

08-2015

HARVESTING; MOWING

Ernten; Mähen

FINGER DRIVE FOR A CROP FEED ROLLER

A crop feeding roller for a header includes a plurality of finger units within the roller each having a pair of fingers projecting outwardly for engaging crop outside the peripheral wall of the roller. The peripheral wall has opposed finger guide holes associated with the pair of fingers. Each finger unit including an inner member carrying the fingers and containing an elongate guide slot transverse to the axis of the roller and a stationary guide member within the guide slot at a position within the roller arranged to cause the inner member with the fingers of each of the finger units to reciprocate during the rotation of the roller. The guide slot is shaped with at least one curved lobe to one side of a transverse center section so that the slot can be S-shaped or C-shaped to improve the dwell time and swept area obtained by the finger movement.

Publication: [WO 2015113134 A1 20150806](#)

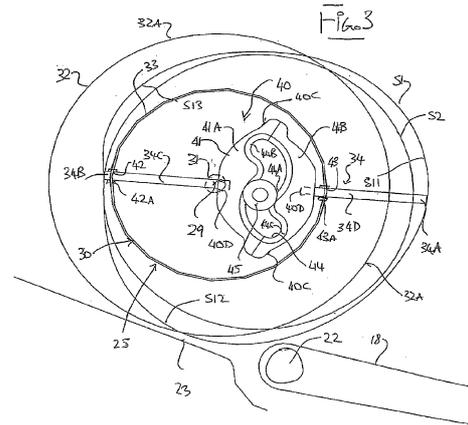
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Prio: US 20140130 61/933,388

Appl.No: CA2014051235

IPC: A01D 57/12 2006.01 (IA)



HEIGHT-ADJUSTABLE LAWNMOWER HANDLE

A handle (1) of a lawnmower (10) is described, comprising two lower ends (12) pivoted with a body (101) of the lawnmower (10), being suitable for passing from at least one high position to at least one low position, being rotatably connected to the body (101) by means of a fulcrum pin (31) to rotate the handle (1) and a bond pin (42), suitable for pivoting in an eccentric washer (4) comprising recesses (45, 47) suitable for engaging with at least one catch (23) to block the eccentric washer (4) in at least two positions of engagement corresponding to the high position and the low position of the handle (1), respectively, said eccentric washer (4) passes from a first to a second position of engagement by translating and rotating about an axis (R).

Publication: [WO 2015114003 A1 20150806](#)

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Prio: IT 20140131 MI2014A000136

Appl.No: EP2015051702

IPC: A01D 34/82 2006.01 (IA)

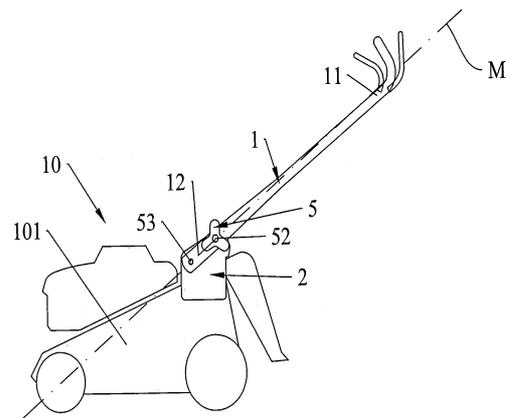


FIG.1

WORKING MACHINE

The present invention makes it difficult for weeds to live over a long period without increasing the burden on an operator. A working machine (1) has: a rotating body (12) rotatably driven by an engine main body (21) during work for cutting weeds from the ground surface; a magnet (74) that is attached to the rotating body (12) and rotates with the rotating body (12); and a coil (73) that is provided in proximity to the rotating body (12) and generates a high voltage that can destroy cell membranes of weeds when the magnet (74) rotating with the rotating body (12) comes in proximity to and passes through the coil. The high voltage generated by the coil (73) is applied to grass growing from the ground surface.

Publication: [WO 2015114884 A1 20150806](#)

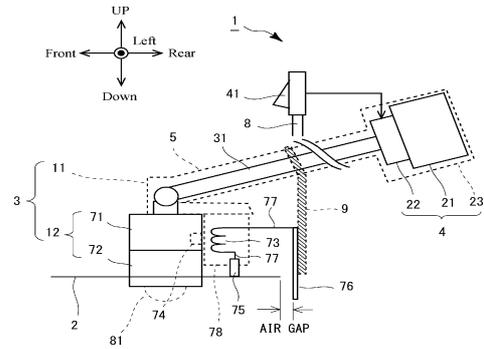
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Prio: JP 20140130 2014-015744, JP 20140130 2014-015745

Appl.No: JP2014076826

IPC: A01D 34/835 2006.01 (IA)



THE CLAIMED INVENTION CONCERNS A PLATE SPRING ADAPTED TO HOLD A TOOL, A TOOL, A TOOL HOLDER, A ROBOTIC WORK TOOL AND A ROBOTIC WORKING TOOL SYSTEM

A robotic work tool system 200 comprising a robotic work tool 100, said robotic work tool 100 comprising a tool holder 160, e.g. in form of a disc, polygon, or comprising a plurality of arms, adapted to hold at least one tool 162 and adapted to be arranged in the robotic work tool 100, the tool holder 160 comprising at least one tool attachment means 164 and at least one spring attachment means 160a, 160b, 160c, wherein each tool attachment means 164 is positioned outside a respective spring attachment means 160a, 160b, 160c on a radius of the tool holder 160. The tool holder 160 is disc-shaped, polygon-shaped or comprises at least one rotating arm, and is equipped with two independent attachment means for each tool 162. By providing the tool holder with spring attachment means, plate springs could be attached to the tool holder as a further attachment means for the tools, which enables quick shifting of tools. To be published with figure 3.

Publication: [WO 2015115955 A1 20150806](#)

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Inventor: SVENSSON, Mats, Varbroddsvägen 3, S-231 75 Beddingestrand, SE; ÖHRLUND, Magnus, Viresjövägen 26, S-570 21 Malmbäck, SE

Prio:

Appl.No: SE2014050133

IPC: A01D 34/73 2006.01 (IA)

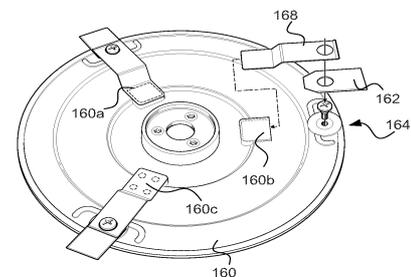


Fig. 3

AUTOMATIC LOAD CONTROL FOR SELF-PROPELLED WINDROWER

A windrower (10) has a hydrostatic header drive system (26) with a header drive pump (36) and one or more header drive motors (32, 34). The windrower also has a chassis (12) with wheels (14) coupled thereto, an engine (40), and a ground drive system (28) coupled to the wheels and the engine. A control system (24) has plural sensors having first, second, and third sensors, wherein the first sensor (60) monitors engine load, the second sensor (56) monitors hydrostatic header drive pressure, and the third sensor (58) monitors ground speed. The control system has one or more controllers (30) configured to receive input from the plural sensors, compare the input with respective target values for engine load, header drive pressure, and ground speed throughout a range of ground speeds defined based on an operator configured maximum ground speed, and automatically adjust the ground speed based on the comparison.

Publication: [WO 2015116892 A1 20150806](#)

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Prio: US 20140131 61/933,908

Appl.No: US2015013671

IPC: A01D 41/127 2006.01 (IA)

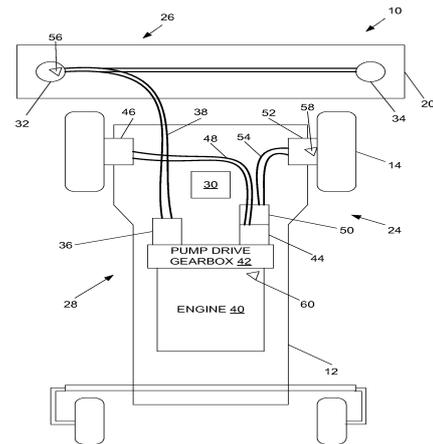


FIG. 2

FOLDING DEVICE FOR RAKE

The present invention relates to a folding device for a rake, the device comprising: a main frame, on two edges of which are respectively hinge-coupled a protecting frame for protecting a collecting member, and a guide frame on which an alignment guide is mounted; and a folding means which is provided on the main frame and incorporates a cylinder for linking the protecting frame and the guide frame by means of respective wires so as to cause same to simultaneously effect a rotating action.

Publication: [WO 2015119370 A1 20150813](#)

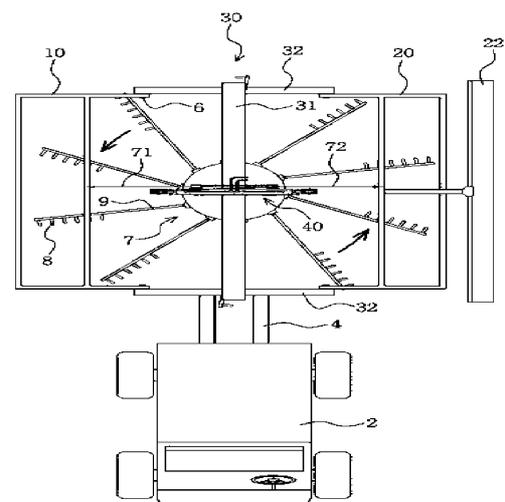
Applicant: PARK, Suk Min, 105-202, 84-28, Songhyeongil, Andong-si, Gyeongsangbuk-do 760-706, KR

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Prio: KR 20140207 10-2014-0014060

Appl.No: KR2014011957

IPC: A01D 85/00 2006.01 (IA)



AGRICULTURAL HARVESTER

An agricultural harvester is described, the harvester comprising a processor for receiving a flow of harvested crop and processing the harvested crop, an on-board tank for storing the processed crop, and a loading arrangement for transporting the flow of processed crop from the feeder to the on-board tank. The loading arrangement comprises an auger (200), the auger comprising a lower section (230) with an inlet (140) for receiving the flow (150) of processed crop and an upper section (220) with an outlet (130). The auger further comprises a tubular housing (210) and an auger flighting (120) mounted inside the tubular housing for, during use, transporting the flow of processed crop from the lower section (230) to the upper section (220) and outputting the processed crop via the outlet (130) of the upper section. A clearance (250) between the housing (210) and the auger flighting (120) is larger in the lower section (230) of the auger compared to the upper section (220).

Publication: [WO 2015121340 A1 20150820](#)

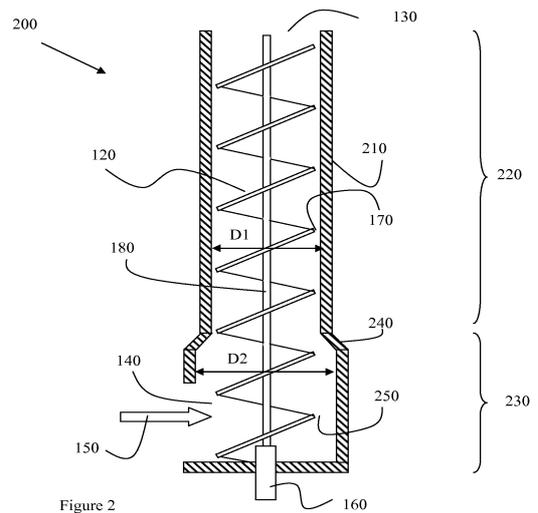
Applicant: CNH INDUSTRIAL BELGIUM NV, Leon Claeystraat 3A, B-8210 Zedelgem, BE; CNH INDUSTRIAL AMERICA LLC, P.O. Box 1895, 500 Diller Avenue, New Holland, Pennsylvania 17557, US; CNH (CHINA) MANAGEMENT CO., LTD, Floor 10, No. 2, Maji Road, Waigaoqiao Trade Free Zone, Shanghai 200131, CN

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Prio: BE 20140212 2014/0091

Appl.No: EP2015052946

IPC: A01D 41/12 2006.01 (IA)



PORTABLE DEVICE FOR SELECTIVE HARVEST WITH IDENTIFICATION OF THE FRUIT BY COLOUR

The invention relates to a portable device for selective harvest and to a method for identifying fruit and selectively harvesting coffee fruit or other fruit. The portable device for selectively harvesting fruit on a branch comprises: an image acquisition system (1), an image processing system, a picking mechanism (2), a control system, a receiving mechanism, and a system for powering the device, the device also comprising a servo-vision system. The method for identifying fruit by colour and selective harvest comprises the steps of: (a) acquiring images of the fruit on the branch; (b) storing the images in a memory; (c) preprocessing the images with a filtering operation in order to reduce noise and improve the images; (d) converting, in the images, the RGB colour to a LUX mod colour space; (e) thresholding the variables U and modified VLUX of the LUX mod colour space, obtaining a binary image, and detecting the pixels of ripe and unripe fruit; (f) counting the pixels of ripe and unripe fruit; (g) detecting the areas of interest, according to the position on the branch comprising the fruit, which is indicated by the image; (h) determining a threshold value relating to the risk of picking unripe fruit "N" as a percentage of the totality of the pixels of the section of the area of interest; (i) determining the risk of picking unripe fruit by comparing the percentage of pixels of unripe fruit in the section of the area of interest with the threshold value relating to the risk of picking unripe fruit "N"; and (j) generating a command for activation and picking of the fruit according to the rules for the activation for picking fruit.

Publication: [WO 2015121809 A1 20150820](#)

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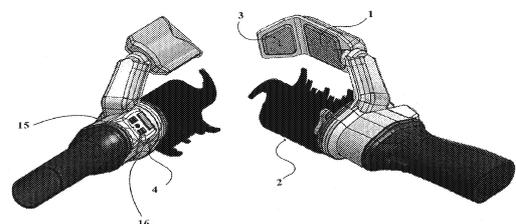


FIG. 1.

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Prio: CO 20140212 14-029767

Appl.No: IB2015051032

IPC: A01D 46/06 2006.01 (IA)

BALE GRIPPER, SYSTEM FOR MOVING SAME AND USE THEREOF

The present invention relates to a bale gripper comprising: (i) a structural base for carrying or supporting the components; (ii) a screw-action element designed to be rotated into and grip a bale, thus allowing the bale gripper to move the bale; (iii) a gear motor for driving and moving said screw-action element; and (iv) a guide arm. The invention also includes a system for moving bales, comprising the bale gripper according to the invention and a hoist that allows the bale to be carried and moved in the horizontal and vertical directions. Finally, the invention also relates to the use of the gripper to move bales.

Publication: [WO 2015121816 A1 20150820](#)

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Inventor: SEHN, Hardi José, Av. Frederico Augusto Ritter, 8.000, Distrito Industrial, Cachoeirinha, 94930-000 Rio Grande do Sul, BR; MARTINS, Luis Manoel Andrade, Av. Frederico Augusto Ritter, 8.000, Distrito Industrial, Cachoeirinha, 94930-000 Rio Grande do Sul, BR; MARTINS, Roque Mendes, Av. Frederico Augusto Ritter, 8.000, Distrito Industrial, Cachoeirinha, 94930-000 Rio Grande do Sul, BR

Prio: BR 20140212 10 2014 003310 6

Appl.No: IB2015051047

IPC: A01D 87/12 2006.01 (IA)

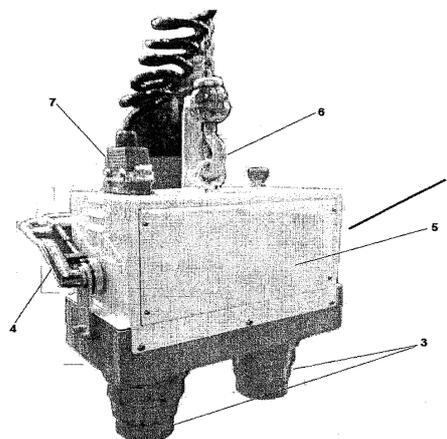


FIGURA 1

PUMP DRIVE FOR A WORK MACHINE

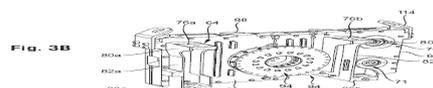
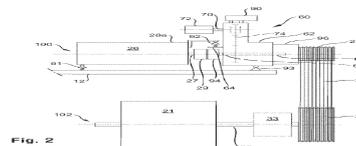
A pump drive (60) for a work machine is disclosed. The pump drive comprises a pump drive housing fixedly secured to a frame (12) of the work machine. A transmission (74) disposed in the pump drive housing (62) is configured to distribute a mechanical output from the combustion engine (26) received at an input (66) of the pump drive housing (62) to at least one of a main drive component (28) of a work implement (21) or a hydraulic pump (72). A mounting portion (64) is provided on the pump drive housing (62), the combustion engine (26) being secured at least in part on the mounting portion (64) such that the combustion engine (26) is secured to the frame (12) of the work machine via the pump drive housing (62). Accordingly, the main drive component (28) of the work implement (21) is decoupled from movements of the combustion engine (26) via the pump drive housing (62).

Publication: [WO 2015123195 A1 20150820](#)

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Prio: DE 20140211 102014001839.3



Appl.No: US2015015188
IPC: A01D 69/00 2006.01 (IA)

TOOL HANDLE SYSTEM

A system and method for collecting and moving debris, including first and second handle extensions having first and second main shafts adapted to be secured to first and second tool shafts, respectively. Further, first and second under arm supports are mounted to an upper end of the first and second main shafts whereby a user places the first under arm support against their right underarm and second under arm support against their left underarm. Further, first and second handle grips mounted to the first main shaft and second main shafts for the user to hold in their right and left hands when collecting and moving the debris. It is also within the terms of the embodiment handle extension for exercising the knee and foot of one leg.

Publication: [US 20150216119 A1 20150806](#)

Applicant: Daniel J., Squires, Amherst, US
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Prio:
Appl.No: US14174220
IPC: A01D 7/10 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 3 US 2015/0216119 A1

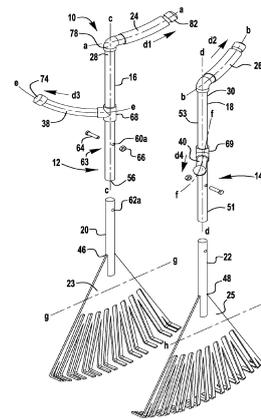


FIG. 1

LEAF CORRAL FOR A LAWNMOWER

A leaf corralling apparatus including a deflector plate is provided for a lawnmower to prevent an amount of leaves or other debris from being diverted around a deck of the lawnmower. The deflector plate defines a tip that is positioned at a distance from a centerline of the deck approximately equal to or greater than a distance from the centerline of an outermost point of a cutting area defined by one or more blades positioned within the deck of the lawnmower. The deflector plate additionally defines a slanted portion that extends inwardly towards the centerline and rearwardly towards a rear end of the deck.

Publication: [US 20150216120 A1 20150806](#)

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Prio:
Appl.No: US14169453
IPC: A01D 34/00 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 6 US 2015/0216120 A1

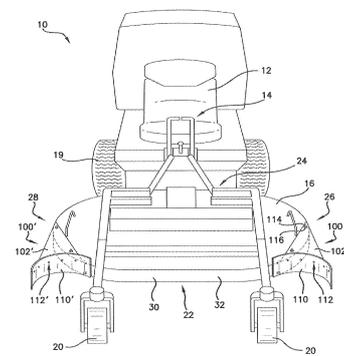


FIG. 1

FOLDABLE TRIPLE FRONT DISK MOWER FOR SELF-PROPELLED WINDROWERS

A foldable agricultural mower for preferable forward mounting on a tractor, the mower having a central cutterbar and at least one foldable wing cutterbar disposed on a first end of the central cutterbar. The foldable wing cutterbar is movable from an operable position that is generally in line with the central cutterbar to a folded position that is generally parallel to and spaced above the central cutterbar. A second wing cutterbar may be provided on the opposite end of the central cutterbar and similarly moveable between an operable position that is generally in line with the central cutterbar and a folded position that is generally parallel to and spaced above the central cutterbar, the second cutterbar being disposed above the first cutterbar when both are in the folded position.

Publication: [US 20150216121 A1 20150806](#)

Applicant: CNH Canada, Ltd., Saskatoon, CA; CNH Canada, Ltd., Saskatoon, CA

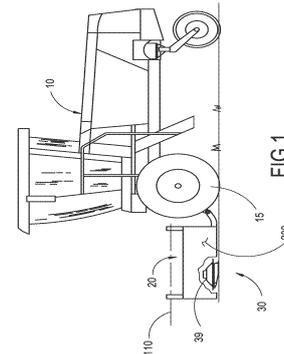
Inventor: MARTIN J., ROBERGE, SASKATOON, CA; LUKE J., HARRIS, LEOLA, US

Prio:

Appl.No: US14171747

IPC: A01D 34/01 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 6 US 2015/0216121 A1



Spring Biased Receptacle For Rotary Head Assembly

This invention relates to rotary head assembly apparatuses, and more specifically, to rotary head assembly apparatus configured to easily replace cutting members necessary to cut unwanted plants.

Publication: [US 20150216122 A1 20150806](#)

Applicant: Orlando, JEREZ, Kenner, US

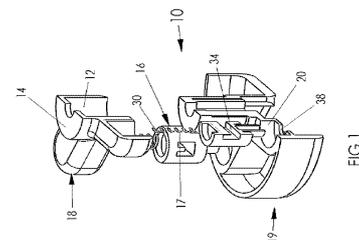
Inventor: Orlando, Jerez, Kenner, US

Prio: WO 20150209 PCT/US2013/053816

Appl.No: US14420551

IPC: A01D 34/416 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 4 US 2015/0216122 A1



Automatic Control of Relative Positioning of the Cutter Bar and Reel

A control system for a header of an agricultural harvesting machine providing the capability for positioning the reel and the cutter bar, respectively, with a single input, the control system configured and co-operable with the input for recognizing multiple predetermined discrete patterns of operator input, and responsive thereto, positioning a reel and cutter bar at predetermined relative positions, respectively.

Publication: [US 20150216123 A1 20150806](#)



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Prio: WO 20120808 PCT/US12/49899
Appl.No: US14420658
IPC: A01D 41/14 2006.01 (IA)

SELF-PROPELLED MERGER

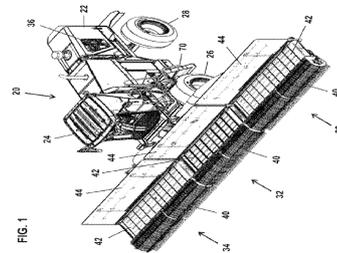
A self-propelled windrow merger includes a motor and a chassis. At the front of the merger are a first pickup and transfer assembly, a second pickup and transfer assembly and a third pickup and transfer assembly. A cab is above and behind the second pickup and transfer assembly. A folding mechanism for moves each of the pickup and transfer assemblies between a first position wherein the first, second and third pickup and transfer assemblies are laterally aligned and a second position wherein the first and third pickup and transfer assemblies are positioned rear of the cab.

Publication: [US 20150216124 A1 20150806](#)

Applicant: Oxbo International Corporation, Byron, US
Inventor: Paul W., DOW, Byron, US; Steven S., DOW, Byron, US

Prio: US14583508
Appl.No: A01D 57/28 2006.01 (IA)
IPC: A01D 57/28 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 21 US 2015/0216124 A1



CONTROL SYSTEMS AND METHODS FOR ELECTRIC MOTORS OF UTILITY VEHICLES

Electronic control systems and related control methods for controlling electric auxiliary motors for performing work, such as electric deck motors for mower blades. The apparatus is shown in use with a vehicle that includes a mowing deck. Features of the control systems allow for safe and efficient use of the vehicle.

