[SS 2] /ic A01K39/01 or A09K39/14 or A01K05/02

Results in EPODOC **3.700**

EPODOC: term 'A09K39/14' not found in index 'IC'. *WARNING(1)*

1 similar messages

[SS 3] programmable and 2

Results in EPODOC **3**

[SS 4] ..li

1/3 © EPODOC / EPO

PN - **CN2751550Y** Y 20060118

PR - CN2004299331U 20041213

AP - CN2004299331U 20041213

DT - I

PA - CHEN ZHONGGENG [CN]

TI - Full automatic device for feeding pigeon

AB - The utility model provides a full automatic device for feeding pigeons, which comprises a feed storage tank, a feed blocking plate, a motor, an eccentric drive mechanism, an automatic controller and a travel switch. Feed leakage holes which correspond are respectively arranged at the bottom of the feed storage tank and on the feed blocking plate. The utility model uses the programming function of a **programmable** microcomputer in the automatic controller to control the on-off of a relay. A normally open contact of the relay and a normally closed contact of the travel switch are connected in parallel to together control the operation and the stop of the motor. The feed blocking plate is driven by

the motor through the eccentric drive mechanism to reciprocate along a straight line direction, so that the feed leakage holes on the feed blocking plate and the feed leakage holes of the feed storage tank form a superposition or malposition state. When the feed leakage holes on the feed blocking plate and the feed leakage holes of the feed storage tank are superposed, feed in the feed storage tank falls into a food tank. When the feed leakage holes on the feed blocking plate and the feed leakage holes of the feed storage tank offset, feed falling stops. Thereby, the purpose of timing, quantitative and automatic feed falling is achieved. The utility model has the advantages of simple structure, low cost and reliable work.

PN - **AT396200B** B 19930625

PNFP - ATA238391 A 19921115

PR - AT19910002383 19911129

AP - AT19910002383 19911129

DT - *

CT - (B)
DD269773 A1 [ ]; **DE3637408** A1 [ ];
US4355596 A [ ]

CCI - **A01K5/02** ; **A01K5/0275** ; **A01K39/01**

PA - (A B)
STEINER JOHANN [AT]

TI - (B)
Method and devices for supplying animals with feed by means of feed metering in the feed channels

AB - (B)
To allow animals to be fed appropriately with animal feed of a relatively high moisture content and of the appropriate quality, a method is proposed for supplying animals with feed from one or more feed silos 25 in which method the feed, possibly mixed together from a number of feed components, is fed in a main conveying device 7 to individual feed channels 3 and is transported the latter to the feeding places arranged

along the feed channels 3. The feed is firstly transported in the main conveying device 7 without intermediate storage at a constant conveying rate to the feed channels 3 and is passed on to the feed channels 3 without intermediate storage. Only at the beginning of the respective feed channel 3 is the feed metered to the amount appropriate for the respective requirement of the animals of this feed channel 3. The main conveying device 7 is designed as a pneumatic conveying device and is provided with feed discharge openings 9 which open into down pipes 12 and can be closed by shut-off devices. Also provided is a **programmable** control unit for opening and closing the feed discharge openings 9 and for regulating the delivery rate of the feed channels 3. <IMAGE>

3/3 © EPODOC / EPO

PN - **AT397754B** B 19940627

PNFP - ATA238291 A 19931115

PR - AT19910002382 19911129

AP - AT19910002382 19911129

DT - *

CT - (B)
DE2008484 A1 [ ]; **DE3218438** A1 [ ];
DE3316916 A1 [ ]; **DE3419842** A1 [ ];
US4355596 A [ ]

CCI - **A01K5/0275** ; **A01K5/02** ; **A01K39/01**

PA - (A)
STEINER JOHANN

- (B)
STEINER JOHANN [AT]

TI - (B)
Method and device for feeding animals by metering the feed in the main conveying unit

AB - (B)
To make it possible to feed animal feed with a relatively high moisture level without compromising the quality and to suit the animals in question, a method is proposed for the uniform feeding of animals, where, starting from a feed storage silo 25, the feed is fed to one or more feed delivery devices 3 via a main conveying unit 7. The feed is metered as early as at the beginning of the main conveying unit 7 and before being passed to the feed delivery devices 3 and passed directly to the feed delivery devices 3 without intermediate storage. At least the initial section of the main conveying unit 7 is designed as a metering unit and is equipped with feed delivery orifices 9 which end in down pipes 12 and which can be closed by means of shutting devices. There is furthermore provided a **programmable** control unit for opening and closing the feed delivery orifices 9 and for regulating the amount of feed to be metered by the main conveying device 7. <IMAGE>

[SS 4] ..v

[EPODOC: SS 4] wing and gate and 2

Results in EPODOC **3**

[SS 5] ..li

1/3 © EPODOC / EPO

PN - **TW376300B** B 19991211

PR - US19980008877 19980120

AP - TW19980121825 19981229

DT - I

CCI - **A01K39/0125**

PA - CTB INC [US]

