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Search 3: 1 and 2 (Results 10)

Search 4: camera (Results 1000000)

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Search 10: fn=(67323261 or 67323261 or 70862869 or 67323261 or 68579402 or 44530840 or 1113140 or 3309531 or 31991826 or 45167481 or 56913273) (Results 9)

1) Family number: 1113140 (US3854273A)

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Title: APPARATUS FOR PICKING FRUIT GROWING ON A TREE

Abstract: A cutterhead for picking fruit growing on a tree that includes an open frame to which an elongated rod is attachable and on which a plurality of leaf-plates are pivotally mounted for movement against the action of a spring from a closed position covering the frame to an open position uncovering the frame. The leaf plates, which are shaped to define a central opening in their closed position, are pivotable against the action of the spring to uncover the frame. A stem cutter is mounted on one of the leaf-plates and has a cutter-bar movable across the central opening. Finally, a selectively actuatable stem cutter operator is provided for moving the cutter bar, and a chute with means for braking the fall of fruit picked from the tree is associated with the frame.

Classifications:

International (IPC 8-9): A01D46/247 (Advanced/Invention);
A01D46/00 (Core/Invention)

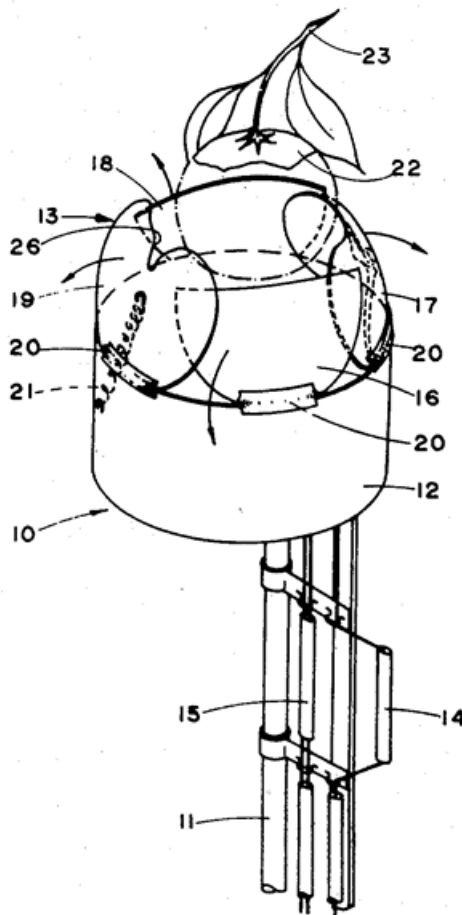
International (IPC 1-7): A01D A01G13/00 A01G19/08

CPC: A01D46/247

European: A01D46/247

US: 193/7 56/334 56/336

PatBase - US3854273_A



Family:

Publication number	Publication date	Application number	Application date
ES420270 A1	19760616	ES19730420270	19731105
IL40744 A0	19730130	IL19720040744	19721106
IL40744 A1	19741231	IL19720040744	19721106
US3854273 A	19741217	US19730411026	19731030

Priority:

IL19720040744 19721106

Probable Assignee: ROSENBERG BARUCH**Assignee(s):** (std): ROSENBERG B ; ROSENBERG BARUCH**Assignee(s):** BARUCH ROSENBERG ; ROSENBERG B IL**Inventor(s):** (std): ROSENBERG B**Inventor(s):** ROSENBERG B IL**Agent(s):** REINHOLD COHN AND PARTNERS**2) Family number: 3309531 (US4519193A)**

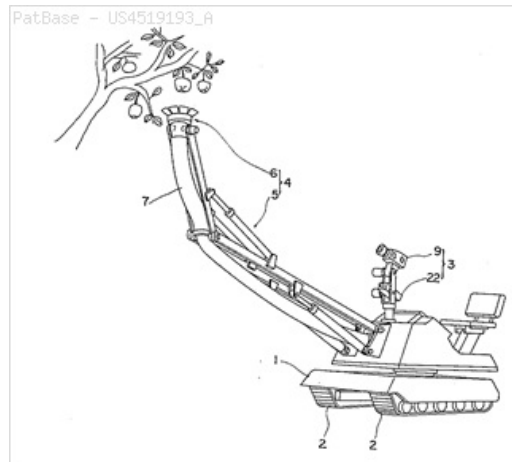
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Title: FRUIT HARVESTING APPARATUS WITH TELEVISION CAMERA AND MONITOR