Publication: [US 20150223394 A1 20150813](#)

Applicant: Hydro-Gear Limited Partnership, Sullivan, US
Inventor: Christopher K., Wyatt, Oneco, US; Ivan E., Fox, Mattoon, US

Prio: US14597947
Appl.No: A01D 34/00 2006.01 (IA)
IPC: A01D 34/00 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 13 US 2015/0223394 A1

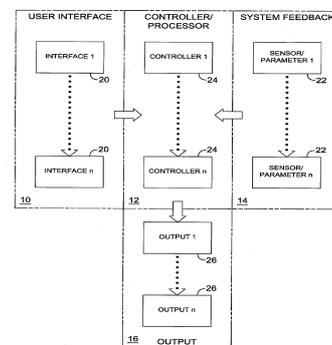


FIG. 1

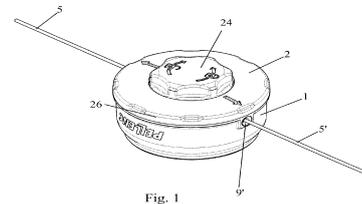
ROTARY CUTTING HEAD WITH WIRES AND ASSEMBLY CONSISTING OF SUCH A HEAD AND A DRIVE SHAFT FOR DRIVING SAID HEAD

The invention relates to a rotary cutting head with wires for a brush cutter, grass trimmer, edge trimmer, hedge trimmer or the like, said head comprising a housing (1) containing a supporting body (2) comprising a system (3, 3′, 4, 4′, 12) for blocking at least two cutting or shearing wires, and a peripheral wall (6) allowing the or each wire to be wound around said wall in said head. Said blocking system comprises at least two movable blocking elements (3, 3′) that are independent from each other and each associated with a clamping surface (4, 4′) built into the supporting body (2) and comprising a clamping face (10, 10′) and a supporting face (11, 11′), and a single elastic body (12) that can exert stress on each clamping face (11, 11′) for clamping and blocking each wire.

Publication: [US 20150223395 A1 20150813](#)

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Prio: FR 20120914 1258674, WO 20150303 PCT/FR2013/052107
Appl.No: US14425514
IPC: A01D 34/416 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 5 US 2015/0223395 A1



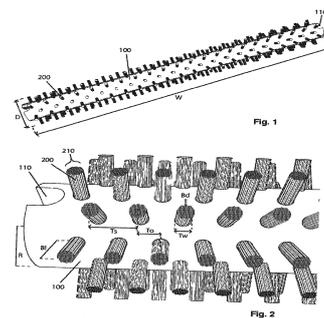
Turf Conditioning Method and Apparatus

Powered turf conditioning brushes having increased efficiency, improved lift, and which minimize the introduction of grain, and their method of use with reel mower cutting units such as those used for precision mowing of golf course greens. Various embodiments are disclosed.

Publication: [US 20150223396 A1 20150813](#)

Applicant: Rodney, Lingle, Olive Branch, US
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Prio:
Appl.No: US14175779
IPC: A01D 34/53 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 6 US 2015/0223396 A1



AUTOMATIC MOWING BLADE ENGAGEMENT AND DISENGAGEMENT FOR WINGED MOWER

A mowing apparatus including a body portion comprising rotary drive means (not shown) and a wing portion pivotable about a main axis relative to the body portion between a lowered cutting position and a raised position, the wing portion comprising rotary cutting means (not shown) arranged to cut the grass or other plant matter, the drive means and the cutting means being coupled through a limited range of angular positions of the wing between the lowered position and a partially raised position.

Publication: [US 20150223397 A1 20150813](#)

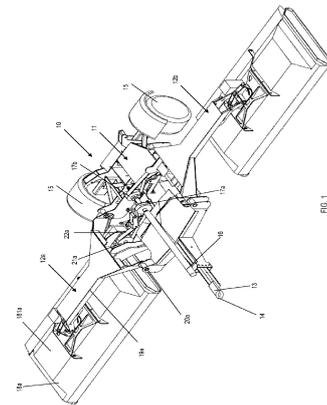
Applicant: BROADWOOD INTERNATIONAL, Bordon, GB
Inventor: Charles, Browning, Bordon, GB; Robert, James, Bordon, GB

Prio: GB 20120830 1215473.8, GB 20121231 1223518.0, WO 20150227 PCT/GB2013/052222

Appl.No: US14424858

IPC: A01D 34/66 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 7 US 2015/0223397 A1



Boom Deck and Removable Side Deck Mowing Tractor Device

A boom deck and removable side deck mowing tractor device facilitates efficient conversion between use of the boom deck and the side deck. The device includes a boom arm coupled to and extendable from a tractor. A boom deck is coupled to the boom arm and a first mowing blade is coupled to the boom deck wherein the boom arm, the boom deck, and the first mowing blade define a boom mower. A side deck is removably coupled to a lateral side of the tractor. A second mowing blade is coupled to the side deck wherein the side deck and the second mowing blade define a side mower. A control mechanism is coupled to the tractor and selectively couplable to each of the boom mower and the side mower wherein the control mechanism controls a selectable one of the side mower and the boom mower.

Publication: [US 20150223398 A1 20150813](#)

Applicant: Matt, Nelson, Volga, US

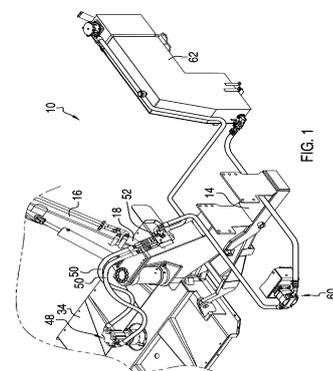
Inventor: Matt, Nelson, Volga, US

Prio:

Appl.No: US14180059

IPC: A01D 34/835 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 8 US 2015/0223398 A1



Air Blast Soft Fruit Harvesting Device

The invention relates to the air blast soft fruit harvesting device comprising an air flow director (1), pulsator (2), distancing channel (3), segmented extension (4) and blower fan (5) assembly. The distancing channel (3) is connected with the segmented extension (4) on the top side and with the pulsator (2) on the bottom side, whereas the pulsator (2) is simultaneously connected with the air flow director (1) on the bottom side, and the segmented extension (4) is connected with the blower fan (5). The blower fan (5) constantly sends air to the director (1), through the segmented extension (4), distancing channel (3) and pulsator (2) directing the air towards a fruit shrub, thus shaking ripe fruits. In the course of the rotation of the pulsator (2) rotor (32), the pulsator (2) alternately sends air, in a single cycle, through the channels (6, 7 and 8), and then through the channels (9, 10 and 11) of the director (1), where the air flow leaving the pulsator (2) varies, achieving its power impact. It is possible to regulate the air blast power and speed over the connecting tube (78) by discharging part of the air which the blower fan (5) sends towards the director (1), into the atmosphere. The regulation is performed manually with the lever (81). Thus, regulation of the air blow power impact on a fruit shrub is obtained. When using the device for harvesting soft fruit, two devices are used simultaneously, positioned in such way that there is a row of shrubs between them.

Publication: [US 20150223399 A1 20150813](#)

Applicant: Momcilo, KOKANOVIC, US; Miodrag, KOKANOVIC, Obrenovac, RS; Marko, KOKANOVIC, Obrenovac, RS

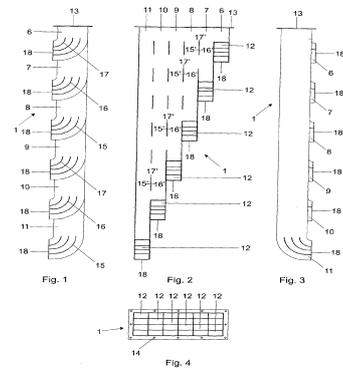
Inventor: Momcilo, Kokanovic, Obrenovac, RS; Miodrag, Kokanovic, Obrenovac, RS; Marko, Kokanovic, Obrenovac, RS

Prio: RS 20120830 P-2012/0374, WO 20150228 PCT/RS2013/000017

Appl.No: US14425018

IPC: A01D 46/00 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 14 US 2015/0223399 A1



GRAIN CART WITH FOLDING AUGER

A grain cart and foldable auger assembly having an upper auger assembly portion with a discharge portion, a lower auger assembly portion with an intake portion, and a compound angle joint that allows the upper auger assembly portion to be moved between operating and transport positions. When in an operating position, the upper auger assembly portion and the lower auger portion are offset from each other by an operating offset angle. When in a transport position, the upper auger assembly portion is offset from the lower auger assembly portion by a transport offset angle such that the upper auger assembly portions folded across the front of the grain cart in a non-obstructive and non-protruding manner.

Publication: [US 20150223400 A1 20150813](#)

Applicant: Unverferth Manufacturing Company, Inc., Kalida, US; Unverferth Manufacturing Company, Inc., Kalida, US

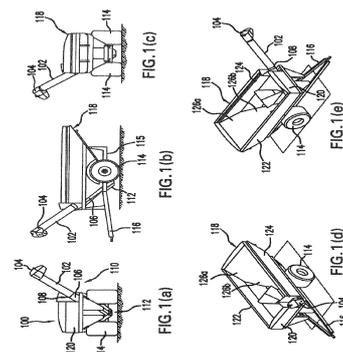
Inventor: Michael D., VAN MILL, Shell Rock, US; Ronald J., Schlimgen, Shell Rock, US; John, Walvatne, Waterloo, US; Christopher M., Self, Parkersburg, US

Prio:

Appl.No: US14548269

IPC: A01D 90/10 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 9 US 2015/0223400 A1



Hand-Held Leaf Scoopers

A pair of leaf scoopers for lifting piles of leaves and other debris. Each scooper is of the same construction and includes a scooper body having a handle on an upper end thereof and multiple elongated tines on a lower end thereof. The handle is formed by an opening through the scooper body in which a user's hand may be inserted so that the user may grasp the handle on the upper end of the scooper body. The elongated tines are arranged parallel to one another and have a curved end. The tines curve towards the direction in which leaves will be scooped. In operation, a user can hold a leaf scooper in each hand on opposite sides of a pile of leaves, and can then move the scoopers towards one another so as to grasp the pile of leaves therebetween.

Publication: [US 20150230400 A1 20150820](#)

Applicant: Muoi, Tia, Savage, US

Inventor: Muoi, Tia, Savage, US

Prio:

Appl.No: US14604884

IPC: A01D 7/00 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 2 US 2015/0230400 A1

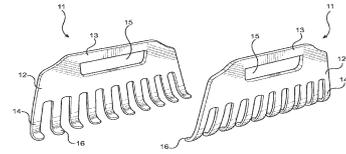


FIG. 1

CUTTING HEAD FOR VEGETATION CUTTING MACHINE

The invention relates to a cutting head (1) for a vegetation cutting machine, such as a border trimmer or a brush cutter, designed to accommodate a coil (2) consisting of a plurality of temporarily bonded turns (21) of at least one cutting filament (20) and exhibiting a central void (22), said cutting head including: a body (10) defining an inner recess (11) for the coil (2) and provided with a peripheral opening (12) for the emergence of a cutting filament separated from the coil, and capable of being driven in rotation by a motor, a central mandrel (13) adapted to support said at least one coil, said mandrel comprising at least one arrangement adapted to cooperate with the coil so as to provide for rotational engagement between the mandrel (13) and the coil (2), the mandrel (13) being able to selectively rotate relative to the body (10).

Publication: [US 20150230401 A1 20150820](#)

Applicant: SPEED FRANCE SAS, Arnas, FR

Inventor: Emmanuel, Legrand, Villeneuve, FR

Prio: FR 20120920 1258811, FR 20130314 1352263,

WO 20150202 PCT/EP2013/066346

Appl.No: US14419236

IPC: A01D 34/416 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 10 US 2015/0230401 A1

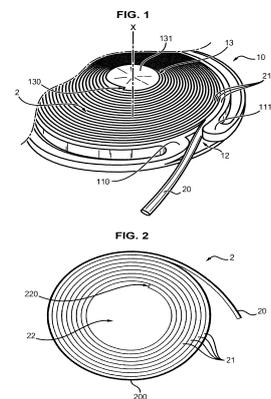


FIG. 2

Weed trimmer extension device

A weed trimmer extension device for cutting and collecting, or dispersing weeds includes a cutting enclosure, to which can be attached a collecting bag or a cutting disperser; a replacement cutting implement; and enclosure fasteners, for attaching the weed trimmer extension device to a weed trimmer. The cutting implement can further include a cutting blade and a perpendicular fin, which pushes air in a circular direction of motion, thereby creating a vortex of air, which rotates in the plane spanned out by the rotating cutting blade. The cutting enclosure covers the replacement cutting implement, which propels the cuttings, contained and directed by the cutting enclosure, into either the collecting bag or the cutting disperser, which disperses the weed cuttings over an area to the side.

Publication: [US 20150230402 A1 20150820](#)

Applicant: Charles Raphael, Grande, Penn Valley, US

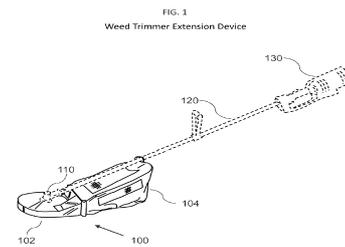
Inventor: Charles Raphael, Grande, Penn Valley, US

Prio:

Appl.No: US14705162

IPC: A01D 34/71 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 18 US 2015/0230402 A1



Vibration-Damping Triggering of an Actuator for an Agricultural Working Machine

An arrangement for triggering an actuator for adjusting an adjustable element of an agricultural working machine comprises: a specifying device for generating adjustment commands for the adjustable element; a control arrangement for the actuator; and a signal-shaping unit which, upon receipt of an adjustment command, initially applies a first signal dependent on the adjustment command to the control arrangement, and then applies a second signal, which is dependent on the adjustment command and delayed in time relative to the first signal, the second signal leading to a reduction or cancellation of a natural oscillation generated by the first signal in the system consisting of working machine and element.

Publication: [US 20150230403 A1 20150820](#)

Applicant: DEERE & COMPANY, Moline, US

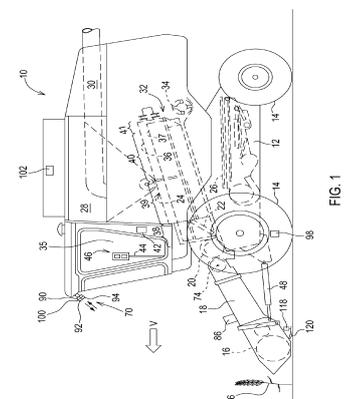
Inventor: BENEDIKT, JUNG, KAISERSLAUTERN, DE;
PHILIPP, MUENCH, KAISERSLAUTERN, DE

Prio: DE 20140219 102014203005.6

Appl.No: US14615967

IPC: A01D 41/127 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 2 US 2015/0230403 A1



DEVICE FOR COLLECTING AND RELEASING DEBRIS

A device comprises a collection bin and a stationary front plate pivotably coupled with the bin via a hinge mechanism. The bin is rotatable relative to the front plate between a first position, wherein the bin's front end is closed by the front plate, and a second position, wherein the front end is spaced from the front plate for releasing debris out of the bin. An actuator is operatively connected to the hinge mechanism, which includes a bar interconnected between the bin and front plate. The bar is attached to the front plate and the bin. Actuator actuation rotates the bar and the bin in an arcuate motion from the first to the second position, and retraction of the actuator returns the bar and bin to the first position. Rotation of the bin defines a center of rotation on the opposite side of the front plate from the bin.

Publication: [US 20150230404 A1 20150820](#)

Applicant: SCHILLER GROUNDS CARE, INC., Southampton, US; Schiller Grounds Care, Inc., Southampton, US

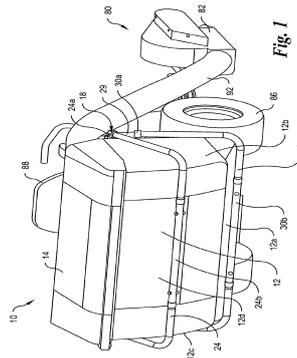
Inventor: Ronald, SCHEFFLER, Beaver Dam, US; Randy, HILGART, Cottage Grove, US; Anthony S., WEBER, Lake Mills, US; Guillaume, LABBE, Thetford Mines, CA; Remi, POULIN, Adstock, CA

Prio:

Appl.No: US14184897

IPC: A01D 43/063 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 8 US 2015/0230404 A1



CONVERGING DRUM AND STRIPPER ARRANGEMENT

A mowing implement includes an improved crop and forage material converging arrangement for a wide mowing implement equipped with a rotary cutter bar and powered converging drums. One or more stripper elements are mounted for rotation with one or more converging drums so as to limit the tendency for cut material to wrap around the converging drums, and to more consistently transfer the cut material to the material discharge zone. Each stripper element can be located and dimensioned to sweep a path a near an adjacent converging drum and pass in close proximity to an auger of the mowing implement to effectively guide and converge material. Each stripper elements can be an oblong plate configured and arranged to strip cut material from an adjacent converging drum and deflect the stripped material towards a material discharge zone of the implement.

Publication: [US 20150230405 A1 20150820](#)

Applicant: DEERE & COMPANY, Moline, US; DEERE & COMPANY, Moline, US

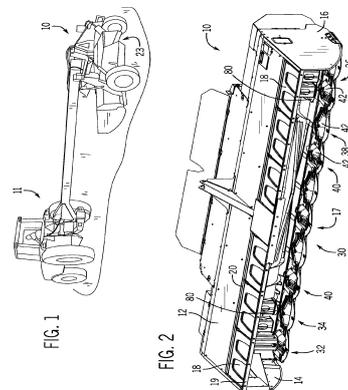
Inventor: Allan W., Rosenbalm, Blakesburg, US; Roger D., Stephenson, Ottumwa, US

Prio:

Appl.No: US14185763

IPC: A01D 57/00 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 9 US 2015/0230405 A1



CONVEYER FOR A MATERIAL PROCESSING MACHINE

A material processing machine includes a rotary conveyer for delivering material to a material conditioner. The conveyer has a rotatable body and a paddle is mounted on the body. The paddle includes a support portion having a radially outer end and a radially inner end which is attached to the body. The outer end is not ahead of the inner end with respect to a direction of rotation of the body. The paddle also includes a lip portion which is supported by the support portion. The lip portion is forward or advanced with respect to the outer end of the support portion, with respect to the direction of rotation of the body.

Publication: [US 20150230406 A1 20150820](#)

Applicant: Deere & Company, Moline, US; Deere & Company, Moline, US

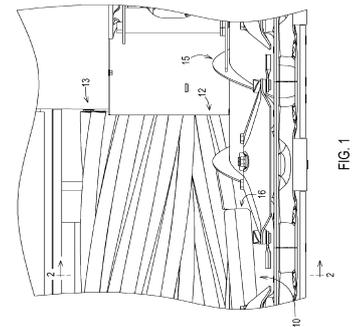
Inventor: ROGER D., STEPHENSON, OTTUMWA, US;
ALLAN W., ROSENBALM, BLAKESBURG, US

Prio:

Appl.No: US14180428

IPC: A01D 61/00 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 6 US 2015/0230406 A1



Harvested Crop Pick-Up

The invention relates to a collector (10) for harvested material having at least three movement devices (12) and at least one yoke (16) interconnecting the movement devices (12). Supporting elements (18) are additionally provided which are connected to the yoke (16) and/or the movement devices (12) and which have a shaft bushing (20) within which a shaft (22) is guided on which pick-up tools (24) for picking up harvested material are mounted. At least one additional movement device (12) is provided between two outer movement devices (12), the yoke (16) being elastically deformed so as to allow a vertical movement-with respect to the yolk axis-of the additional movement device (12) relative to said outer movement devices (12).

Publication: [US 20150230407 A1 20150820](#)

Applicant: Thomas, Rieter, Schlusberg, AT

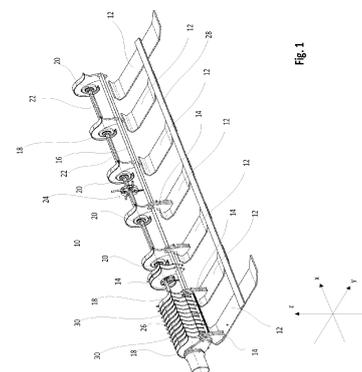
Inventor: Thomas, Rieter, Schlusberg, AT

Prio: DE 20120917 10 2012 108 708.3, WO
20150316 PCT/EP2013/068619

Appl.No: US14428411

IPC: A01D 89/00 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 6 US 2015/0230407 A1



DRIVE SYSTEMS AND METHODS FOR IMPLEMENTING ENGINE STALL PROTECTION IN A SELF-PROPELLED MACHINE

Drive systems and methods for implementing engine stall protection in a self-propelled machine are disclosed. In one aspect, a drive system of a self-propelled machine incorporating engine stall protection includes an engine being in communication with a control unit and transmitting power and an engine load signal to the control unit. An actuation mechanism can be actuatable to assign a desired ground speed of the self-propelled machine, the actuation mechanism being in communication with the control unit and transmitting a control signal corresponding to the desired ground speed to the control unit. In some aspects, the control unit is configured to control a transmission motor to achieve an actual ground speed of the self-propelled machine based on both the engine load signal and the control signal. In other aspects, the engine load signal is an engine speed signal, wherein engine speed is dependent on a load applied to the engine.

Publication: [US 20150237797 A1 20150827](#)

Applicant: HONDA MOTOR CO., LTD., Tokyo, JP; Honda Motor Co., Ltd., Tokyo, JP

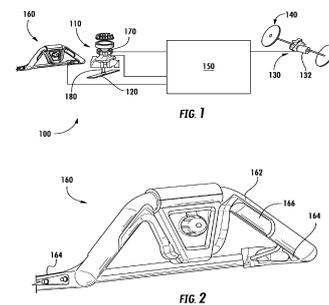
Inventor: Andrew E., Bejcek, Mebane, US; Vincent Andrew, Prinzo, Hillsborough, US

Prio:

Appl.No: US14192560

IPC: A01D 34/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 5 US 2015/0237797 A1



Blade Rotor for a Mower and Mower Having Such a Blade Rotor

A blade rotor includes a mower disk, at least one mowing blade, at least one bearing pin mounted on the mower disk for pivotable mounting of the mowing blade, and a spring plate arranged on the mower disk for retaining the mowing blade on the bearing pin. In order to facilitate maintenance work when replacing the bearing pin, the invention proposes to provide a mounting hole in or on the mower disk, into which mounting hole the bearing pin can be screwed from a side of the mower disk facing away from the spring plate, wherein a threaded region and a retaining region are formed on the bearing pin, and the retaining region can be introduced through the mounting hole and brought into engagement with the spring plate when the bearing pin is screwed in.

Publication: [US 20150237798 A1 20150827](#)

Applicant: DEERE & COMPANY, Moline, US

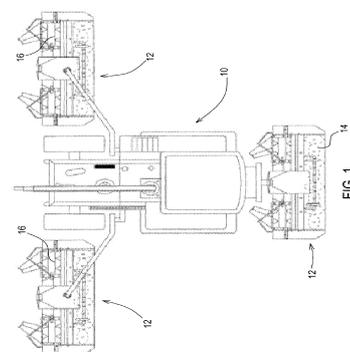
Inventor: JONATHAN, LEBEAU, DIJON, FR; HEINRICH, TEPE, GRAY, FR; LIONEL, GUIET, GRAY, FR

Prio: DE 20140226 102014203486.8

Appl.No: US14623776

IPC: A01D 34/73 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 5 US 2015/0237798 A1



HYDRAULIC SYSTEM FOR A HEADER OF AN AGRICULTURAL HARVESTER

A hydraulic system for use with an agricultural harvester header is provided. The hydraulic system includes a reversible hydraulic pump that drives a reversible hydraulic motor in a forward or harvesting direction and a reverse or header cleaning direction. The system can further include a second reversible pump similarly driving a second reversible hydraulic motor in forward and reverse directions. The pumps and motors can be used to operate various header implements, e.g., the first pump and motor may be used to operate at least a crop cutting knife and the second pump and motor can be used to operate at least one conveyor. The pumps and motors operate within hydraulic circuits which share their hydraulic fluid with the harvester's hydraulic fluid reservoir, thereby reducing system weight, complexity and maintenance requirements.