TI - Adjustable poultry feeder assembly

AB - A feeder assembly (10) for birds or other animals having a pan member (26), a feeder tube (20) defining a channel (42) for receiving feed from a feed supply and defining a brood **gate** opening (38), a plurality of **wing** members (22) having a plurality of fingers (92) for adjustably engaging the feeder tube (20), and a cone member (24) disposed about the feeder tube (20) and slidably mounted to the plurality of **wing** members (22) by a plurality of engaging arms (110). The cone member (24) is adapted to slide relative to the feeder tube (20) between a raised position to open the brood **gate** opening (38) and a lowered position to close the brood **gate** opening (38). The pan member (26) and an end of the cone member (24) define a feed opening (30) for permitting feed to pass from the feeder tube (20) to the pan member (26) for presentation. The feed opening (30) can be adjusted in size either by adjusting the **wing** members (22) relative to the pan member (26) or by sliding and adjustably positioning the cone member (24) relative to the feeder tube (20) and the **wing** members (22). The brood **gate** opening (38) can be opened or closed in an adjustable manner by adjustably positioning the cone member (24) relative to the feeder tube (20) and the **wing** members (22). The elevation of the brood **gate** opening (38) can be adjusted by adjusting the **wing** members (22) relative to the pan member (26).

2/3 © EPODOC / EPO

PN - US6173676 B1 20010116

PR - US19970962787 19971103; US19980008877 19980120

AP - US19980008877 19980120

DT - **

CT - US1666322 A [ ]; US2667858 A [ ];
US5097797 A [ ]; US5794562 A [ ];
US5875733 A [ ]

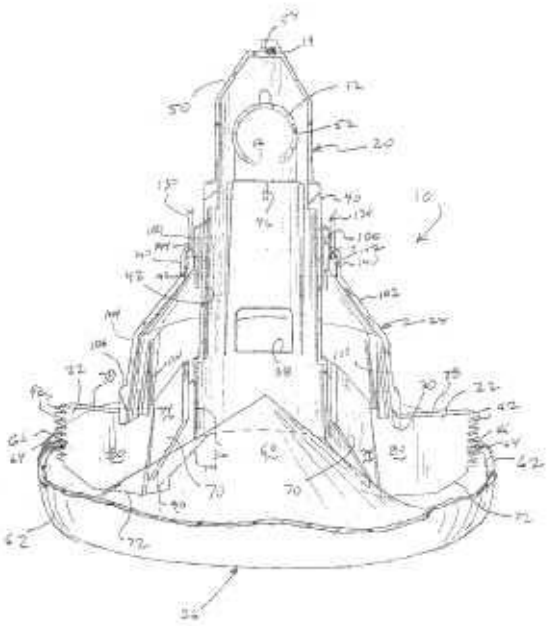
CCI - A01K39/0125

PA - CTB INC [US]

TI - Adjustable poultry feeder assembly

AB - A feeder assembly for birds or other animals having a pan member, a feeder tube defining a channel for receiving feed from a feed supply and defining a brood **gate** opening, a plurality of **wing** members having a plurality of fingers for adjustably engaging the feeder tube, and a cone member disposed about the feeder tube and slidably mounted to the plurality of **wing** members by a plurality of engaging arms. The cone member is adapted to slide relative to the feeder tube between a raised position to open the brood **gate** opening and a lowered position to close the brood **gate** opening. The pan member and an end of the cone member define a feed opening for permitting feed to pass from the feeder tube to the pan member for presentation. The feed opening can be adjusted in size either by adjusting the **wing** members relative to the pan member or by sliding and adjustably positioning the cone member relative to the feeder tube and the **wing** members. The

FIGURE 1



brood **gate** opening can be opened or closed in an adjustable manner by adjustably positioning the cone member relative to the feeder tube and the **wing** members. The elevation of the brood **gate** opening can be adjusted by adjusting the **wing** members relative to the pan member.

3/3 © EPODOC / EPO

PN - EP0379791 A1 19900801

PNFP - EP0379791 B1 19930714

PR - US19890302015 19890126

AP - EP19890312292 19891127

DT - *; Rep

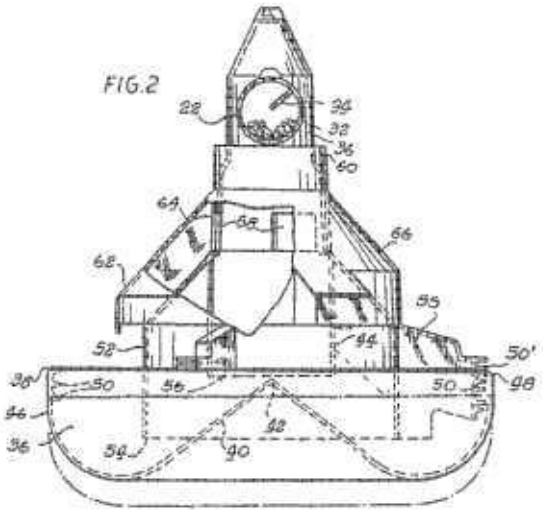
CT - || STSE (A1)
FR1129736 A 19570124 [X] (BERNARD & CIE);
EP0105571 B1 19890614 [A];
US3408988 A 19681105 [A] (LEE ROBERT J)

CCI - A01K39/0125

PA - (A1)
CTB INC [US]