Abstract: A fruit harvesting apparatus in which the positions of fruit are searched and detected by a television camera with a variable shooting direction. Both the television camera and a spot light emitting device, such as a laser, are varied in position and direction in accordance with instructions to locate a fruit. A movable fruit picker is then moved to the determined position of the fruit and operated to pick the fruit.

Classifications:**International (IPC 8-9):** A01D46/24 A01D46/30 B25J19/02 B25J9/04 G05D3/12 G06T1/00 (Advanced/Invention);

A01D46/00 B25J19/02 B25J9/02 G05D3/12 G06T1/00 (Core/Invention)

International (IPC 1-7): A01D46/00 A01D46/24 G05D3/00 H04N7/18**CPC:** G06K9/2036 G06K2209/17 B25J9/046 A01D46/24 A01D46/30 B25J19/023**European:** A01D46/24 A01D46/30 B25J19/02B4 B25J9/04D**US:** 348/89 56/10.2 56/10.2R 56/102 56/328.1 56/328R 901/6**Family:**

Publication number	Publication date	Application number	Application date
DE3322683 A1	19840216	DE19833322683	19830623
DE3322683 C2	19860109	DE19833322683	19830623
FR2531604 A1	19840217	FR19830010176	19830620
FR2531604 B1	19870821	FR19830010176	19830620
JP59031614 A2	19840220	JP19820140021	19820811
US4519193 A	19850528	US19830496218	19830519

Priority:

JP19820140021 19820811

Probable Assignee: KUBOTA LTD**Assignee(s):** (std): KUBOTA LTD**Assignee(s):** KUBOTA LTD OSAKA JP ; KUBOTA TEKKO KK**Inventor(s):** (std): OKUYAMA SHIGEAKI ; SUZUKI HIROSHI ; YOSHIDA JITUO ; YOSHIDA JITSUO**Inventor(s):** SUZUKI HIROSHI SAKAI OSAKA JP ; JITUO YOSHIDA**3) Family number: 31991826 (US2005126144A)**

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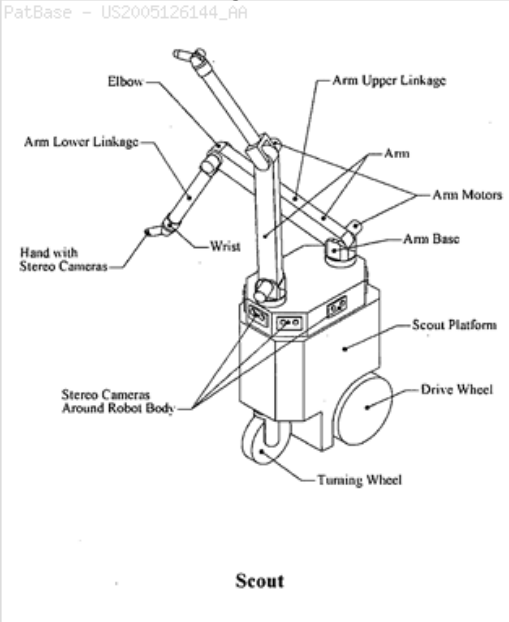
Title: ROBOT MECHANICAL PICKER SYSTEM AND METHOD