Publication: [US 20150237799 A1 20150827](#)

Applicant: CNH AMERICA LLC, New Holland, US; CNH AMERICA LLC, New Holland, US

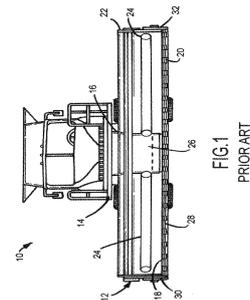
Inventor: Jeffrey C., Trowbridge, Stevens, US

Prio:

Appl.No: US14189483

IPC: A01D 41/14 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 12 US 2015/0237799 A1



SYSTEM FOR COLLECTING LAWN WASTE

A lawn waste collection system is designed to be removably coupled to a side-discharge, riding lawn mower in order to assist in the collection of leaves. The collection system includes an oversized collection bag for retaining a large quantity of lawn waste, an adapter kit for connecting the collection bag to the mower, and a shield coupled to the mower for supporting and protecting the collection bag. The adapter kit includes a multi-sectioned chute, which establishes a discharge communication path between the mower and the collection bag, and a frame for retaining the chute, collection bag, and shield. As a feature of the invention, the chute includes a primary section comprising a flexible outer layer, which universally connects to a wide variety of mower blade decks over the discharge exit port, and an initially planar, rigid inner layer affixed to the outer layer to provide structural reinforcement,

Publication: [US 20150237800 A1 20150827](#)

Applicant: Damon H., DeHart, Bedford, US

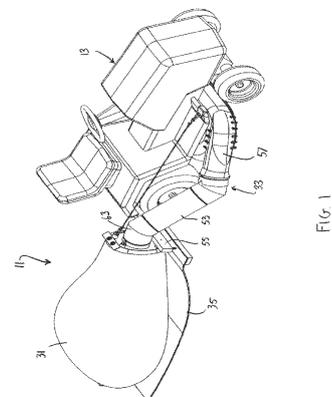
Inventor: Damon H., DeHart, Bedford, US

Prio:

Appl.No: US14192030

IPC: A01D 43/063 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 15 US 2015/0237800 A1



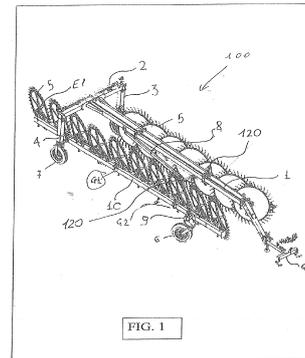
SWATHER WITH A SINGLE OR DOUBLE RAKING FRAME, DEVICE FOR ARMS WITH WHEEL RAKES AND CORRESPONDING WHEEL RAKES

A swather having a horizontal bar with a device for connection to a towing vehicle and a generally horizontal bar, transverse to the first one, each end of which is associated with a generally vertical member bearing a wheel. The assembly of the transverse bar and the vertical members being associated with generally horizontal long arms directed toward a first end of the first horizontal bar and pivotally connected to the transverse bar or the vertical members, so that the arms, when extended to a working position, provide a V-shaped or Y-shaped configuration. Each arm is equipped with a pivoting wheel with tyre at its end remote from the transverse bar, or distal end, and with wheel rakes. At least the pivoting wheels with tyres are equipped with shock absorbing means capable of attenuating impulsive loads due to impact of the wheels against ground irregularities.

Publication: [US 20150237801 A1 20150827](#)

Applicant: ENOAGRICOLA ROSSI S.R.L., Perugia, IT
Inventor: Adelmo, Giovannini, Perugia (IT), IT
Prio: IT 20120911 PG2012U0000023, IT 20120911 PG2012U0000024, IT 20120911 PG2012U0000025, WO 20150310 PCT/IB2013/058434
Appl.No: US14427011
IPC: A01D 57/28 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 9 US 2015/0237801 A1



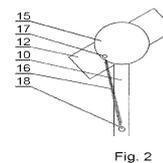
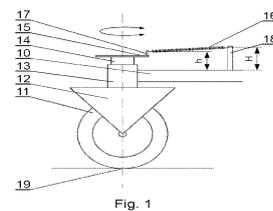
Improved Caster Wheel Assembly of a Pickup for an Agricultural Machine

A caster wheel assembly of a pickup for an agricultural machine, comprising a wheel on a carrier shaft mounted rotatably within a bushing of a pickup arm. The wheel being biased by a spring to be oriented in a predetermined direction relative to the pickup arm. The spring is mounted over the pickup arm between a first arm fixed to the carrier shaft and a second arm fixed to the pickup arm.

Publication: [US 20150237802 A1 20150827](#)

Applicant: CNH INDUSTRIAL AMERICA LLC, New Holland, US
Inventor: Marek, Bucharzewski, Plock, PL; Mariusz, Choluj, Plock, PL; Rafal, Domalewski, Brugge, BE; Robrecht M.K., Dumarey, Gistel, BE; Pawel, Krasniewski, Bielsk, PL; Andrzej, Okrasko, Nowe Gulczewo, PL; Lukasz, Szykowski, Plock, PL; Lukasz, Ziembicki, Ilow, PL
Prio: BE 20121001 2012/0651, WO 20150401 PCT/EP2013/070295
Appl.No: US14432954
IPC: A01D 89/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 2 US 2015/0237802 A1



Transfer Conveyor and Farm Implement For Transporting Same

A system for transferring material from a storage container to a farm implement includes a transfer conveyor transportable on a farm implement including a trailer, a bin mounted on the trailer, a cart conveyor, and a dock mounted on the trailer forwardly or rearwardly of the bin to stow the transfer conveyor. The transfer conveyor includes a wheeled receptacle defining a receiving area with an open top and first and second conveyor portions. The first conveyor portion is disposed within the receiving area and the second conveyor portion pivotable between a storage position in which the second conveyor portion is positioned across the top of the receptacle and an operating position in which the second conveyor portion extends outwardly from the receptacle. The dock is mounted to pivot from a horizontal stowed position disposed across the trailer to a tilted deployed position extending from the trailer to the ground to allow the transfer conveyor to be loaded onto and unloaded from the trailer.

Publication: [US 20150237803 A1 20150827](#)

Applicant: Unverferth Manufacturing Company, Inc.,
Kalida, US; Unverferth Manufacturing
Company, Inc., Kalida, US

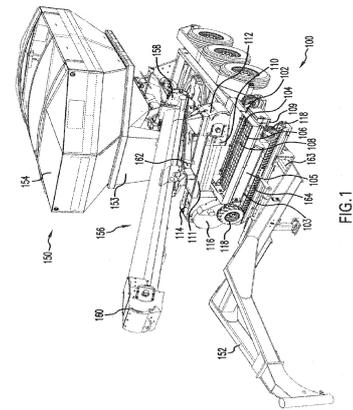
Inventor: Steven R., HILVERS, Delphos, US; Shawn,
GERDEMAN, Kalida, US; David R., SMITH, Fort
Jennings, US

Prio:

Appl.No: US14697326

IPC: A01D 90/02 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 17 US 2015/0237803 A1



Grain Cart With Folding Auger Having Adjustable Elevation

According to one aspect, a cart for transporting and conveying agricultural materials is provided. The cart includes a frame and a plurality of wheels coupled with the frame. The cart further includes a bin supported on the frame and including a plurality of bin walls defining a storage space for an agricultural material. The cart further includes a conveyor assembly having an intake end configured to receive agricultural material from the bin and a discharge end configured to discharge agricultural material, the conveyor assembly including a lower conveyor section, an intermediate conveyor section, and an upper conveyor section. The lower conveyor section includes a lower conveyor housing and a lower conveyor extending within the lower conveyor housing, the intermediate conveyor section includes an intermediate conveyor housing, and the upper conveyor section includes an upper conveyor housing and an upper conveyor extending within the upper conveyor housing. The cart further includes a folding assembly coupled to an end of the intermediate conveyor housing and having a fold axis, the folding assembly configured to move the upper conveyor section between a stored position and an operating position. The cart further includes a tilting assembly coupled to an end of the intermediate conveyor housing and having a tilt axis, the tilting assembly configured to pivot the upper conveyor section relative to the tilt axis when the upper conveyor section is in the operating position.

Publication: [US 20150237804 A1 20150827](#)

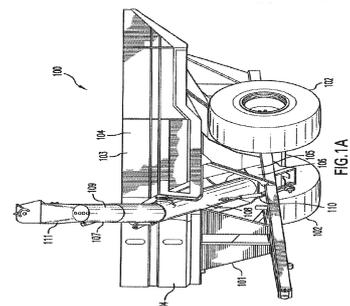
Applicant: Unverferth Manufacturing Company, Inc.,
Kalida, US; Unverferth Manufacturing
Company, Inc., Kalida, US

Inventor: Michael D., VAN MILL, Shell Rock, US; Ronald
J., SCHLIMGEN, Shell Rock, US

Prio:

Appl.No: US14642449

Patent Application Publication Aug. 27, 2015 Sheet 1 of 48 US 2015/0237804 A1



IPC: A01D 90/10 2006.01 (IA)

Stalk reducing bar and mower having a stalk reducing bar

A stalk reducer bar and an assembly that supports, transports, and rotatably drives a stalk reducer bar in typical environments in which an area of vegetation is to be trimmed are provided. The stalk reducer bar reduces the size of cut stalk segments such as grass stalk segments generated during a lawn mowing operation and includes a carrier body. The carrier body includes a further working portion having a plurality of projections. Angular movement of the carrier body in the cutting plane operates to bring the first blade section into stalk cutting engagement with stalks extending from the surface supporting organic matter thereon and operates to bring the plurality of projections of the further working portion into shredding engagement with cut stalks.

Publication: [US 9095091 B1 20150804](#)

Applicant: John Robert, Fogle, Pisgah Forest, US

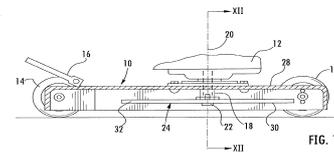
Inventor: John Robert, Fogle, Pisgah Forest, US

Prio:

Appl.No: US14685073

IPC: A01D 34/73 2006.01 (IA)

U.S. Patent Aug. 4, 2015 Sheet 1 of 16 US 9,095,091 B1



Grass catcher apparatus for a riding lawnmower

An apparatus for mounting grass collection bags to a riding lawn mower includes a mounting assembly fixed to a riding lawn mower frame and a lid assembly for carrying removable grass clippings collection bags. The mounting assembly includes slotted brackets that are adapted to receive transverse base pins that are fixed to the lid assembly. An operator may hang the lid assembly by its transverse base pins on the mounting assembly slotted brackets in a hanging position and then rotate the lid assembly up into a raised, operating position. As the lid assembly is rotated to the raised, operating position, a releasable latch mechanism connected to the mounting assembly receives and captures the lid assembly latch pins. With this grass clippings collection unit, a single operator can install or remove the lid assembly, making it possible to rapidly reconfigure the mower for collecting clippings or for not collecting clippings.

Publication: [US 9107343 B1 20150818](#)

Applicant: Excel Industries, Inc., Hesston, US; Thomas J., Gaeddert, Newton, US; Steven P., Tieszen, Newton, US

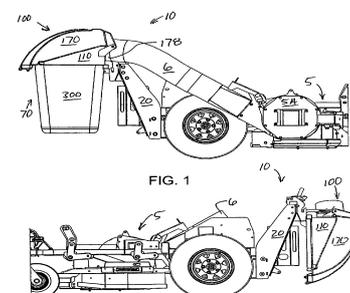
Inventor: Thomas J., Gaeddert, Newton, US; Steven P., Tieszen, Newton, US

Prio:

Appl.No: US13240496

IPC: A01D 43/06 2006.01 (IA)

U.S. Patent Aug. 18, 2015 Sheet 1 of 12 US 9,107,343 B1



Replaceable blade assembly

A replaceable blade assembly includes an arm that may be coupled to a lawn mower. A blade is removably coupled to the arm so the blade may be moved by the arm. A clip is removably coupled to the arm so the clip may retain the blade on the arm.

Publication: [US 9113594 B1 20150825](#)

Applicant: John, Delmont, Columbus, US; Ruth, Delmont, Columbus, US

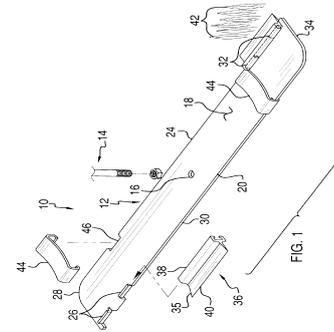
Inventor: John, Delmont, Columbus, US; Ruth, Delmont, Columbus, US

Prio:

Appl.No: US13692267

IPC: A01D 34/73 2006.01 (IA)

U.S. Patent Aug. 25, 2015 Sheet 1 of 4 US 9,113,594 B1



Hay retrieving apparatus

A hay retrieving apparatus for use with a vehicle is disclosed herein. The hay retrieving apparatus may include a base frame, a rear wall frame coupled to the base frame, carriage assembly, and a fork assembly coupled to carriage assembly. The base frame and carriage assembly are configured to pivotally couple to a vehicle frame and move from horizontal positions to vertical positions. The carriage assembly is also configured to pivot with the base frame, pivot independent of the base frame, or both. The fork assembly is designed to move from one end of the carriage end to the opposing end of the carriage assembly during operation. The fork assembly includes two arms that are movable to increase and decrease the distance between the two arms.

Publication: [US 9113597 B1 20150825](#)

Applicant: Santiago Ponce, Gonzalez, Goodyear, US

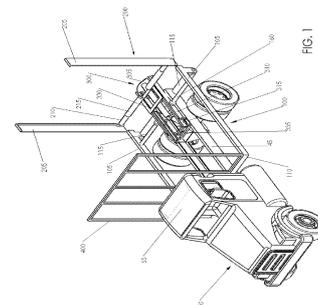
Inventor: Santiago Ponce, Gonzalez, Goodyear, US

Prio:

Appl.No: US13745531

IPC: A01D 87/12 2006.01 (IA)

U.S. Patent Aug. 25, 2015 Sheet 1 of 10 US 9,113,597 B1



LAWN MOWER ROBOT AND METHOD OF CONTROLLING THE SAME

Disclosed herein are a lawn mower robot and a method of controlling the same. The method includes receiving a signal generated by a boundary wire, determining a maximum value and a minimum value of the received signal for a predetermined time, and determining a position of a main body, which receives the signal, relative to the boundary wire by identifying and comparing the number of upper inflection portions present within a constant maximum value range and the number of lower inflection portions present within a constant minimum value range for the predetermined time, wherein each of the upper inflection portions means a portion at which a waveform of the signal is changed from ascending to descending and each of the lower inflection portions means a portion at which a waveform of the signal is changed from descending to ascending.

Publication: [EP 2901840 A1 20150805](#)

Applicant: LG Electronics Inc., 128, Yeoui-daero
Yeongdeungpo-gu, Seoul 150-721, KR

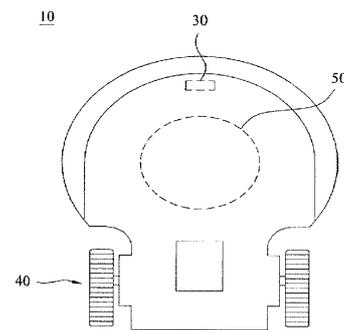
Inventor: Nam, Dongkyun, 51, Gasan digital 1-ro,
Geumcheon-gu, 153-802 Seoul, KR; W00,
Jongjin, 51, Gasan digital 1-ro, Geumcheon-gu,
153-802 Seoul, KR; Kim, Dongseong, 51, Gasan
digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR

Prio: KR 20140129 20140011044

Appl.No: EP14177619

IPC: A01D 34/00 2006.01 (IA)

FIG. 1



MOWING DEVICE FOR A FRONT MOUNTING ON AN AGRICULTURAL TOWING VEHICLE

Mähwerk (10) für einen Frontanbau an ein landwirtschaftliches Zugfahrzeug, mit einem Anbaurahmen (11), über welchen das Mähwerk an ein Fronthubwerk eines landwirtschaftlichen Zugfahrzeugs ankoppelbar ist, und mit einem Tragrahmen (12), an welchem eine Mäheinheit (13) angreift, wobei der Tragrahmen (12) und der Anbaurahmen (11) einerseits über einen Schwenkrahmen (18) und andererseits über einen Lenker (19) unter Ausbildung einer trapezartigen Viergelenkskinematik derart miteinander gekoppelt sind, dass der Schwenkrahmen (18) über eine erste Schwenkachse (20) am Tragrahmen und über eine zweite Schwenkachse (21) am Anbaurahmen angreift, und dass der Lenker (19) über eine dritte Schwenkachse (22) am Tragrahmen und über eine vierte Schwenkachse (23) am Anbaurahmen angreift, wobei die trapezartige Viergelenkskinematik derart ausgebildet ist, dass eine sich durch die erste Schwenkachse und die zweite Schwenkachse erstreckende erste Gerade (24) und eine sich durch die dritte Schwenkachse und die vierte Schwenkachse erstreckende zweite Gerade (25) in einem Momentanpol (26) schneiden, der dann, wenn das Mähwerk an einen Frontanbau eines landwirtschaftlichen Zugfahrzeugs gekoppelt ist, in allen Positionen der Viergelenkskinematik hinter dem Mähwerk und oberhalb einer zu mähenden Bodenoberfläche liegt.

Publication: [EP 2901841 A1 20150805](#)

Applicant: CLAAS Saulgau GmbH, Zeppelinstrasse 2,
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Saulgau, DE

Prio: DE 20140131 102014101232

Appl.No: EP15152480

IPC: A01D 34/66 2006.01 (IA)

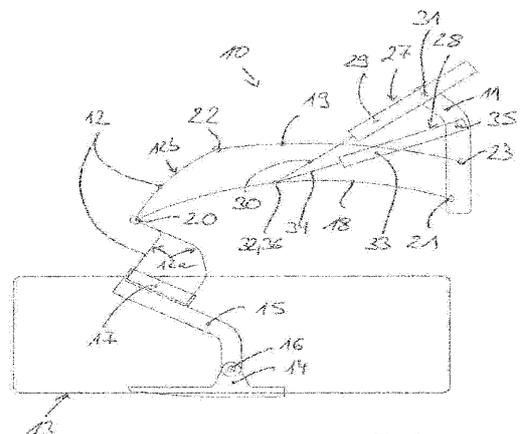


Fig. 1

CONVEYOR DEVICE WHICH CAN BE ATTACHED BY DRIVE CONNECTION AT THE FRONT END OF A MANUALLY GUIDED WORK MACHINE COMPRISING A DRIVEN AXLE

An der Frontseite einer an Holmen (5) manuell lenkbar geführten, eine angetriebene Fahrachse aufweisenden Arbeitsmaschine (3) anbaubare, mit einer Zapfwelle der Arbeitsmaschine (3) antriebsverbindbare Fördereinrichtung (1), die eine gemähtes Halmgut (12) mittels angetriebenen Förderzinken (10) von der Bodenoberfläche (11) aufnehmende und weitertransportierende Aufnahmevorrichtung (6) aufweist, wobei die an der Arbeitsmaschine (3) frontseitig mittels Gestell (2) und vor der angetriebenen Fahrachse befestigte Aufnahmevorrichtung (6) durch einen quer zur Fortbewegungsrichtung (F) sich erstreckenden und durch die Zapfwelle angetriebenen Zinkenrotor (7) ausgestattet ist, der durch an einer Welle (8) nebeneinander angeordnete, gemeinsam und in Bodennähe gleichsinnig zur Fortbewegungsrichtung (F) drehende Zinkenräder (9) mit abstehenden Förder- oder Arbeitszinken (10) ausgebildet und auf der Bodenoberfläche (11) abgestützt ist.

Publication: [EP 2901842 A1 20150805](#)

Applicant: Rapid Technic AG, Industriestrasse 7, 8956 Killwangen, CH

Inventor: Hirschi, Michael, Brammer, CH-3555 Trubschachen, CH

Prio:

Appl.No: EP15000286

IPC: A01D 78/02 2006.01 (IA)

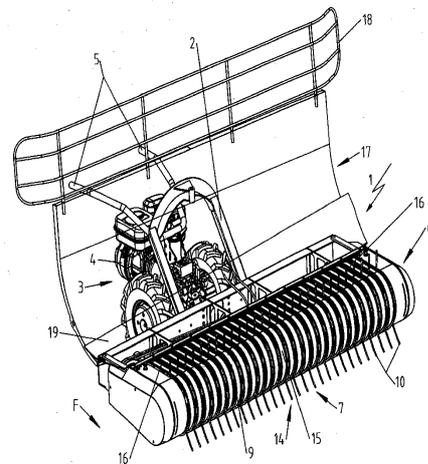


Fig.1

Crop collecting device

Die Erfindung betrifft einen Erntegutempfänger (10) umfassend eine elastische Welle (12), die über wenigstens ein Fortbewegungsmittel (16a, 16b, 16c) gegenüber einem Rahmen (11, 52) höhenbeweglich gelagert über eine Bodenkontur geführt wird, wobei die elastische Welle (12) wenigstens ein Aufnahmewerkzeug (14) trägt, wobei eine Lagerung der elastischen Welle (12) vorgesehen ist und wenigstens ein Lagerelement (20a, 20b, 30) mit dem Fortbewegungsmittel (16a, 16b, 16c) verbunden ist. Die Erfindung zeichnet sich dadurch aus, dass das Lagerelement (20a, 20b, 30) derart ausgestaltet ist, dass es wenigstens zwei in Axialrichtung beabstandete Lagerpunkte (21, 23, 31, 33) aufweist, die steif miteinander verbunden sind.

Publication: [EP 2901843 A1 20150805](#)

Applicant: Reiter, Thomas, Straßfeld 46, 4707 Schlüsselberg, AT

Inventor: Reiter, Thomas, Straßfeld 46, 4707 Schlüsselberg, AT

Prio: DE 20140204 102014101370

Appl.No: EP15153837

IPC: A01D 89/00 2006.01 (IA)

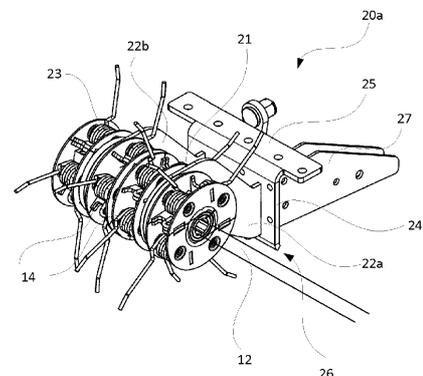


Fig. 2

Crop collecting device

Die Erfindung betrifft einen Erntegutaufnehmer (10) mit einem Tragelement (12) und einer Welle (26), welche Aufnahmewerkzeuge (28) trägt, wobei wenigstens zwei bewegliche Fortbewegungsmittel vorgesehen sind, die in ihrer Vertikalrichtung veränderlich gegenüber dem Tragelement (12) gelagert sind und die elastische Welle (26) tragen. Die Erfindung zeichnet sich dadurch aus, dass eine Strebe (18, 20) vorgesehen ist, welche mittels eines Strebenlagers (16, 22) drehbar am Tragelement (12) derart gelagert ist, dass die Lagerachse orthogonal zur Achse der Welle, liegt und das Tragelement (12) mit den beweglichen Fortbewegungsmitteln (30, 32, 34) verbindet, wobei das Strebenlager in Axialrichtung der Strebe (18, 20) zwischen den beweglichen Fortbewegungsmitteln (30, 32, 34) angeordnet ist.