TI - (A1)
Feeder apparatus.
- (B1)
FEEDERAPPARATUS

AB - (A1)
A versatile feeder (24) for use in an automated feeding system (10) of the type used to raise domestic birds and animals on a commercial scale comprising a pan member (38) for containing and presenting feed (32) for consumption, feeder tube means (36) disposed above said pan member (38) and connectible with a feed conveyor source (22), said feeder tube means (36) having upper (58) and lower feed (56) gates for directing feed (32) supplied to said feeder tube



means (36) from said feed conveyor source (22) into said pan member (38), and rotatable collar means (60) surrounding said feeder tube means (36) for controlling a first feed flow directed through said upper feed **gate** (58) into said pan member (38) independently of a second feed flow directed through said lower feed **gate** (56) into said pan member (38). Associated **wing** members (62) may also be provided on said rotatable collar means (60) to prevent access to said first feed flow by said consuming birds and animals prior to the feed reaching a limited feeding area (37) defined within the pan member (38). The upper feed **gate** (58) may also be positioned in said feeder tube means (36) at a sufficient height relative to the pan member (38) such that feed (32) flowing from the upper feed **gate** (58) will develop a feed pile within the pan (38) having an angle of repose which will cause the feed (32) to spill beyond the pan member (38) and onto the surface (26) from which the birds or animals are feeding.

[SS 5] ..v

[EPODOC: SS 5] dispenser and food and pet and pellets

Results in EPODOC **0**

[SS 6] dispenser and pet and pellet+

Results in EPODOC **1**

[SS 7] ..li

1/1

PN - **CA2138600** A1 19960621

PR - CA19942138600 19941220

AP - CA19942138600 19941220

DT - *

CUI - **A01K5/02**

PA - PRINCE ROBERT J [CA]

TI - AUTOFEED **PELLET DISPENSER**

AB - In selecting from a variety of sizes and shapes of high concentrated feed **pellets** to feed animals it is common practice to weigh out precise portions of the said concentrated **pellets** or measure in a vial the exact quantities of the concentrated **pellets** in accordance with the prescribed requirements of the animal being fed. This invention combines into one operation all of the aforesaid practices and automatically deposits into a **pet** feed dish the required portions of high concentrated feed **pellets** and according to size the exact quantities of concentrated feed **pellets** at programed intervals of time according to the dietary needs of the animal being fed.

[SS 7] ..v

[EPODOC: SS 7] dispenser and programmable and pellet+

Results in EPODOC **0**

[SS 8] dispenser and programmable

Results in EPODOC **335**

[SS 9] 2 and 8

Results in EPODOC **0**

[SS 10] wing and 8

Results in EPODOC **0**

[SS 11] gate and 8

Results in EPODOC **9**

[SS 12] ..li

1/9 © EPODOC / EPO

PN - **CN105929749** A 20160907

PR - CN20161448083 20160621

AP - CN20161448083 20160621

DT - I

CNOI - G05B19/0423

CNOA - G05B2219/25323

PA - SUZHOU MAIQIJIE INTELLIGENT TECH CO LTD

TI - Microprocessor-based artificial intelligence control intelligent water **dispenser**

AB - The invention discloses a microprocessor-based artificial intelligence control intelligent water **dispenser** which comprises a central processing unit, a field **programmable gate** array circuit, a photoelectric detection circuit, a light control lock module, a light key module and a white LED. The central processing unit is connected with the field **programmable gate** array circuit. The field **programmable gate** array circuit is connected with the light control lock module. The white LED is connected with the field **programmable gate** array circuit. The field **programmable gate** array circuit is connected with the light key module. The photoelectric detection circuit is connected with the field **programmable gate** array circuit. A photosensitive element receiver, a reflector, a light source, a modulation waveform generator, a modulation waveform processor and a modulation amplifier are arranged in the photoelectric detection circuit. The central control technology which combines a microcontroller and a field **programmable gate** array is used to improve the processing performance and the processing efficiency of the whole system. The operation of the whole system is stable. The failure rate is effectively reduced.

2/9 © EPODOC / EPO

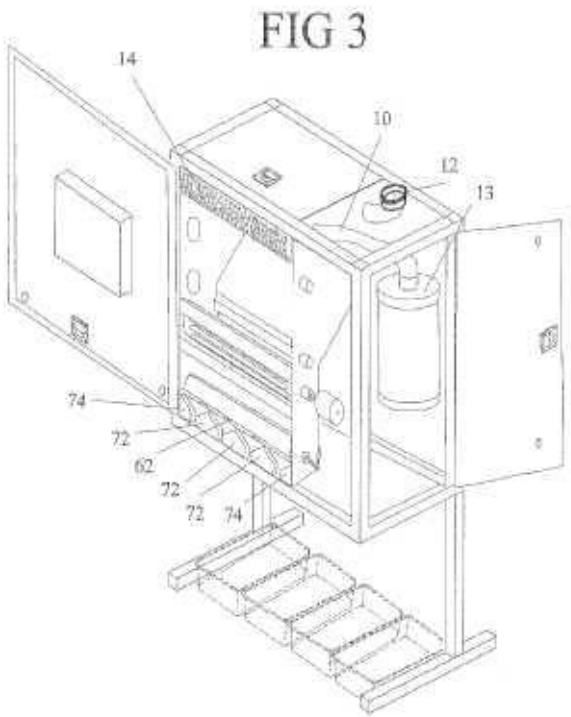
PN - US2016106059 A1 20160421

PR - US201514983887 20151230; US201414243020 20140402; US20100798153 20100329; US20090211234P 20090327; US20090259342P 20091109; US20090259410P 20091109