Abstract: Embodiments of the invention comprise a system and method that enable robotic harvesting of agricultural crops. One approach for automating the harvesting of fresh fruits and vegetables is to use a robot comprising a machine-vision system containing rugged solid-state digital cameras to identify and locate the fruit on each tree, coupled with a picking system to perform the picking. In one embodiment of the invention a robot moves through a field first to "map" the field to determine plant locations, the number and size of fruit on the plants and the approximate positions of the fruit on each plant. A robot employed in this embodiment may comprise a GPS sensor to simplify the mapping process. At least one camera on at least one arm of a robot

may be mounted in appropriately shaped protective enclosure so that a camera can be physically moved into the canopy of the plant if necessary to map fruit locations from inside the canopy. Once the map of the fruit is complete for a field, the robot can plan and implement an efficient picking plan for itself or another robot. In one embodiment of the invention, a scout robot or harvest robot determines a picking plan in advance of picking a tree. This may be done if the map is finished hours, days or weeks before a robot is scheduled to harvest, or if the picking plan algorithm selected requires significant computational time and cannot be implemented in "real time" by the harvesting robot as it is picking the field. If the picking algorithm selected is less computationally intense, the harvester may calculate the plan as it is harvesting. The system harvests according to the selected picking plan. The picking plan may be generated in the scout robot, harvest robot or on a server. Each of the elements in the system may be configured to communicate with each other using wireless communications technologies.

Classifications:

International (IPC 8-9): A01B69/00 A01D34/00 A01D34/68 A01D43/00 A01D45/00 A01D46/00 A01D46/30 A01D75/00 A01D75/28 A01D91/00 G01C21/32 G05D1/02 G06F19/00 (Advanced/Invention)
International (IPC 1-7): A01D75/28
CPC: G05D1/021 A01D75/00 A01D91/00 Y10S901/01 A01D46/30
European: A01D46/30
US: 56/10.20A 56/10.20AP 56/10.20R 56/10.20RP 56/10.2A 56/10.2R 700/245 700/245P 700/253 700/253S 700/259 700/259S 701/208 701/25 701/50 701/532 701/532S 901/1



Family:

Publication number	Publication date	Application number	Application date
AU2005314708 AA	20060615	AU20050314708	20051209
AU2005314708 BB	20120209	AU20050314708	20051209
EP1830624 A2	20070912	EP20050853664	20051209
US2005126144 AA	20050616	US20040009909	20041209
US2006213167 AA	20060928	US20060354548	20060215
US2011137456 AA	20110609	US20100945871	20101114
US2013204437 AA	20130808	US20130776658	20130225
US7765780 BB	20100803	US20040009909	20041209
US7854108 BB	20101221	US20060354548	20060215
US8381501 BB	20130226	US20100945871	20101114
WO06063314 A2	20060615	WO2005US44796	20051209
WO06063314 A3	20090409	WO2005US44796	20051209

Priority:

US20030481781P 20031212 US20040009909 20041209 WO2005US44796 20051209
US20060354548 20060215 US20100945871 20101114 US20130776658 20130225

Probable Assignee: VISION ROBOTICS CORP

Assignee(s): (std): KOSELKA HARVEY ; VISION ROBOTICS CORP ; WALLACH BRET

Assignee(s): BRET WALLACH ; HARVEY KOSELKA

Inventor(s): (std): WALLACH BRET ; KOSELKA HARVEY

Inventor(s): HARVEY KOSELKA ; BRET WALLACH

Agent(s): COLLISON AND CO; DALINA LAW GROUP PC; ARC IP LAW PC; JOSEPH J

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

4) Family number: 44530840 (DE202008013751U1)

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Title: Vorrichtung zum Ernten von Obst und Gemuese Device for harvesting fruit and vegetable (Machine translation)

Abstract: Source: DE202008013751U1 [DE] (Claim 1) 1. Vorrichtung (10) zum Ernten von Obst, Gemuese und dergleichen mit Abtrennmitteln (20) zum Abtrennen der Frucht von der Pflanze sowie mit Greifmitteln (30) zum Greifen der Frucht, eines Teils der Frucht oder eines Stieles (100), an dem sich die Frucht befindet, dadurch gekennzeichnet, dass die Greifmittel (30) wenigstens einen Greifer (32) und wenigstens ein in zwei Richtungen rotierbares Element (40) aufweisen sowie wenigstens ein erstes Kabel (51) und wenigstens ein zweites Kabel (52) aufweisen, die an dem rotierbaren Element (40) derart angeordnet sind, dass eine Drehbewegung des rotierbaren Elementes (40) in einer ersten Richtung zu einer auf das erste Kabel (51) wirkenden Zugkraft fuehrt und eine Drehbewegung des rotierbaren Elementes (40) in einer zweiten Richtung zu einer auf das zweite Kabel (52) wirkenden Zugkraft fuehrt, wobei eines der Kabel (51) an einer Position des Greifers (32) derart angeordnet ist, dass die