Publication: [EP 2901844 A1 20150805](#)

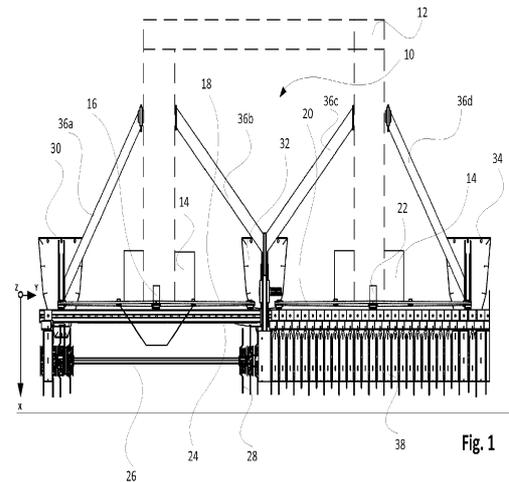
Applicant: Reiter, Thomas, Straßfeld 46, 4707 Schlüsselberg, AT

Inventor: Reiter, Thomas, Straßfeld 46, 4707 Schlüsselberg, AT

Prio: DE 20140204 102014101371

Appl.No: EP15153840

IPC: A01D 89/00 2006.01 (IA)



AGRICULTURAL MANAGEMENT SYSTEM AND CROP HARVESTER

An agricultural work management system includes: a data input unit (41) configured to receive, from an agricultural crop harvester (1), harvesting position data indicating a harvesting work position as agricultural land information, harvest amount data indicating a harvest amount of the agricultural crop harvested in the agricultural land, and quality data indicating the quality thereof as agricultural crop information; a database server (6) configured to store the agricultural land information and the agricultural crop information such that they can be associated with each other; an agricultural work evaluation unit (51) configured to perform agricultural work evaluation on the agricultural land based on the agricultural land information and the agricultural crop information; and a data output unit (42) configured to send out the agricultural work evaluation data generated by the agricultural work evaluation unit.

Publication: [EP 2902957 A1 20150805](#)

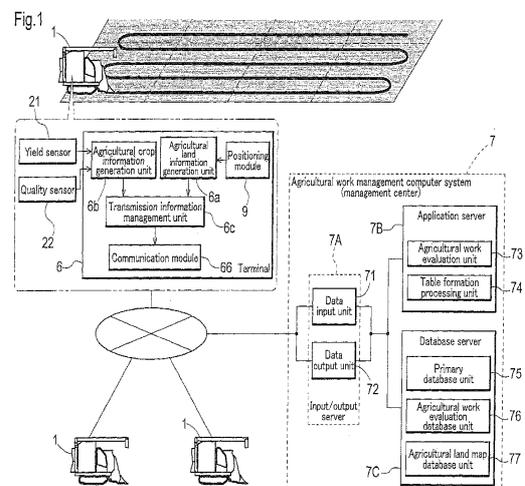
Applicant: Kubota Corporation, 2-47, Shikitsu Higashi 1-chome Naniwa-ku, Osaka-shi, Osaka 556-8601, JP

Inventor: SEKI, Mitsuhiro, c/o KUBOTA CORPORATION Sakai Seizosho 64 Ishizukitamachi Sakai-ku, Sakai-shi Osaka 590-0823, JP; TAKAHARA, Kazuhiro, c/o KUBOTA CORPORATION Sakai Seizosho 64 Ishizukitamachi Sakai-ku, Sakai-shi Osaka 590-0823, JP

Prio: JP 20120926 2012213253, JP 20130326 2013064837

Appl.No: EP13841972

IPC: G06Q 50/02 2012.01 (IA)



GROUND WORK VEHICLE, GROUND WORK VEHICLE MANAGEMENT SYSTEM, AND GROUND WORK INFORMATION DISPLAY METHOD

A work device (1) that performs work using a work unit (1a) while traveling, or a management system in which the work device (1) is incorporated includes: a travel information generation unit (31) that, over time, generates travel information indicating a travel state; a work information generation unit (41) that, over time, generates work information indicating a work state for the work unit (1a); a travel evaluation unit (90c) that, based on the travel information and the work information, divides the traveling of the work device into non-work traveling and actual work traveling; and a data visualization unit (90d) that generates visual data according to which the result of the division performed by the travel evaluation unit (90c) is made visible.

Publication: [EP 2902984 A1 20150805](#)

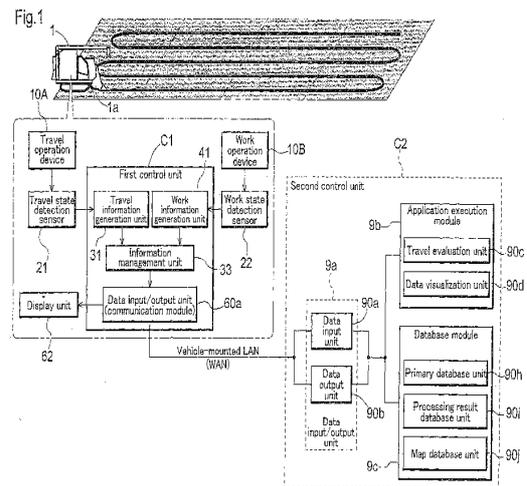
Applicant: Kubota Corporation, 2-47, Shikitsu Higashi 1-chome Naniwa-ku, Osaka-shi, Osaka 556-8601, JP

Inventor: TANABE, Aya, c/o KUBOTA CORPORATION Sakai Seizosho 64 Ishizukitamachi Sakai-ku, Sakai-shi Osaka 590-0823, JP; TAKAHARA, Kazuhiro, c/o KUBOTA CORPORATION Sakai Seizosho 64 Ishizukitamachi Sakai-ku, Sakai-shi Osaka 590-0823, JP; MATSUFUJI, Kazunori, c/o KUBOTA CORPORATION Sakai Seizosho 64 Ishizukitamachi Sakai-ku, Sakai-shi Osaka 590-0823, JP; INOUE, Hirotsugu, c/o KUBOTA CORPORATION Sakai Seizosho 64 Ishizukitamachi Sakai-ku, Sakai-shi Osaka 590-0823, JP

Prio: JP 20120926 2012213254, JP 20130326 2013064834

Appl.No: EP13841175

IPC: G08G 1/00 2006.01 (IA)



Work device with a coupling

Die Erfindung betrifft ein Arbeitsgerät mit einem Antriebsmotor (2), der über eine Kupplung (11) ein Werkzeug (10) antreibt, wobei die Kupplung (11) um eine Drehachse (54) drehbar ist und ein erstes Kupplungsteil (12) und ein zweites Kupplungsteil (13) umfasst, und durch eine Verschiebung des ersten Kupplungsteils (12) relativ zum zweiten Kupplungsteil (13) entlang der Drehachse (54) einkuppelt. Das erste Kupplungsteil (12) ist durch eine Betätigungseinrichtung (19) in Richtung der Drehachse (54) verschiebbar. Die Betätigungseinrichtung (19) umfasst ein feststehendes Teil (20) und ein relativ zum feststehenden Teil (20) bewegtes Teil (21), und das bewegte Teil (21) ist mit dem ersten Kupplungsteil (12) in Richtung der Drehachse (54) wirkverbunden. Die Betätigungseinrichtung (19) umfasst eine Verschiebekulisse (55), die durch eine Drehung des bewegten Teils (21) um die Drehachse (54) relativ zum feststehenden Teil (20) das bewegte Teil (21) in Richtung der Drehachse (54) bewegt.

Publication: [EP 2905493 A1 20150812](#)

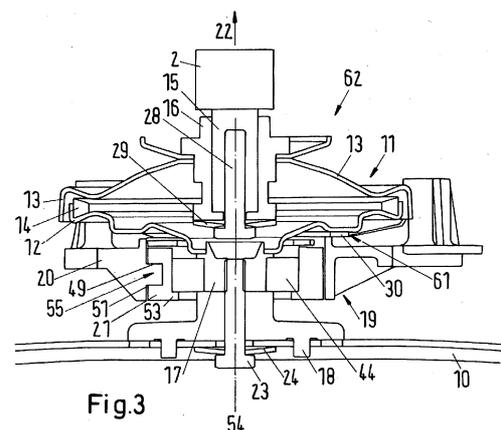
Applicant: Viking GmbH, Hans-Peter-Stihl-Strasse 5, 6336 Langkampfen, AT

Inventor: Gottinger, Clemens, Baumgarten 58, 6320 Angerberg, AT; Duregger, Georg, Unterdorf 49, 6342 Niederndorf, DE

Prio:

Appl.No: EP14000458

IPC: F16D 23/12 2006.01 (IA)



Moisture sensor for a forage harvester

A moisture sensor (100) for a forage harvester is described, the moisture sensor comprising a sensing device (110/400/600), a processing unit (130) and an output terminal (140). The sensing device is configured to sense an electrical characteristic of a harvested crop and generate a sensor signal (120/440) representative of the electrical characteristic. The processing unit (130) is configured to receive the sensor signal from the sensing device (110/400/600) and to process the sensor signal (120/440) to derive a moisture level of the harvested crop. The output terminal (140) is connected to the processing unit (130) for outputting an output signal representative of the moisture level as derived by the processing unit. The sensing device (110/400/600) is further configured to operate in one of a plurality of different operating modes when sensing the electrical characteristic, each operating mode having a different moisture level sensitivity characteristic, and to receive an operating parameter and to select an operating mode of the plurality of operating modes for the sensing device (110/400/600), based on the operating parameter.

Publication: [EP 2907372 A1 20150819](#)

Applicant: CNH Industrial Belgium nv, Leon Claeysstraat 3A, 8210 Zedelgem, BE

Inventor: Delie, Dries, Langemarkstraat 9, 8920 Poelkapelle, BE; Verhaeghe, Didier, Meenseweg 229, 8900 Ieper, BE; Debilde, Benoit, Stoofstraat 2a, 8000 Brugge, BE; Paquet, Bert, Katelijnestraat 7 / 0201, 8000 Brugge, BE

Prio: BE 20140217 201400105

Appl.No: EP15155465

IPC: A01D 41/127 2006.01 (IA)

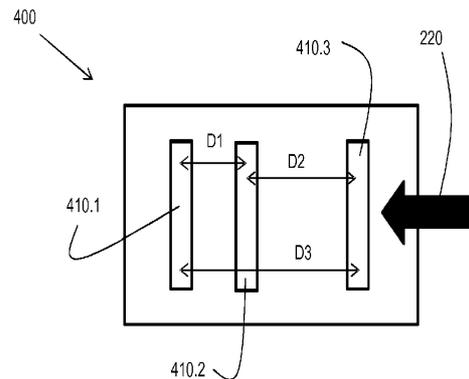


Figure 4

HYDRAULIC SYSTEM FOR A HEADER OF AN AGRICULTURAL HARVESTER

A hydraulic system (30) for use with an agricultural harvester header (12) is provided. The hydraulic system (30) includes a reversible hydraulic pump that drives a reversible hydraulic motor in a forward or harvesting direction and a reverse or header (12) cleaning direction. The system (30) can further include a second reversible pump similarly driving a second reversible hydraulic motor in forward and reverse directions. The pumps and motors can be used to operate various header (12) implements, e.g., the first pump and motor may be used to operate at least a crop cutting knife and the second pump and motor can be used to operate at least one conveyor. The pumps and motors operate within hydraulic circuits which share their hydraulic fluid with the harvester's hydraulic fluid reservoir (42), thereby reducing system weight, complexity and maintenance requirements.

Publication: [EP 2910101 A1 20150826](#)

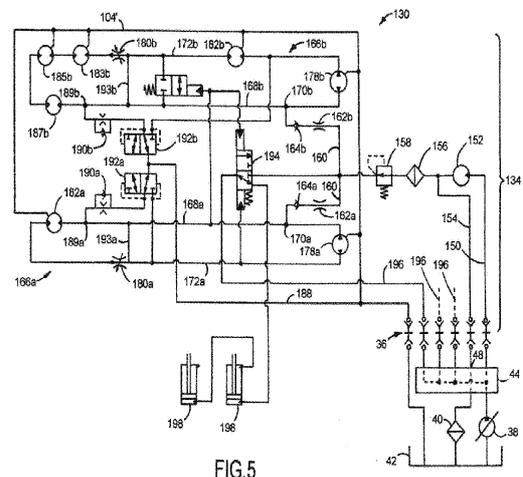
Applicant: CNH Industrial Belgium nv, Leon Claeysstraat 3A, 8210 Zedelgem, BE

Inventor: Trowbridge, Jeffrey C., 293 Stevens Rd., Stevens, Pennsylvania 17578, US

Prio: US 20140225 201414189483

Appl.No: EP15155905

IPC: A01D 41/14 2006.01 (IA)



Device for picking fruit

L'invention se rapporte à un dispositif pour la cueillette de fruits comprenant un châssis (14) mobile selon une direction de déplacement, une rampe (22) supporté par le châssis (14) et qui comprend un plan incliné (PI) sur lequel des conteneurs (24) sont alignés selon la direction de déplacement, une série de paliers située d'un côté de ladite rampe (22) et une série de paliers située de l'autre côté de ladite rampe (22). Ce dispositif se caractérise en ce que le plan incliné (PI) est proche du sol à l'avant du dispositif et distant du sol à l'arrière du dispositif, et en ce que la rampe (22) comprend des moyens pour immobiliser les conteneurs (24) selon des positions stables (P1 à P3) et des moyens pour déplacer les conteneurs (24) d'une position stable à l'autre en remontant le plan incliné (PI).

Publication: [EP 2910102 A1 20150826](#)

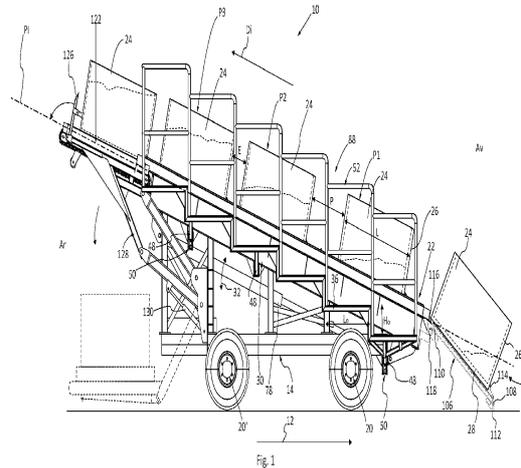
Applicant: Cantet, 3 Lieudit La Renolière des Bois, 79240 Vernoux-en-Gatine, FR

Inventor: Cantet, Philippe, 5 Lieudit La Renolière des Bois, 79240 VERNOUX-EN-GATINE, FR

Prio: FR 20140225 1451484

Appl.No: EP15305282

IPC: A01D 46/20 2006.01 (IA)



Cutting assembly for an agricultural harvester

Schneidwerk (10) für eine Erntemaschine 1, aufweisend: eine Fördertrommel (20), die drehbar gelagert ist und die um einen Außenumfang (21) dieser verteilt eine Mehrzahl von nach radial außen vorstehenden Förderelementen (24) aufweist, welche einen Hüllzylinder (26) der Fördertrommel definieren, ein Leitelement (31), das sich so über eine Länge des Hüllzylinders und bogenförmig um einen Sektor eines Außenumfangs des Hüllzylinders erstreckt, dass zwischen der Fördertrommel und dem Leitelement ein Förderkanal (11) für Erntegut gebildet ist, und eine Schneideinheit (40) mit einem Schneidmesser (41), das sich in einer Schneidposition von einer der Fördertrommel abgewandten Seite des Leitelements durch eine Öffnung (32) in dem Leitelement hindurch in den Förderkanal erstreckt, um das Erntegut zu schneiden. Das Schneidmesser greift in der Schneidposition an einem in den Förderkanal hineinragenden Längsende (41a) dessen in die Öffnung im Leitelement ein, so dass dieses Längsende in einer Längsrichtung der Fördertrommel beidseitig vom Leitelement abgestützt ist. Dadurch hat das Schneidmesser eine höhere Stabilität gegen Verformungen und somit das Schneidwerk im Ergebnis eine erhöhte Betriebszuverlässigkeit.

Publication: [EP 2910103 A1 20150826](#)

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Prio: DE 20140225 102014102391

Appl.No: EP15154943

IPC: A01D 90/04 2006.01 (IA)

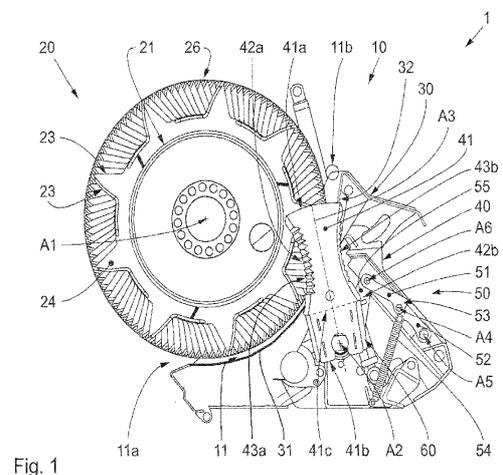


Fig. 1

Cutting assembly for an agricultural harvester

Schneidwerk (10) für eine Erntemaschine (1), mit einer Fördertrommel (20), die um eine in einer Längsrichtung dieser verlaufende Drehachse (A1) drehbar gelagert ist, einer Mehrzahl von Schneidmessern (40), die um eine Schwenkachse (A2) aus einer Schneidposition, in der die Schneidmesser in einen an der Fördertrommel gebildeten Förderkanal (11) für Erntegut hineingestellt sind, jeweils in eine Schwenkrichtung weg von der Fördertrommel geschwenkt werden können, und Vorspannmitteln (50), welche eingerichtet sind, für die Schneidmesser jeweils eine Vorspannkraft bereitzustellen, welche das jeweilige Schneidmesser in eine Schwenkrichtung zur Schneidposition hin wirkend vorspannt, und eingerichtet sind, eine Größe der Vorspannkraft zu verändern. Gemäß der Erfindung weisen die Vorspannmittel Kräfteinstellmittel (80) auf, die so eingerichtet sind, dass die Größe der Vorspannkraft variabel einstellbar ist. Dadurch weist das Schneidwerk verbesserte Betriebseigenschaften auf.

Publication: [EP 2910104 A1 20150826](#)

Applicant: CLAAS Saulgau GmbH, Zeppelinstrasse 2, 88348 Bad Saulgau, DE

Inventor: Loebe, Stefan, Kolbenäcker 31, 88348 Bad Saulgau, DE; Birkhofer, Stefan, Pfullendorfer Straße 18, 78333 Stockach, DE

Prio: DE 20140225 102014102392

Appl.No: EP15154944

IPC: A01D 90/04 2006.01 (IA)

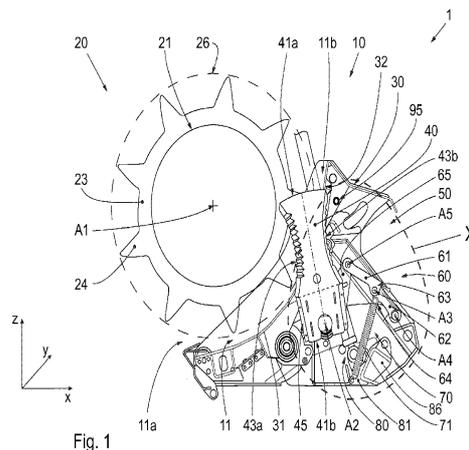


Fig. 1

Cutting blade overload safety device

Schneidmesser-Überlastsicherung (50) für ein Schneidwerk (10) einer Erntemaschine (1), mit einer Hebelanordnung zum Zusammenwirken mit einem Schneidmesser (40) des Schneidwerks, wobei die Hebelanordnung in eine Stützstellung, um das Schneidmesser in einer Schneidposition abzustützen, und gegen eine Vorspannkraft aus der Stützstellung heraus stellbar ist, um das Schneidmesser bei einer auf dieses einwirkenden Überlast aus der Schneidposition ausweichen zu lassen. Gemäß der Erfindung ist die Hebelanordnung als Kniehebelmechanismus (60) mit zwei Kniehebeln (61, 62) ausgebildet, die über ein Knickgelenk (63) an jeweiligen Längsenden dieser schwenkbar miteinander verbunden sind, wobei das Knickgelenk in einer Gestrecktstellung der Kniehebel unter die Vorspannkraft realisierender Vorspannung auf Anschlag stellbar ist, so dass die Stützstellung hergestellt ist, und die Kniehebel durch gegen die Vorspannung vom Anschlag weg im Knickgelenk Einknicken des Kniehebelmechanismus aus der Gestrecktstellung herausstellbar sind, um das Ausweichen des Schneidmessers zuzulassen.

Publication: [EP 2910105 A1 20150826](#)

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Prio: DE 20140225 102014102393

Appl.No: EP15154945

IPC: A01D 90/04 2006.01 (IA)

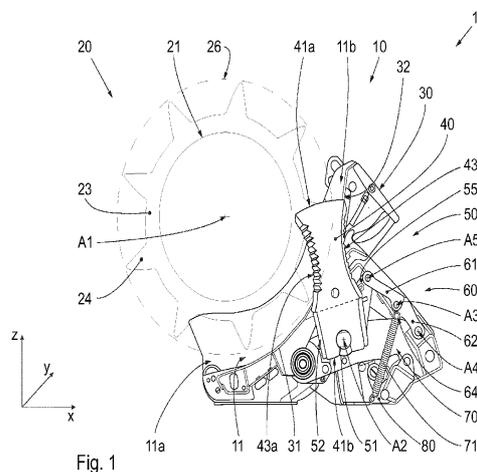


Fig. 1

Cutting assembly for an agricultural harvester

Schneidwerk (10) für eine Erntemaschine (1), aufweisend: einen ersten Schneidwerksteil (20), der ein Gehäuse (21) und eine Fördertrommel (22) hat, die um eine Drehachse (A1) drehbar im Gehäuse gelagert ist; einen zweiten Schneidwerksteil (30), der ein Leitelement (32) hat, das sich um die Fördertrommel erstreckt, sodass zwischen dieser und dem Leitelement ein Förderkanal (11) für Erntegut gebildet ist, und der um eine erste Schneidwerksschwenkachse (A2) schwenkbar am ersten Schneidwerksteil (20) gelagert ist, sodass als eine erste Schwenkung das Leitelement (32) radial von der Fördertrommel wegschwenkbar ist; einen dritten Schneidwerksteil (40), der eine Mehrzahl von sich in den Förderkanal erstreckenden Schneidmessern (42) und eine Lagerungseinrichtung (44) für die Schneidmesser (42) hat und der um eine zweite Schneidwerksschwenkachse (A4) schwenkbar am zweiten Schneidwerksteil (30) gelagert ist, sodass als eine zweite Schwenkung die Lagerungseinrichtung (44) vom Leitelement (32) wegschwenkbar ist; und eine Schalteinrichtung (50), die selektiv einen ersten Schaltzustand, in dem die erste Schwenkung gesperrt ist und die zweite Schwenkung ermöglicht ist, einen zweiten Schaltzustand, in dem die erste und die zweite Schwenkung ermöglicht sind, und einen dritten Schaltzustand, in dem die erste Schwenkung ermöglicht ist und die zweite Schwenkung gesperrt ist, herstellen kann.

