

## PatBase - Search results 31 January 2019

**Search query (11):** fn=(49468517:365 or 51584072:235 or 31033105:220 or 32576203:205 or 23143844:135 or 34505830:130 or 33095525:130 or 63835545:120 or 50451760:120 or 20653682:120 or 18040986:120 or 60747398:115 or 54771938:115 or 50473944:115 or 31795051:115 or 49706915:110 or 42755135:110 or 29485735:110 or 51041889:105 or 48873231:105 or 45551240:105 or 32502140:105 or 20701575:105 or 61746429:100 or 50741750:100 or 44814410:100 or 42099826:100 or 41610536:100 or 34033041:100 or 33546411:100 or 30717565:100 or 30339338:100 or 23520570:100 or 8824416:100 or 54787679:95 or 52413178:95 or 41610537:95 or 63146947:90 or 59608035:90 or 59603731:90 or 51169131:90 or 48202027:90 or 43552821:90 or 42308588:90 or 42099769:90 or 42080269:90 or 32750828:90 or 29987355:90 or 28391779:90 or 11283895:90 or 56726024:85 or 54802775:85 or 49404458:85 or 48235500:85 or 42996574:85 or 41789891:85 or 32433309:85 or 32289143:85 or 31829175:85 or 29986674:85 or 29940703:85 or 28836932:85 or 15412843:85 or 14942375:85 or 11483083:85 or 7634877:85 or 69991117:80 or 66946504:80 or 62645674:80 or 60348698:80 or 50263064:80 or 46627661:80 or 43489439:80 or 42522047:80 or 32559407:80 or 32524379:80 or 32016426:80 or 31450055:80 or 30349875:80 or 30260459:80 or 29786877:80 or 28365274:80 or 28365271:80 or 24044447:80 or 23892241:80 or 10370336:80 or 5162188:80 or 1992076:80 or 60747308:75 or 59461079:75 or 55707205:75 or 55667165:75 or 51331505:75 or 42473736:75 or 41950394:75 or 41845469:75 or 34968146:75 or 34606756:75 or 34588032:75)

**Results:** 100

### Search history

Search STAC = ((box\* or cabin\*) and electr\* and hinge) (Results 14090)

1:

Search 1 and STA = ((box\* or cabin\*) and electr\* and hinge) (Results 9729)

2:

Search 2 and STAC = (pole\* and communication\* and wireless and detect\* and opening\*) (Results 0)

3:

Search 2 and STAC = (detect\* and opening) (Results 81)

4:

Search 2 and TAC = (pole) (Results 330)

5:

Search 5 and STAC = (pole) (Results 330)

6:

Search 2 and TAC = (communication or wireless) (Results 407)

7:

Search FT=((vessel or tank) and CIP and cluster and valves and milk\*) (Results 57)

8:

Search FT=((vessel or tank) and CIP and cluster and valves and milk\*) and IC=(A01J) (Results 3)

9:

Search [SP]: liquid level control systemdispositif de regulation de niveau de liquidea liquid level control system comprises a container (10) for receiving a flow of liquid. level sensing means (14) is arranged to provide a control signal which is variable in dependence upon the depth of liquid in the container. a pump (18) is coupled with an outlet (20) from the container and is responsive to the control signal to expel liquid from the container at a rate which increases as a function of increase of liquid depth.l'invention a trait a un dispositif de regulation de niveau de liquide comprenant un recipient (10) destine a recevoir l'ecoulement d'un liquide. un equipement de detection de niveau (14) est mis en place pour envoyer un signal de commande variant selon la hauteur de liquide dans le recipient. une pompe (18), qui est couplee a un orifice de sortie (20) partant du recipient, reagit au signal de commande et chasse le liquide du recipient a une vitesse qui s'accroit en fonction de l'augmentation de la hauteur de liquide. (Results 0)

Search fn=(49468517:365 or 51584072:235 or 31033105:220 or 32576203:205 or 23143844:135 or 34505830:130 or 33095525:130 or 63835545:120 or 50451760:120 or 20653682:120 or 18040986:120 or 60747398:115 or 54771938:115 or 50473944:115 or 31795051:115 or 49706915:110 or 42755135:110 or 29485735:110 or 51041889:105 or 48873231:105 or 45551240:105 or 32502140:105 or 20701575:105 or 61746429:100 or 50741750:100 or 44814410:100 or 42099826:100 or 41610536:100 or 34033041:100 or 33546411:100 or 30717565:100 or 30339338:100 or 23520570:100 or 8824416:100 or 54787679:95 or 52413178:95 or 41610537:95 or 63146947:90 or 59608035:90 or 59603731:90 or 51169131:90 or 48202027:90 or 43552821:90 or 42308588:90 or 42099769:90 or 42080269:90 or 32750828:90 or 29987355:90 or 28391779:90 or 11283895:90 or 56726024:85 or 54802775:85 or 49404458:85 or 48235500:85 or 42996574:85 or 41789891:85 or 32433309:85 or 32289143:85 or 31829175:85 or 29986674:85 or 29940703:85 or 28836932:85 or 15412843:85 or 14942375:85 or 11483083:85 or 7634877:85 or 69991117:80 or 66946504:80 or 62645674:80 or 60348698:80 or 50263064:80 or 46627661:80 or 43489439:80 or 42522047:80 or 32559407:80 or 32524379:80 or 32016426:80 or 31450055:80 or 30349875:80 or 30260459:80 or 29786877:80 or 28365274:80 or 28365273:80 or 28365271:80 or 24044447:80 or 23892241:80 or 10370336:80 or 5162188:80 or 1992076:80 or 60747308:75 or 59461079:75 or 55707205:75 or 55667165:75 or 51331505:75 or 42473736:75 or 41950394:75 or 41845469:75 or 34968146:75 or 34606756:75 or 34588032:75) (Results 100)

## 25) Family number: 32576203 (US2006016399A)

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**Title:** LINER CONTACT AUTOMATIC TEAT DIP APPLICATOR

**Abstract:** A teat dip applicator and method direct a teat dip to a teat cup liner head that defines a chamber and nozzle through which teat dip flows to coat an animal teat prior to and during detachment of a milker unit from a dairy animal.

### Classifications:

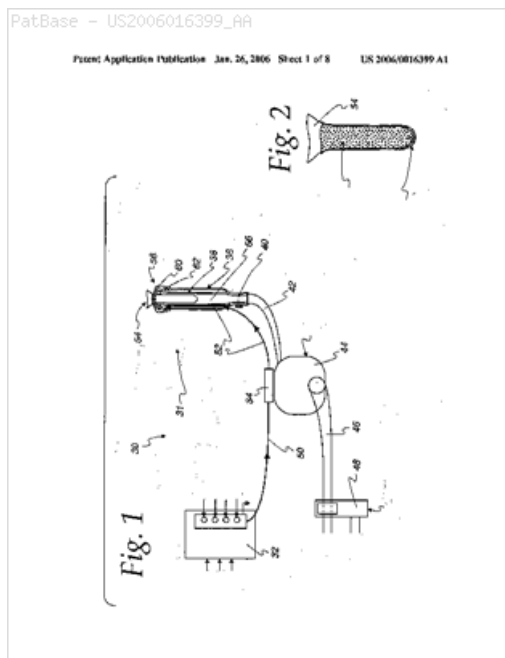
**International (IPC 8-9):** A01J5/00 A01J5/007 A01J5/04 A01J5/06  
A01J7/00 A01J7/02 A01J7/04 A01J9/02 A01K1/12 A01K29/00  
A61D7/00 A61M1/06 B08B3/04 B08B7/00 B08B9/02 F15D1/00  
F16K11/00 F16K11/10 F16K11/20 F16K21/04 F16K24/02 F16K27/04  
F16K31/12 F16K31/122 G01F11/28 G01F11/36  
G01F11/38 (Advanced/Invention);  
A01J5/00 A01J5/007 A01K29/00 (Advanced/Non-invention);  
A01J5/00 A01J7/00 A01K29/00 B08B3/04 B08B7/00  
F16K21/00 (Core/Invention);  
A01J5/00 A01J5/007 A01K29/00 (Core/Non-invention)

**CPC:** A01J5/00 Y10T137/7837 Y10T137/0402 A01J5/007 A01J5/047  
Y10T137/2546 Y10T137/4245 Y10T137/4252 Y10T137/8593  
Y10T137/87684 A01J5/06 A01J7/04 A01J7/025 A01J7/00 A01J7/02  
A01J7/022

**European:** A01J7/02T A01J7/04

**US:** 1/1 119/14.08 119/14.080S 119/14.18 119/14.180P  
119/14.180S 119/14.47 119/14.470P 119/14.49 119/14.490P  
119/14.51 119/14.55 119/14.550P 119/650 119/650S 119/651  
119/651S 119/670 119/673 119/673S 134/22.12 134/57.00RP

134/57R 134/94.1 134/94.100S 137/103 137/15.01 137/15.010S  
137/238 137/239 137/511 137/561.00RS 137/561R 137/606  
137/606S



# Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2006257779 AA    | 20061221         | AU20060257779      | 20060613         |
| AU2006257779 BB    | 20120322         | AU20060257779      | 20060613         |
| AU2009263026 AA    | 20091230         | AU20090263026      | 20090625         |
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| AU2015271984 AA    | 20160121         | AU20150271984      | 20151221         |
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| AU2018203544 AA    | 20180607         | AU20180203544      | 20180521         |
| AU2018211343 AA    | 20180823         | AU20180211343      | 20180803         |
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| CL2010001561 A1    | 20110902         | CL20100001561      | 20101224         |
| CL48930 B          | 20130301         | CL20100001561      | 20101224         |
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| CN101217865 B      | 20120613         | CN200680021024     | 20060613         |
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| CN102131387 B      | 20140820         | CN200980133233     | 20090625         |
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| CN102811607 B      | 20141022         | CN201080050186     | 20100903         |
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| EP2777387 A1    | 20140917 | EP20140159588  | 20140313 |
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| EP2941953 A1    | 20151111 | EP20150171008  | 20100903 |
| EP2941953 B1    | 20170517 | EP20150171008  | 20100903 |
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| JP5769619 B2    | 20150826 | JP20110516303T | 20090625 |
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| NZ703074 A      | 20160624 | NZ20100703074  | 20100903 |
| NZ721106 A      | 20180126 | NZ20100721106  | 20100903 |
| RU2007146071 A  | 20090720 | RU20070146071  | 20060613 |
| RU2010154730 A  | 20120810 | RU20100154730  | 20090625 |
| RU2420061 C2    | 20110610 | RU20070146071  | 20060613 |
| RU2528682 C2    | 20140920 | RU20100154730  | 20090625 |
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| WO11028292 A2   | 20110310 | WO2010US02435  | 20100903 |
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**Priority:**

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| AU20180211343 | 20180803 | CA20182772991 | 20180911 |               |          |

**Probable Assignee:** GEA FARM TECHNOLOGIES INC

**Assignee(s):** (std): TORGERSON KEVIN L ; WESTFALIA SURGE INC ; SELLNER DUANE F ; GEA FARM TECNOLOGIES INC ; HEDLUND NATHAN ; STUESSEL MATTHEW J ; GEA WESTFALIASURGE INC ; BUCK ROBERT L ; DZHIA FARM TEKHOLODZHIZ INK ; GEA FARM TECH INC ; GEA FARM TEKHOLODZHIS INK ; GEAFARM TECHNOLOGIES INC ; GEAFARM TECH INC ; WESTFALIASURGE INC ; GEA FARM TECHNOLOGIES INC

**Assignee(s):** GEA FARM TECHNOLOGIES INC NAPERVILLE ; WESTFALIASURGE INC1880 COUNTRY FARM DRIVENAPERVILLEIL60563US ; GEA FARM TECHNOLOGEIS INC ; GEA WESTFALIASURGE INC1880 COUNTRY FARM DRIVENAPERVILLEIL60563US ; GEA FARM TECHNOLOGIES INC1880 COUNTRY FARM DRIVENAPERVILLEIL60563-1089US

**Inventor(s):** (std): HEDLUND NATHAN ; KEVIN L TORGERSON ; SELLNER DUANE F ; STUESSEL MATTHEW J ; SELLNER DUANE F ; SELINER DUANE F ; NATHAN HEDLUND ; TORGERSON KEVIN L ; BUCK ROBERT L ; DUANE F SELLNER

**Inventor(s):** TORGERSON KEVIN ; STUESSEL MATTHEW J ALMA CENTER WI ; HEDLUND NATHAN LEWISTON ; STUESSEL MATTHEW J ALMA CENTER ; TORGERSON KEVIN L HOLMEN ; TORGERSON KEVIN L SELLNER DUANE F ; TORGERSON KEVIN LUS ; BUCK ROBERT L HOLMEN

**Agent(s):** SPRUSON AND FERGUSON; BORDEN LADNER GERVAIS LLP; VILLASECA; BSB ANWALTSSKANZLEI; KNH PATENTANWAELTE KAHLEHOFER NEUMANN ROESSLER HEINE PARTG MBB; PATENT U RECHTSANWAELTE LOESENBECK SPECHT DANTZ; SCHUETTE HARTMUT ET AL; BSB INTELLECTUAL PROPERTY LAW; HEINE CHRISTIAN KLAUS; NEUMANN DITMAR; KLEINE HUBERTUS; SMITH LAW OFFICE; JEFFRY W; JEFFREY W; SMITH JEFFRY W

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

## 26) Family number: 55707205 (US2015196003A)

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**Title:** MILKING SYSTEM

**Abstract:** A compact milking system for conventional milking parlors. The system supports individual milking of each of the milk glands. The system possesses a compact form and weight providing conventional milking parlors with capabilities currently supported only by costly robotic milking systems. The system comprises at least two teat cups attachable to an animal's udder; at least one Multi-Conduit Tube (MCT) having at least two milk conduits; at least one Separate Streams Claw wherein each milk stream communicates with only one teat cup and one MCT milk conduit; and one Sensing and Diverting Unit communicating with the MCT and operative to separately receive and analyze milk from each MCT milk conduit.

