (III)

- at least one rotating brush which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid (the cleaner of A2 comprises hair rollers which rotate as the liquid is supplied and, during use, contact the teat, par. [0007] of A2. From pag. 1, line 15 of A5 it is known that hair rollers are a well known soft kind of brush. The rotating hair rollers of A2 are therefore rotating brushes).

Therefore A2 discloses all the features of claim 1 of A1, which thereby lacks novelty.



NOVELTY ATTACK - SUMMARY

- cite specific reference in the relevant document (paragraph, line, page, figure)
- if prior art uses different terminology, explain why it has the same meaning (using information provided in the annexes, not based on your knowledge)
- repeating claim wording without specific references in the relevant document and without explanations on different terminology gives you very few marks.



INVENTIVE STEP ATTACK (I)

1. determine closest prior art (CPA)
 - add reasoning for selecting the CPA
 - Not necessarily the document used for a novelty attack of the independent claim
 - Not necessarily the document having the highest number of features in common
2. mention features in common with the claim
 - similar to a novelty attack
3. determine the difference between claim and CPA
 - In term of object
4. technical effect of that difference
 - as presented in A1

INVENTIVE STEP ATTACK (II)

5. formulate objective technical problem

- Choose the “macroscopic effect”
- Effect is the same as in the CPA – the OTP is to find an alternative
- No technical effect of the different feature – no OTP

6. combine CPA with another document/disclosure and mention why said document may be considered by skilled person

- Motivation of the skilled person to find the second document (e.g., same field, more general field, neighboring field – why the SP would look there)

7. argue why skilled person is motivated to use solution from said document (could/would approach)

- compatibility of materials, no need for further technical modifications, direct hint in the second document that the solution is generally utilizable, etc

8. Conclusion



CLAIM 2

2. The device according to claim 1, further comprising:
- a reservoir for storing the soaking fluid,
 - wheels (11),
 - electronic location indicating means for supplying information about the positions of both the device (4) and the animal,
 - an individual electric motor for each wheel (11), and
 - a control unit arranged such that, in response to said information about the positions of both the device (4) and the animal, it actuates said individual electric motors.

INVENTIVE STEP ATTACK TO CLAIM 2

CLAIM 2	Annex 1	Annex 2	Annex 4
A device (4) for soaking and cleaning the teats of a dairy animal		yes	yes
outside a milking robot (10), comprising		yes	yes
soaking means (6) for applying a soaking fluid, and		yes	yes
at least one rotating brush (7) which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid	TE: ensure complete removal of dirt (par. [0008]); soaking fluid spread in uniform manner, even when fluid applicators partially clogged (par. [0009])	yes - same TE (par. [0007])	<ul style="list-style-type: none"> • obstructions of nozzles could entail non uniform distribution of aqueous solution (par. [0009]) • batteries of large capacity, further elements could be added (par. [0016])
a reservoir for storing the soaking fluid,		should not weight too much, does not comprise built-in water tank (par. [0009])	yes
wheels (11),			yes
electronic location indicating means for supplying information about the positions of both the device (4) and the animal,			yes
an individual electric motor for each wheel (11), and			yes
a control unit arranged such that, in response to said information about the positions of both the device (4) and the animal, it actuates said individual electric motors.			yes

GOOD ATTACK TO CLAIM 2? (I)

A4 is the CPA because it has the highest number of features in common with the subject matter of claim 2.

A4 discloses a device for soaking and cleaning the teats of a dairy animal outside a milking robot, comprising:

- soaking means for applying a soaking fluid;
- a reservoir for storing the soaking fluid;
- wheels;
- electronics location indicating means for supplying information about the positions of both the device and the animal;
- an individual electric motor for each wheel, and
- a control unit arranged such that, in response to said information about the positions of both the device and the animal, it actuates said individual electric motors.

**20 marks
available**



GOOD ATTACK TO CLAIM 2? (II)

The subject matter of claim 2 then differs from A4 in that the device also comprises at least one rotating brush arranged to rotate and simultaneously contact the teats during application of the soaking fluid.

The technical effect of this distinguishing feature is that the soaking fluid is spread in a uniform manner over the teat of the dairy animal (see par. [0009] of A1). The objective technical problem can then be regarded as how to modify the device of A4 so as to improve removal of the dirt from the animal's teat.

The skilled person starting from A4 and posing this problem would be taught by A2 to provide the device of A4 with at least one rotating brush for the same purpose (par. [0007] of A2), thereby arriving to the subject matter of claim 2 without exercising any inventive skill.

Claim 2 therefore lacks inventive step over A4 in combination with A2.

20 marks
available



GOOD ATTACK TO CLAIM 2 (I)

A4 is the CPA because it is the only document disclosing an autonomous soaking and cleaning device which can reach animals distributed on the fields.