Publication: [EP 2910106 A1 20150826](#)

Applicant: CLAAS Saugau GmbH, Zeppelinstrasse 2,
88348 Bad Saugau, DE

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78333 Stockach, DE

Prio: DE 20140225 102014102394

Appl.No: EP15154946

IPC: A01D 90/04 2006.01 (IA)

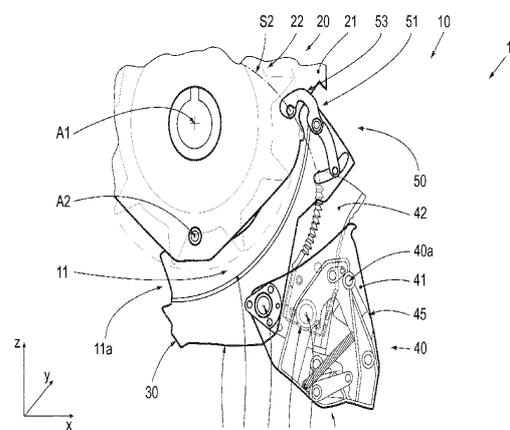


Fig. 3

Feed conveyor/rock trap and header drive for an agricultural harvesting machine.

Eine landwirtschaftliche Erntemaschine (10) mit: - einem Hauptrahmen (24); - einer Drehantriebs-Leistungsquelle (22), die auf dem Hauptrahmen (24) befestigt ist; - eine Zuführungseinrichtung (16), die auf dem Hauptrahmen (24) für eine Aufwärts und Abwärts-Schwenkbewegung gegenüber diesem um eine allgemein horizontale Schwenkachse (34) befestigt ist; und - einen Antrieb, der Folgendes umfasst: - ein erstes Getriebe (62), das auf der Zuführungsvorrichtung (16) für eine Schwenkbewegung mit dieser befestigt ist und einen in Drehung versetzbaren Eingang (60) zum Empfang von Leistung von der Drehantriebs-Leistungsquelle (22) sowie zumindest einen in Drehung versetzbaren Ausgang (64, 66, 68) aufweist; und - eine Mehrzahl von Antriebswellen (30, 52), die drehbar in Ende-zu-Ende-Beziehung miteinander zwischen der Drehantriebs-Leistungsquelle (22) und dem in Drehung versetzbaren Eingang (60) des ersten Getriebes (62) verbunden sind, wobei eine der Antriebswellen (52) durch Universalgelenke (56, 58) an entgegengesetzten Enden hiervon mit einer anderen der Antriebswellen (30) beziehungsweise dem Eingang (60) des ersten Getriebes (62) drehbar verbunden ist, dadurch gekennzeichnet, dass dieser eine der Antriebswellen (52) äquidistant zwischen beiden Enden hiervon einen axialen Mittelteil (54) aufweist, der im Wesentlichen mit der Schwenkachse (34) zusammenfallend angeordnet ist.

Publication: [EP 1382237 B1 20150812](#)

Applicant: CNH Industrial Belgium nv, Leon Claeyssstraat
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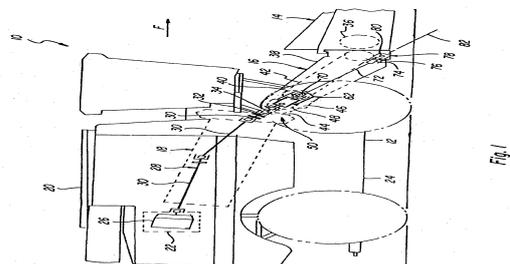


Fig. 1

Appl.No: EP3102044
IPC: A01D 69/00 2006.01 (IA)

Chaff discharge device for a combine harvester

Ein Mähdrescher, der an seinem hinteren Ende getrennte Spreu- und Ernterest-Auswurföffnungen (10, 12), einen Häcksler (16) zum Häckseln des Ernterestes in kleine Stücke, wobei der Häcksler (16) eine erste Öffnung aufweist, durch die der Ernterest in den Häcksler (16) eintreten kann, und eine Spreu-Streuvorrichtung (14) zum Verstreuen der aus der Spreu-Auswurföffnung (10) austretende Spreu aufweist, wobei die Spreu-Auswurfvorrichtung (14) in: - eine erste Position (14a), in der die Spreu auf dem Boden fallen kann, ohne durch die Spreu-Streuvorrichtung zu laufen, so dass sie in einem Streifen hinter dem Mähdrescher liegt; - eine zweite Position (14), in der die Spreu durch die Spreu-Auswurfvorrichtung läuft und seitlich von dem Mähdrescher fort verstreut wird; und - eine dritte Position (14b) verschwenkbar ist, und dadurch gekennzeichnet, dass, wenn die Spreu-Auswurfvorrichtung (14) sich in dritten Position (14b) befindet, die die Spreu-Auswurfvorrichtung (14) verlassende Spreu so gelenkt wird, dass sie in den Häcksler (16) durch eine zweite Öffnung eintritt, die von der ersten Öffnung verschieden ist; wobei die dritte Position (14b) die Spreu-Auswurfvorrichtung (14) benachbart zu der zweiten Öffnung bringt und es der Spreu ermöglicht, ihr Moment beizubehalten, während es in den Häcksler (16) eintritt.

Publication: [EP 1461994 B1 20150826](#)

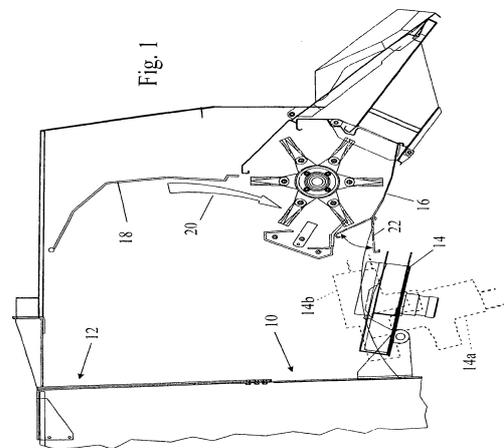
Applicant: CNH Industrial Belgium nv, Leon Claeyssstraat
3A, 8210 Zedelgem, BE

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Prio: GB 20030307 3052511

Appl.No: EP4100797

IPC: A01F 12/40 2006.01 (IA)



Apparatus for shredding a material

Vorrichtung (10) zum Zerkleinern eines Materials, insbesondere eines Pflanzenmaterials, vor allem Grasmaterial, wobei die Vorrichtung einen Rotor (18) umfasst, der mit einer Vielzahl an Zerkleinerungselementen (32) versehen ist, die auf dem Rotor (18) angelenkt sind und mit jeweiligen Schneidmitteln (34) zusammenwirken, um das Material zu zerkleinern, wobei die Vorrichtung dadurch gekennzeichnet ist, dass der Körper (32) des Zerkleinerungselements einen schmalen Gelenkabschnitt (40) und einen breiten Endabschnitt (42), der jeweilige sich quer über die jeweiligen seitlichen Kanten (40a, 40b) des schmalen Gelenkabschnitts (40) des Zerkleinerungselements erstreckende Querenden (42a, 42b) aufweist, umfasst; dass der schmale Gelenkabschnitt des Zerkleinerungselements (32) eine Bohrung (38) aufweist, durch die das Zerkleinerungselement um eine Achse schwenkbar ist, die im Wesentlichen senkrecht zum Körper (32) des Zerkleinerungselements ist; und dass der breite Endabschnitt (42) eine sich quer erstreckende Kante (36) ausbildet, um das am Ende des Körpers (32) bereitgestellte Material einzugreifen und zu zerkleinern.

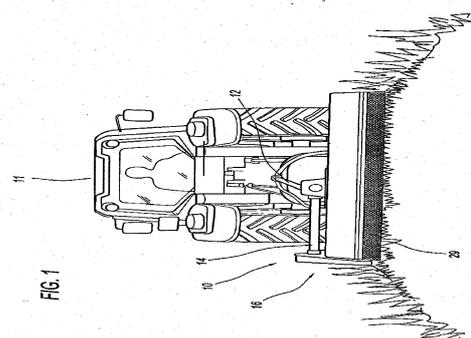
Publication: [EP 1869963 B1 20150805](#)

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Inventor: Rossi, Mario, Via Montello, 15, 40062
Molinella (Bologna), IT

Prio: IT 20060621 BO20060483

Appl.No: EP7011757



IPC: A01D 34/535 2006.01 (IA)

SUGARCANE CUTTING AND TOPPING DEVICE

Abnehmbare Vorrichtung zum Schneiden und Köpfen (1) von Zuckerrohr, umfassend Mittel (2) zur lösbaren Befestigung mit dem Kopf eines Gelenkarmes (3) in der Form eines einstückigen Rahmens (4), der Aufnahmemittel (5) einer Form, die zu auf dem besagten Arm (3) vorgesehenen Mitteln, nämlich Klötzen, ergänzend ist, umfasst, wobei der besagte Rahmen (4) fest mit Mitteln (7) zum Schneiden des besagten Zuckerrohrs verbunden ist, dadurch gekennzeichnet, dass die besagten Schneidmittel (7) einerseits Mittel (8) zum Umschließen des Zuckerrohrs, die als mindestens zwei Klauen (12) ausgestaltet sind, die gelenkig entlang einer Achse (18) senkrecht zum besagten Rahmen (4) sind, so dass sie sich von einer offenen Position in eine geschlossene Position verschieben und so gestaltet sind, dass sie sich zumindest teilweise überlappen, so dass sie einen Raum zum Umschließen des besagten Zuckerrohrs bilden, und andererseits ein Schneidmesser (9) in der Form einer stehenden Scheibe zum Schneiden des im Umschließungsraum gehaltenen Rohrzuckers umfassen, wobei das besagte Schneidmesser sich unterhalb des besagten Rahmens (4) befindet.

Publication: **EP 2173150 B1 20150805**

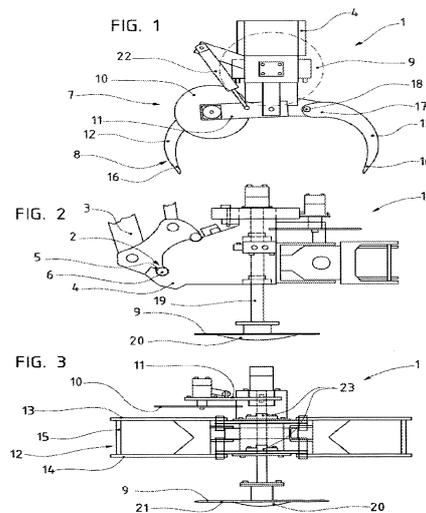
Applicant: Adam de Villiers, Jacques, 219 RN2 Les Bambous, 97439 Sainte Rose, RE

Inventor: ADAM DE VILLIERS, Jacques, 219 RN2 Les Bambous, 97439 Sainte Rose, RE; ADAM DE VILLIERS, Clovis, 219 RN2 Les Bambous, 97439 Sainte Rose, RE

Prio: FR 20070702 0756209

Appl.No: EP8806070

IPC: A01D 45/10 2006.01 (IA)



Grain conveyor apparatus and system including separation capability

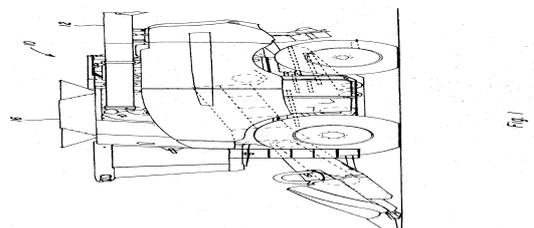
Korn-Fördervorrichtung zum Fördern und Trennen von Elementen einer Korn-Mischung mit zumindest einer ersten minimalen Größe und einer zweiten maximalen Größe, die kleiner als die erste minimale Größe ist, mit: einer Struktur, die einen oberen Kanal bildet, der eine erste Fördereinrichtung enthält, die zum Fördern der Kornmischung in einer ersten Richtung innerhalb des oberen Kanals über einen unteren Bereich (26) des oberen Kanals betreibbar ist, und der zumindest eine Öffnung mit einer ersten vorgegebenen Erstreckung in zumindest einer Richtung einschließt, die kleiner als die erste minimale Größe und größer als die zweite maximale Größe ist, derart, dass im Wesentlichen alle die Elemente der Korn-Mischung mit zumindest der ersten minimalen Größe über die zumindest eine Öffnung (28) gefördert werden und im Wesentlichen alle die Elemente der Korn-Mischung der zweiten maximalen Größe durch die zumindest eine Öffnung hindurch gelangen; und einer Struktur, die einen unteren Kanal bildet, der über die zumindest eine Öffnung in Verbindung mit dem oberen Kanal steht und eine zweite Fördereinrichtung enthält, die zum Fördern der Elemente der Korn-Mischung, die durch die zumindest eine Öffnung in den unteren Kanal gelangt sind, in einer zweiten Richtung von der zumindest einen Öffnung fort konfiguriert und betreibbar ist, dadurch gekennzeichnet, dass die Struktur, die den oberen Kanal bildet, ein inneres zylindrisches Rohr (12) umfasst, wobei die den unteren Kanal bildende Struktur ein äußeres zylindrisches Rohr (22) konzentrisch zu dem inneren Rohr umfasst, das sich in der ersten Richtung über die gleiche Strecke wie zumindest ein Teil des inneren Rohres unter Einschluss der zumindest einen Öffnung, erstreckt, wobei das äußere Rohr für eine Drehung um das innere Rohr herum konfiguriert und bet... (+569)

Publication: **EP 2314148 B1 20150819**

Applicant: CNH Industrial Belgium nv, Leon Claeysstraat 3A, 8210 Zedelgem, BE

Inventor: Farley, Herbert M., 690 Bellaire Road, Elisabethtown, PA 17022, US

Prio: US 20091022 603728



Appl.No: EP10188327
IPC: A01D 41/12 2006.01 (IA)

Cutting assembly for an agricultural harvester

Schneidwerk für eine Erntemaschine, mit einem Trägerrahmen (1, 2, 3), wenigstens einem ersten in dem Trägerrahmen (1, 2, 3) verschiebbaren Messer (5; 5r), einem drehantreibbaren, in sich verdrehbaren Antriebsstrang (9, 10, 11, 13, 14) für das erste Messer (5; 5r) und einem Exzenter (15) zum Umsetzen einer Drehung des Antriebsstrangs (9, 10, 11, 13, 14) in eine oszillierende Bewegung des ersten Messers (5; 5r), dadurch gekennzeichnet, dass der Antriebsstrang (9, 10, 11, 13, 14) zumindest ein drehspielhaltiges Element (34) umfasst, das eine nichtlineare Rückstellkennlinie aufweist.

Publication: **EP 2364584 B1 20150812**

Applicant: CLAAS Selbstfahrende Erntemaschinen GmbH,
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Prio: DE 20100311 102010011123
Appl.No: EP11150021
IPC: A01D 34/30 2006.01 (IA)

Fig. 1

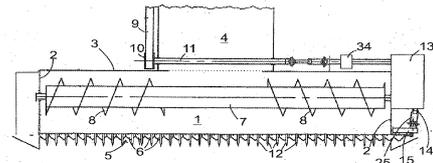
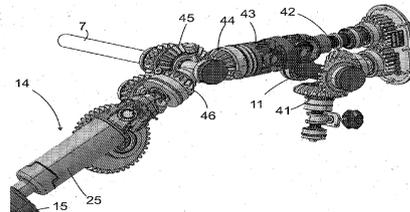


Fig. 2

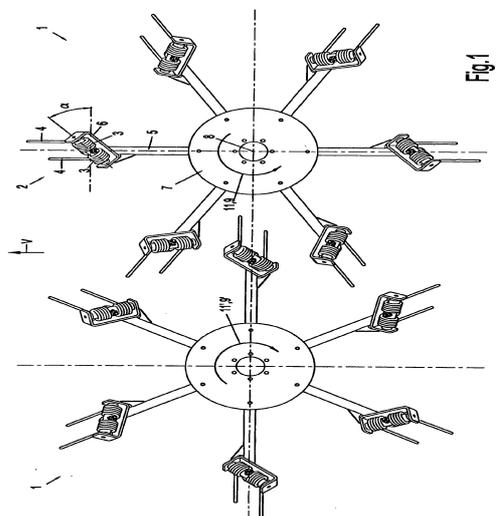


Haymaking machine

Heuwerbungsmaschine mit wenigstens einem umlaufend um eine Hochachse (8) antreibbaren Rechkreis (1) mit Zinkenarme aufweisenden Rechkinken (2), deren Rechkinken (2) eine Federwicklung mit um eine Wickelachse (10) geformten Federwindungen und wenigstens einen sich daran anschließenden Federschenkel aufweisen, dadurch gekennzeichnet, dass die Wickelachse (10) eines Rechkinkens (2) derart schräg im Raum steht, dass diese einen tangentialen Anstellwinkel (α) und einen axialen Anstellwinkel (β) relativ zur Hochachse (8) des Rechkreis (1) aufweist, wobei die Wickelachse (10) als Tangente an einem gedachten Zylinder (13) mit dem Radius (R), dessen Figurenachse zugleich mit der Hochachse (8) des Rechkreis (1) zusammenfällt, in einem Punkt (P) der Mantellinie (14) des Zylindermantels (18) des gedachten Zylinders (13) anliegt und wobei der Punkt (P) unterhalb der Rotationsebene (17) des Befestigungspunkts (16) des Rechkinkens (2) am Zinkenarm (5), dem Erdboden (15) zugewandt liegt und der axiale Anstellwinkel (β) in einer Seitenansicht (A-A) zu betrachten ist, wobei der Anstellwinkel (α) im Bereich von $30 \pm 15^\circ$ liegt.

Publication: **EP 2399446 B1 20150826**

Applicant: CLAAS Saulgau GmbH, Zeppelinstrasse 2,
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Prio: DE 20100623 102010024833
Appl.No: EP10009265
IPC: A01D 78/10 2006.01 (IA)



BEARING SUPPORT ASSEMBLY

Lagertrag-Baugruppe (10), die ein Lager (12), das in einem Lagerblock (14) abgestützt ist, und eine Welle (26), die so angeordnet ist, dass sie sich innerhalb des Lagers drehen kann, und die benachbart dem Lagerblock (14) ein Scheibenelement (34) trägt, aufweist, wobei ein Ringelement (20) so an dem Lagerblock befestigt ist, dass im Falle eines Lagerversagens das Scheibenelement (34) so mit dem Ringelement (20) in Wechselwirkung tritt oder in dieses eingreift, dass es die Welle (26) in oder bei einer Rotationsbewegung abstützt, wobei das Ringelement mindestens teilweise in die Dicke des Scheibenelements versenkt ist, dadurch gekennzeichnet, dass das Scheibenelement (34) einen Durchmesser hat, der größer ist als der äußere Durchmesser des Ringelements (20).

Publication: [EP 2452089 B1 20150819](#)

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Prio: GB 20090707 0911765

Appl.No: EP10725862

IPC: A01F 15/18 2006.01 (IA)

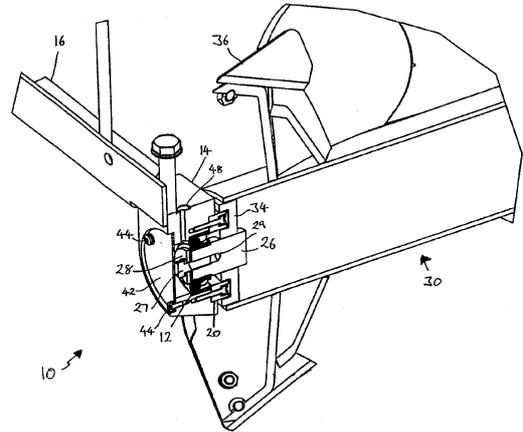


Fig. 1

Automatic header lateral tilt to ground speed response

Ein Verfahren zur Einstellung der Position eines Erntemaschinen-Vorsatzgerätes (22), mit den folgenden Schritten: Empfangen einer Anzahl von Ausgangssignalen von einer Anzahl von Wandlern (34-38) an einem Steuersystem (26); Bestimmen eines Neigungs-Einstellsignals und einer Rate zum Senden des Neigungs-Einstellsignals durch das Steuersystem (26) auf der Grundlage der Ausgangssignale; Senden des Neigungs-Einstellsignals mit der bestimmten Rate durch das Steuersystem (26) an einen Neigungs-Einstellmechanismus (32, 39), der betriebsmäßig mit dem Steuersystem verbunden ist; und Einstellen der lateralen Neigung des Erntemaschinen-Vorsatzgerätes (22) in Abhängigkeit von dem Neigungs-Einstellsignal durch den Neigungs-Einstellmechanismus (32, 39), dadurch gekennzeichnet, dass: die Bestimmung des Neigungs-Einstellsignals und die Rate des Neigungs-Einstellsignals derart ist, dass mit ansteigender Vorwärtsgeschwindigkeit der Erntemaschine ein Ansprechverhalten der Neigungs-Einstellung ansteigt und eine Empfindlichkeit der Neigungs-Einstellung abnimmt.

Publication: [EP 2474220 B1 20150826](#)

Applicant: CNH Industrial Belgium nv, Leon Claeysstraat
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Appl.No: EP12150398

IPC: A01D 41/14 2006.01 (IA)

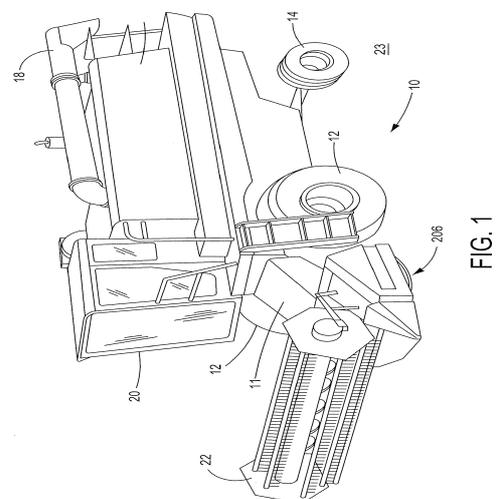


FIG. 1

Mowing machine

Mähmaschine mit einer in einer Arbeits- und Betriebsstellung seitlich von einem landwirtschaftlichem Trägerfahrzeug geführten Mäheinrichtung (3), die eine Anzahl um jeweils eine etwa vertikale Achse rotierender Schneidorgane umfasst, sowie mit einer Trageinrichtung (2), an der ein ein- oder mehrteiliger Tragarm (4) angelenkt ist, an dessen freiem Ende die Mäheinrichtung (3) schwenkbar gehalten ist, welche durch eine Lageveränderung des Tragarms (4) aus einer etwa bodenparallelen, seitlich von dem Trägerfahrzeug geführten Arbeits- und Betriebsstellung in eine etwa oberhalb der Trageinrichtung (2) befindlichen Transportstellung überführbar ist und mit einer der Trageinrichtung (2) zugeordneten Abstelleinrichtung zum Abstellen der Mähmaschine (1) auf einer nahezu ebenen Fläche in einem von dem Trägerfahrzeug abgekoppelten Zustand, wobei sich die Mäheinrichtung (3) in ihrer Transportstellung befindet, dadurch gekennzeichnet, dass die Abstelleinrichtung (5) zumindest drei Stützfüße (6,7,8) umfasst, wobei zumindest einer der Stützfüße (6,7,8), welcher der Trageinrichtung (2) in einem in Bezug zur Fahrt- und Arbeitsrichtung (F) rechten Endbereich der Trageinrichtung (2) zugeordnet ist, mit einer Aufstandsfläche (9) aus einer dicht an den Korpus der Trageinrichtung (2) herangeführten Außerbetriebsstellung in eine weiter vom Korpus der Trageinrichtung (2) entfernten Betriebsstellung überführbar und arretierbar ausgebildet ist und wobei zumindest einer der Stützfüße (6,7,8) der Abstelleinrichtung (5) mittels einer in Bezug zur Horizontalen zum Erdboden hin geneigten Schiebeführung (11) mit ihrer Aufstandsfläche (9) aus einer dicht an den Korpus der Trageinrichtung (2) herangeführten Außerbetriebsstellung in eine weiter vom Korpus der Trageinrichtung (2) entfernten Betriebsstellung überführbar sind.