AP - US201514983887 20151230

DT - **

CT - || R141 (A1)
US807484 A [ ];
US2138356 A [ ];
US3580644 A [ ];
US3800746 A [ ];
US3954086 A [ ];
US3962998 A [ ];
USRE31939E E [ ];
US4526214 A [ ];
US4974548 A [ ];
US5275130 A [ ];
US5599581 A [ ];
US5651401 A [ ];
US5771840 A [ ];
US5916110 A [ ];



US5921200 A [ ];
US6126375 A [ ];
US6145709 A [ ];
US6182607 B1 [ ];
US6394033 B1 [ ];
US6431407 B1 [ ];
US7325700 B1 [ ];
US7380733 B2 [ ];
US2008276873 A1 [ ];
US8322306 B2 [ ];
US8522453 B2 [ ];
US2014212224 A1 [ ]

CCI - A01K1/0107 ; A01K1/031 ; A01K29/00

CUI - A01K1/0152 ; A01K1/0155

PA - AUDUBON MACHINERY CORP [US]

TI - Systems For Dispensing Bedding Materials Into Cages For Laboratory Animals

AB - The present invention is directed to dispensers of bedding materials for laboratory animal cages. According to one embodiment of a dispensing unit, materials are drawn into a storage chute by a vacuum and dispensing is accomplished in a **dispenser** comprising a plurality of dispensing chutes having dispensing openings through which material is dispensed into cages. While in a first position, a material directing **gate** allows the materials to be dispensed through one of the dispensing chutes into a first number of cages, and through another one of the dispensing chutes into a second number of cages while in a second position. According to another embodiment of the present invention, the vacuum from the vacuum blower is utilized to remove dust from the dispensing area where material is dispensed into cages. Another aspect of the present invention is

directed to a system for aligning, indexing and drying laboratory animal cages which have already been cleaned in a cleaning station. Another aspect of the present invention relates to a **programmable** controller which advantageously facilitates the programming of automated control of the dispensing system.

3/9 © EPODOC / EPO

PN - US2014212224 A1 20140731

PR - US201414243020 20140402; US20100798153 20100329; US20090211234P 20090327; US20090259342P 20091109; US20090259410P 20091109

AP - US201414243020 20140402

DT - **

CT - || R141 (A1)
US6431407 B1 20020813 [ ] (HOGAN JEFF W [US], et al);
USRE31939E E 19850709 [ ];
US8322306 B2 20121204 [ ] (BONDARENKO PAUL J [US], et al);
US2008276873 A1 20081113 [ ] (WALDNER MICHAEL [CA], et al);
US4526214 A 19850702 [ ] (MCGREGOR HAROLD R [US]);
US3580644 A 19710525 [ ] (BALLARD FRANCIS J JR);
US4459999 A 19840717 [ ] (BRACKMANN WARREN A [CA], et al)

CCI - A01K1/0107 ; A01K1/031 ; A01K29/00

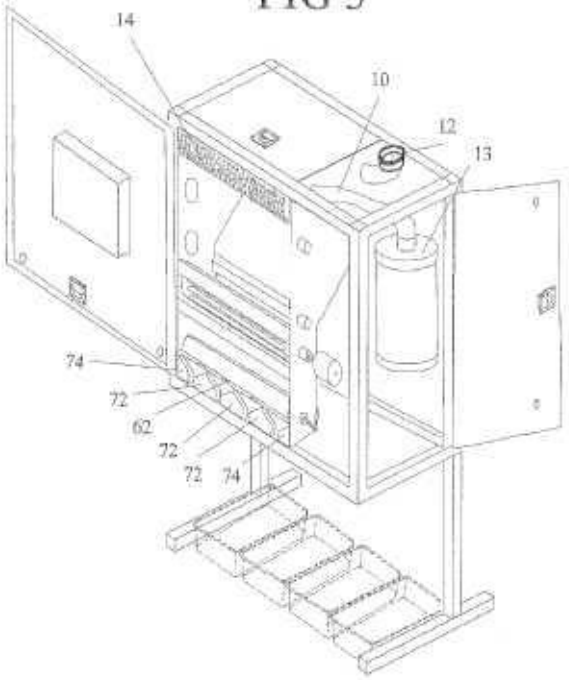
CUI - A01K1/0152 ; A01K1/0155

PA - ROE PHILIPPE [US]; AUDUBON MACHINERY CORP [US]

TI - Systems For Dispensing Bedding Materials Into Cages For Laboratory Animals

AB - The present invention is directed to dispensers of bedding

FIG 3



materials for laboratory animal cages. According to one embodiment of a dispensing unit, materials are drawn into a storage chute by a vacuum and dispensing is accomplished in a **dispenser** comprising a plurality of dispensing chutes having dispensing openings through which material is dispensed into cages. While in a first position, a material directing **gate** allows the materials to be dispensed through one of the dispensing chutes into a first number of cages, and through another one of the dispensing chutes into a second number of cages while in a second position. According to another embodiment of the present invention, the vacuum from the vacuum blower is utilized to remove dust from the dispensing area where material is dispensed into cages. Another aspect of the present invention is directed to a system for aligning, indexing and drying laboratory animal cages which have already been cleaned in a cleaning station. Another aspect of the present invention relates to a **programmable** controller which advantageously facilitates the programming of automated control of the dispensing system.