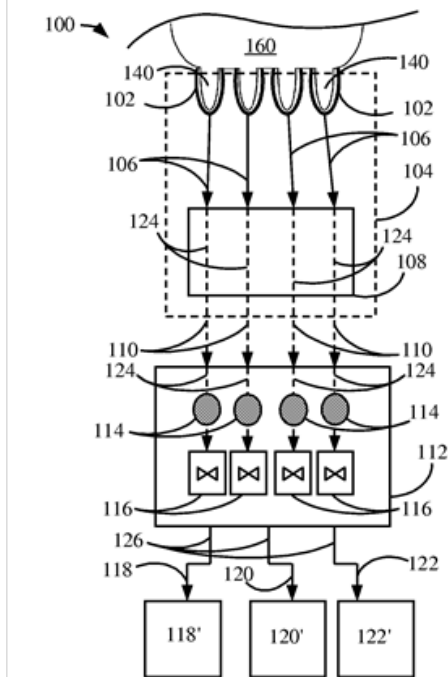
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**International (IPC 8-9):** A01J5/007 A01J5/01 A01J5/013 A01J5/017 A01J5/04 A01J5/16 (Advanced/Invention)

**CPC:** A01J5/0175 A01J5/017 A01J5/16 A01J5/007 A01J5/013 A01J5/041

**US:** 1/1 119/14.08

PatBase - US2015196003\_HH



**Family:**

| Publication number | Publication date | Application number | Application date |
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| CN204796416 U      | 20151125         | CN201390000771U    | 20130725         |
| DE212013000165 U1  | 20150402         | DE201321000165U    | 20130725         |
| US2015196003 AA    | 20150716         | US20130415256      | 20130725         |
| US9474247 BB       | 20161025         | US20130415256      | 20130725         |

**Priority:**

US20120675342P 20120725 US20130415256 20130725 WO2013IL50637 20130725

**Probable Assignee:** SCR ENGINEERS LTD**Assignee(s):** (std): SCR ENG LTD**Assignee(s):** SCR ENGINEERS ; SCR ENGINEERS LTD**Inventor(s):** (std): BRAYER EYAL**Agent(s):** DR EYAL BRESSLER LTD ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**27) Family number: 48873231 (US2012305088A)**

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**Title:** CONDUIT AND A METHOD OF CLEANING A CONDUIT

**Abstract:** The invention relates to a conduit for transferring milk. The conduit is provided with at least one flexible wall, which divides the conduit into at least one milk duct and at least one secondary duct. The milk duct and the at least one secondary duct extend along a longitudinal axis of the conduit, it being possible for the at least one milk duct to be substantially emptied by pressing through filling the at least one secondary duct.

**Classifications:**

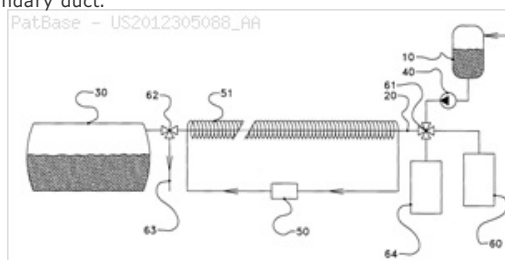
**International (IPC 8-9):** A01J11/00 A01J5/00 A01J5/04 A01J7/00 A01J7/02 F16K49/00 F16L11/12 F16L11/22

F16L9/18 (Advanced/Invention)

**CPC:** A01J5/044 F16L11/12 F16L11/22 A01J7/02 F16L9/18 A01J5/00 A01J11/00 A01J7/00 A01J7/022 Y10T137/0318 Y10T137/0419 Y10T137/4259 Y10T137/6416 Y10T137/6579

**European:** A01J5/04D A01J7/02C F16L11/12 F16L11/22

**US:** 119/14.01 137/1 137/15.04 137/240 137/334 137/340 138/115 251/5

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE602010038824 D1  | 20170126         | DE201060038824T    | 20101026         |
| DK2498594 T3       | 20170313         | DK20100773166T     | 20101026         |
| EP2498594 A1       | 20120919         | EP20100773166      | 20101026         |
| EP2498594 B1       | 20161214         | EP20100773166      | 20101026         |
| NL1037456 C        | 20110511         | NL20091037456      | 20091109         |
| US2012305088 AA    | 20121206         | US20100497435      | 20101026         |
| US2015173321 AA    | 20150625         | US20150642126      | 20150309         |
| US8997778 BB       | 20150407         | US20100497435      | 20101026         |
| US9560831 BB       | 20170207         | US20150642126      | 20150309         |
| WO11056064 A1      | 20110512         | WO2010NL00154      | 20101026         |

**Priority:**

NL20091037456 20091109 EP20100773166 20101026 WO2010NL00154 20101026  
 US20120497435 20120321 US20150642126 20150309

**Probable Assignee:** LELY PATENT NV**Assignee(s):** (std): LELY PATENT NV ; MOSTERT GERARD**Assignee(s):** LELY PATENT N V**Inventor(s):** (std): MOSTERT GERARD**Agent(s):** OCTROOIBUREAU VAN D LELY NV; OBLON MCCLELLAND MAIER AND NEUSTADT LLP; JENNEN P L H

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**28) Family number: 45551240 (US2011239944A)**

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**Title:** METHOD OF MILKING A GROUP OF DAIRY ANIMALS

**Abstract:** The invention relates to a method of milking a group of dairy animals including a first subgroup and a second subgroup by an automatic milking system, and wherein the milking system is flushed after a dairy animal from the second subgroup has been milked. The flushing step is postponed after a dairy animal from the second subgroup has been milked until at least a minimum number greater than or equal to two dairy animals from the second subgroup has been milked successively, or a subsequent dairy animal belonging to the first subgroup has been identified and the decision has been made that the dairy animal from the first subgroup presenting itself can be milked, or by postponing the milking of a dairy animal from the second subgroup until at least a minimum number greater than or equal to two dairy animals from the first subgroup has been milked successively.

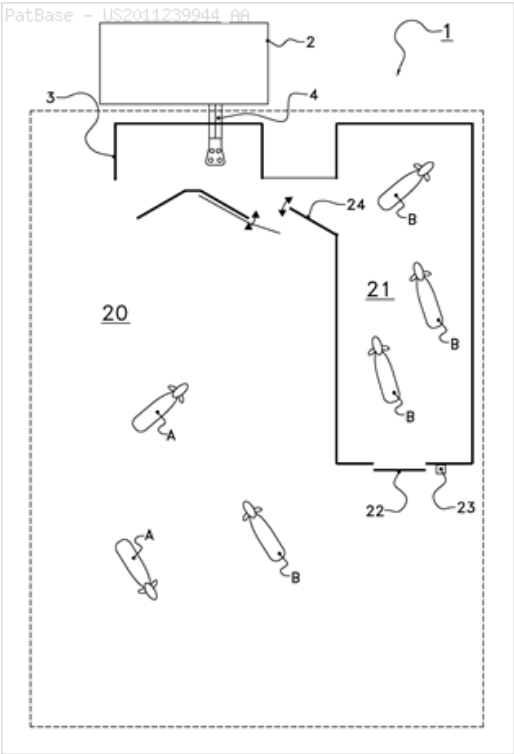
**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/007 A01J7/02

A01K1/12 (Advanced/Invention);

A01J5/007 A01J7/00 (Core/Invention)

**CPC:** A01J7/022 A01J5/007**European:** A01J5/007 A01J7/02C**US:** 119/14.02 119/14.020P 119/14.03 119/14.030S 119/14.08



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2009327679 AA    | 20100624         | AU20090327679      | 20091127         |
| AU2009327679 BB    | 20150409         | AU20090327679      | 20091127         |
| EP2378857 A1       | 20111026         | EP20090768437      | 20091127         |
| EP2378857 B1       | 20180307         | EP20090768437      | 20091127         |
| NL1036320 C        | 20100617         | NL20081036320      | 20081216         |
| NZ592892 A         | 20130726         | NZ20090592892      | 20091127         |
| US2011239944 AA    | 20111006         | US20110160529      | 20110615         |
| US8925482 BB       | 20150106         | US20110160529      | 20110615         |
| WO10071408 A1      | 20100624         | WO2009NL00235      | 20091127         |

Priority:

NL20081036320 20081216 WO2009NL00235 20091127

Probable Assignee: LELY PATENT NV

Assignee(s): (std): HULS MICHEL HUBERT JOHAN ; LELY PATENT N V ; LELY PATENT NV

Inventor(s): (std): HULS MICHEL HUBERT JOHAN

Inventor(s): MICHEL HUBERT JOHAN HULS

Agent(s): JAMES AND WELLS INTELLECTUAL PROPERTY; JENNEN PETER LEONARDUS HENDRICUS; OCTROOIBUREAU VAN D LELY NV; HOYNG MONEGIER LLP; MINERVA; DAVID P; JENNEN P L H ET AL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

29) Family number: 23892241 (EP1240820A1)

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Title: Milk robot provided with a disinfection tray

Abstract: The invention relates to a milk robot, provided with a milk room (1) into which a cow to be milked can be locked. According to the invention the short time during which the cow is locked in can be used for disinfecting the hind legs (9a,9b) of the cow. For that purpose the milk room (1) is provided with a tray (6), into which the hind legs (9a,9b) of the cow stand during the milking and into which a disinfection liquid is pumped during a short time.

Classifications:

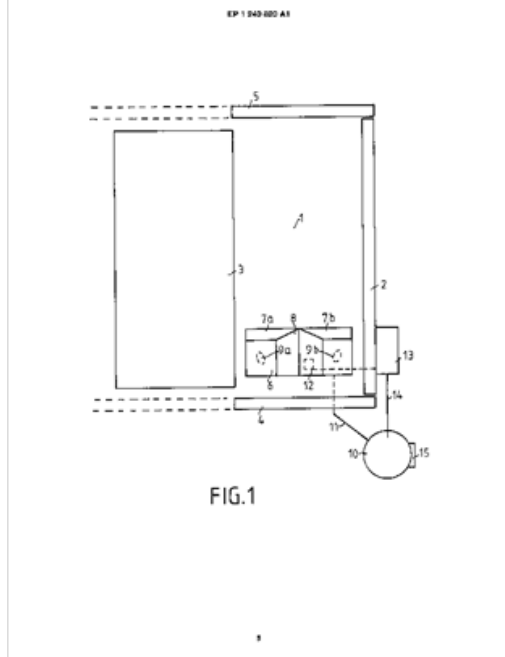
International (IPC 8-9): A01J5/017 A01J7/02 A01J7/04 A01K13/00 (Advanced/Invention);

A01J5/00 A01J7/00 A01K13/00 (Core/Invention)

International (IPC 1-7): A01J5/17 A01K13/0

CPC: A01J5/0175 A01J7/02 A01J7/04 A01K13/001 A01K13/003

European: A01J5/017A A01J7/02 A01J7/04 A01K13/00B A01K13/00D

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| EP1240820 A1       | 20020918         | EP20020076005      | 20020311         |
| NL1017561 C2       | 20020913         | NL20011017561      | 20010311         |

**Priority:**

NL20011017561 20010311

**Probable Assignee:** AGRINOWA B V**Assignee(s):** (std): AGRINOWA B V ; AGRINOWA BV**Inventor(s):** (std): NOORDENBURG ALBERTUS JOHANNES ; WAL JANKO VAN DER ; WAL JANKO VAN D ; VAN DER WAL JANKO ; JANKO VAN D WAL ; ALBERTUS JOHANNES MARIA NOORDENBURG**Inventor(s):** JANKO VAN DER WAL ; NOORDENBURG ALBERTUS JOHANNES MARIA**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR**30) Family number: 42080269 (US2009007848A)**

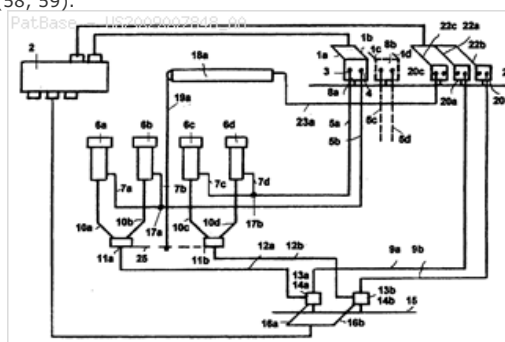
© PatBase

**Title:** METHOD AND DEVICE FOR MILKING OF ANIMALS WITH FOUR TEATS

**Abstract:** Apparatus and method for milking animals, comprising a control device (2), four teat cups (6a to 6d), at least one collecting device (11a, 11b) for collecting the extracted milk and a milking line (15) for conveying the milk, said teat cups (6a to 6d) and said at least one collecting device (11a, 11b) and the milking line (15) being interconnected by way of milk lines (10a to 10d, 12a, 12b). A sensor device (13a) is provided and by means of said sensor device (13a) both the milk flow in at least one fore quarter (54, 55) of the udder (53) and the milk flow in at least one rear quarter (56, 57) is captured to separately control the milking operation by fore and rear udder half (58, 59).