Publication: [EP 2517546 B1 20150826](#)

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Prio: DE 20110429 102011100091

Appl.No: EP12002582

IPC: A01D 34/66 2006.01 (IA)

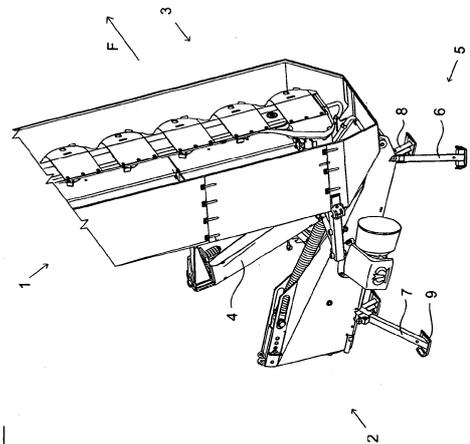


Fig. 1

Agricultural harvesting vehicle

Landwirtschaftliches Erntefahrzeug (1) mit einer ersten Funktionseinheit (11), die gegenüber einer zweiten Funktionseinheit (12) beweglich gelagert ist, wobei zwischen den Funktionseinheiten (11, 12) ein Durchgang (6) besteht, der sich zur Vermeidung des Eindringens von Schmutz mittels einer Schutzeinrichtung (7) verschließen lässt, dadurch gekennzeichnet, dass die Schutzeinrichtung (7) einen Endes (21) an einer der Funktionseinheiten (11) befestigbar ist, eine der anderen Funktionseinheit (12) zugeordnete Umlenkeinrichtung (5) teilweise umschlingt und von einem dem einen Ende (21) abgewandten Spannschnitt (22) aus mittels einer Spanneinrichtung (9) spannbar ist.

Publication: [EP 2570019 B1 20150812](#)

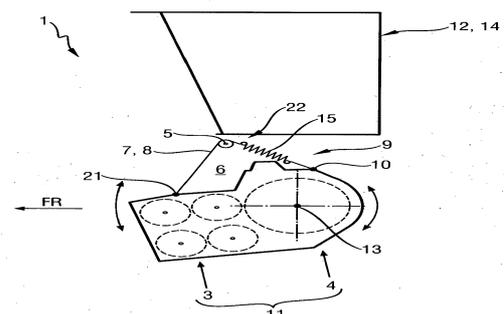
Applicant: CLAAS Selbstfahrende Erntemaschinen GmbH,
Münsterstrasse 33, 33428 Harsewinkel, DE

Inventor: Paulesen, Georg, Kleinfings 14, 47877 Willich,
DE

Prio: DE 20110914 102011053584

Appl.No: EP12172325

Fig. 1



IPC: A01D 41/12 2006.01 (IA)

Pick up device for an agricultural harvesting machine

Aufnahmevorrichtung für eine landwirtschaftliche Erntemaschine mit einer Aufsammeltrommel (5) zum Aufsammeln von am Boden liegendem Erntegut (2), einem Erntegutkanal (7), der das aufgesammelte Erntegut aufnimmt, der durch einen Niederhalter (10; 39) begrenzt ist und dessen Weite durch Verstellen des Niederhalters (10; 39) veränderbar ist, wenigstens einem Antriebsaggregat (17, 18, 21) zum Antreiben der Aufsammeltrommel (5) und einem dem Niederhalter (10; 39) zugeordneten Stellglied (25; 26), dadurch gekennzeichnet, dass das Stellglied (25; 26) mit einem Mittel (34) zum Erfassen einer Last des Antriebsaggregats (17, 18, 21) verbunden ist, um die Weite des Erntegutkanals (7) entsprechend der Last einzustellen.

Publication: **EP 2674022 B1 20150805**

Applicant: Usines CLAAS France, Route de Thionville,
57141 Metz, FR

Inventor: Scharf, Thorsten, Gartenfeldstraße 10, 66693
Orscholz, DE

Prio: DE 20120612 102012011476

Appl.No: EP13162661

IPC: A01D 89/00 2006.01 (IA)

Fig. 1

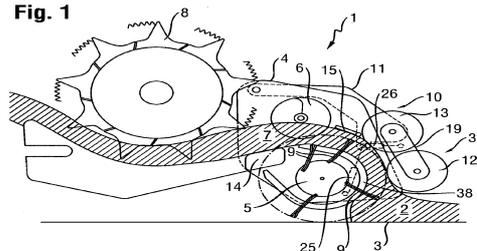
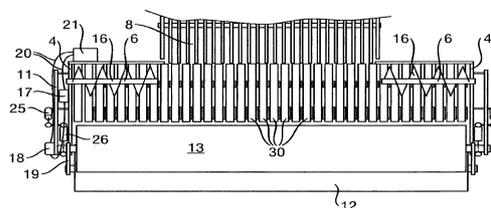


Fig. 2



Apparatus for cutting grass

Mähvorrichtung, umfassend: • einen Rasenmäher (1), versehen mit: ∘ Bewegungsmitteln (20) zum Bewegen des Rasenmähers (1) mindestens in einem Schneidbereich (S); ∘ einem oder mehreren Messern (30) zum Schneiden von Gras in diesem Schneidbereich (S); • ein umlaufendes Kabel (2), das den Schneidbereich (S) abgrenzt, wobei das umlaufende Kabel mindestens einen ersten Abschnitt (Q), aufweisend eine erste eingestellte Beschaffenheit (C1), aufweist; • eine Handhabungsvorrichtung (3) zum Erzeugen eines elektrischen Signals (ES) und zur Verbreitung des elektrischen Signals (ES) im Kabel (2); • eine Aufladestation (80) für den Rasenmäher (1), positioniert außerhalb des Schneidbereichs (S); wobei der Rasenmäher (1) zudem eine Steuereinheit (60) umfasst, versehen mit: ∘ Sensormitteln (40), die ausgelegt sind, um das elektrische Signal (ES) zu erfassen; ∘ einem Erkennungsmodul (164), das ausgelegt ist, um • erste Hauptdaten (MD1), die repräsentativ für die erste Beschaffenheit (C1) des Abschnitts (Q) des Kabels (2) sind, als eine Funktion des elektrischen Signals (ES), das sich im ersten Abschnitt (Q) verbreitet, zu ermitteln; • diese ersten Hauptdaten (MD1) mit den ersten vorgespeicherten Referenzdaten (Ref1) zu vergleichen, die repräsentativ für eine erste Referenzbeschaffenheit (C1) sind; • ein erstes Meldesignal (NS1) bei Übereinstimmung zwischen den Hauptdaten (MD1) und den ersten Referenzdaten (Ref1) zu generieren; • einem ersten Hilfsmodul (165), verbunden mit dem ersten Erkennungsmodul (164) und ausgelegt, um • das erste Meldesignal (NS1) zu empfangen; • die Bewegungsmittel (20) nach dem Empfang des ersten Meldesignals (NS1) zu steuern, sodass der Rasenmäher (1) in einer Richtung (d) angeordnet wird, die quer zum Kabel (2) verläuft, wobei ein frontseitiger Teil (411) dem Schneidbereich (S) zugewandt i... (+639)

Publication: **EP 2679083 B1 20150805**

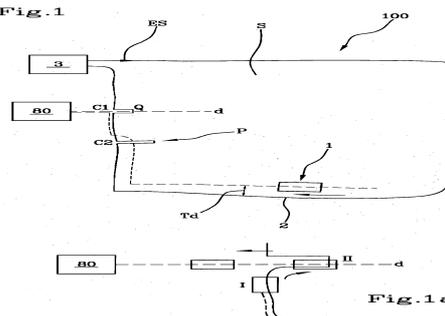
Applicant: Bernini, Fabrizio, Via della Pace, 3 Frazione
Mercatale Valdarno, 52021 Bucine - Arezzo, IT

Inventor: Bernini, Fabrizio, Via della Pace, 3 Frazione
Mercatale Valdarno, 52021 Bucine - Arezzo, IT

Prio:

Appl.No: EP12173872

Fig. 1



IPC: A01D 34/00 2006.01 (IA)

CROP THRESHING METHOD

Dreschverfahren für Erntegut, umfassend Dreschen mit Trennung der Masse aus Korn und Spreu in den essbaren Teil und den nicht aus Korn bestehenden Teil des Ernteguts unter Verwendung einer klassischen Dreschtrommel der schlagenden Art, dadurch gekennzeichnet, dass während des Drescheprozesses unter Verwendung einer klassischen Dreschtrommel der schlagenden Art der frisch gedroschene essbare Teil des Ernteguts wird magnetisch in einem kontinuierlichen Modus behandelt wird.

Publication: [EP 2684444 B1 20150819](#)

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Inventor: SADYKOV, Zharylkasyn, ul. Manasa 51-30, Almaty 050008, KZ; ESPOLOV, Tlektes, 16-13 Al-Farabi Av., Almaty 050010, KZ; ZHALNIN, Eduard, 1- Institutskiy proezd, 5, Moscow 109428, RU; AL'PEYSOV, Shohan, 145-98 Kurmangazy Str., Almaty 050008, KZ; SADYKOVA, Saule, 51-30 Manasa Str., Almaty 050008, KZ

Prio: KZ 20110105 20110005

Appl.No: EP11859143

IPC: A01D 41/12 2006.01 (IA)

Air intake configuration for an agricultural harvesting machine

Ein landwirtschaftliches Arbeitsfahrzeug (10) mit: einem Fahrzeug-Aufbau (12), der sich in Längsrichtung erstreckende Seiten (13) aufweist; einem umschlossenen Motorraum (32) innerhalb des Fahrzeug-Aufbaus (12); einem Lufteinlass (34) in einer jeweiligen einen der Seiten (13) des Fahrzeug-Aufbaus zum Einlass von Luft in den Motorraum (32); einem Körnertank (20) vor dem Motorraum (32) und einer Körnertank-Erweiterung (24), die auf dem Fahrzeug-Aufbau oberhalb des Körnertanks (20) angeordnet ist; und einem Lufteinlass-Gehäuse (40), das über dem Lufteinlass (34) in der Seite (13) des Fahrzeug-Aufbaus befestigt ist; dadurch gekennzeichnet, dass das Einlassgehäuse (40) weiterhin einen sich in Vorwärtsrichtung erstreckenden Teil (44) umfasst, der entlang der Körnertank-Verlängerung (24) befestigt ist, wobei eine Einlassöffnung (50) so ausgerichtet ist, dass sie Luft hauptsächlich von einem Bereich vor dem Motorraum (32) und oberhalb des Fahrzeug-Aufbaus (12) ansaugt, wobei das Einlass-Gehäuse (40) einen Auslass (51) in Verbindung mit dem Lufteinlass (34) in dem Fahrzeug-Aufbau (12) aufweist.

Publication: [EP 2698524 B1 20150812](#)

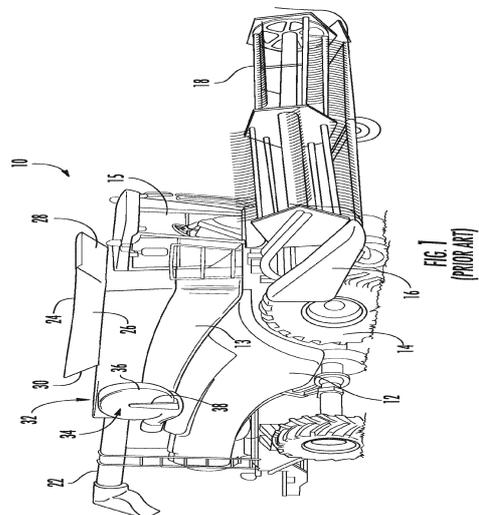
Applicant: CNH Industrial Belgium nv, Leon Claeysstraat 3A, 8210 Zedelgem, BE

Inventor: Ricketts, Jonathan E., 11506 103rd Ave Court, Coal Valley, IL Illinois 61240, US

Prio: US 20120815 201213586294

Appl.No: EP13180163

IPC: F02B 29/04 2006.01 (IA)



APPARATUS FOR HARVESTING OLIVES AND SIMILAR PRODUCTS

Vorrichtung zum Ernten von Oliven und ähnlichen Produkten, umfassend einen Stützkörper (2), der geeignet ist, umgriffen zu werden, eine Rüttleinheit (3), umfassend ein Einschussgehäuse (7), das geeignet ist, an die Spitze des Stützkörpers (2) montiert zu werden, mindestens einen Kammabschnitt (6, 60), der eine Stützstruktur (9, 90, 99) bildet, die mehrere Zähne (10) integriert trägt und die vom Einschussgehäuse (7) beweglich getragen wird, eine Motoreinheit zum Antreiben des Kammabschnitts (6, 60), eine Motorwelle (12), die im Wesentlichen ausgerichtet an der Längsachse des Stützkörpers (2) angeordnet und dafür geeignet ist, durch die Motoreinheit in eine Drehbewegung versetzt zu werden, dadurch gekennzeichnet, dass sie eine erste kinematische Kette (14) umfasst, die durch Eingabe von der Motorwelle (12) betätigt wird und geeignet ist, als Ausgabe eine erste Drehbewegung zu übertragen, und eine zweite kinematische Kette (15), die durch Eingabe von der Motorwelle (12) betätigt wird und geeignet ist, als Ausgabe eine zweite, im Wesentlichen alternierende Drehbewegung zu übertragen, wobei die erste kinematische Kette (14) und die zweite kinematische Kette (15) mit entsprechenden beabstandeten Abschnitten der Stützstruktur (9, 90, 99) verbunden sind, um die Zähne (10) gemäß einer Schwingbewegung anzutreiben, die aus der Kombination der ersten Drehbewegung und der zweiten, im Wesentlichen alternierenden Bewegung entsteht.

Publication: [EP 2699076 B1 20150812](#)

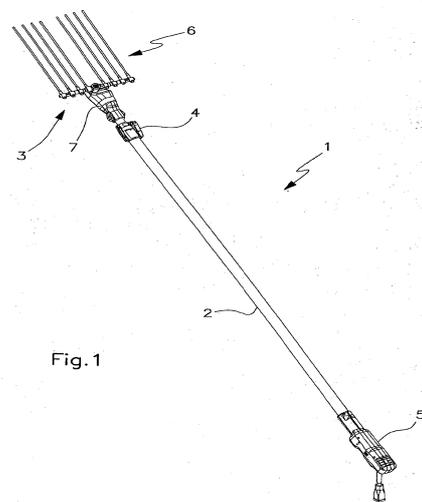
Applicant: Minelli Elettromeccanica, Via Costituzione, 43, 42015 Correggio (RE), IT

Inventor: MINELLI, Ermanno, c/o Minelli Elettromeccanica Via Costituzione 43, I-42015 Correggio (RE), IT

Prio: IT 20110418 BO20110210

Appl.No: EP12713682

IPC: A01D 46/26 2006.01 (IA)



Lawn tractor

Aufsitzmäher mit einem Fahrgestell (2), das auf Rädern (3, 4) abrollt, mit einer Antriebseinrichtung (5), einem Mähwerk (6) und einem am Heck des Aufsitzmähers angeordneten Grasfangbehälter (20), der mit dem Mähwerk (6) über einen Auswurfkanal (10) verbunden ist, der eine durch eine Verschlusseinrichtung verschließbare Auswurföffnung für Verstopfungen aufweist, dadurch gekennzeichnet, dass der Auswurfkanal (10) entlang seiner Längsrichtung geteilt ist und einen Oberteil (12) und einen Unterteil (11) umfasst, der gegenüber dem Oberteil (12) in Längsrichtung des Auswurfkanals (10) verschiebbar geführt ist derart, dass der Unterteil (11) zumindest teilweise in den Grasfangbehälter (20) verschiebbar ist, um die Unterseite des Auswurfkanals (10) in einem an das Mähwerk angrenzenden Bereich zu öffnen, und dass Betätigungseinrichtungen (9, 16, 17) zur Verschiebung des Unterteils (11) gegenüber dem Oberteil (12) des Auswurfkanals vorgesehen sind, die vom Fahrersitz (8) aus betätigbar sind.

Publication: [EP 2702856 B1 20150819](#)

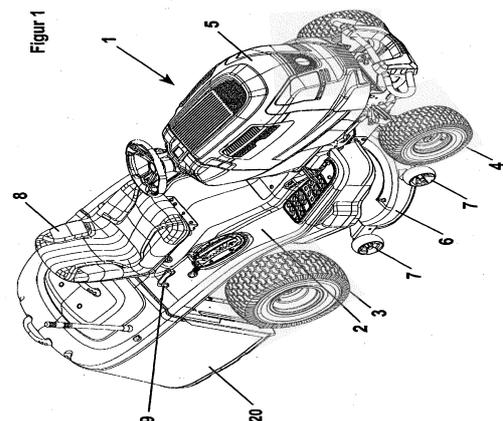
Applicant: MTD PRODUCTS INC., 5903 Grafton Road, Valley City, Ohio 44280, US

Inventor: Musmann, Horst, Im Anger 3, 66130 Brebach, DE; Krumm, Alexander, 7, Rue des Lilas, 57520 Grosbliederstroff, FR

Prio: DE 20120831 102012017350

Appl.No: EP13003195

IPC: A01D 43/063 2006.01 (IA)



Auger drive coupler assembly for a combine harvester

Eine Entlade-Förderschnecken-Anordnung (58) für einen Mähdrescher (10), mit: einem ersten Förderschnecken-Segment (60), einem zweiten Förderschnecken-Segment (62); einem Antriebskoppler (64), der zwischen dem ersten Förderschnecken-Segment (60) und dem zweiten Förderschnecken-Segment (62) konfiguriert ist, wobei der Antriebs-Koppler (64) weiterhin Folgendes umfasst: eine Antriebskomponente (70), die mit dem ersten Förderschnecken-Segment (60) gekoppelt ist, wobei die Antriebskomponente (70) eine Antriebs-Klaue (74) aufweist; eine angetriebene Komponente (78), die mit dem zweiten Förderschnecken-Segment (62) gekoppelt ist, wobei die angetriebene Komponente (78) eine Antriebs-Klaue (80) aufweist, die in Dreieingriff mit der Antriebs-Klaue (74) steht, um einen Drehantrieb von dem ersten Förderschnecken-Segment (60) auf das zweite Förderschnecken-Segment (62) zu übertragen; und gekennzeichnet durch eine Reibkupplung (84), die in Reihe zwischen der Antriebskomponente (70) und der angetriebenen Komponente (78) konfiguriert ist, wobei die Reibkupplung (84) eine Drehkupplung der Antriebskomponente (70) mit der angetriebenen Komponente (78) vor dem Eingriff der Antriebs-Klaue (74) mit der Antriebs-Klaue (80) bis zu einem Auslöse-Drehmoment-Wert bewirkt, bei dem die Reibkupplung (84) die Antriebskomponente (70) von der angetriebenen Komponente (78) trennt.

Publication: [EP 2702861 B1 20150812](#)

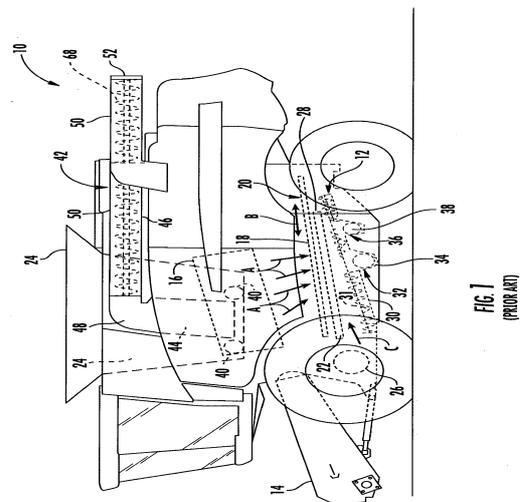
Applicant: CNH Industrial Belgium nv, Leon Claeysstraat
3A, 8210 Zedelgem, BE

Inventor: Linde, Cooper W, 146 East Lemon St., Apt. 1,
Lancaster, PA Pennsylvania 17602, US; Moyer,
Terry S., 218 Willow Drive, Denver, PA
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Main Street, East Earl, PA Pennsylvania 17519,
US

Prio: US 20120831 201213600674

Appl.No: EP13181683

IPC: A01F 12/46 2006.01 (IA)



An agricultural mower

Landwirtschaftlicher Mäher, mit: - einen Tragrahmen (2), - Mittel zum Befestigen des Tragrahmens an einem Antriebsfahrzeug, - eine Mähvorrichtung (3), welche am Tragrahmen (2) angeordnet ist, - eine Abdeckung (4), welche wenigstens über einem Teil der Mähvorrichtung (3) liegt, - eine flexible Schürze (8), welche von wenigstens einem Teil des äußeren Umfangs der Abdeckung (4) herabhängt, um so teilweise die Mähvorrichtung (3) zu umgeben, und - ein Schutzelement, welches an der Abdeckung angeordnet ist und sich entlang wenigstens eines Teils des äußeren Umfangs der Abdeckung erstreckt, wobei das Schutzelement (10) mit einem zusammendrückbaren Element (11) gebildet ist, wobei das zusammendrückbare Element (11) nach innen zusammendrückbar ist und sich entlang wenigstens eines Teils des Schutzelements (10) erstreckt, und dadurch gekennzeichnet ist, dass die flexible Schürze (8) am zusammendrückbaren Element (11) angebracht ist, wobei die flexible Schürze (8) konfiguriert ist, um mit Kraft nach innen bewegt zu werden, wenn das zusammendrückbare Element (11) als Reaktion auf einen äußeren Aufprall, der auf das zusammendrückbare Element (11) wirkt, nach innen zusammengedrückt wird.

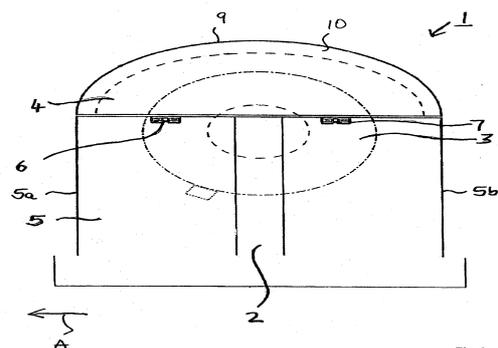
Publication: [EP 2708106 B1 20150805](#)

Applicant: Kverneland A/S, 4355 Kverneland, NO

Inventor: Joosten, Stefanus Franciscus Wilhelmus,
Mathijsenlaan 40, 5644J1 Eindhoven, NL

Prio:

Appl.No: EP12184893



IPC: A01D 34/82 2006.01 (IA)

Lawn mower

Rasenmäher (10), welcher aufweist: ein Schneidmesser (22), das in einem Gehäuse (21) vorgesehen ist; eine Schnittgrasaufnahme (24), die hinter dem Gehäuse (21) angeordnet ist, und eine Rinne (25), die eine Verbindung zwischen dem Gehäuse (21) und der Schnittgrasaufnahme (24) herstellt, wobei das vom Schneidmesser (22) geschnittene Gras durch Schnittgras-Förderluft (Wt) über die Rinne (25) zu der Schnittgrasaufnahme (24) gefördert wird, wobei die Schnittgrasaufnahme (24) eine Bodenplatte (50) aufweist, die daran abnehmbar angebracht ist, wobei die Schnittgrasaufnahme (24) konstruiert ist, um zu erlauben, dass die von der Aufnahme (24) abgenommene Bodenplatte (50) innerhalb der Aufnahme (24) untergebracht wird, dadurch gekennzeichnet, dass die Bodenplatte (50) ein faltbares Element ist, wobei die Rinne (25) einen Trägerabschnitt (27) enthält, der an ihrem Endabschnitt vorgesehen ist, um die Schnittgrasaufnahme (24) zu tragen, und wobei, mit der an dem Trägerabschnitt (27) getragenen Schnittgrasaufnahme (24), zumindest ein Teil (61) des Trägerabschnitts (27) innerhalb der Schnittgrasaufnahme (24) angeordnet ist, und das Teil des Trägerabschnitts einen Platzierungsabschnitt (67) enthält, um darauf die zu einer gefalteten Position gefaltete Bodenplatte (50) zu platzieren.