4/9 © EPODOC / EPO

PN - **UA71663U** U 20120725

PR - UA20112011014939U 20111216

AP - UA20112011014939U 20111216

DT - I

PA - DO METALLURG WORKS PRIVATE JOINT STOCK COMPANY [UA]

TI - TECHNOLOGICAL LINE FOR PREPARATION OF ANHYDROUS CASTING MASS

AB - A technological line for preparation of anhydrous casting mass comprises a bin for powdered material consisting of a receiving section with self-loading devices, and an

accumulating section equipped with a **dispenser** for powdered material, a tank for liquid binder with a **dispenser** located under it, in the housing of which is located a tube, and a mixer interconnected a bin for powdered material and a bin for liquid binder, has consistently an extruder and a packing stand mounted after mixer. The receiving section of a bin for powdered material is equipped with a vibrator. **Dispenser** for powdered material is made in the form of a body located inside accumulating section with upper **gate** mounted in it and interconnected with a vibrator and lower **gate**, said gates are connected to each other. The tube in the body of **dispenser** of liquid binder is located horizontally and has a ball valve. Inside the mixer body there are two working shafts with blades mounted at an angle and a slide valve in its lower part. The body of **dispenser** of liquid binder, mixer body and extruder body are heated. The line is equipped with a **programmable** logic controller connected to sensors and actuators for of a **dispenser** for powdered material, a **dispenser** of liquid binder, a mixer, an extruder and a packing stand.

5/9 © EPODOC / EPO

PN - US2010252566 A1 20101007

PNFP - US8936176 B2 20150120

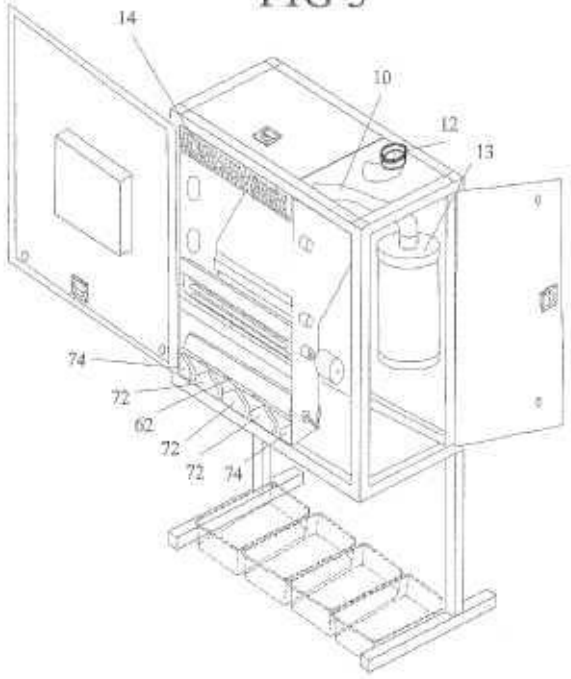
PR - US20100798153 20100329; US20090211234P 20090327; US20090259342P 20091109; US20090259410P 20091109

AP - US20100798153 20100329

DT - **

CT - || STSE (B2)
US807484 A 19051219 [ ] (MOSS HENRY E [US])
US2138356 A 19381129 [ ] (MILES RYAN WILLIAM, et al)
US3197013 A 19650727 [ ] (DER WINDEN JOHANNES BERNARDUS)
US3580644 A 19710525 [ ] (BALLARD FRANCIS J JR)
US4002005 A 19770111 [ ] (MUELLER MARTIN, et al)
US4435114 A 19840306 [ ] (FARDIN CARLOS [US])
US4526214 A 19850702 [ ] (MCGREGOR HAROLD R [US])
US4550755 A 19851105 [ ] (VREDENBURG SR EDRIC W [US])
US4922932 A 19900508 [ ] (WILLIAMS JR E LEE [US], et al)
US5377425 A 19950103 [ ] (KAWAKAMI OSAMU [JP], et al)
US5771840 A 19980630 [ ] (PELLETIER GAETAN [CA])

FIG 3



US5916110 A 19990629 [
] (SANFILIPPO JAMES J [US], et al)
US6431407 B1 20020813 [
] (HOGAN JEFF W [US], et al)
US6827529 B1 20041207 [
] (BERGE J ERIC [US], et al)
US7198077 B1 20070403 [
] (UZKAN LEVENT T [US], et al)
US7325700 B1 20080205 [
] (MASTEN R MICHAEL [US], et al)
US7849664 B2 20101214 [
] (CORBETT JAMES J [US], et al)
US8002104 B2 20110823 [
] (LIM LAY-SWEE [CA], et al)
US8201591 B2 20120619 [
] (MONTI GIUSEPPE [IT])
US8522453 B2 20130903 [
] (ROBERT MAXIME [CA], et al)
US2004112095 A1 20040617 [
] (BOLDUAN EDWIN [DE], et al)
US2005092577 A1 20050505 [
] (NICKEY GEORGE A [US], et al)
US2007119382 A1 20070531 [
] (AUSTIN DARYL [US], et al)
US2008276873 A1 20081113 [
] (WALDNER MICHAEL [CA], et al)