**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/007 A01J5/01 A01J5/017 A01J5/08 A01J5/16 A01J7/00 (Advanced/Invention); A01J5/00 A01J5/007 A01J7/00 (Core/Invention)

**CPC:** A01J5/007 A01J5/048**European:** A01J5/007 A01J5/04H1**US:** 119/14.02 119/14.020P 119/14.08 119/14.080S 119/14.15 119/14.17**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE102008015321 A1  | 20081204         | DE200810015321     | 20080320         |
| DE202008004031 U1  | 20080724         | DE200820004031U    | 20080320         |
| US2009007848 AA    | 20090108         | US20080077751      | 20080321         |
| US2012180728 AA    | 20120719         | US20110327406      | 20111215         |
| US8646411 BB       | 20140211         | US20110327406      | 20111215         |

**Priority:**DE200710014457 20070322  
US20110327406 20111215

DE200810015321 20080320

US20080077751 20080321

**Probable Assignee:** GEA FARM TECHNOLOGIES GMBH**Assignee(s):** (std): BARBA MARCELO ALFREDO ; FRENSE REINHARD ; GEA FARM TECHNOLOGIES GMBH ; WARTENHORST



**Title:** DEVICE AND METHOD FOR SEPARATING MILK FROM A DAIRY ANIMAL

**Abstract:** A device for separating milk obtained from a dairy animal. The device is provided with a processing device and with a measuring device for measuring a value of a variable in relation to the dairy animal and for issuing a signal indicative of the measured value to the processing device. The processing device comprises a memory suitable for containing a reference value for the variable in relation to the dairy animal. The processing device comprises a comparing device for comparing the measured value of the variable with the reference values and for issuing a comparison signal, the device separating milk in dependence on the comparison signal. The device is provided with a means for determining the period between two successive milking runs of the dairy animal, and the memory contains various reference values for the variable, the reference values depending on the measured period.

**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/007 A01J5/01 A01J5/013 A01J7/00 G01N21/27 G01N33/02 G01N33/04

G01N33/483 (Advanced/Invention);  
A01J5/00 A01J5/007 A01J7/00 G01N21/25 G01N33/02  
G01N33/483 (Core/Invention)

**International (IPC 1-7):** A01J3/00 A01J5/00 A01J5/1 A01J5/13 A01J5/7 A01J7/00 G01N21/27 G01N33/02 G01N33/483

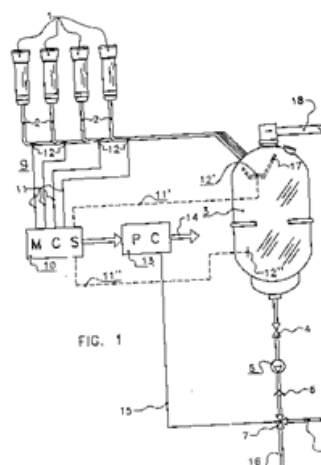
**CPC:** A01J5/007 A01J5/01 A01J5/0131 A01J5/0133 A01J5/0136 A01J5/0138 G01N33/04

**European:** A01J5/007 A01J5/01 A01J5/013 A01J5/013A A01J5/013E A01J5/013M A01J5/013T G01N33/04

**US:** 119/14.15

PatBase - US2003061994\_AA

Patent Application Publication Apr. 3, 2003 Sheet 1 of 2 US 2003/061994 A1



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2002301240 AA    | 20030612         | AU20020301240      | 20020927         |
| CA2405139 AA       | 20030328         | CA20022405139      | 20020925         |
| DE60207660 D1      | 20060105         | DE20026007660      | 20020918         |
| DE60207660 D1      | 20060105         | DE20026007660T     | 20020918         |
| DE60207660 T2      | 20060810         | DE20026007660T     | 20020918         |
| DK1297743 T3       | 20060403         | DK20020078835T     | 20020918         |
| EP1297743 A2       | 20030402         | EP20020078835      | 20020918         |
| EP1297743 A3       | 20030917         | EP20020078835      | 20020918         |
| EP1297743 B1       | 20051130         | EP20020078835      | 20020918         |
| IL151901 A0        | 20030410         | IL20020151901      | 20020924         |
| JP2003180180 A2    | 20030702         | JP20020286012      | 20020930         |
| JP4213448 B2       | 20090121         | JP20020286012      | 20020930         |
| NL1019060 C2       | 20030402         | NL20011019060      | 20010928         |
| US2003061994 AA    | 20030403         | US20020255173      | 20020926         |

**Priority:**

NL20011019060 20010928 CA20022405139 20020925

**Probable Assignee:** LELY ENTERPRISES AG

**Assignee(s):** (std): AVENTIN ELENA ESPADA ; LELY ENTERPRISES AG ; LELY ENTPR AG ; VIJVERBERG HELENA GERALDA MARI

**Assignee(s):** VIJVERBERG HELENA GERALDA MARIA ; LELY ENTERPRISES AG ZUG ; LELY ENTERPRISES ZUG AG ; ESPADA AVENTIN ELENA

**Inventor(s):** (std): VIJVERBERG HUL NA GERALDA MARI ; VIJVERBERG HELENA GERALDA MARIA ; VIJVERBERG HELENA GERALDA MARI ; ESPADA AVENTIN ELENA ; HELENA GERALDA MARIA VIJVERBERG ; ELENA ESPADA AVENTIN ; AVENTIN ELENA ESPADA

**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; FETHERSTONHAUGH AND CO

**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

**Title:** DEVICE AND METHOD FOR SEPARATING MILK FROM DAIRY ANIMALS

**Abstract:** A device for separating milk obtained from a dairy animal. Said device is provided with a processing device, with a measuring device for measuring at least one milk variable during a milking run of a dairy animal and for issuing a signal indicative of the measured value to the processing device. The processing device is provided with a memory suitable for containing a reference value for the milk variable, and with a comparing device for comparing the measured value of the

milk variable with the reference value and for issuing a comparison signal. The device separates milk in dependence on the comparison signal. The measuring device is suitable for measuring during the entire course of the milking run the value of the milk variable for obtaining a momentary measurement pattern of the milk variable. The memory of the processing device is suitable for containing a reference measurement pattern, and the comparing device is suitable for comparing the momentary measurement pattern of a milk variable with the reference measurement pattern of the milk variable and for issuing a comparison signal indicative of the comparison result.

**Classifications:**

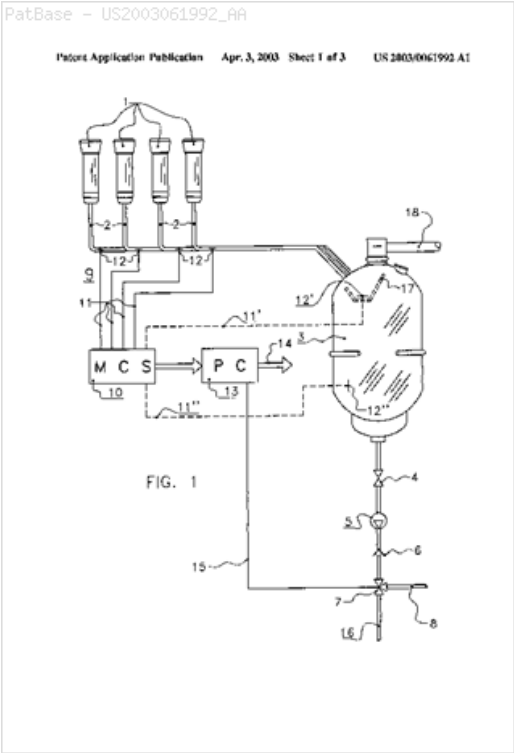
**International (IPC 8-9):** A01J5/007 A01J5/01 A01J5/013 A01J7/00 G01N21/27 G01N21/31 G01N33/02 G01N33/04 G01N33/483 (Advanced/Invention); A01J5/00 A01J5/007 A01J7/00 G01N21/25 G01N21/31 G01N33/02 G01N33/483 (Core/Invention)

**International (IPC 1-7):** A01J3/00 A01J5/00 A01J5/007 A01J5/01 A01J5/013 A01J5/13 A01J5/7 A01J7/00 G01N21/27 G01N33/02 G01N33/483

**CPC:** A01J5/007 A01J5/01 A01J5/0131 A01J5/0133 A01J5/0136 A01J5/0138 G01N21/31 G01N33/04

**European:** A01J5/007 A01J5/01 A01J5/013 A01J5/013A A01J5/013E A01J5/013M A01J5/013T G01N21/31 G01N33/04

**US:** 119/14.14



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2002301242 AA    | 20030612         | AU20020301242      | 20020927         |
| CA2404899 AA       | 20030328         | CA20022404899      | 20020925         |
| CA2404899 C        | 20091124         | CA20022404899      | 20020925         |
| DE60209441 D1      | 20060427         | DE20026009441      | 20020918         |
| DE60209441 D1      | 20060427         | DE20026009441T     | 20020918         |
| DE60209441 T2      | 20060928         | DE20026009441T     | 20020918         |
| DK1297744 T3       | 20060703         | DK20020078836T     | 20020918         |
| EP1297744 A2       | 20030402         | EP20020078836      | 20020918         |
| EP1297744 A3       | 20031001         | EP20020078836      | 20020918         |
| EP1297744 B1       | 20060301         | EP20020078836      | 20020918         |
| IL151902 A0        | 20030410         | IL20020151902      | 20020924         |
| JP2003180179 A2    | 20030702         | JP20020286011      | 20020930         |
| JP4159841 B2       | 20081001         | JP20020286011      | 20020930         |
| NL1019059 C2       | 20030402         | NL20011019059      | 20010928         |
| US2003061992 AA    | 20030403         | US20020255174      | 20020926         |
| US6776119 BB       | 20040817         | US20020255174      | 20020926         |

**Priority:**

NL20011019059 20010928 CA20022404899 20020925

**Probable Assignee:** LELY ENTERPRISES AG

**Assignee(s):** (std): LELY ENTERPRISES AG ; LELY ENTPR A G ; LELY ENTPR AG ; VIJVERBERG HELENA GERALDA MARI ; ESPADA AVENTIN ELENA

**Assignee(s):** LELY ENTERPRISES A G ; VIJVERBERG HELENA GERALDA MARIA ; LELY ENTERPRISES AG ZUG ; LELY ENTERPRISES ZUG AG

**Inventor(s):** (std): VIJVERBERG HUL NA GERALDA MARI ; VIJVERBERG HELENA GERALDA MARIA ; VIJVERBERG HELENA GERALDA MARI ; HELENA GERALDA MARIA VIJVERBERG ; ESPADA AVENTIN ELENA ; ELENA ESPADA AVENTIN ; AVENTIN ELENA ESPADA

**Inventor(s):** VIJVERBURG HELENA GERALDA MARIA

**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; FETHERSTONHAUGH AND CO

**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

**34) Family number:** 60747308 (US2017099801A)

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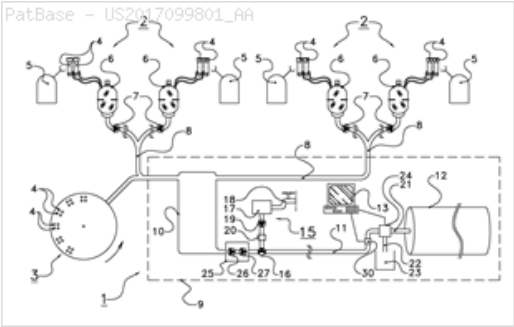
**Title:** MILKING SYSTEM

**Abstract:** A milking system includes a milking device, and a milk storage system having: a temporary milk storage vessel for temporarily storing milk from a plurality of milking operations, a milk pipe from the milking device to the temporary milk storage vessel, a milk tank for storing the milk from the temporary milk storage vessel, a control unit, a main milk pipe from the temporary milk storage vessel to the milk tank, a pressurized liquid supply which is controllable by the control unit and is provided and configured to supply a pressurized liquid, other than milk, to the milk storage system, a first and a second discharge provided on the main milk pipe, a selection device which is controllable by the control unit and is on the main milk pipe towards the first discharge or the second discharge, wherein the control unit is configured to perform a milk transferring action for transferring milk in the main milk pipe into the milk tank with the aid of the pressurized liquid, wherein the liquid

transferring action includes bringing the pressurized liquid supply and the first discharge into liquid connection with the main milk pipe, and breaking a liquid connection of the main milk pipe with the second discharge, allowing an amount of pressurized liquid to flow under pressure from the pressurized liquid supply into the main milk pipe, and breaking the liquid connection between the main milk pipe and the first discharge. Transferring the milk in this way means that it is subjected to less mechanical load and mixed with less air, which benefits the quality. The invention also provides a temporary milk storage vessel and method of this type.