Publication: **EP 2710877 B1 20150819**

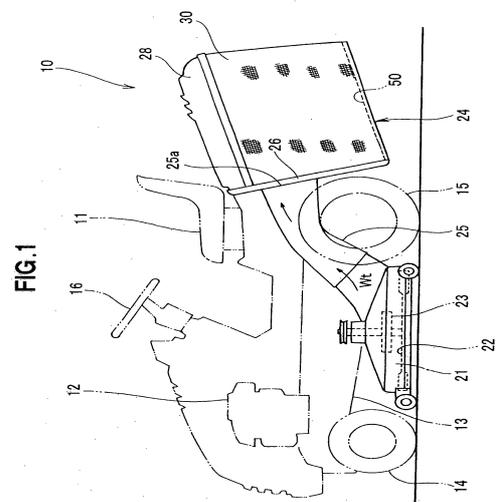
Applicant: Honda Motor Co., Ltd., 1-1, Minami-Aoyama 2-chome Minato-ku, Tokyo 107-8556, JP

Inventor: Yamamoto, Takahiro, c/o Honda R&D Co., Ltd. 4-1, Chuo 1-chome, Wako-shi Saitama, 351-0193, JP; Kimura, Tomokazu, c/o Honda R&D Co., Ltd. 4-1, Chuo 1-chome, Wako-shi Saitama, 351-0193, JP; Akazawa, Kohei, c/o Honda R&D Co., Ltd. 4-1, Chuo 1-chome, Wako-shi Saitama, 351-0193, JP

Prio: JP 20120920 2012206950

Appl.No: EP13184296

IPC: A01D 43/063 2006.01 (IA)



Cutting assembly

Schneidwerk (1), umfassend einen an einem Hauptrahmen (2) angeordneten Mittenabschnitt (3) und mindestens zwei, benachbart zu dem Mittenabschnitt (3) angeordnete Seitenabschnitte (4), einen flexiblen, sich über die Breite des Schneidwerkes erstreckenden Messerbalken (6) sowie zumindest eine hinter dem Messerbalken (6) angeordnete Fördervorrichtung (5), die auf den jeweiligen Seitenabschnitten (4) als mindestens ein endloses Band (7) ausgeführt ist, welches benachbart zu dem Mittenabschnitt (3) angeordnet ist, um von dem Messerbalken (6) abgeschnittenes Erntegut seitwärts in Richtung des Mittenabschnittes (3) zu transportieren, wobei die Seitenabschnitte (4) eine Vielzahl von schwenkbar an dem Hauptrahmen (2) angeordneten Tragarmen (15) aufweisen, die den Messerbalken (6) des jeweiligen Seitenabschnittes (4) tragen und starr mit dem Messerbalken (6) verbunden sind, dadurch gekennzeichnet, dass jeder Tragarm (15) um eine erste Drehachse (20, 20a) in vertikaler Richtung und um eine sich senkrecht zur ersten Drehachse (20, 20a) erstreckende zweite Drehachse (21, 21 a) schwenkbar mit dem Hauptrahmen (2) verbunden ist.

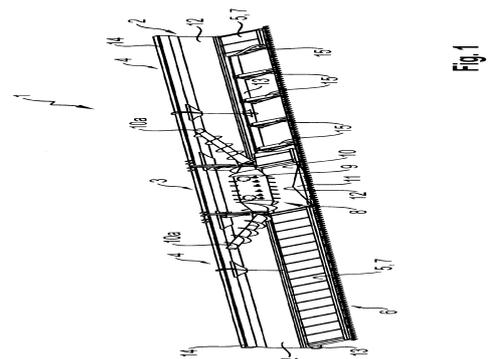
Publication: **EP 2732689 B1 20150812**

Applicant: CLAAS Selbstfahrende Erntemaschinen GmbH, Münsterstrasse 33, 33428 Harsewinkel, DE

Inventor: Füchtling, Christian, Daverthauptweg 19, 59387 Ascheberg, DE

Prio: DE 20120919 102012108835

Appl.No: EP13173130



IPC: A01D 41/14 2006.01 (IA)

A detection device for detection of a foreign object for an agricultural harvesting machine

Eine Detektions-Einrichtung zur Detektion eines Fremdkörpers in einer landwirtschaftlichen Erntemaschine (1), wobei die Erntemaschine (1) eine Zuführungswalzen-Anordnung (30) mit einer zentralen Welle (34) und einer Zuführungswalze (32) umfasst, die drehbar um die zentrale Welle (34) herum befestigt ist, wobei die zentrale Welle (34) und die Zuführungswalze (32) eine gemeinsame Drehachse (40) umfassen, wobei die Detektions-Einrichtung Folgendes umfasst: - zumindest einen in einer Richtung aufweisenden Schwingungssensor (20), der auf der zentralen Welle (34) derart befestigt ist, dass er in der Zuführungswalzen-Anordnung (30) hervorgerufene Schwingungen messen kann; und - ein Steuersystem (50), das betriebsmäßig mit dem Schwingungssensor (20) verbunden ist und so konfiguriert ist, dass es: - ein von dem Schwingungssensor (20) erzeugtes Signal analysiert, und - auf der Grundlage dieser Analyse feststellt, ob der Fremdkörper mit der Zuführungswalze (32) zusammengestoßen ist, dadurch gekennzeichnet, dass: der Schwingungssensor (20) derart befestigt ist, dass er in der Zuführungswalzen-Anordnung (30) induzierte Schwingungen in einer Richtung (41) quer zur gemeinsamen Drehachse (40) misst.

Publication: [EP 2756748 B1 20150819](#)

Applicant: CNH Industrial Belgium nv, Leon Claeysstraat 3A, 8210 Zedelgem, BE

Inventor: Depestel, Bernard E. D., Karel Stroobandtstraat 12, 8730 Oedelem, BE; Desnijder, Dirk J., Schaapherderstraat 13/B, 9032 Wondelgem, BE; Missotten, Bart M. A., Heidestraat 14, 3020 Winksele, BE; Debilde, Benoit, Stoofstraat 2a, 8000 Brugge, BE; Viaene, Karel M. C., Roeselaarsestraat 29, 8890 Moorslede, BE

Prio: BE 20130118 201300035

Appl.No: EP14151223

IPC: A01D 75/18 2006.01 (IA)

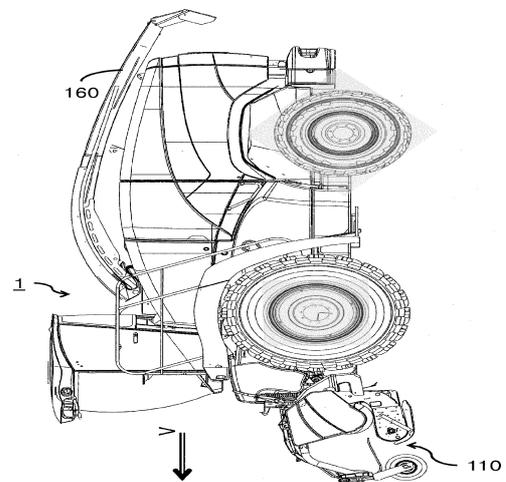


Fig. 1

A drive assembly for an agricultural harvesting platform

Antriebsanordnung zum Antreiben eines ersten Mähbalkenabschnitts (42) und eines zweiten Mähbalkenabschnitts (36) einer Erntemaschinenplattform (20), wobei die Antriebsanordnung Folgendes umfasst: ein erstes Schaltgetriebe (54), das einen Ausgang hat, der antreibend mit einem ersten Ende eines ersten Mähbalkenabschnitts (42) verbunden ist, um den ersten Mähbalkenabschnitt (42) hin- und her zu bewegen, ein zweites Schaltgetriebe (74), das einen Ausgang hat, der antreibend mit einem ersten Ende eines zweiten Mähbalkenabschnitts (36) verbunden ist, um den zweiten Mähbalkenabschnitt (36) hin- und her zu bewegen, einen ersten Antriebsstrang, der antreibend einen Eingang des ersten Schaltgetriebes (54) mit einer Eingangsantriebswelle (24) verbindet, und einen zweiten Antriebsstrang, der einen Eingang des zweiten Schaltgetriebes (74) mit der Eingangsantriebswelle (24) antreibend verbindet, wobei der erste Antriebsstrang oder der zweite Antriebsstrang einen Riemenantrieb umfasst, gekennzeichnet durch ein Synchronisationsgetriebe (82), das einen ersten Eingang (86) hat, der antreibend mit einem zweiten Ende des ersten Mähbalkenabschnitts (42) verbunden ist, und einen zweiten Eingang (84), der antreibend mit einem zweiten Ende des zweiten Mähbalkenabschnitts (36) verbunden ist, wobei das Synchronisationsgetriebe (82) den ersten Eingang (86) in einer zu dem zweiten Eingang (84) entgegengesetzten Bewegungsrichtung kuppelt.

Publication: [EP 2769610 B1 20150819](#)

Applicant: DEERE & COMPANY, One John Deere Place, Moline, Illinois 61265-8098, US

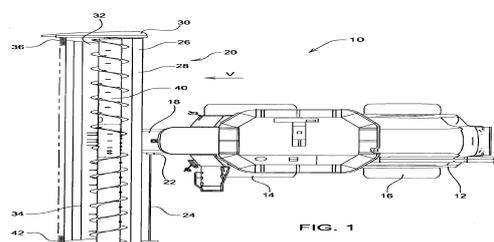


FIG. 1

Inventor: Weichholdt, Dirk, Rue de la Foret 3, 57200 Woelfling les Sarreguemin, FR; Meyer-Hamme, Friedrich, Im Höfchen 6, 66424 Homburg, DE; Brimeyer, Alex, 2425 Crow Creek Rd, Bettendorf, IA Iowa 52722, US; Losa, Luis L, Dionisio Ridruejo 64, 28035 Madrid, ES

Prio: US 20130205 201313759509

Appl.No: EP14151958

IPC: A01D 34/30 2006.01 (IA)

Erntegutaufnehmer

Die Erfindung betrifft einen Erntegutaufnehmer (10) umfassend eine elastische Welle (12), die über wenigstens ein Fortbewegungsmittel (16a, 16b, 16c) gegenüber einem Rahmen (11, 52) höhenbeweglich gelagert über eine Bodenkontur geführt wird, wobei die elastische Welle (12) wenigstens ein Aufnahmewerkzeug (14) trägt, wobei eine Lagerung der elastischen Welle (12) vorgesehen ist und wenigstens ein Lagerelement (20a, 20b, 30) mit dem Fortbewegungsmittel (16a, 16b, 16c) verbunden ist. Die Erfindung zeichnet sich dadurch aus, dass das Lagerelement (20a, 20b, 30) derart ausgestaltet ist, dass es zwei in Axialrichtung beabstandete Lagerpunkte (21, 23, 31, 33) aufweist, die steif miteinander verbunden sind.

Publication: [DE 102014101370 A1 20150806](#)

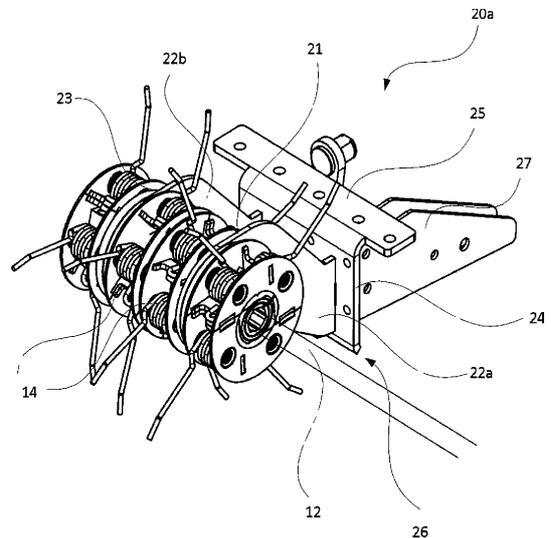
Applicant: Reiter, Thomas, Dipl.-Ing., Schlüsslberg, AT

Inventor: Reiter, Thomas, Dipl.-Ing., Schlüsslberg, AT

Prio:

Appl.No:

IPC: A01D 89/00 2006.01 (IA)



Erntegutaufnehmer

Die Erfindung betrifft einen Erntegutaufnehmer (10) mit einem Tragelement (12) und einer Welle (26), welche Aufnahmewerkzeuge (28) trägt, wobei wenigstens zwei bewegliche Fortbewegungsmittel vorgesehen sind, die in ihrer Vertikalrichtung veränderlich gegenüber dem Tragelement (12) gelagert sind und die elastische Welle (26) tragen. Die Erfindung zeichnet sich dadurch aus, dass eine Strebe (18, 20) vorgesehen ist, welche mittels eines Strebenlagers (16, 22) drehbar am Tragelement (12) derart gelagert ist, dass die Lagerachse orthogonal zur Achse der Welle, liegt und das Tragelement (12) mit den beweglichen Fortbewegungsmitteln (30, 32, 34) verbindet, wobei das Strebenlager in Axialrichtung der Strebe (18, 20) zwischen den beweglichen Fortbewegungsmitteln (30, 32, 34) angeordnet ist.

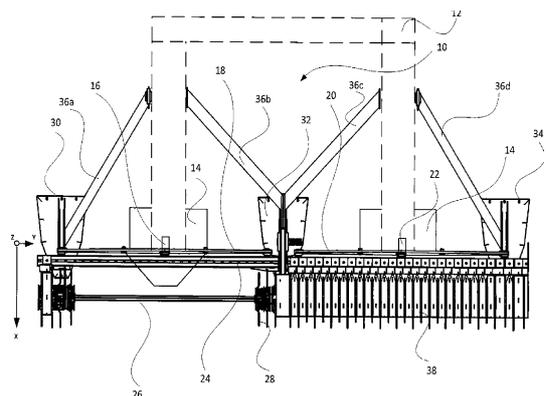
Publication: [DE 102014101371 A1 20150806](#)

Applicant: Reiter, Thomas, Dipl.-Ing., Schlüsslberg, AT

Inventor: Reiter, Thomas, Dipl.-Ing., Schlüsslberg, AT

Prio:

Appl.No:



IPC: A01D 89/00 2006.01 (IA)

Verfahren und Steuerungssystem zum Betreiben eines Feldhäckslers sowie Feldhäcksler

Verfahren zum Betreiben eines Feldhäckslers (1), wobei der Feldhäcksler ein von einem Trägerfahrzeug (3) getragenes Vorsatzgerät (2) zum Abtrennen und/oder Aufnehmen von stängelartigem Erntegut, ein Verarbeitungsgerät (4) zum Weiterverarbeiten des Ernteguts, und einen Auswurfkrümmer (9) zum Auswerfen des weiterverarbeiteten Ernteguts aufweist, wobei das Verarbeitungsgerät (4) ein Häckselwerk (5), stromabwärts des Häckselwerks (5) ein Leitelement (6), stromabwärts des Leitelements (6) eine Konditionier- und/oder Führungseinrichtung (7) und stromabwärts der Konditionier- und/oder Führungseinrichtung (7) einen Nachbeschleuniger (8) aufweist, wobei innerhalb und/oder stromabwärts des Verarbeitungsgeräts (4) mit Hilfe mindestens eines Sensors (21, 22, 23) eine tatsächliche Transportgeschwindigkeit des abgetrennten und weiterverarbeiteten Ernteguts bestimmt wird, und wobei der Feldhäcksler abhängig von der tatsächlichen Transportgeschwindigkeit des Ernteguts betrieben wird.

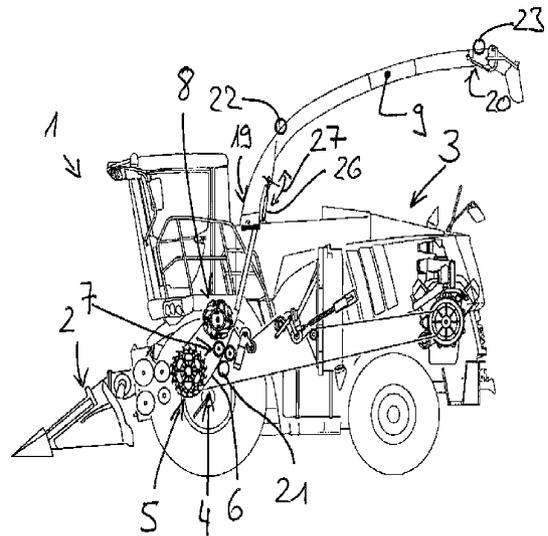
Publication: [DE 102014102221 A1 20150820](#)

Applicant: CLAAS Saulgau GmbH, 88348, Bad Saulgau, DE
Inventor: Birkhofer, Stefan, 78333, Stockach, DE; Schmitt, Mathias, 78576, Emmingen-Liptingen, DE; Loebe, Stefan, 88348, Bad Saulgau, DE; Bönig, Ingo, Dr., 33330, Gütersloh, DE; Kajtar, Peter, Dr., 88348, Bad Saulgau, DE

Prio:

Appl.No:

IPC: A01D 41/127 2006.01 (IA)



Schneidwerk für eine Erntemaschine

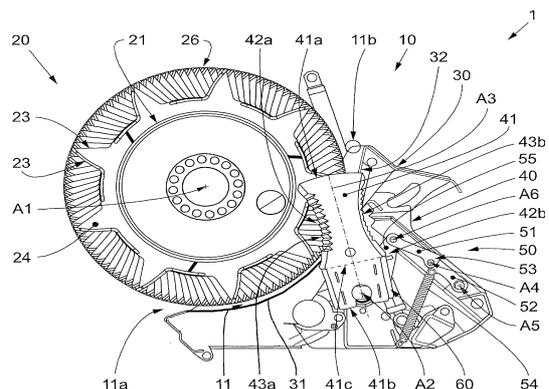
Schneidwerk (10) für eine Erntemaschine 1, aufweisend: eine Fördertrommel (20), die drehbar gelagert ist und die um einen Außenumfang (21) dieser verteilt eine Mehrzahl von nach radial außen vorstehenden Förderelementen (24) aufweist, welche einen Hüllzylinder (26) der Fördertrommel definieren, ein Leitelement (31), das sich so über eine Länge des Hüllzylinders und bogenförmig um einen Sektor eines Außenumfangs des Hüllzylinders erstreckt, dass zwischen der Fördertrommel und dem Leitelement ein Förderkanal (11) für Erntegut gebildet ist, und eine Schneideinheit (40) mit einem Schneidmesser (41), das sich in einer Schneidposition von einer der Fördertrommel abgewandten Seite des Leitelements durch eine Öffnung (32) in dem Leitelement hindurch in den Förderkanal erstreckt, um das Erntegut zu schneiden. Das Schneidmesser greift in der Schneidposition an einem in den Förderkanal hineinragenden Längsende (41a) dessen in die Öffnung im Leitelement ein, so dass dieses Längsende in einer Längsrichtung der Fördertrommel beidseitig vom Leitelement abgestützt ist. Dadurch hat das Schneidmesser eine höhere Stabilität gegen Verformungen und somit das Schneidwerk im Ergebnis eine erhöhte Betriebszuverlässigkeit.

Publication: [DE 102014102391 A1 20150827](#)

Applicant: CLAAS Saulgau GmbH, 88348, Bad Saulgau, DE
Inventor: Birkhofer, Stefan, 78333, Stockach, DE

Prio:

Appl.No:



IPC: A01D 90/04 2006.01 (IA)

Schneidwerk für eine Erntemaschine

Schneidwerk (10) für eine Erntemaschine (1), mit einer Fördertrommel (20), die um eine in einer Längsrichtung dieser verlaufende Drehachse (A1) drehbar gelagert ist, einer Mehrzahl von Schneidmessern (40), die um eine Schwenkachse (A2) aus einer Schneidposition, in der die Schneidmesser in einen an der Fördertrommel gebildeten Förderkanal (11) für Erntegut hineingestellt sind, jeweils in eine Schwenkrichtung weg von der Fördertrommel geschwenkt werden können, und Vorspannmitteln (50), welche eingerichtet sind, für die Schneidmesser jeweils eine Vorspannkraft bereitzustellen, welche das jeweilige Schneidmesser in eine Schwenkrichtung zur Schneidposition hin wirkend vorspannt, und eingerichtet sind, eine Größe der Vorspannkraft zu verändern. Gemäß der Erfindung weisen die Vorspannmittel Kräfteinstellmittel (80) auf, die so eingerichtet sind, dass die Größe der Vorspannkraft variabel einstellbar ist. Dadurch weist das Schneidwerk verbesserte Betriebseigenschaften auf.

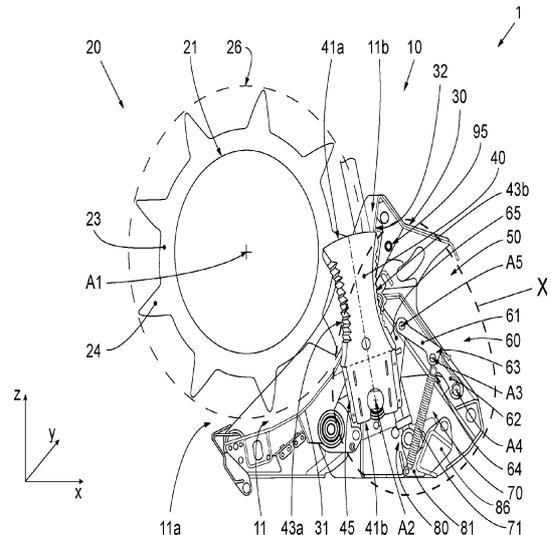
Publication: **DE 102014102392 A1 20150827**

Applicant: CLAAS Saulgau GmbH, 88348, Bad Saulgau, DE
Inventor: Birkhofer, Stefan, 78333, Stockach, DE; Loebe, Stefan, 88348, Bad Saulgau, DE

Prio:

Appl.No:

IPC: A01D 90/04 2006.01 (IA)



Schneidmesser-Überlastsicherung

Schneidmesser-Überlastsicherung (50) für ein Schneidwerk (10) einer Erntemaschine (1), mit einer Hebelanordnung zum Zusammenwirken mit einem Schneidmesser (40) des Schneidwerks, wobei die Hebelanordnung in eine Stützstellung, um das Schneidmesser in einer Schneidposition abzustützen, und gegen eine Vorspannkraft aus der Stützstellung heraus stellbar ist, um das Schneidmesser bei einer auf dieses einwirkenden Überlast aus der Schneidposition ausweichen zu lassen. Gemäß der Erfindung ist die Hebelanordnung als Kniehebelmechanismus (60) mit zwei Kniehebeln (61, 62) ausgebildet, die über ein Knickgelenk (63) an jeweiligen Längsenden dieser schwenkbar miteinander verbunden sind, wobei das Knickgelenk in einer Gestrecktstellung der Kniehebel unter die Vorspannkraft realisierender Vorspannung auf Anschlag stellbar ist, so dass die Stützstellung hergestellt ist, und die Kniehebel durch gegen die Vorspannung vom Anschlag weg im Knickgelenk Einknicken des Kniehebelmechanismus aus der Gestrecktstellung herausstellbar sind, um das Ausweichen des Schneidmessers zuzulassen.