A4 discloses a device for soaking and cleaning the teats since a fluid is applied on them (see [0004] or [0007]), which fulfils the definition given in A1 [0005]. The device of A4 is also a device for cleaning teats since the fluid is intended “to clean the skin of the teat from bacteria” (see [0007] or [0008]) and moreover it incorporates an ultrasonic cleaner “to clean the surface of the teat” (see [0011]).

The device of A4 is intended for use on a dairy animal and outside a milking robot.

A4 [0004] discloses that the device can perform both functions outside a milking robot

A4 discloses soaking means for applying a soaking fluid.

A4 discloses a nozzle (see [0007], [0009] or claim 1), which is a fluid applicator according to A3 [0005]. Fluid applicators are a form of soaking means according to A1 [0007]. Thus A4 discloses soaking means for applying a soaking fluid, i.e. the solution which soaks the teat.

GOOD ATTACK TO CLAIM 2 (II)

A4 discloses a reservoir for storing the soaking fluid, **see [0014]**;

A4 discloses wheels (**see [0004] or figure [0005]**) of A4 discloses a navigation antenna and antennas of cows. These are electronic location indicating means in the sense of A1 [0015] or [0016], since they supply information about the positions of both the cows and the soaking and cleaning device. A4 [0004] or [0005] also discloses the arrangement of an individual electric motor for each wheel and of a control unit which, in response to the information about the positions, actuates said individual electrical motors (**see A4 [0005]**).

The subject matter of claim 2 then differs from A4 in that the device **of claim 2** also comprises at least one rotating brush arranged to rotate and simultaneously contact the teats during application of the soaking fluid.



GOOD ATTACK TO CLAIM 2 (III)

The technical effect of this distinguishing feature is that the soaking fluid is spread in a uniform manner over **the skin and in particular over** teat of the dairy animal (see par. [0009] of A1).

The objective technical problem **of claim 2** can then be regarded as how to modify the device of A4 so as to ~~improve removal of the dirt from the animal's teat.~~ **ensure uniform wetting of the teat.**

By mentioning the risks associated with obstructions in the nozzles (see A4 [0009]), A4 motivates the skilled person to look for a solution to the objective technical problem.



GOOD ATTACK TO CLAIM 2 (IV)

The skilled person would consult A2 since it also relates to applying fluid onto teats by means of nozzles (see A2 [0008]). A2 deals with the same problem (see [0007], last sentence), and proposes to use polyethylene hair rollers (see [0007]) for ensuring uniform wetting in order to enable the liquid to perform its function on the whole teat.

Since, according to A5, p.1, l.15, hair rollers are brushes, A2 discloses the same solution as claimed in the distinguishing features of claim 2 for solving the same technical problem.

The skilled person would have no hindrance for mounting the brush of A2 onto the device of A4 in order to solve the posed objective technical problem. According to A4 [0016], the batteries of the mobile treatment device are of a large capacity and the on-board computer is prepared to take control over further elements on the device.

The skilled person starting from A4 and posing this problem would be taught by A2 to provide the device of A4 with at least one rotating brush for the same purpose (par. [0007] of A2), thereby arriving to the subject matter of claim 2 without exercising any inventive skill.



GOOD ATTACK TO CLAIM 2 (V)

Therefore, the subject-matter of claim 2 does not involve an inventive step over A4 combined with A2 and it does not comply with the provisions of Article 56 EPC.

CLAIM 3

3. The device according to claim 1, further comprising:

- checking means (8) for verifying outside the milking robot (10) that the soaking fluid has actually been applied onto the teats; and
- means to apply at least two litres of soaking fluid per dairy animal per application.



INVENTIVE STEP ATTACK TO CLAIM 3

CLAIM 3	Annex 1	Annex 2	Annex 4
A device (4) for soaking and cleaning the teats of a dairy animal		yes	yes
outside a milking robot (10), comprising		yes	yes
soaking means (6) for applying a soaking fluid, and		yes	yes
at least one rotating brush (7) which is arranged to rotate and simultaneously contact the teats during application of said soaking fluid	TE: ensure complete removal of dirt (par. [0008]); soaking fluid spread in uniform manner, even when fluid applicators partially clogged (par. [0009])	yes - same TE	<ul style="list-style-type: none"> obstructions of nozzles could entail non uniform distribution of aqueous solution (par. [0009]) batteries of large capacity, further elements could be added (par. [0016])
checking means (8) for verifying outside the milking robot (10) that the soaking fluid has actually been applied onto the teats; and	TE: checks fluid has actually been applied (par. [0010])	<ul style="list-style-type: none"> application of fluid must be checked visually, difficult (par. [0011]) skin temperature reduced by 7°C (par. [008]) 	yes - same TE <ul style="list-style-type: none"> skin temperature drop of 6 °C or more
means to apply at least two litres of soaking fluid per dairy animal per application.	TE: ensures adequate softening of the dirt (par. [0007])	yes - same TE	1 litre reservoir for aqueous solution of disinfectant, small amount of solution needed to train cows

GOOD ATTACK TO CLAIM 3? (I)

A4 is the CPA for the same reasons as discussed above in connection with claim 2.