- || R141 (A1)

US4435114 A [ ];
US3197013 A [ ];
US4550755 A [ ];
US7325700 B1 [ ];
US5916110 A [ ];
US8002104 B2 [ ];
US5771840 A [ ];
US4002005 A [ ];
US8522453 B2 [ ];
US6827529 B1 [ ];
US3580644 A [ ];
US7849664 B2 [ ];
US2004112095 A1 [ ];
US2007119382 A1 [ ];
US7198077 B1 [ ];
US2005092577 A1 [ ];
US5377425 A [ ];
US8201591 B2 [ ];
US4526214 A [ ];
US4922932 A [ ];
US6431407 B1 [ ];
US2008276873 A1 [ ];

US807484 A [ ];
US5275130 A [ ];
US4459999 A [ ];
US2138356 A [ ];
US241347 A [ ];
US1342456 A [ ];
US1415319 A [ ];
US1778588 A [ ];
US2122679 A [ ];
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US3799622 A [ ];
US3870199 A [ ];
US3902586 A [ ];
US3995668 A [ ];
US4029194 A [ ];
US4120393 A [ ];
UST993003I I4 [ ];
US4695205 A [ ];
US5133446 A [ ];
US5165181 A [ ];
US5181480 A [ ];
US5234037 A [ ];
US5284388 A [ ];
US5305912 A [ ];
US5385644 A [ ];
US5439094 A [ ];
US5564329 A [ ];
US5943786 A [ ];
US6273153 B1 [ ];
US6553939 B1 [ ];
US6776561 B1 [ ];
US6889485 B2 [ ];
US2006010714 A1 [ ];
US7194822 B2 [ ];
US2008121498 A1 [ ]

CCI - A01K1/0107 ; A01K1/031 ; A01K29/00

CUI - A01K1/0152 ; A01K1/0155

PA - (B2)
ROE PHILIPPE [US]; AUDUBON MACHINERY CORP [US]

TI - (A1 B2)
Systems for dispensing bedding materials into cages for laboratory animals

AB - (A1 B2)
The present invention is directed to dispensers of bedding

materials for laboratory animal cages. According to one embodiment of a dispensing unit, materials are drawn into a storage chute by a vacuum and dispensing is accomplished in a **dispenser** comprising a plurality of dispensing chutes having dispensing openings through which material is dispensed into cages. While in a first position, a material directing **gate** allows the materials to be dispensed through one of the dispensing chutes into a first number of cages, and through another one of the dispensing chutes into a second number of cages while in a second position. According to another embodiment of the present invention, the vacuum from the vacuum blower is utilized to remove dust from the dispensing area where material is dispensed into cages. Another aspect of the present invention is directed to a system for aligning, indexing and drying laboratory animal cages which have already been cleaned in a cleaning station. Another aspect of the present invention relates to a **programmable** controller which advantageously facilitates the programming of automated control of the dispensing system.

PN - WO2010110927 A1 20100930

PR - US20090211234P 20090327; US20090259342P 20091109; US20090259410P 20091109

AP - WO2010US00950 20100329

DT - *; Rep

CT - |US| ISR (A1)
US2007119382 A1 20070531 [Y] (AUSTIN DARYL [US], et al);
US5275130 A 19940104 [Y] (MUCKLER GREGORY A [US]);
US2008276873 A1 20081113 [Y] (WALDNER MICHAEL [CA], et al);
US4459999 A 19840717 [Y] (BRACKMANN WARREN A [CA], et al)

CCI - A01K1/0107 ; A01K1/031 ; A01K29/00

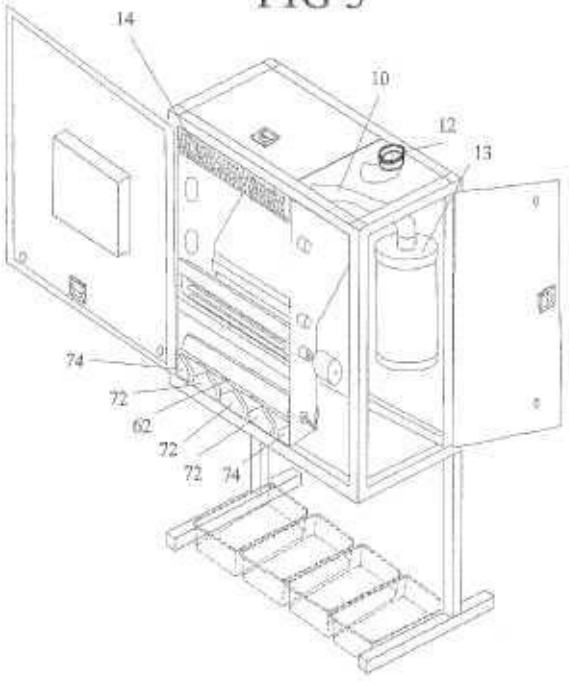
CUI - A01K1/0152 ; A01K1/0155

PA - ROE PHILIPPE [US]