Zugbeanspruchung des Kabels (51) einer Schliessbewegung des Greifers (32) fuehrt und wobei das andere der Kabel (52) an einer Position des Greifers (32) derart angeordnet ist, dass die Zugbeanspruchung des Kabels (52) zu einer oeffnungsbewegung des Greifers (32) fuehrt.

Machine translation: (Claim 1) 1. Device (10) to harvesting fruit, vegetable and such a thing by separation means (20) for separating the fruit from the plant as well as marked by grab means (30) for seizing the fruit, a part of the fruit or a handle (100), at which the fruit is, by the fact that the grab means (30) as well as exhibit at least one grip arm (32) and at least an element (40), rotatable in two directions, at least a first cable (51) and at least a second cable (52) exhibit, which is in such a manner arranged at the rotatable element (40) that a rotating motion of the rotatable element (40) in a first direction to one toward the first cable (51) working traction power and a rotating motion of the rotatable element (40) in a second direction leads to one on the second cable (52) working traction power leads, whereby one of the cables (51) at a position of the grip arm (32) is in such a manner arranged that the tensile stress of the cable (51) of a Schliessbewegung of the grip arm (32) leads and whereby the other one of the cables (52) at a position of the grip arm (32) is in such a manner arranged that the tensile stress of the cable (52) leads to an opening movement of the grip arm (32).

Classifications:

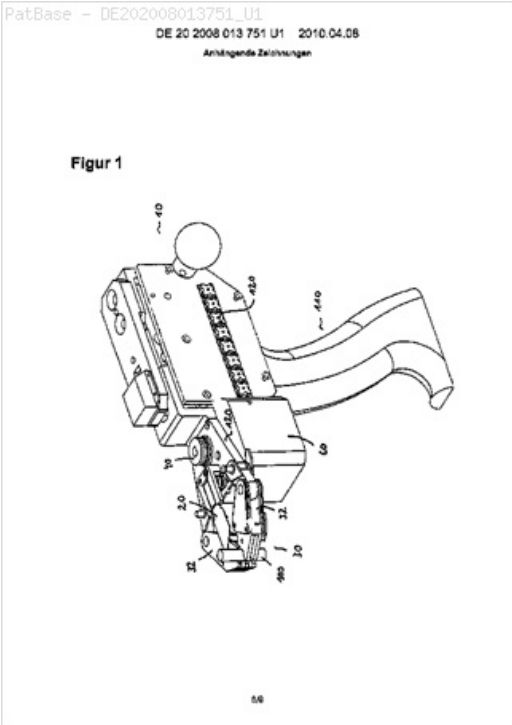
International (IPC 8-9): A01D46/00 A01D46/247

A01D46/253 (Advanced/Invention);

A01D46/00 (Core/Invention)

CPC: A01D46/247 A01D46/253

European: A01D46/247 A01D46/253



Family:

Publication number	Publication date	Application number	Application date
DE202008013751 U1	20100304	DE200820013751U	20081016

Priority:

DE200820013751U 20081016

Probable Assignee:

DAAS KAMAL

Assignee(s): (std):

DAAS KAMAL ; DAAS TALAL

5) Family number: 45167481 (WO10063075A1)

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Title: CROP PICKING DEVICE AND METHOD

Abstract: A device for selectively picking a crop from a plant which includes at least one sensor that receives information from a region of interest, including multiple aspects of the crop, and converts the information to an electronic output. At least one diagnostic unit receives the electronic output and processes the electronic output to determine location of the crop and suitability of the crop for picking. The device also includes a gripper activated by the at least one diagnostic unit to hold the crop or a stem of the crop and a picker activated by the at least one diagnostic unit to sever the crop from the plant.