**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/007 A01J5/04 A01J7/02 A01J9/00 A01J9/06 (Advanced/Invention)  
**CPC:** A01J7/022 A01J9/00 A01J9/06 A01J7/027 A01J5/007 A01J5/044 A01J5/00  
**US:** 119/14.02



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CA2944991 AA       | 20161005         | CA20152944991      | 20150428         |
| CN106455517 A      | 20170222         | CN201580024238     | 20150428         |
| DE602015021294 D1  | 20190103         | DE201560021294T    | 20150428         |
| EP3139730 A1       | 20170315         | EP20150728196      | 20150428         |
| EP3139730 B1       | 20181212         | EP20150728196      | 20150428         |
| NL2012793 B1       | 20160224         | NL20142012793      | 20140509         |
| RU2016147928 A     | 20180615         | RU20160147928      | 20150428         |
| RU2016147928 A3    | 20180615         | RU20160147928      | 20150428         |
| RU2659857 C2       | 20180705         | RU20160147928      | 20150428         |
| US2017099801 AA    | 20170413         | US20150128241      | 20150428         |
| WO15170970 A1      | 20151112         | WO2015NL50282      | 20150428         |

**Priority:**

NL20142012793 20140509 EP20150728196 20150428 WO2015NL50282 20150428  
RU20160147928 20150428

**Probable Assignee:** LELY PATENT NV

**Assignee(s):** (std): LELY PATENT N V ; LELY PATENT NV

**Assignee(s):** VAN TILBURG RUBEN ALEXANDER ; DE HULLU MATTHEUS JACOB ; DIJKSHOORN DIRK

**Inventor(s):** (std): DE HULLU MATTHEUS JACOB ; DIJKSHOORN DIRK ; DIRK DIJKSHOORN ; MATTHEUS JACOB DE HULLU ; RUBEN ALEXANDER VAN TILBURG ; VAN TILBURG RUBEN ALEXANDER

**Agent(s):** FETHERSTONHAUGH AND CO; OCTROOIBUREAU VAN D LELY NV; OOO YURIDICHESKAYA GORODISSKIY I PARTNER Y FA; JENNEN PETER LEONARDUS HENDRICUS

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

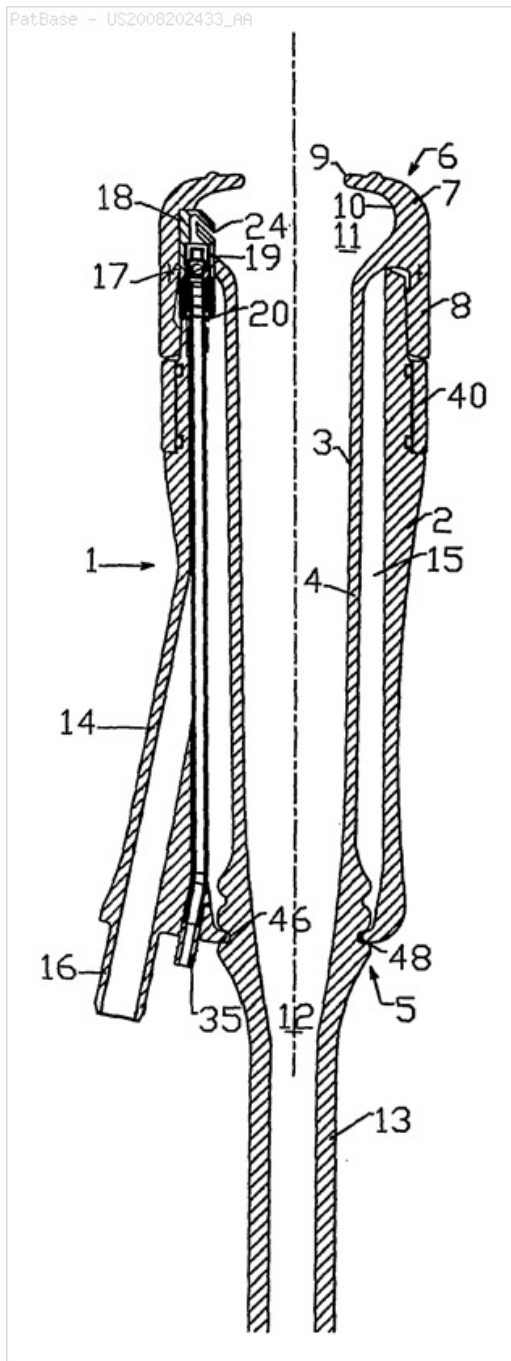
**35) Family number: 32433309 (US2008202433A)** © PatBase

**Title:** TEAT CUP

**Abstract:** A teat cup comprises a flexible liner (3) for engaging about a teat of an animal to be milked, the liner having a head portion (7), at one end (6), provided with a mouth (9) through which the teat is engageable with the liner, and a milk discharge passageway (12) at the opposite end (5). A nozzle (24) is arranged to discharge fluid into the head portion of the liner, and a fluid delivery tube (21) is connected to the nozzle via a check valve (17) which allows fluid delivery to the nozzle and alleviates the risk of dirt or disinfectant lodging in the nozzle or delivery tube when the teat cup is treated on a jetter at the finish of a milking period.

**Classifications:**

**International (IPC 8-9):** A01J5/04 A01J5/08 A01J7/02 A01J7/04 (Advanced/Invention); A01J5/00 A01J7/00 (Core/Invention)  
**CPC:** A01J5/08 A01J7/025 A01J7/04  
**European:** A01J5/08 A01J7/02T A01J7/04  
**US:** 119/14.47 119/14.49 119/14.490P 119/14.51 119/14.510S

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AT495664 E         | 20110215         | AT20060779467T     | 20060915         |
| DE602006019750 D1  | 20110303         | DE200660019750T    | 20060915         |
| DK1933616 T3       | 20110509         | DK20060779467T     | 20060915         |
| DK1933616 T4       | 20180205         | DK20060779467T     | 20060915         |
| EP1933616 A1       | 20080625         | EP20060779467      | 20060915         |
| EP1933616 B1       | 20110119         | EP20060779467      | 20060915         |
| EP1933616 B2       | 20171101         | EP20060779467      | 20060915         |
| ES2360078 T3       | 20110531         | ES20060779467T     | 20060915         |
| ES2360078 T5       | 20180119         | ES20060779467T     | 20060915         |
| GB200518976 A0     | 20051026         | GB20050018976      | 20050916         |
| PL1933616 T5       | 20180928         | PL20060779467T     | 20060915         |
| US2008202433 AA    | 20080828         | US20060066889      | 20060915         |
| US8210123 BB       | 20120703         | US20060066889      | 20060915         |
| WO07031783 A1      | 20070322         | WO2006GB03455      | 20060915         |

**Priority:**

GB20050018976 20050916      EP20060779467 20060915      WO2006GB03455 20060915

**Probable Assignee:** AN UDDER IP CO LTD

**Assignee(s):** (std): AN UDDER IP CO LTD ; AN UDDER IP COMPANY LTD ; DUKE JAMES R J ; DUKE JAMES RICHARD JOHN

**Inventor(s):** (std): DUKE JAMES RICHARD JOHN

**Agent(s):** WARREN KEITH STANLEY ET AL; WARREN KEITH STANLEY; ASHTON GARETH MARK; ZUAZO ALEXANDER; ALSTON AND BIRD LLP

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE

**36) Family number: 10370336** (EP0209205A1)

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**Title:** An implement for milking animals, such as cows, in a parlour.

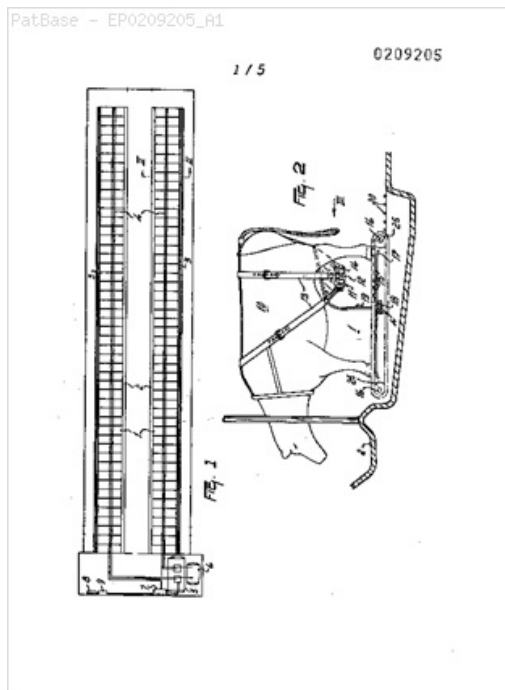
**Abstract:** An implement for milking animals, such as cows, provided with teat cups (14) which can be attached to the teats of an animal's udder and with an envelope (12) for surrounding the animal's udder, both being suited to be continuously connected to the animal's udder. The envelope (12) may be of transparent material and may be provided with a flexible upper rim (23). During attachment of the teat cups (14) the teats and the udder can be cleaned and provided with air. The floor of the milking parlour may consist of a conveyor (15), such as an endless transport member, so that the animal can move without displacement.

**Classifications:****International (IPC 8-9):** A01J5/04 A01J5/06 A01J5/08 A01J7/04  
A01K1/12 (Advanced/Invention);

A01J5/00 A01J7/00 A01K1/00 (Core/Invention)

**International (IPC 1-7):** A01J5/04 A01J5/06 A01J5/08 A01J7/00  
A01K1/12**CPC:** A01J5/04 A01J5/041 A01J5/06 A01J5/08 A01J7/04 A01K1/12**European:** A01J5/04 A01J5/04B A01J5/06 A01J5/08 A01J7/04

A01K1/12

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE3679245 D1       | 19910620         | DE19863679245      | 19860717         |
| DE3686724 D1       | 19921015         | DE19863686724      | 19860717         |
| DE3686724 T2       | 19930408         | DE19863686724T     | 19860717         |
| DE3686726 D1       | 19921015         | DE19863686726      | 19860717         |
| DE3686726 T2       | 19930408         | DE19863686726T     | 19860717         |
| EP0209205 A1       | 19870121         | EP19860201254      | 19860717         |
| EP0209205 B1       | 19910515         | EP19860201254      | 19860717         |
| EP0209205 B2       | 19970618         | EP19860201254      | 19860717         |
| EP0346952 A2       | 19891220         | EP19890116115      | 19860717         |
| EP0346952 A3       | 19900214         | EP19890116115      | 19860717         |
| EP0347954 A2       | 19891227         | EP19890116114      | 19860717         |
| EP0347954 A3       | 19900131         | EP19890116114      | 19860717         |
| EP0347954 B1       | 19920909         | EP19890116114      | 19860717         |
| EP0347955 A2       | 19891227         | EP19890116116      | 19860717         |
| EP0347955 A3       | 19900228         | EP19890116116      | 19860717         |
| EP0347955 B1       | 19920909         | EP19890116116      | 19860717         |
| NL8502082 A        | 19870216         | NL19850002082      | 19850719         |
| NL8502083 A        | 19870216         | NL19850002083      | 19850719         |

**Priority:**NL19850002082 19850719 NL19850002083 19850719 EP19860201254 19860717  
EP19890116114 19860717**Probable Assignee:** LELY C VAN D NV**Assignee(s):** (std): LELY C VAN D NV ; LELY NV C VAN DER**Assignee(s):** C VAN D LELY TE MAASLAND NV ; C VAN DER LELY N V ; C VAN DER LELY N V MAASLAND NL ; C VAN DER LELY N V TE MAASLAND**Inventor(s):** (std): VAN DER LELY CORNELIS ; LELY CORNELIS VAN D**Inventor(s):** VAN DER LELY CORNELIS ZUG CH**Designated states:** DE FR GB NL SE**37) Family number: 30339338** (EP1275295A2)

© PatBase

**Title:** Method and device for automatically milking an animal, especially a cow

**Abstract:** The method for mechanical milking of cows comprises fitting the teat cups (17) and carrying out an initial milking.