TI - SYSTEMS FOR DISPENSING BEDDING MATERIALS INTO CAGES FOR LABORATORY ANIMALS

AB - The present invention is directed to dispensers of bedding materials for laboratory animal cages According to one embodiment of a dispensing unit, matenals are drawn into a storage chute by a vacuum and dispensing is accomplished in a **dispenser** comprising a plurality of dispensing chutes having dispensing openings through which matepal is dispensed into cages While in a first position, a material directing **gate** allows the matenals to be dispensed through one of the dispensing chutes into a first number of cages, and through another one of the dispensing chutes into a second number of cages while in a second position Another

FIG 3



aspect of the present invention relates to a **programmable** controller which advantageously facilitates the programming of automated control of the dispensing system

7/9 © EPODOC / EPO

PN - US5915589 A 19990629

PR - US19960720749 19961001

AP - US19960720749 19961001

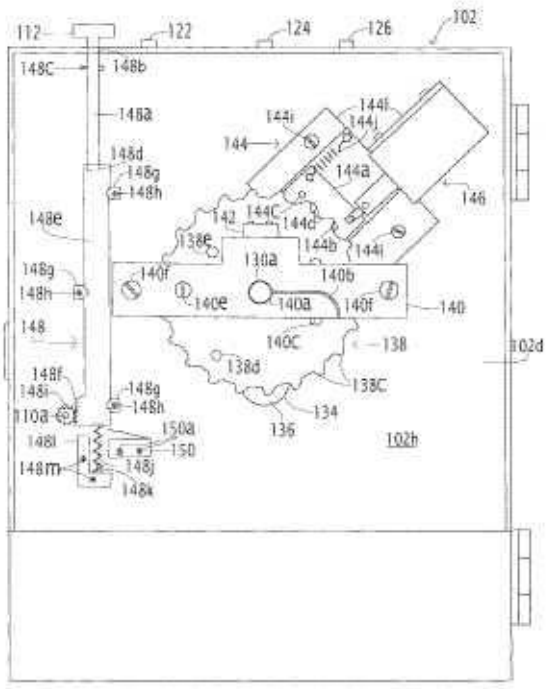
DT - *

CT - US3815780 A [ ]; US3863439 A [ ];
US4047635 A [ ]; US4117952 A [ ];
US4207992 A [ ]; US4223801 A [ ];
US4572403 A [ ]; US4573606 A [ ];
US4674651 A [ ]; US4763810 A [ ];
US4798309 A [ ]; US4809877 A [ ];
US4811764 A [ ]; US4838453 A [ ];
US4911327 A [ ]; US5044516 A [ ];
US5152422 A [ ]; US5176285 A [ ];
US5246136 A [ ]; US5323929 A [ ];
US5329459 A [ ]; US5472113 A [ ];
US5657236 A [ ]

CCI - A61J7/0481

TI - **Programmable** automatic pill **dispenser** with pawl indexing mechanism

AB - A device that can be loaded with appropriate pills and programmed to automatically dispense the proper amount(s) and proper type(s) of pill(s) at the proper time(s) each day. The device also includes a system for alerting the pill taker that pills



have been dispensed and need to be taken, a system for providing voice messages to coach the pill taker to use the device and consume the pills, a system for alerting an off-site caregiver when the pill taker has not responded as required or when there is a problem with the operation of the device, and a system for the efficient and accurate loading of pills into the device. Major components of the device include a pill storage wheel (100), a cabinet (102), a pill release **gate** (110), a pill loading indicator template (118), a **programmable** timer (130), a power spring (134), an index wheel (138), a double ended pawl assembly (144), a solenoid assembly (146), a battery (500), an one shot timing and solenoid driving circuit (504), a blinking LED and buzzer driver circuit (506), a voice message record and playback system (514), and an automatic telehone dialer system (510).

PN - US6510962 B1 20030128

PR - US20000590031 20000607

AP - US20000590031 20000607

DT - *; Rep

CT - || STSE (B1)

US4695954 A 19870922 [ ] (ROSE ROBERT J [US], et al)
US4748600 A 19880531 [ ] (URQUHART JOHN [US])
US4785969 A 19881122 [ ] (MCLAUGHLIN JOHN T [US])
US4911327 A 19900327 [ ] (SHEPHERD CHARLES G [CA], et al)
US5014875 A 19910514 [ ] (MCLAUGHLIN CAROL F [US], et al)
US5246136 A 19930921 [ ] (LOIDL RUDOLF [AT])
US5323929 A 19940628 [ ] (MARLAR WARNER B [US])
US5372276 A 19941213 [ ] (DANESHVAR YOUSEF [US])
US5564593 A 19961015 [ ] (EAST SR ELVIN E [US])
US5582323 A 19961210 [ ] (KURTENBACH LARRY O [US])
US5971594 A 19991026 [ ] (SAHAI ANIL [US], et al)
US6021918 A 20000208 [ ] (DUMONT RICHARD R [US], et al)

US6145697 A 20001114 [ ] (GUDISH WILLIAM A [US])
US6216910 B1 20010417 [ ] (NUMERICK ALLEN [US])
US6304797 B1 20011016 [ ] (SHUSTERMAN LARRY [US])