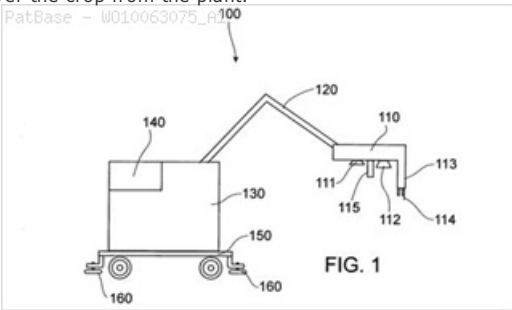
Classifications:

International (IPC 8-9): A01D46/30 (Advanced/Invention);

A01D46/00 (Core/Invention)

CPC: A01D46/30

European: A01D46/30



Family:

Publication number	Publication date	Application number	Application date
WO10063075 A1	20100610	WO2009AU01578	20091203

Priority:

AU20080906273 20081203 AU20090902494 20090602 AU20090904026 20090820

Probable Assignee: MAGNIFICENT PTY LTD

Assignee(s): (std): BARTELS RUDI ; DANIELS RAY ; MAGNIFICENT PTY LTD ; PALK PHILLIP

Inventor(s): (std): BARTELS RUDI ; DANIELS RAY ; PALK PHILLIP

Agent(s): FISHER ADAMS KELLY

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 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

6) Family number: 56913273 (US2015354943A)

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Title: CALIBRATION OF A DISTANCE SENSOR ON AN AGRICULTURAL VEHICLE

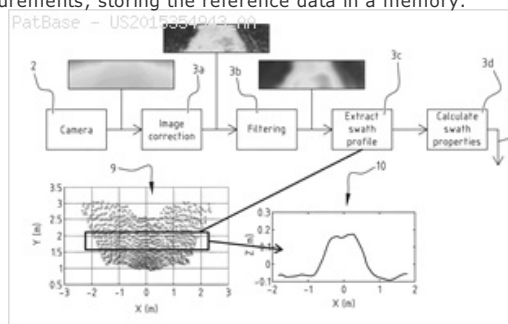
Abstract: Calibrating a distance sensor on an agricultural vehicle provided for measuring the distance between the sensor and a set of points on a ground surface in front of the agricultural vehicle, includes: performing a reference measurement when the agricultural vehicle is standing on a paved and substantially flat ground surface; processing the results of the reference measurement to reference data for use as reference during further measurements; storing the reference data in a memory.

Classifications:

International (IPC 8-9): A01B69/04 A01D41/00 A01D41/12 A01D41/127 A01F15/00 A01F15/08 G01B11/02 G06T1/00 (Advanced/Invention)

CPC: A01D41/127 A01D41/1278 A01F15/08 G01B11/026 A01B69/008 A01B69/001 G01S1/00

US: 701/50 73/1.79



Family:

Publication number	Publication date	Application number	Application date
AU2014204776 AA	20140717	AU20140204776	20140114
AU2014204776 BB	20160421	AU20140204776	20140114
DE602014013164 D1	20170928	DE201460013164T	20140114
EP2943055 A1	20151118	EP20140700616	20140114
EP2943055 B1	20170816	EP20140700616	20140114
NZ706294 A	20160729	NZ20140706294	20140114
US2015354943 AA	20151210	US20140760844	20140114
US9699968 BB	20170711	US20140760844	20140114
WO14108550 A1	20140717	WO2014EP50539	20140114

Priority:

BE20130000020 20130114 EP20140700616 20140114 WO2014EP50539 20140114

Probable Assignee: CNH INDUSTRIAL AMERICA LLC

Assignee(s): (std): BOYDENS JOACHIM ; CNH AMERICA LLC ; CNH IND AMERICA LLC ; CNH IND BELGIUM NV ; POSSELIUS JOHN H ; VANYSACKER PIETER ; VERHAEGHE DIDIER