15 marks
available

Claim 3 differs from A4 in that:

as discussed above in connection with claim 2, the claimed device comprises at least one rotating brush arranged to rotate and simultaneously contact the teats during application of the soaking fluid (**distinguishing feature A**); and

the claimed device further comprises means to apply at least two liters of soaking fluid per dairy animal per application (**distinguishing feature B**).

The technical effect of the combination of features A and B is that of providing an adequate softening of dirt (par. [0007] of A1) and at the same time a gentle brushing the surface of the teats (par. [0008] of A1).



GOOD ATTACK TO CLAIM 3? (II)

The objective technical problem may then be regarded as that of modifying the device of A4 so as to improve removal of dirt from the animal's teat.

The skilled person starting from A4 and posing this problem would be taught by A2 to provide the device of A4 with both rotating brushes (see par. [0007] of A2) and also means to apply at least two litres of soaking fluid per dairy animal per application (see par. [0009] of A2). It is further noticed that there are no obstacles to implement rotating brushes and means to apply at least two litres of soaking fluid as taught by A2 in the device of A4.

For the reasons above, claim 3 lacks inventive step over A4 in combination with A2.

15 marks
available



GOOD ATTACK TO CLAIM 3 (I)

A4 is the CPA for the same reasons as discussed above in connection with claim 2.

A2 is the closest prior art since it is the only prior art document disclosing a device able to dispense a specific amount of soaking fluid per animal per application corresponding to the claimed range (Annex 2 [0009]) and it discloses all features of claim 1.

A2 is considered as the most promising starting point since it is the only document explicitly disclosing a device able to dispense a specific amount of soaking fluid per animal corresponding to the claimed range and it discloses all features of claim 1.

Starting from A4 is less plausible since the reservoir is only a one-litre one, which implies that the amount of soaking fluid applied per treatment would not be two litres as claimed in claim 3.

The device of A3 has fewer features in common with the subject-matter of claim 3. **Further, [0006] teaches away from mounting optical equipment or heat sensors on the device due to dirt**, thus none of the available checking means are compatible with it. A3 [0010] teaches that “operation of the cameras is only reliable within the milking robot due to the precise position of the cow”. The cameras of A3 are thus **not reliable to verify “outside the milking robot” that the soaking fluid has actually been applied**



GOOD ATTACK TO CLAIM 3 (II)

Distinguishing feature: The subject-matter of claim 3 differs from A2 in the presence of checking means for verifying outside the milking robot that the soaking fluid has been actually applied onto the teats.

The **technical effect** of the difference is to detect presence of the soaking fluid on the teat (see A1 [0011]).

The associated **objective technical problem** can thus be defined as how to verify application of a soaking liquid.

A2 [0011] discloses that the correct application of soaking fluid onto the teat must be verified, and it remarks on the difficulty inherent to visual verification. This would motivate the skilled person to modify the teaching of A2.

15 marks
available



GOOD ATTACK TO CLAIM 3 (III)

The skilled person would be motivated to consult A4 since it also relates to applying a fluid onto teats by means of nozzles. A4 also deals with the problem of checking the correct application of a liquid (see [0012]), and it discloses an infrared sensor as a solution (see [0012] again).

The infrared sensor of A4 would work in the device of A2 since A2 employs cold water which makes temperature fall up to 7°C (see Annex 2 [0008]).

This is within the range which can be detected by the infrared sensor of A4 (“6 degrees or more”; see A4 [0012], [0015]).

The device of A2 is suitable to be used outside the milking robot (see A2 [0010]) and the infrared sensor of A4 is disclosed for being used on the fields (see A4 [0004], [0012]). Therefore, the device resulting from the combination of A2 and A4 would be suitable for verifying outside the milking robot that the soaking fluid has been actually applied.

Thus, the subject-matter of claim 3 does not involve an inventive step over A2 combined with A4 and it does not comply with the provisions of Article 56 EPC.



PARTIAL PROBLEMS APPROACH (I)

- Allows to combine more than 2 documents for PSA
- When there are 2 (or more) differences between the CPA and the attacked object
- Comes up very often
- Basis: if the differences solve different problems which do not have anything in common (i.e., there is no synergy between the effects), they can be treated separately



PARTIAL PROBLEMS APPROACH (II)

- Determine the differences from the CPA
- For each difference, determine effect
- Argue why the effects are independent, i.e., why there is no synergy or cooperation between the effects
- Determine the OTPs, treat the OTPs separately, i.e., continue with a separate PSA for each difference



ADDED SUBJECT MATTER ATTACK

- Explain why the claim has no basis in the application as filed.
- Compare the text of the application as filed with the text of the granted claim
- If also the relevant part of the description has been added after filing, the claim has nonetheless **NO** basis in the application as filed.



THANK YOU FOR YOUR ATTENTION!