The cups are then removed and the teats cleaned before replacing them and carrying out the main milking. An Independent claim is included for a machine for carrying out the method.

**Classifications:**

**International (IPC 8-9):** A01J5/007 A01J5/017

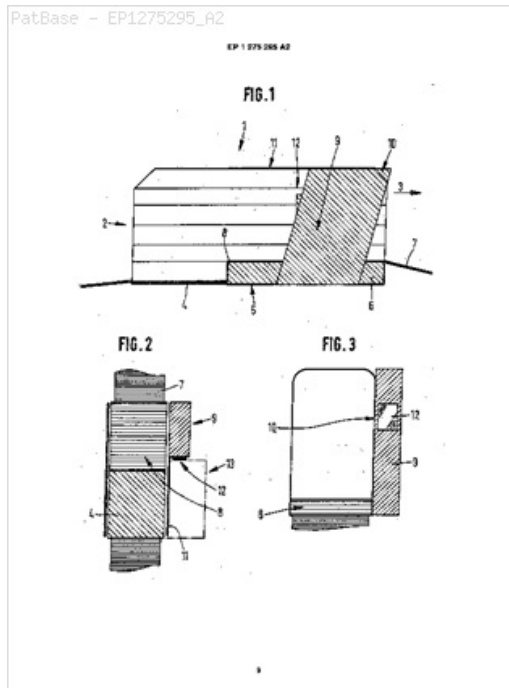
A01J7/04 (Advanced/Invention);

A01J5/00 A01J5/007 A01J7/00 (Core/Invention)

**International (IPC 1-7):** A01J5/007 A01J5/013 A01J5/017 A01J7/00 A01J7/02 A01J7/04

**CPC:** A01J5/007 A01J5/0175 A01J7/025 A01J7/04

**European:** A01J5/007 A01J5/017A A01J7/02 A01J7/02T A01J7/04



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE10134078 A1      | 20030130         | DE20011034078      | 20010713         |
| EP1275295 A2       | 20030115         | EP20020014041      | 20020628         |
| EP1275295 A3       | 20030709         | EP20020014041      | 20020628         |

**Priority:**

DE20011034078 20010713

**Probable Assignee:** WESTFALIASURGE GMBH

**Assignee(s):** (std): WESTFALIA LANDTECHNIK GMBH

**Assignee(s):** WESTFALIASURGE GMBH

**Inventor(s):** (std): OSTHUES UWE

**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

**38) Family number: 29987355 (US6279507B)**

© PatBase

**Title:** Construction including an implement for automatically milking animals

**Abstract:** An apparatus for automatically milking animals, such as cows, which comprises teat cups for connection to the teats of the animal to be milked and separate cups for connection to the teats of the animal for the purpose of cleansing, disinfecting or foremilk the animal. The apparatus is further provided with a switching device for alternately connecting the teat cups and the separate cups to the animal's teats. Each set of cups has its own compartment for being cleaned by a fluid spray. The process is controlled and recorded for each animal or groups of animals in a computer in association with an animal identification system. Robot arms separately move each set of cups to and from the animal's teats and to and from their respective cleaning compartments, and a further robot arm has a detector such as a laser, ultrasonic sensor or camera mounted thereon for locating the animal's teats so that the two sets of cups can be connected and disconnected therefrom. While one set of cups is received by the animal's teats, the other cup set is being cleaned in their respective compartment.

**Classifications:**

**International (IPC 8-9):** A01C15/00 A01J5/00 A01J5/017 A01J7/00

A01J7/02 A01J7/04 (Advanced/Invention);

A01J5/00 A01J7/00 (Advanced/Non-invention);

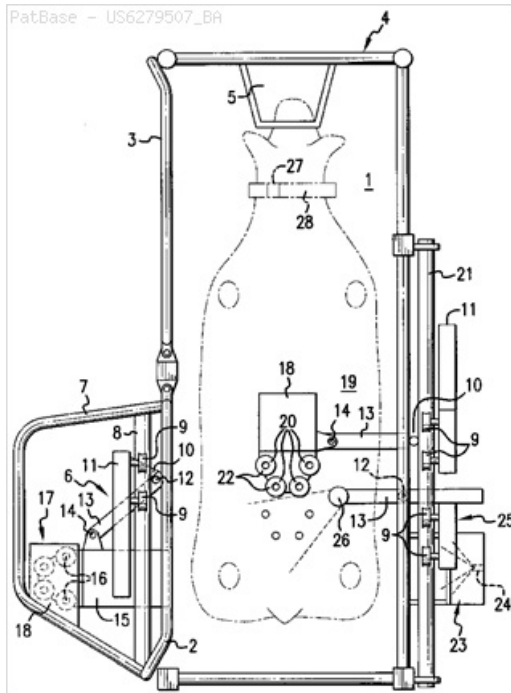
A01C15/00 A01J5/00 (Core/Invention)

**International (IPC 1-7):** A01C15/00 A01C7/00 A01J5/00 A01J5/017 A01J7/00 A01J7/02 A01J7/04

**CPC:** A01J7/025 A01J7/04 Y02A40/294 A01J5/0175 A01C15/006

**European:** A01C15/00F2 A01J5/017A A01J7/02 A01J7/02T A01J7/04

**US:** 119/14.01 119/14.03 119/14.18

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AT235143 E         | 20030415         | AT19980932636T     | 19980709         |
| AT339093 E         | 20061015         | AT19980078416T     | 19980709         |
| AU199882466 A1     | 19990210         | AU19980082466      | 19980709         |
| AU742392 B2        | 20020103         | AU19980082466      | 19980709         |
| CA2265796 AA       | 19990316         | CA19982265796      | 19980709         |
| CA2265796 C        | 20070522         | CA19982265796      | 19980709         |
| DE69812584 D1      | 20030430         | DE19986012584      | 19980709         |
| DE69812584 D1      | 20030430         | DE19986012584T     | 19980709         |
| DE69812584 T2      | 20040219         | DE19986012584T     | 19980709         |
| DE69835905 D1      | 20061026         | DE19986035905      | 19980709         |
| DE69835905 D1      | 20061026         | DE19986035905T     | 19980709         |
| DE69835905 T2      | 20070405         | DE19986035905T     | 19980709         |
| DK0946088 T3       | 20030721         | DK19980932636T     | 19980709         |
| EP0946088 A1       | 19991006         | EP19980932636      | 19980709         |
| EP0946088 B1       | 20030326         | EP19980932636      | 19980709         |
| EP1149524 A1       | 20011031         | EP20010200632      | 20010219         |
| EP1252817 A2       | 20021030         | EP20020077672      | 19980709         |
| EP1258189 A2       | 20021120         | EP20020078416      | 19980709         |
| EP1258189 A3       | 20030507         | EP20020078416      | 19980709         |
| EP1258189 B1       | 20060913         | EP20020078416      | 19980709         |
| ES2196579 T3       | 20031216         | ES19980932636T     | 19980709         |
| JP2001500747 T2    | 20010123         | JP19990506961T     | 19980709         |
| NL1006607 C2       | 19990119         | NL19971006607      | 19970717         |
| NL1014757 C2       | 20010928         | NL20001014757      | 20000327         |
| NZ334894 A         | 20000929         | NZ19980334894      | 19980709         |
| US6279507 BA       | 20010828         | US19990271347      | 19990317         |
| WO9903331 A1       | 19990128         | WO1998NL00398      | 19980709         |

**Priority:**

|                        |                        |                        |
|------------------------|------------------------|------------------------|
| NL19971006607 19970717 | EP19980932636 19980709 | WO1998NL00398 19980709 |
| NL20001014757 20000327 | EP20010200632 20010219 |                        |

**Probable Assignee:** LELY PATENT NV

**Assignee(s):** (std): LELY ENTPR AG ; LELY OLAF V D ; LELY OLAF VAN D ; LELY CORNELIS V D ; LELY CORNELIS VAN D ; MAASLAND N ; MAASLAND NV

**Assignee(s):** VAN DER LELY OLAF ; VAN DER LELY CORNELIS ; MAASLAND N V ; MAASLAND N V MAASLAND ; LELY ENTERPRISES AG ; LELY PATENT NV

**Inventor(s):** (std): LELY CORNELIS VAN DER ; LELY OLAF VAN DER ; NOORDT ALOUYSIUS JOHANNES APOL ; OLAF VAN D LELY ; VAN DER LELY CORNELIS ; VAN DER LELY OLAF ; VAN NOORDT ALOUYSIUS JOHANNES ; ALOUYSIUS JOHANNES APOLONIUS VAN NOORDT ; CORNELIS VAN D LELY ; LELY OLAF VAN D ; LELY CORNELIS VAN D

**Inventor(s):** CORNELIS VAN DER LELY ; VAN NOORDT ALOUYSIUS JOHANNES APOLONIUS ; OLAF VAN DER LELY

**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; FETHERSTONHAUGH AND CO

**Designated states:** AT AU BE CA CH CY DE DK ES FI FR GB GR IE IT JP LI LU MC NL NZ PT SE TR US

**39) Family number: 14942375 (US6170434B)**

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**Title:** Method of and an implement for milking and/or treating animals

**Abstract:** A method of and apparatus for automatic milking of animals which comprises a number of steps such as cleaning

the animal's teats, connecting teat receiving cups to the animal, foremilk, the milking operation as such, stripping, disconnecting the teat cups and disinfecting the teats. For each step, there are at least two variants. With the same animal, during a milking operation or in successive milking operations, different variants are applied, the variants being selected randomly by a random generator or to change periodically. The variants include the intensity and how the cleaning members are applied to the animal's teats, the sequence in which the teat cups are connected to the animal's teats, the locations of kinking places in the liner of the teat cup, the pulsation frequency, the release-suction phase ratio of pulsation, and the force with which the teat cups are decoupled from the animal's teats at the end of the milking operation.

**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/007 A01J5/017 A01J7/04 (Advanced/Invention);

A01J5/00 (Advanced/Non-invention);

A01J5/00 A01J5/007 A01J7/00 (Core/Invention)

**International (IPC 1-7):** A01J5/00 A01J5/007 A01J5/017 A01J5/04 A01J5/08 A01J5/16 A01J5/17 A01J5/7 A01J7/04

**CPC:** A01J5/007 A01J5/0175 A01J7/04

**European:** A01J5/007 A01J5/017A A01J7/04

**US:** 119/14.02

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AT270501 E         | 20040715         | AT19990200630T     | 19990304         |
| AU199919526 A1     | 19991007         | AU19990019526      | 19990310         |
| AU746172 B2        | 20020418         | AU19990019526      | 19990310         |
| DE69918479 D1      | 20040812         | DE19996018479      | 19990304         |
| DE69918479 D1      | 20040812         | DE19996018479T     | 19990304         |
| DE69918479 T2      | 20050818         | DE19996018479T     | 19990304         |
| DE69918479 T3      | 20090115         | DE19996018479T     | 19990304         |
| EP0945055 A1       | 19990929         | EP19990200630      | 19990304         |
| EP0945055 B1       | 20040707         | EP19990200630      | 19990304         |
| EP0945055 B2       | 20080723         | EP19990200630      | 19990304         |
| JP11313567 A2      | 19991116         | JP19990075268      | 19990319         |
| NL1008672 C2       | 19990924         | NL19981008672      | 19980323         |
| US6170434 BA       | 20010109         | US19990274924      | 19990323         |

**Priority:**

NL19981008672 19980323

**Probable Assignee:** MAASLAND NV

**Assignee(s):** (std): MAASLAND NV

**Assignee(s):** MAASLAND NV A DUTCH LTD ; MAASLAND A DUTCH LIABILITY LTD NV ; MAASLAND A DUTCH NV LTD ; MAASLAND N V ; MAASLAND N V MAASSLUIS

**Inventor(s):** (std): DE GROEN FRANCISCUS JOHANNES A ; VAN DER LELY ALEXANDER ; VAN DEN BERG KAREL ; LELY ALEXANDER VAN D ; GROEN FRANCISCUS JOHANNES ADRI ; GROEN FRANCISCUS J A DE ; LELY ALEXANDER VAN DER ; BERG KAREL VAN DEN

**Inventor(s):** ALEXANDER VAN D LELY ; KAREL VAN DEN BERG ; FRANCISCUS JOHANNES ADRIANUS DE GROEN ; ALEXANDER VAN DER LELY ; DE GROEN FRANCISCUS JOHANNES ADRIANUS

**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; CORTEN MAURICE JEAN FM

**Designated states:** AT BE CH DE DK ES FR GB IE IT LI NL SE

**40) Family number: 32524379** (EP1611783A1)

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**Title:** A DEVICE FOR AUTOMATICALLY PERFORMING AN ANIMAL RELATED ACTION AND A METHOD FOR THIS PURPOSE

**Abstract:** A device (1) for automatically performing an animal related action on an animal in an animal area (2), the device being provided with a screening element (8,9,10,12) for screening the animal off from ambient stimuli. The screening element is capable of being placed in a screening position and a reproducing position by means of a control signal, in the screening position fewer ambient stimuli penetrating into the animal area than in the reproducing position. A method of automatically performing an animal related action on an animal, which method comprises successively the following steps: ss identifying the animal on which the action has to be performed, ss determining an animal data in relation to the animal with the aid of the identity of the animal, the animal being subsequently screened off to a greater or lesser extent from ambient stimuli, depending on the animal data.