Assignee(s): CNH INDUSTRIAL AMERICA LLC ; CNH INDUSTRIAL BELGIUM NV ; CNH BELGIUM NV

Inventor(s): (std): BOYDENS JOACHIM ; POSSELIUS JOHN H ; VANYSACKER PIETER ; VERHAEGHE DIDIER

Inventor(s): POSSELIUS JOHN H EPHRATA

Agent(s): ELLIS TERRY; KROHER STROBEL RECHTS U PATENTANWAELTE PARTMBB; CNH INDUSTRIAL IP DEPARTMENT; PATRICK M; VAN BALLAER EVI MA

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

7) Family number: 67323261 (WO18015416A1)

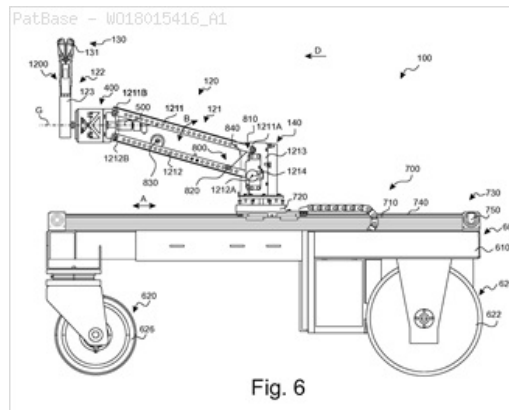
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Title: DEVICE FOR PICKING FRUIT HAVING AN IMPROVED ROBOT ARM

Abstract: The invention relates to a device (100) for picking fruit, provided with an optical detection means (110) and a robot arm (120), fitted with a gripper mechanism (130). The processing unit (140) actuates the robot arm (120) to make the gripper mechanism (130) move about the piece of fruit to be picked from below. Once grasped, the piece of fruit to be picked is rotated in such a way about a substantially horizontal axis that the stalk of the piece of fruit comes away from the plant.

Classifications:

International (IPC 8-9): A01D46/30 (Advanced/Invention)
CPC: A01D46/30



Family:

Publication number	Publication date	Application number	Application date
BE1023881 BB	20170904	BE20160005602	20160719
BE1023905 BB	20170907	BE20160005710	20160921
BE1024167 BB	20171123	BE20170005187	20170322
WO18015416 A1	20180125	WO2017EP68187	20170719

Priority:

BE20160005602 20160719 BE20160005710 20160921 BE20160005714 20160922
BE20170005187 20170322

Probable Assignee: OCTINION BVBA

Assignee(s): (std): OCTINION BVBA

Inventor(s): (std): ANTHONIS JAN ; COEN TOM ; DE BACKER SEBASTIAAN ; GIELIS DRIES ; DONDEYNE PIETER

Agent(s): PLAS AXEL 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 DJ 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 JO JP KE KG KH KM KN KP KR KW 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

8) Family number: 68579402 (US2018042176A)

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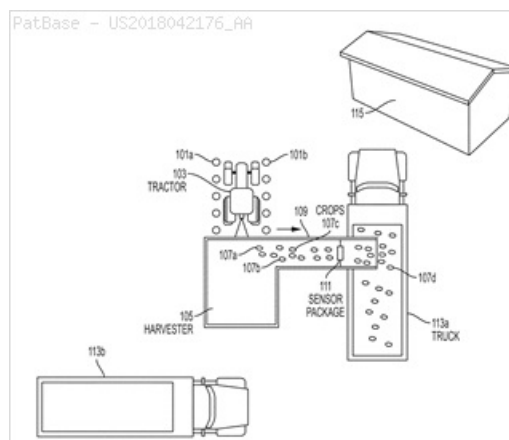
Title: SYSTEMS, DEVICES, AND METHODS FOR MONITORING AND ASSESSING CHARACTERISTICS OF HARVESTED SPECIALTY CROPS

Abstract: A device for use in connection with monitoring and assessing characteristics of harvested specialty crops. The device comprises: an imaging sensor configured to capture an image of a set of harvested specialty crops; a depth sensor; processing circuitry configured to generate depth information at least in part by using data obtained by the depth sensor; and a transmitter configured to transmit the image and the depth information to at least one remote computing device via a communication network.