CCI - A61J7/0481 ; G06Q20/127 ; G07F11/52 ; G07F17/0014 ; G07F17/0092

CCA - A61J7/0427

TI - **Programmable** automatic pill **dispenser**

AB - A device that can be loaded with appropriate pills and programmed to automatically dispense the proper amount(s) and proper type(s) of pill(s) at the proper time(s) each day. The device includes a system for alerting the pill taker that pills have been dispensed, a system for providing voice messages to coach the pill taker to use the device and consume the pills, and a system for alerting an off-site caregiver when the pill taker has not responded as required or when there is a problem with the operation of the device. Major components of the device include a **programmable** timer (41), a pill-storage wheel (21), a cabinet (11), a compartment for storing bottles of pills (13), a push button to stop the alarm and release the pills (34), a pill-release **gate** (61), a compartment indicator template (51), an index gear (92), a battery (500), a pill-storage wheel actuation circuit (504), a pill alert LED and buzzer driver circuit (506), a voice message record and playback system (514), and an automatic telephone dialer system (510).

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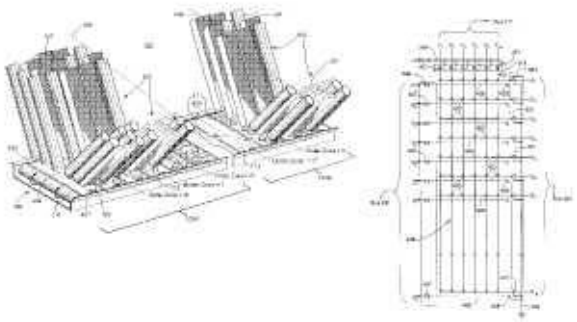

PN - US6064921 A 20000516

PR - US19980035426 19980305; US19960667234 19960619; US19950434030 19950503; US19940177140 19940104; US19930115247 19930901; US19920884863 19920416; US19900566530 19900813

AP - US19980035426 19980305

DT - **

CT - || STSE (A)
US25098 A 18590816 [ ];
US2868344 A 19590113 [ ] (SHIELDS WENDELL H);
US3027022 A 19620327 [ ] (RENAULT);
US3076566 A 19630205 [ ] (SPECIALTIES DEV CORP);
US3186588 A 19650601 [ ] (CHAPMAN MARVIN W);
US3224544 A 19651221 [ ] (NEW ERA LETTER CO);
US3313448 A 19670411 [ ] (WAYNE SUTTLE HOWARD, et al);
US3593881 A 19710720 [

] (ALTON E PAAP);
US3624792 A 19711130 [ ] (MC CALL PATTERN CO THE);
US3760484 A 19730925 [ ] (HONEYWELL INF SYSTEMS);
US3877607 A 19750415 [ ] (SENTINEL STAR COMPANY);
US4017001 A 19770412 [ ] (BARTHALON MAURICE);
US4301909 A 19811124 [ ] (SNAVELY JOHN D);
US4336892 A 19820629 [ ] (UMC IND);
US4501528 A 19850226 [ ] (GUNTER KNAPP GES MBH & CO KG I [DE]);
US4518302 A 19850521 [ ] (KNAPP GUENTER ING GMBH [DE]);
US4573606 A 19860304 [ ] (LEWIS KERMIT E [US]);
US4672553 A 19870609 [ ] (GOODY PROD INC [US]);
US4811480 A 19890314 [ ] (AMBOTECH LTD [GB]);
US4872591 A 19891010 [ ] (KONOPKA RICHARD O [US]);
US4961507 A 19901009 [ ] (HIGGINS LARRY G [US]);
US4980292 A 19901225 [ ] (BAXTER INT [US]);
US5322406 A 19940621 [ ] (ELECTROCOM AUTOMATION LP [US]);
US5551822 A 19960903 [ ] (ELECTROCOM AUTOMATION LP [US]);
US5768139 A 19980616 [ ] (ELECTROCOM AUTOMATION LP [US])

CCI - B65G47/8823 ; B65G47/8884 ; B65G1/1376

CCA - B65G2205/02

PA - SIEMENS ELECTROCOM LP [US]

TI - Product dispensing apparatus

AB - A product dispensing apparatus includes a gathering conveyor and a plurality of product

dispensers for dispensing items onto the gathering conveyor, the plurality of product dispensers including a first subset of product dispensers and a second subset of product dispensers, the first subset and the second subset have at least one common product **dispenser**. First and second relays are coupled to the first and second subset of product dispensers, respectively; simultaneously energizing the first and second relay actuates at least one of the product dispensers. The product dispensers are arrayed in a matrix for dispensing products, the matrix of product dispensers having a plurality of rows and a plurality of columns, corresponding the first and second subset. At least one of the product dispensers is a cartridge **dispenser** including a solenoid, stop **gate** and a stripper, the stop **gate** being moveable between a first and second position for retaining cartridges in the first position and releasing a first cartridge in the second position, the stop **gate** and the stripper retaining a second cartridge as the first cartridge is released. The apparatus includes a **programmable** logic controller for engaging the solenoid to dispense products upon defined order zones, separated by buffer zones, on the conveyor and a central control computer coupled to the **programmable** logic controller for establishing a sequence for dispensing products from the product **dispenser** matrix.

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[EPODOC: SS 12]