**Classifications:**

**International (IPC 8-9):** A01J5/007 A01J5/017 A01J7/00 A01J7/04

A01K1/12 (Advanced/Invention);

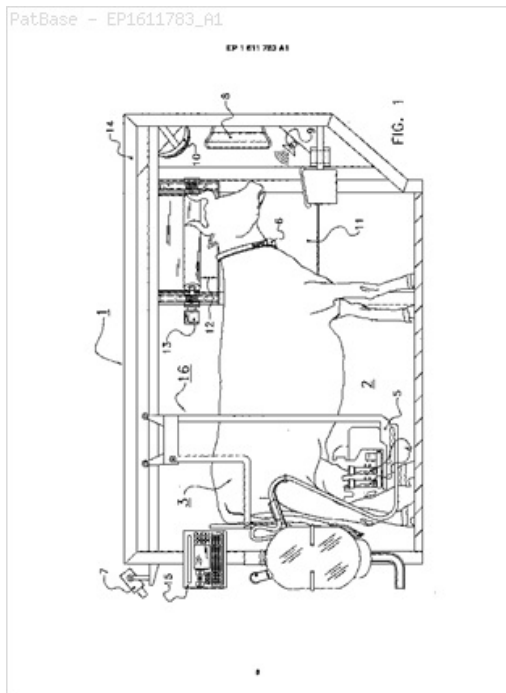
A01J5/00 A01J5/007 A01J7/00 A01K1/00 (Core/Invention)

**International (IPC 1-7):** A01J5/017 A01J5/17 A01J7/0 A01J7/00

A01J7/04 A01J7/4 A01K1/12

**CPC:** A01J5/007 A01J5/0175 A01J7/00 A01J7/04 A01K1/12

**European:** A01J5/007 A01J5/017A A01J7/00 A01J7/04 A01K1/12

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| EP1611783 A1       | 20060104         | EP20050076026      | 20050503         |
| NL1026513 C2       | 20051230         | NL20041026513      | 20040629         |

**Priority:**

NL20040026513 20040629      NL20041026513 20040629

**Probable Assignee:** LELY ENTPR AG

**Assignee(s):** (std): LELY ENTPR AG

**Assignee(s):** LELY ENTERPRISES AG

**Inventor(s):** (std): ANTOON PETER ANDRE THEELEN ; THEELEN ANTOON PETER ANDRE

**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

**41) Family number: 41950394 (US2008149034A)**

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**Title:** MILKING IMPLEMENT

**Abstract:** An autonomous mobile milking implement having a frame with, a sub-frame which is adjustable in height and which has at least one teat cup holder and a teat cup movable relative thereto. The teat cup holder is tiltable, via a tilting mechanism coupled to the teat cup holder and the frame between a substantially vertical position and a second partially inverted position. The milking implement protects the teat cups against contamination and is capable of storing them in a compact manner.

**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/003 A01J5/007 A01J5/017

A01J7/02 (Advanced/Invention);

B25J18/00 B25J5/00 (Advanced/Non-invention);

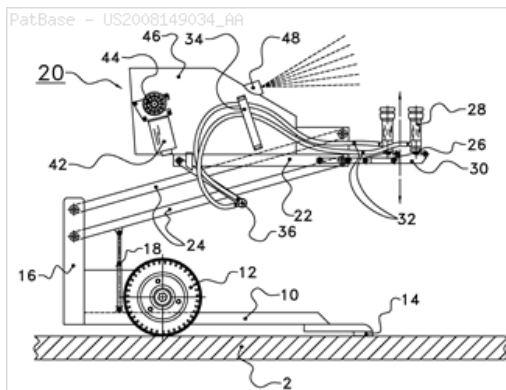
A01J5/00 A01J7/00 (Core/Invention)

**CPC:** A01J5/003 A01J5/0175 A01J7/025

**European:** A01J5/003 A01J5/017A A01J7/02T

**US:** 119/14.08 119/14.080P 119/14.18 901/1 901/27 901/27S

901/28 901/28S

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE602007031513 D1  | 20130905         | DE200760031513T    | 20071102         |
| DK1943897 T3       | 20130902         | DK20070075956T     | 20071102         |
| EP1943897 A2       | 20080716         | EP20070075956      | 20071102         |
| EP1943897 A3       | 20110126         | EP20070075956      | 20071102         |
| EP1943897 B1       | 20130710         | EP20070075956      | 20071102         |
| NL1033090 C2       | 20080623         | NL20061033090      | 20061220         |
| US2008149034 AA    | 20080626         | US20070958400      | 20071218         |
| US2013000559 AA    | 20130103         | US20120609328      | 20120911         |
| US8281744 BB       | 20121009         | US20070958400      | 20071218         |
| US8656861 BB       | 20140225         | US20120609328      | 20120911         |

Priority:

NL20061033090 20061220 EP20070075956 20071102 US20070958400 20071218  
US20120609328 20120911

Probable Assignee: MAASLAND NV

Assignee(s): (std): MAASLAND NV ; VAN DEN BERG KAREL

Assignee(s): MAASLAND N V

Inventor(s): (std): BERG KAREL VAN DEN ; VAN DEN BERG KAREL

Inventor(s): KAREL VAN DEN BERG

Agent(s): PATENTANWAELTE DIPL ING WALTER JACKISCH AND PARTNER MBB; CORTEN MAURICE JEAN FM ET AL; CORTEN MAURICE JEAN F M; CORTEN MAURICE JEAN FM; HOWREY LLP; HOYNG MONEGIER LLP; DAVID P; CORALINE J

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL PL PT RO RS SE SI SK TR

42) Family number: 60747398 (US2017042112A)

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Title: CLEANING SYSTEM AND METHOD FOR AN AUTOMATIC MILKING SYSTEM

**Abstract:** A cleaning system for an automatic milking system includes a water supply arrangement alternatively serving first and second cleaning arrangements. The first cleaning arrangement is configured, in milking mode, to clean the teat cups of the automatic milking system and/or the teats of milking animals prior to being milked. The first cleaning arrangement includes at least one cleaning module, at least one feed line interconnecting the cleaning module with a tank, and a feed pump for feeding water from the tank to the cleaning module. The second cleaning arrangement is configured, in system cleaning mode, to clean the automatic milking system and includes a detergent supply system connected to the tank for supplying detergent to the tank, and a supply line interconnecting the tank with the automatic milking system allowing the cleaning liquid to be supplied to the automatic milking system.

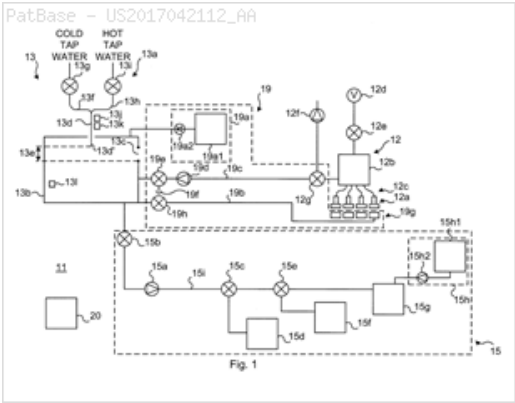
Classifications:

International (IPC 8-9): A01J5/007 A01J7/02

A01J7/04 (Advanced/Invention)

CPC: A01J7/025 A01J7/04 A01J5/007 A01J7/022

US: 119/14.02



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CA2948599 AA       | 20161109         | CA20152948599      | 20150508         |
| EP3139733 A1       | 20170315         | EP20150723328      | 20150508         |
| EP3139733 B1       | 20190130         | EP20150723328      | 20150508         |
| US2017042112 AA    | 20170216         | US20150307019      | 20150508         |
| WO15171067 A1      | 20151112         | WO2015SE50515      | 20150508         |

Priority:

SE20140050549 20140509 WO2015SE50515 20150508

Probable Assignee: DELAVAL HOLDING AB

Assignee(s): (std): DELAVAL HOLDING AB

Assignee(s): BOSMA EPKE

Inventor(s): (std): BOSMA EPKE

Agent(s): MARKS AND CLERK; LILLIEHORN TOBIAS; HALLGREN CHRISTER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

43) Family number: 32559407 (EP1616483A1)

© PatBase

Title: MILKING INSTALLATION

**Abstract:** The cow (10) to be milked is placed above a compartment (5b) covered with a lid (4) and accommodating the milking unit (2) either comprising connected or individual suction cups (3). The milk ducts joined to the cups (3) are also completely hidden under the platform (5). The operator of the milking machine (2) can stand almost upright behind the animal (10) in a lowered space (6) facilitating an easy attaching of the cups (6) and a quick manual teat cleaning if required.

Classifications:

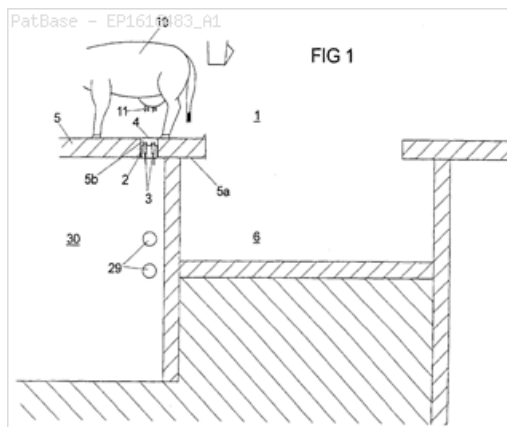
International (IPC 8-9): A01J5/007 A01J5/017 A01J7/00 A01J7/02

A01K1/12 (Advanced/Invention);

A01J5/00 A01J5/007 A01J7/00 A01K1/00 (Core/Invention)

CPC: A01J5/007 A01J5/017 A01J7/025 A01K1/12

European: A01J5/007 A01J5/017 A01J7/02T A01K1/12



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE102004059089 A1  | 20060202         | DE200410059089     | 20041203         |
| EP1616483 A1       | 20060118         | EP20050090211      | 20050714         |

#### Priority:

DE200410035483 20040715 DE200410059089 20041203

**Probable Assignee:** AGRAR GBR SCHMIDT AND FENZEL VER

**Assignee(s):** (std): AGRAR GBR SCHMIDT AND FENZEL VER ; AGRAR GBR SCHMIDT AND FRENZEL

**Assignee(s):** AGRAR GBR SCHMIDT AND FENZEL ; AGRAR GBR SCHMIDT AND FENZEL VERTRETUNGSBERECHTIG ; AGRAR GBR SCHMIDT AND FENZEL VERTRETUNGSBERECHTIGTER GESELLSCHAFTER HERR JOERG SCHMIDT

**Inventor(s):** (std): SCHMIDT JOERG ; KASTEN HELMUT

**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

#### 44) Family number: 44814410 (US2011168097A)

© PatBase

**Title:** DEVICE FOR MILKING ANIMALS

**Abstract:** A device for milking animals including a plurality of milking stations, wherein each milking station includes a milk collecting container and a displacing mechanism for displacing liquid from the milk collecting container. The milk collecting container (is connected to a first discharge line and to a second discharge line, a second central milk line is connected to the second discharge line for leading milk from a plurality of milking stations to a collective liquid discharge and further includes a line cleaning device connected to the second central milk line for cleaning at least the second central milk line with a cleaning liquid, wherein the connection of the line cleaning device with the second central milk line is located at least equally far from the liquid discharge as the connection of a second discharge line with the second central milk line.