Classifications:

International (IPC 8-9): A01D17/04 A01D17/10 A01D41/127 A01D43/08 A01D46/20 A01D46/24 A01D61/02 A01D90/12 G01B11/24 G01N33/00 G06T17/20 G06T7/00 G06T7/13 G06T7/55 G06T7/62 H04N5/225 H04N7/18 (Advanced/Invention)

CPC: H04N7/18 G06T7/55 G06T7/0004 H04N5/2256 A01D61/02 G06T2207/10028 G06T2207/30128 G06T2207/30252 G06T2207/10016 G01N33/0098 G01B11/24 G06T17/20 G06T7/13 G06T7/001 G06T2207/30188 G06T2207/20081 A01D41/1271 G06T7/62 G06T7/0012



Family:

Publication number	Publication date	Application number	Application date
US2018042176 AA	20180215	US20170677358	20170815
US2018047177 AA	20180215	US20170677419	20170815
WO18035082 A1	20180222	WO2017US46869	20170815

Priority:

US20160375365P 20160815 US20170677358 20170815 US20170677419 20170815

Probable Assignee: RAPTOR MAPS INC

Assignee(s): (std): RAPTOR MAPS INC
Inventor(s): (std): KLINKER MIKE ; OBROPTA EDWARD ; VADHAVKAR NIKHIL
Agent(s): RUDROY DANIEL G 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 DJ 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 JO JP KE KG KH KM KN KP KR KW 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

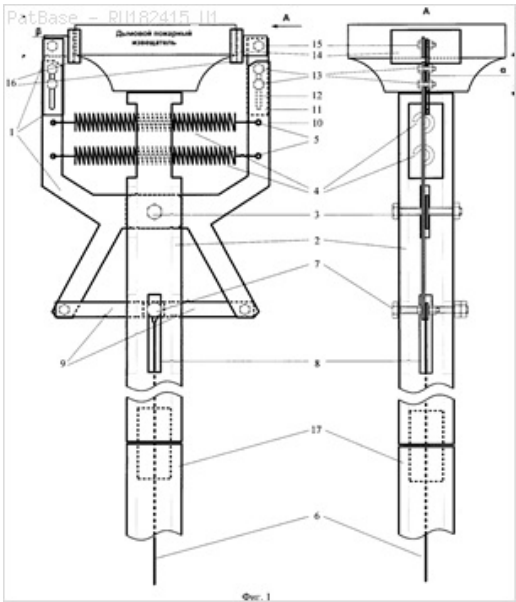
9) Family number: 70862869 (RU182415U)

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Title: An apparatus for removing and refitting the smoke (Machine translation)

Abstract: Source: RU182415U **Machine translation:** The invention relates to the service of the fire alarm system and can be used in all industries where there is fire detection systems with smoke detectors mounted at high altitude. The object of the invention is to provide a universal unit for service smoke of circular cross section. The device consists of two identical jaws formed on a scissor halves mounted on the handle-bar, located on them covering the legs, retaining the detector. The grippers are small in size and are adjustable in height and angle. Force of wrap detector box is adjusted by means of two removable tension spring attached in the holes on the grips. Unclamp the grippers is carried out tensioning rope fixed on the axis of the tension plates, interacting with grippers pivotally.

Classifications:
International (IPC 8-9): B25J1/02 B25J1/06 (Advanced/Invention)
CPC: B25J1/02 B25J1/06



Family:

Publication number	Publication date	Application number	Application date
RU182415 U1	20180816	RU20170144834U	20171220

Priority:
RU20170144834U 20171220

Probable Assignee: CO GAZPROM TRANSGAZ UKHTA LTD
Assignee(s): BRIEF OTVETSTVENNOSTYU GAZPROM TRANSGAZ UKHTA ; CO GAZPROM TRANSGAZ UKHTA LTD