#### Classifications:

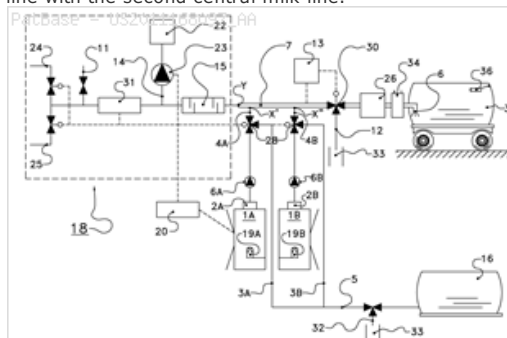
**International (IPC 8-9):** A01J5/00 A01J5/007 A01J5/017 A01J7/02 A01K1/12 (Advanced/Invention);

A01J7/00 (Core/Invention)

**CPC:** A01K1/12 A01J5/0175 A01J5/007 A01J7/022

**European:** A01J7/02C

**US:** 119/14.03 119/14.030P 119/14.08 119/14.080S 119/14.18 119/14.180S



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2009297227 AA    | 20100401         | AU20090297227      | 20090904         |
| AU2009297227 BB    | 20140515         | AU20090297227      | 20090904         |
| CA2734721 AA       | 20100401         | CA20092734721      | 20090904         |
| CA2734721 C        | 20160816         | CA20092734721      | 20090904         |
| DK2348818 T3       | 20180205         | DK20090788157T     | 20090904         |
| EP2348818 A2       | 20110803         | EP20090788157      | 20090904         |
| EP2348818 B1       | 20171115         | EP20090788157      | 20090904         |
| NL1035972 C        | 20100325         | NL20081035972      | 20080924         |
| NZ590514 A         | 20120928         | NZ20090590514      | 20090904         |
| US2011168097 AA    | 20110714         | US20110070520      | 20110324         |
| US2016081295 AA    | 20160324         | US20150953049      | 20151127         |
| WO10036102 A2      | 20100401         | WO2009NL00173      | 20090904         |
| WO10036102 A3      | 20100514         | WO2009NL00173      | 20090904         |

#### Priority:

NL20081035972 20080924 WO2009NL00173 20090904 US20110070520 20110324  
US20150953049 20151127

**Probable Assignee:** LELY PATENT NV

**Assignee(s):** (std): ANTOON PETER ANDRE THEELEN ; LELY PATENT N V ; LELY PATENT NV ; VAN LIER WILHELMUS JOHANNES AD ; VILLADS KRISTENSEN

**Assignee(s):** VAN LIER WILHELMUS JOHANNES ADRIANUS  
**Inventor(s):** (std): ANTOON PETER ANDRE THEELEN ; KRISTENSEN VILLADS ; LIER WILHELMUS JOHANNES ADRIANUS ; LIER WILHELMUS JOHANNES ADRIANUS VAN ; THEELEN ANTOON PETER ANDRE ; VAN LIER WILHELMUS JOHANNES ADRIANUS ; VILLADS KRISTENSEN  
**Inventor(s):** WILHELMUS JOHANNES ADRIANUS VAN LIER ; PETER ANDRE THEELEN ANTOON  
**Agent(s):** JAMES AND WELLS INTELLECTUAL PROPERTY; FETHERSTONHAUGH AND CO; JENNEN PETER LEONARDUS HENDRICUS; OCTROOIBUREAU VAN D LELY NV; JENNEN P L H ET AL  
**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

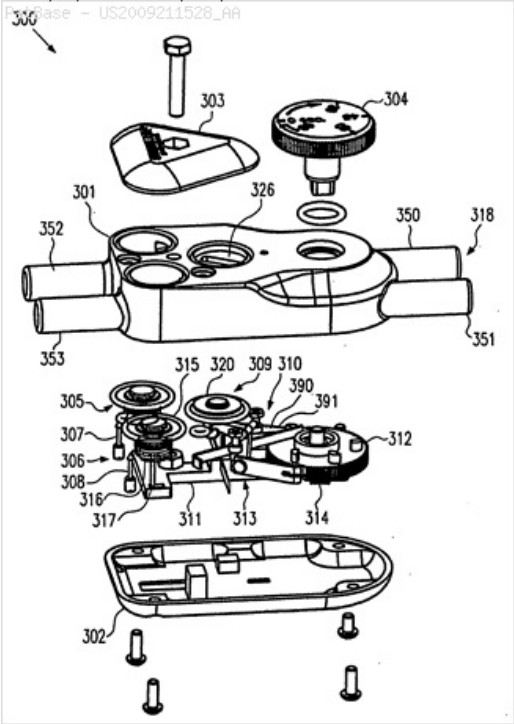
**45) Family number: 33546411 (US2009211528A)** © PatBase

**Title:** DEVICE FOR STIMULATING AN UDDER DURING MILKING

**Abstract:** The invention relates to a device for stimulating an udder during milking, comprising a housing with a first connection (350, 351) and a second connection (352, 353), which housing can be grasped by a hand. The first connection connects the housing to a pulsator and the second connection connects the housing to a teat cup. A throttle valve (305, 306) is interposed between the first connection and the second connection. A control device (309) is housed in the housing and is adapted to bring the throttle valve, after a defined duration, from a partially open to an open position.

**Classifications:**

**International (IPC 8-9):** A01J3/00 A01J5/00 A01J5/007 A01J5/017 A01J5/04 A01J5/10 A01J5/16 A01J7/00 F16K31/48 F17D3/00 (Advanced/Invention); A01J5/00 A01J5/007 A01J7/00 (Core/Invention)  
**CPC:** A01J5/0075 A01J5/04 A01J5/10 A01J5/16 Y10T137/86389  
**European:** A01J5/007A A01J5/04 A01J5/10  
**US:** 119/14.01 119/14.08 119/14.080P 119/14.14 119/14.47 137/624.11



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AT400995 E         | 20080815         | AT20060724252T     | 20060411         |
| AU2006237111 AA    | 20061026         | AU20060237111      | 20060411         |
| AU2006237111 BB    | 20110512         | AU20060237111      | 20060411         |
| CA2605141 AA       | 20071016         | CA20062605141      | 20060411         |
| CA2605141 C        | 20131029         | CA20062605141      | 20060411         |
| CN101184388 A      | 20080521         | CN200680018828     | 20060411         |
| CN101184388 B      | 20110817         | CN200680018828     | 20060411         |
| DE102005018335 A1  | 20061102         | DE200510018335     | 20050420         |
| DE502006001127 D1  | 20080828         | DE200650001127T    | 20060411         |
| EP1814380 A1       | 20070808         | EP20060724252      | 20060411         |
| EP1814380 B1       | 20080716         | EP20060724252      | 20060411         |
| ES2312125 T3       | 20090216         | ES20060724252T     | 20060411         |
| RU2354112 C1       | 20090510         | RU20070142663      | 20060411         |
| US2009211528 AA    | 20090827         | US20060918675      | 20060411         |
| US2015150211 AA    | 20150604         | US20150617063      | 20150209         |
| US8978582 BB       | 20150317         | US20060918675      | 20060411         |
| US9918449 BB       | 20180320         | US20150617063      | 20150209         |
| WO06111305 A1      | 20061026         | WO2006EP03335      | 20060411         |

**Priority:**

DE200510018335 20050420 WO2006EP03335 20060411 US20080918675 20081118  
US20150617063 20150209

**Probable Assignee:** LACTOCORDER AG

**Assignee(s):** (std): HOEFELMAYR TILMAN ; LACTOCORDER AG ; LAKTOKORDER AG

**Inventor(s):** (std): TILMAN HOEFELMAYR ; KHEFEL MAJR TIL MAN ; HOEFELMAYR TILMAN

**Inventor(s):** KHEFEL'MAJR TIL'MAN

**Agent(s):** GRIFFITH HACK; GOWLING LAFLEUR HENDERSON LLP; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAUESSER ANWALTSSOZIETAET; FLYNN THIEL BOUTELL AND TANIS PC

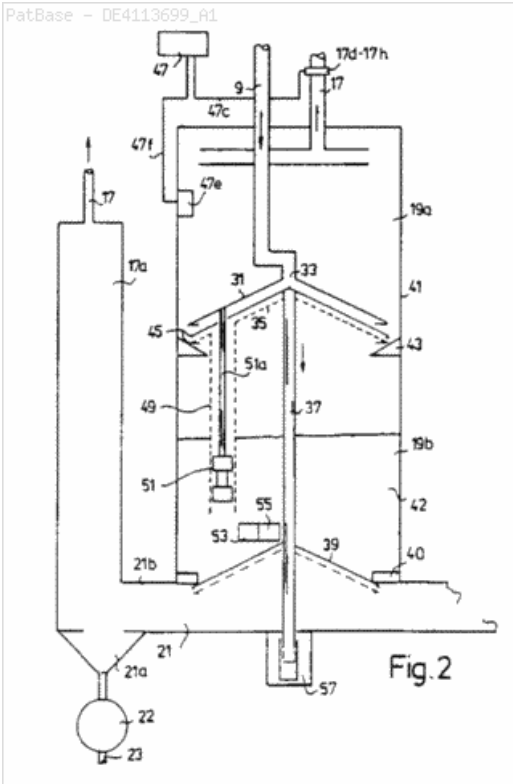
**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

**46) Family number: 8824416 (DE4113699A1)** © PatBase

**Title:** Automatic milking machine with adaptive milking parameters - determined in dependence on detected milk flow and milk quantity for each cow

**Abstract:** The milking cups (3), are secured to the teats of the cow via a vacuum. Each cup (3) leads to an expansion chamber which is emptied each time the chamber is filled with a given quantity of expressed milk. The quantity of milk and the milk flowrate for each cow are measured and fed to an evaluation processor (47) to adjust the milking parameters. Pref. the milk flow is determined from the number of times the expansion chamber is emptied within a standard unit of time, the milk quantity being determined from the sum of the corresp. milk weights. ADVANTAGE - Allows milking parameters to be adjusted for each individual cow, while allowing it to be examined while, and immediately after, milking. Teats protected from possible injury.

**Classifications:**  
**International (IPC 8-9):** A01J5/007 A01J5/01 A01J7/02 G01F3/38 (Advanced/Invention);  
A01J5/007 A01J7/00 G01F3/00 (Core/Invention)  
**International (IPC 1-7):** A01J7/00  
**CPC:** A01J5/007 A01J5/01 A01J7/02 G01F3/38  
**European:** A01J5/007 A01J5/01 A01J7/02 G01F3/38



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| DE4113699 A1       | 19921029         | DE19914113699      | 19910426         |

**Priority:**

DE19914113699 19910426

**Probable Assignee:** SCHILLINGMANN DIETER DIPL ING  
**Assignee(s):** (std): SCHILLINGMANN DIETER DIPL ING  
**Assignee(s):** SCHILLINGMANN DIETER DIPL ING 3300 BRAUNSCHWEIG DE  
**Inventor(s):** (std): SCHILLINGMANN DIETER DIPL ING  
**Inventor(s):** SCHILLINGMANN DIETER DIPL ING 3300 BRAUNSCHWEIG DE

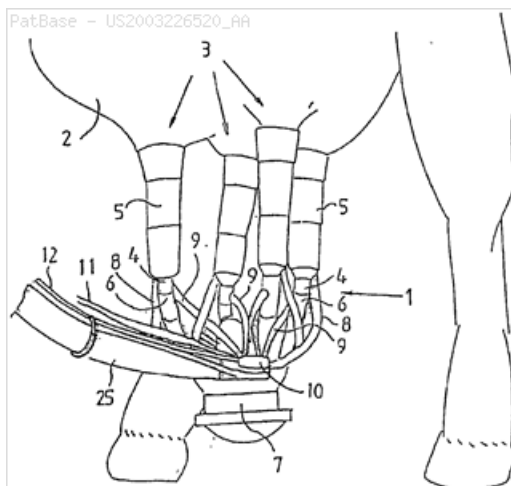
**47) Family number: 32016426 (US2003226520A)** © PatBase

**Title:** MILKING DEVICE PROVIDED WITH CLEANSING MEANS

**Abstract:** Device for pneumatically milking a cow, comprising a number of milk extractors, each comprising a teat cup as well as milk line connected to the lower end of the teat cup, which line leads from the teat cup to a collection chamber for the milk from the teat cup, each milk extractor being provided with a supply for a cleansing medium, such as a disinfectant, to the teat cup, in particular to a teat present in the teat cup, the supply comprising a line having an end portion with discharge end, and each milk extractor being provided with means for closing off the passage of the milk extraction at or downstream of the discharge end of the line for cleansing medium, preferably at that level, when discharging the cleansing medium, the closing means comprising a reciprocating closing body that can be moved between a position leaving the passage of the milk extractor free and a position closing it off, the closing body being provided with a squirt line forming the end portion with discharge end of the line for supply of cleansing medium, and being positioned to debouch into the milk extractor, particularly the milk line, when in the closing-off position

**Classifications:**  
**International (IPC 8-9):** A01J3/00 A01J5/04 A01J7/04 A01K29/00 (Advanced/Invention);

A01J3/00 A01J7/00 (Core/Invention)  
**International (IPC 1-7):** A01J5/02 A01J7/04  
**CPC:** A01J7/025 A01J7/04 A01J5/044  
**European:** A01J5/04D A01J7/02 A01J7/02T A01J7/04  
**US:** 119/14.01 119/14.02 119/14.03 119/14.04 119/14.08 119/14.18  
 119/14.180P 119/14.25 119/14.250S 119/14.27 119/14.38  
 119/14.380P 119/14.49 119/670 119/670S



#### Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU200211064 A1     | 20020402         | AU20020011064      | 20010921         |
| AU200211064 A5     | 20020402         | AU20020011064      | 20010921         |
| AU2002211064 AA    | 20020402         | AU20020211064      | 20010921         |
| DE60109312 D1      | 20050414         | DE20016009312      | 20010921         |
| DE60109312 D1      | 20050414         | DE20016009312T     | 20010921         |
| DE60109312 T2      | 20060406         | DE20016009312T     | 20010921         |
| DE60145886 D1      | 20120301         | DE20016045886      | 20010921         |
| EP1328148 A1       | 20030723         | EP20010979075      | 20010921         |
| EP1328148 B1       | 20050309         | EP20010979075      | 20010921         |
| EP1543720 A1       | 20050622         | EP20050075562      | 20010921         |
| EP1543720 B1       | 20111228         | EP20050075562      | 20010921         |
| ES2239683 T3       | 20051001         | ES20010979075T     | 20010921         |
| GB2384682 A1       | 20030806         | GB20030010227      | 20010921         |
| NL1016237 C2       | 20020325         | NL20001016237      | 20000922         |
| US2003226520 AA    | 20031211         | US20030393431      | 20030320         |
| US2006112886 AA    | 20060601         | US20050271508      | 20051110         |
| US2007186860 AA    | 20070816         | US20070652372      | 20070110         |
| US2008022932 AA    | 20080131         | US20070904769      | 20070928         |
| US2008083373 AA    | 20080410         | US20070974682      | 20071015         |
| US2009064937 AA    | 20090312         | US20080229219      | 20080820         |
| US7281493 BB       | 20071016         | US20030393431      | 20030320         |
| US7290497 BB       | 20071106         | US20050271508      | 20051110         |
| US7765951 BB       | 20100803         | US20070974682      | 20071015         |
| WO0223976 A1       | 20020328         | WO2001NL00699      | 20010921         |

#### Priority:

|               |          |               |          |               |          |
|---------------|----------|---------------|----------|---------------|----------|
| NL20001016237 | 20000922 | EP20010979075 | 20010921 | EP20050075562 | 20010921 |
| WO2001NL00699 | 20010921 | WO2001NL06699 | 20010921 | US20030393431 | 20030320 |
| US20050271508 | 20051110 | US20070652372 | 20070110 | US20070904769 | 20070928 |
| US20070974682 | 20071015 | US20080229219 | 20080820 |               |          |

**Probable Assignee:** GEA FARM TECHNOLOGIES INC

**Assignee(s):** (std): GEA WESTFALIASURGE INC ; RIEBERJO BV ; ROTTIER RALPH A ; TORGERSOON KEVIN L ; RIEBERJO B V ; WESTFALIASURGE INC ; DIETRICH BERTHOLD JOHANNES ; DIETRICH BERTHOLD JOHANNES THE

**Assignee(s):** DIETRICH BERTHOLD JOHANNES THEODORUS ; GEA FARM TECHNOLOGIES INC ; GEA FARM TECHNOLOGIES INC ; RIEBERJO B V GORSSEL

**Inventor(s):** (std): BERTHOLD JOHANNES T D ; BERTHOLD JOHANNES THEODORUS DIETRICH ; DIETRICH BERTHOLD JOHANNES ; DIETRICH BERTHOLD JOHANNES THE ; DIETRICH BERTHOLD JOHANNES THEODORUS ; DIETRICH JOHANNES ; DIETRICH JOHANNES T ; ROTTIER RALPH A ; THEODORUS DIETRICH BERTHOLD J ; TORGERSOON KEVIN L

**Inventor(s):** THEODORUS DIETRICH BERTHOLD JOHANNES ; TORGERSOON KEVIN ; THEODORUS DIETRICH BERTHOLD ; DIETRICH JOHANNES THEODORUS ; ROTTIER RALPH

**Agent(s):** GRUENECKER PATENT U RECHTSANWAELTE PARTG MBB ; FERGUSON ALEXANDER ; SMITH LAW OFFICE ; LADAS AND PARRY ; LADAS AND PARRY LLP

**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

**48) Family number: 61746429 (US2017231186A)**

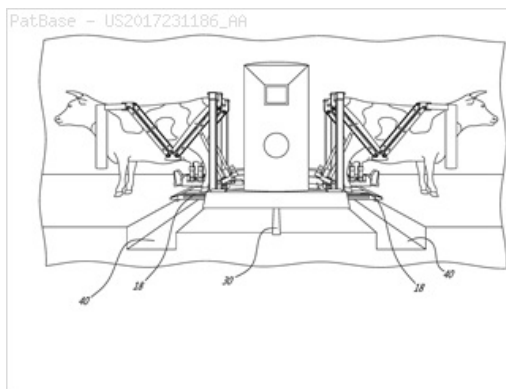
© PatBase

**Title:** AUTOMATIC ANIMAL PROCESSING DEVICE

**Abstract:** An automatic animal processing device for automatically retrieving a domestic animal partly from a stall to process the animal while restraining the animal. The animal processing device includes an animal controlling mechanism operative to engage, position and restrain the animal for processing. The animal controlling mechanism may include at least on articulated arm to constrain and immobilize an animal to process it, e.g. milk it. The animal processing device may be a milking machine may be a milking machine having a milking head assembly and a cleaning system therefor whereby the milking head assembly is cleaned inside a compartment. The animal processing device may be a dual animal milking machine having full and half operation modes whereby two sets of processing equipments are used to service two animals simultaneously or only one set is used for both respectively.

**Classifications:**

**International (IPC 8-9):** A01J5/00 A01J5/003 A01J5/017 A01J7/00 A01J7/02 A01J7/04 A01K1/01 A01K1/06 A01K1/12 A01K13/00 (Advanced/Invention)  
**CPC:** A01K1/123 A01J5/003 A01J5/0175 A01J7/02 A01J7/025 A01J7/04 A01K1/0132 A01K1/0613 A01K13/004

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CA2958249 AA       | 20170216         | CA20152958249      | 20150710         |
| US2017231186 AA    | 20170817         | US20150504465      | 20150710         |
| WO16026034 A1      | 20160225         | WO2015CA50645      | 20150710         |

**Priority:**

US20140038749P 20140818      WO2014CA50951 20141003      US20150504465 20150710  
WO2015CA50645 20150710

**Probable Assignee:** MILKOMAX SOLUTIONS LAITIÈRES INC

**Assignee(s):** (std): MILKOMAX SOLUTIONS LAITIÈRES INC

**Assignee(s):** ROUSSEAU VICTOR ; JETTE MARC ANDRE ; LECLAIR FRANCIS

**Inventor(s):** (std): JETTE MARC ANDRE ; LECLAIR FRANCIS ; ROUSSEAU VICTOR

**Agent(s):** ANGLEHART ET AL; ANGLEHART ET AL ET AL

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**49) Family number: 43489439 (US2010282173A)**

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**Title:** METHOD AND DEVICE FOR CONTROLLING THE MILKING BY A MILKING MACHINE

**Abstract:** A method for controlling the milking by a milking machine, which milking machine includes a plurality of teat cups (19), each teat cup having a flexible teat receiving liner (33) arranged inside a rigid teat cup shell (35), wherein, during milking, a working vacuum is applied to the interior of the teat receiving liner of each teat cup to draw milk from a respective teat (37) of a milking animal while the teat receiving liner of the respective teat cup is periodically opened and collapsed by application of a pulsating vacuum between the teat receiving liner and the teat cup shell, and according to the method, a flow level of milk drawn from the milking animal is measured and, if the measured flow level is above a threshold, the pulsation ratio of the periodic opening and collapsing of the teat receiving liner of one or more of the teat cups is decreased for a following part of the milking or for a following milking of the milking animal.

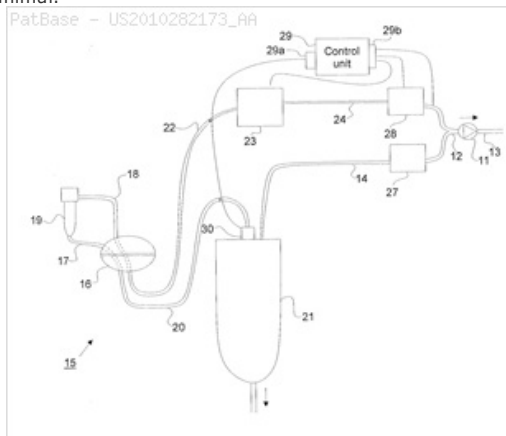
**Classifications:**

**International (IPC 8-9):** A01J5/007 A01J5/01 (Advanced/Invention); A01J5/007 (Core/Invention)

**CPC:** A01J5/0075 A01J5/01

**European:** A01J5/007A A01J5/01

**US:** 119/14.02 119/14.020P 119/14.08 119/14.080S

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| EP2227081 A1       | 20100915         | EP20080866882      | 20081230         |
| NZ585455 A         | 20120525         | NZ20080585455      | 20081230         |
| US2010282173 AA    | 20101111         | US20080811434      | 20081230         |
| WO09085007 A1      | 20090709         | WO2008SE51569      | 20081230         |

**Priority:**

SE20080000005 20080102      WO2008SE51569 20081230

**Probable Assignee:** DELAVAL HOLDING AB

**Assignee(s):** (std): DELAVAL HOLDING AB ; PETTERSON TORBJOERN ; SANDBERG OLA

**Inventor(s):** (std): PETTERSON TORBJOERN ; PETTERSON TORBJORN ; SANDBERG OLA ; SANDSTEDT EVA PIA

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**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

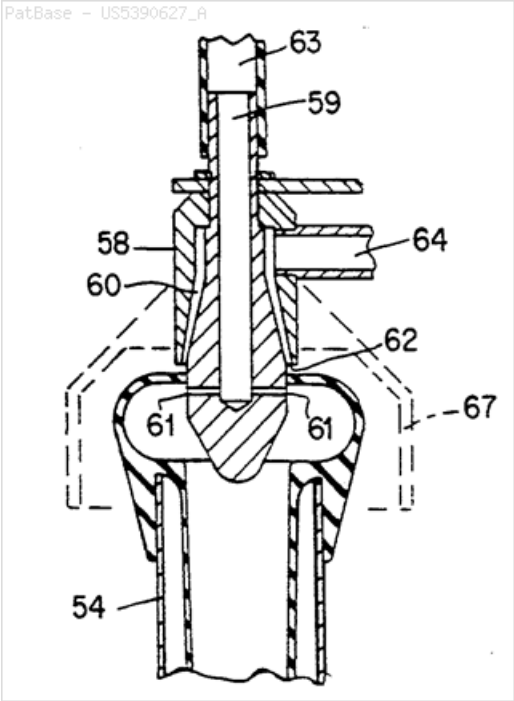
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**Title:** Method of cleaning teat cups and/or after-treating the teats of a milked animal, an implement for milking animals applying said method(s), and a cleaning device applied in such an implement

**Abstract:** An apparatus and method for automatically cleaning the teat cups of a milking apparatus. The teat cups are automatically removed by a robot arm from the animal's teats. Nozzles are provided which are automatically inserted into the openings for the teats located on top of the teat cups. In the cleaning operation, the nozzles are, in effect, connected to the teat cups and spray a cleansing and/or rinsing liquid through an upper set of outlets from the nozzle to clean the upper surfaces of the teat cups and through a lower set of nozzle outlets to clean and rinse the interior of the teat cups as well as the lines connected therewith. Associated with the nozzles are rotatable cleaning members for cleaning the animals' teats and udders in the vicinity thereof. Brushes and spray nozzles are provided for automatically cleaning these cleaning members after use. All operations are programmed to occur automatically without human assistance or intervention.

**Classifications:**

**International (IPC 8-9):** A01J5/017 A01J7/00 A01J7/04 A01K13/00 B08B3/02 (Advanced/Invention);  
A01J5/00 A01J7/00 A01K13/00 B08B3/02 (Core/Invention)  
**International (IPC 1-7):** A01J5/017 A01J5/04 A01J7/00 A01J7/02 A01J7/04 B08B3/02  
**CPC:** A01J5/0175 A01J7/025 A01J7/04 A01K13/003  
**European:** A01J5/017A A01J7/02 A01J7/02T A01J7/04 A01K13/00D  
**US:** 119/14.08 119/14.18 119/670



**Family:**

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