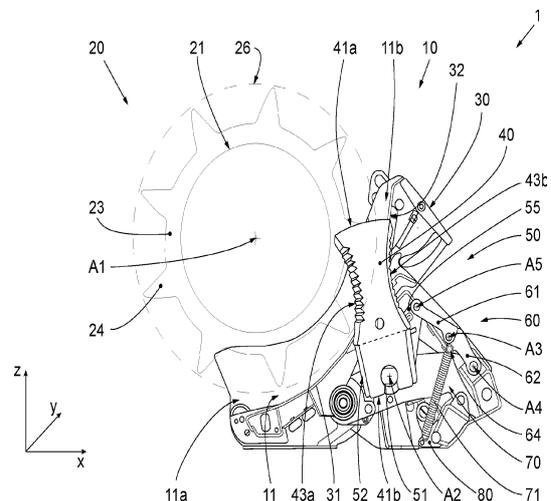
Publication: **DE 102014102393 A1 20150827**

Applicant: CLAAS Saulgau GmbH, 88348, Bad Saulgau, DE
Inventor: Birkhofer, Stefan, 78333, Stockach, DE

Prio:

Appl.No:

IPC: A01D 90/04 2006.01 (IA)



Schneidwerk für eine Erntemaschine

Schneidwerk (10) für eine Erntemaschine (1), aufweisend: einen ersten Schneidwerksteil (20), der ein Gehäuse (21) und eine Fördertrommel (22) hat, die um eine Drehachse (A1) drehbar im Gehäuse gelagert ist; einen zweiten Schneidwerksteil (30), der ein Leitelement (32) hat, das sich um die Fördertrommel erstreckt, sodass zwischen dieser und dem Leitelement ein Förderkanal (11) für Erntegut gebildet ist, und der um eine erste Schneidwerksschwenkachse (A2) schwenkbar am ersten Schneidwerksteil (20) gelagert ist, sodass als eine erste Schwenkung das Leitelement (32) radial von der Fördertrommel wegschwenkbar ist; einen dritten Schneidwerksteil (40), der eine Mehrzahl von sich in den Förderkanal erstreckenden Schneidmessern (42) und eine Lagerungseinrichtung (44) für die Schneidmesser (42) hat und der um eine zweite Schneidwerksschwenkachse (A4) schwenkbar am zweiten Schneidwerksteil (30) gelagert ist, sodass als eine zweite Schwenkung die Lagerungseinrichtung (44) vom Leitelement (32) wegschwenkbar ist; und eine Schalteinrichtung (50), die selektiv einen ersten Schaltzustand, in dem die erste Schwenkung gesperrt ist und die zweite Schwenkung ermöglicht ist, einen zweiten Schaltzustand, in dem die erste und die zweite Schwenkung ermöglicht sind, und einen dritten Schaltzustand, in dem die erste Schwenkung ermöglicht ist und die zweite Schwenkung gesperrt ist, herstellen kann.

Publication: [DE 102014102394 A1 20150827](#)

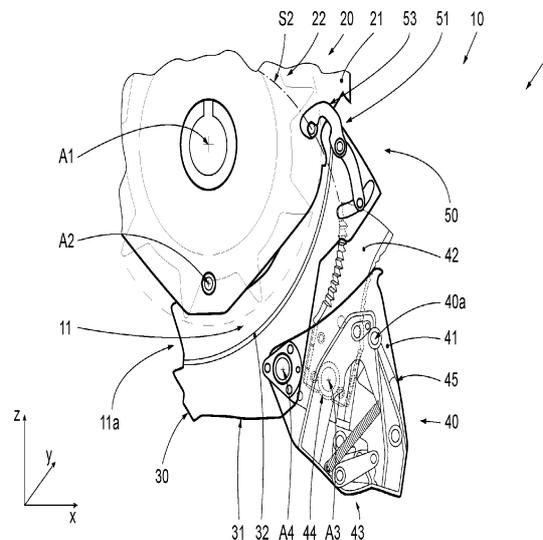
Applicant: CLAAS Saulgau GmbH, 88348, Bad Saulgau, DE

Inventor: Birkhofer, Stefan, 78333, Stockach, DE

Prio:

Appl.No:

IPC: A01D 90/04 2006.01 (IA)



Messerrotor für ein Mähgerät und Mähgerät mit einem solchen

Es wird ein Messerrotor (20) für ein Mähgerät (10) beschrieben. Der Messerrotor umfasst eine Mähzscheibe (22), wenigstens ein Mähmesser (24), wenigstens einen an der Mähzscheibe (22) befestigten Lagerbolzen (28) zur schwenkbaren Lagerung des Mähmessers (24) sowie ein an der Mähzscheibe (22) angeordnetes Federblech (32) zur Halterung des Mähmessers (24) am Lagerbolzen (28). Um bei Wartungsarbeiten einen Wechsel des Lagerbolzens (28) zu erleichtern wird vorgeschlagen, dass in oder an der Mähzscheibe (22) eine Befestigungsbohrung (26) vorgesehen ist, in die der Lagerbolzen (28) von einer dem Federblech (32) abgewandten Seite der Mähzscheibe (22) in die Befestigungsbohrung (26) einschraubbar ist, wobei am Lagerbolzen (28) ein Gewindebereich (42) und ein Halterungsbereich (44) ausgebildet ist und der Halterungsbereich (44) beim Einschrauben des Lagerbolzens (28) durch die Befestigungsbohrung (26) einführbar und mit dem Federblech (32) in Eingriff bringbar ist.

Publication: [DE 102014203486 A1 20150827](#)

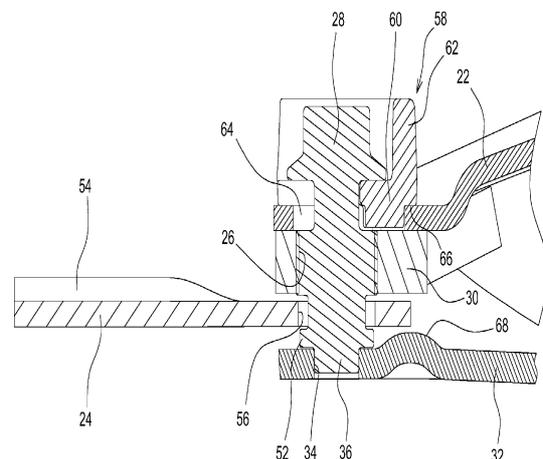
Applicant: Deere & Company, Ill., Moline, US

Inventor: Tepe, Heinrich, Gray, FR; Guiet, Lionel, Gray, FR; Lebeau, Jonathan, Dijon, FR

Prio:

Appl.No:

IPC: A01D 34/412 2006.01 (IA)



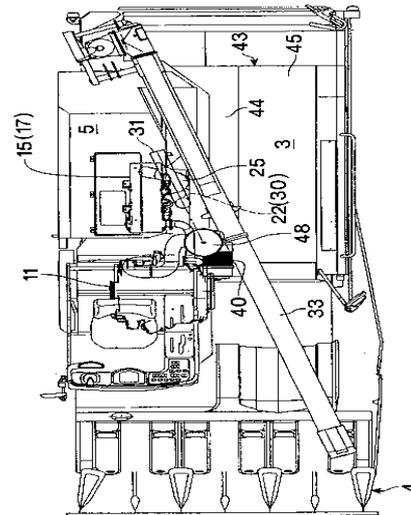
COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a combine harvester enabled to enlarge the size of an air cleaner thereby to improve the intake efficiency of an engine. **SOLUTION:** A combine harvester comprises: a grain tank (5) including a machine body frame (1) having a running device (2) equipped on one transverse side with a thresher (3) and on the other transverse side with the grain tank (5) having a discharge auger (33); and an engine (11), and a maneuvering section (6) arranged over the engine (11), wherein an air cleaner (40) for cleaning the air to be fed to the engine (11) is arranged on the upper side of the thresher (3). Moreover, at least a portion of the air cleaner (40) enters the lower side of the discharge auger (33) accommodated over the machine body. Moreover, the air cleaner (40) is arranged, as seen in a plane view, between the discharge auger (33) and the maneuvering section (6) housed on the machine frame. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015061541 A 20150402](#)

Applicant: ISEKI & CO LTD
Inventor: SATOJI HISAYUKI; SHIRAKATA MIKIYA;
 YAMAMOTO JIRO; UEJI YOSHITAKA; NISHIZAKI HIROSHI

Prio:
Appl.No: JP2014266133
IPC: A01D 41/12 2006.01 (IA)



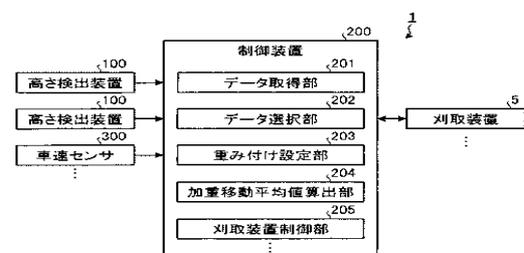
COMBINE

PROBLEM TO BE SOLVED: To provide a combine in which a height of a reaping device from the ground can be properly detected and a ground height of the reaping device can be controlled. **SOLUTION:** A combine 1 includes: a reaping device 5 provided in the front part of a machine body frame freely vertically movably; a height detection device 100 for detecting the height of the reaping device 5 with respect to the ground; and a control device 200 for controlling the height of the reaping device 5 based on a weighted moving average value of a plurality of detection results detected by the height detection device 100, while traveling for a preset predetermined travel distance or while a predetermined transit time passes. The control device 200 calculates the weighted moving average value in such a manner that detection result is more weighted as detection result is the latest side, and thereby the height from the ground of the reaping device 5 is properly detected and the ground height of the reaping device 5 can be controlled. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062358 A 20150409](#)

Applicant: ISEKI & CO LTD
Inventor: TSUJI KENTARO; KITAGAWA TOMOSHI;
 HIRAYAMA HIDETAKA; MATSUZAWA HIROKI;
 NISHIYAMA YOHEI

Prio:
Appl.No: JP2013197518
IPC: A01D 34/24 2006.01 (IA)



VERSATILE COMBINE HARVESTER

PROBLEM TO BE SOLVED: To prevent damage of a ground sensor caused by forget of housing, and to reduce operation load of an operator by dispensing with manual housing operation of the ground sensor. **SOLUTION:** In a versatile combine harvester 1, a reaping unit 2 is provided with a ground sensor 19 for detecting a ground height of the reaping unit 2. The versatile combine harvester 1 includes driving means (motor 28 for the ground sensor) for switching the position of the ground sensor 19 between a working position capable of detecting the ground height of the reaping unit 2 and a housed position where the reaping unit 2 is retracted upward from the working position. In response to the detection of stop or rearward motion of a machine frame, the position of the ground sensor 19 is automatically switched to the housed position. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062366 A 20150409](#)

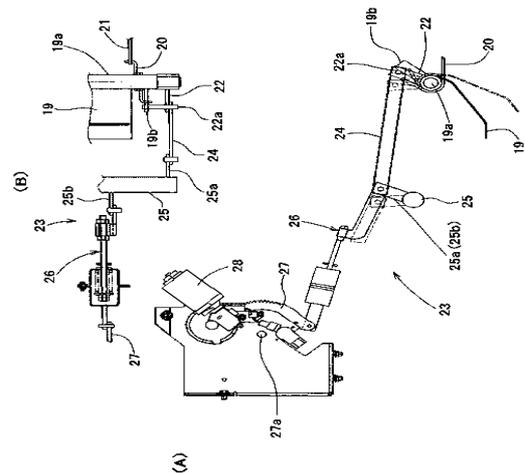
Applicant: MITSUBISHI AGRICULTURAL MACHINERY CO LTD

Inventor: FUNAKI DAISUKE; NISHIGORI MASAHIRO; FUNO YASUHIKO; KIMURA ATSUSHI

Prio:

Appl.No: JP2013197968

IPC: A01D 34/24 2006.01 (IA)



ROOT CROP HARVESTER

PROBLEM TO BE SOLVED: To provide a root crop harvester solving problems in a conventional working machine configured such that the stems and leaves of crops are held by a pullout conveyor and the crops are pulled up from a field, and then the upper parts of the stems and leaves are cut and the crops are returned to the field, and alternatively the upper parts of the cut stems and leaves are separately conveyed and discharged, in which the stems and leaves fall to the upper parts of the pulled-up crops, and this stems and leaves interfere to thereby reduce work efficiency. **SOLUTION:** A root crop harvester is characterized in that a conveyance termination (T) of an excavating conveying device (40) is disposed in the left and right one side of the anterior posterior shafts of a machine body passing a conveyance starting end (S) of the excavating conveying device (40), and also a conveyance starting end (X) of a stem and leaf conveying device (90) is disposed in the upper part of a crop conveyance locus of the excavating conveying device (40), and the conveyance termination (Y) of the stem and leaf conveying device (90) is formed in a traveling device side provided in the left and right one side. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062371 A 20150409](#)

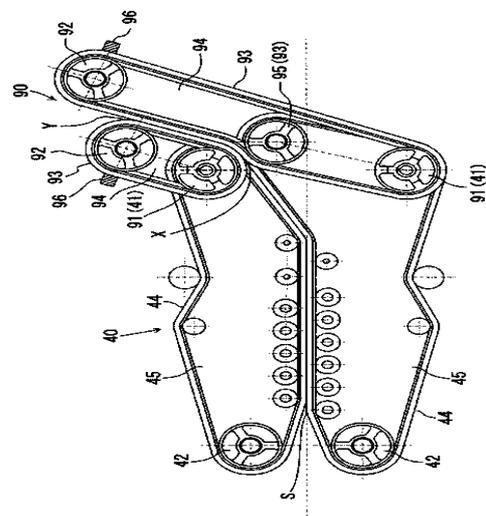
Applicant: ISEKI & CO LTD

Inventor: MURANAMI MASAMI; YAMAMOTO KAZUHIKO; TAKAGI SHINGO; KUROSE HIDEAKI; YUMITATSU TAKESHI; MATSUIE SHINICHI

Prio:

Appl.No: JP2013198373

IPC: A01D 25/00 2006.01 (IA)

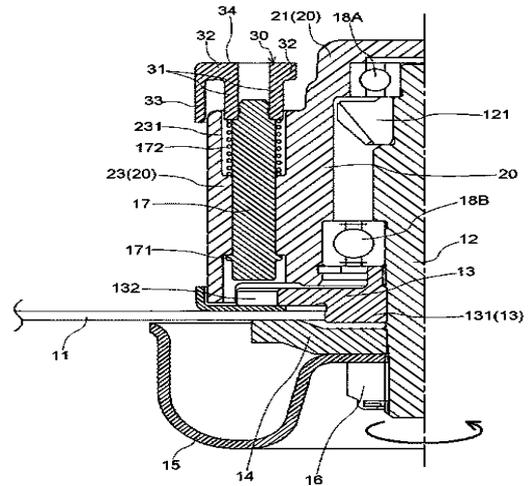


PORTABLE WORKING MACHINE

PROBLEM TO BE SOLVED: To provide a portable working machine in which an operation of a fixing pin for regulating the rotation of a drive shaft is reliably carried out, even when much scattering debris is generated by work.**SOLUTION:** A cap 30 formed of synthetic resin or the like is press-fitted and attached on an upper end of a fixing pin 17 from the upper side of the fixing pin 17. The cap 30 comprises a fitting part 31 fitted to an upper end side of the fixing pin 17, and an outer circumference supporting part 32 projected outside when viewed from a central axis of the fixing pin 17 over an upper entire circumference of the fitting part 31. A skirt part 33 extending toward a lower side from the outer circumference supporting part 32 is connected in the outer circumference supporting part 32 being at the outside (left side in FIG. 3) when viewed from the side of a drive shaft 12. The skirt part 33 in the cap 30 is configured to come into contact with an outer surface of a fixing pin storage part 23 including a gear case side guide part and seal the outer surface, and is made to slide along the outer surface.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062372 A 20150409](#)

Applicant: HITACHI KOKI CO LTD
Inventor: EJIRI TADAKATSU; KUGENUMA ATSUSHI
Prio:
Appl.No: JP2013198431
IPC: A01D 34/68 2006.01 (IA)

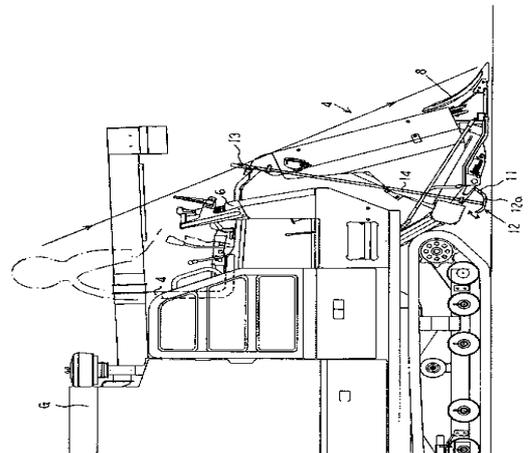


COMBINE

PROBLEM TO BE SOLVED: To provide a combine that can easily grasp a reaping height with a simple device in the medium-breaking work or the like.**SOLUTION:** A combine includes a follower (12) having a vertical motion while following grounded to the ground, and a gauge (13) operating associated with the vertical motion of the follower (12), in a backward part from a grass divider (8) provided at a front end in a reaper (4), and is provided with the gauge (13) visibly from a driver's seat (5). Also, the upper end of the gauge (13) is disposed in the vicinity of a straight line for connecting a viewpoint of an operator with a tip position of the grass divider (8). Also, the follower (12) is constituted by a carrier body (12a). Also, the follower (12) is constituted by a rollable roller (12b). Also, the follower (12) is disposed in the backward position from a reaping blade device (10) provided at a lower part of the reaper (4).**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062374 A 20150409](#)

Applicant: ISEKI & CO LTD
Inventor: FURUKAWA HIROSHI; ISHIGA WAHEI
Prio:
Appl.No: JP2013198517
IPC: A01D 34/24 2006.01 (IA)

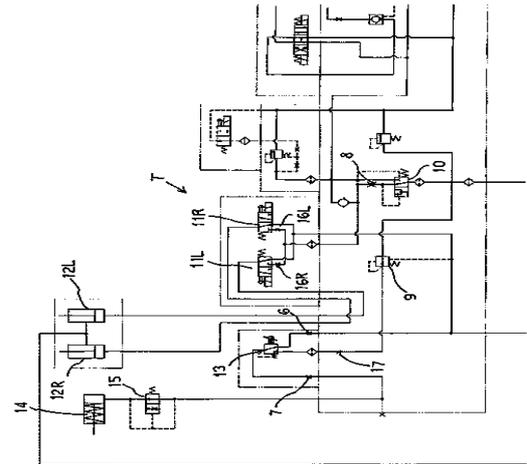


STEERING HYDRAULIC CIRCUIT OF COMBINE

PROBLEM TO BE SOLVED: To provide a steering hydraulic circuit that prevents the occurrence of surge pressure of a hydraulic clutch cylinder in the turning of a combine, thereby reducing a turning shock. **SOLUTION:** A steering hydraulic circuit of a combine operates a clutch cylinder (14) for steering by the switching operation of an electromagnetic switching valve (13). A pilot throttling valve (15) switched from a completion state to a diaphragm state when the pilot pressure of a supply oil passage exceeds a predetermined pressure is provided between the clutch cylinder (14) for steering and the electromagnetic switching valve (13). Or, a throttled check valve (23) for making a return oil flow into the oil passage to a tank when a return pressure of an oil return path exceeds the predetermined pressure is provided between the clutch cylinder (14) for steering and the electromagnetic switching valve (13). **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062376 A 20150409](#)

Applicant: ISEKI & CO LTD
Inventor: SHIROSHITA TETSUYA
Prio:
Appl.No: JP2013198519
IPC: A01D 69/03 2006.01 (IA)

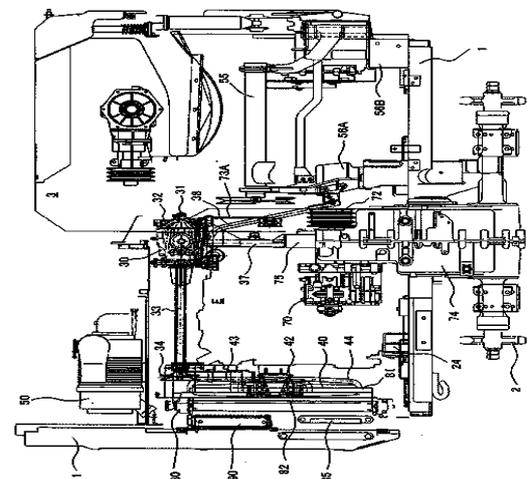


COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a combine-harvester that: prevents the transmission of vibration generated during driving of a hydraulic continuously variable transmission for a fan; includes a driver's seat superior in operating environment thanks to the prevention; and is superior in a cooling effect of an engine. **SOLUTION:** A combine-harvester is configured by: providing a hydraulic continuously variable transmission 70 for traveling to drive a traveling device 2, and a transmission 74; providing suspension frames 56A, 56B installed with a spindle 55 provided to the rearward of a reaping device on a machine body frame 1; providing a hydraulic continuously variable transmission 30 for a fan in an engine room 8 outside from an outer circumferential part of the fan 40; and supporting the hydraulic continuously variable transmission 30 for the fan by an upper part of a first support frame 37 with a lower part fixed in the transmission 74 or the hydraulic continuously variable transmission 70 for traveling and an upper part of a second support frame 38 with a lower part fixed in the suspension frame 56A. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062394 A 20150409](#)

Applicant: ISEKI & CO LTD
Inventor: FUJITA YASUSHI
Prio:
Appl.No: JP2013199556
IPC: A01D 41/12 2006.01 (IA)

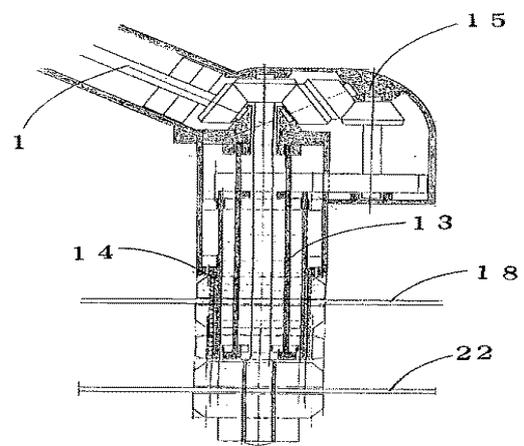


NEW BUSH CUTTER WITH FUNCTION PREVENTING BLADE EDGE FROM GREATLY BOUNCING EVEN IF COMING INTO CONTACT WITH HARD FOREIGN MATERIALS DURING WORK OF BUSH CUTTING

PROBLEM TO BE SOLVED: To solve problems conventionally caused when a blade edge of a cutting blade comes into contact with hard foreign materials during work using a bush cutter, in which the blade edge of the bush cutter may bounce greatly to cause such an accident that the cutting blade comes into contact with people who are near. **SOLUTION:** A second balance blade rotating in a direction opposite to a rotation of a cutting blade is newly incorporated on the upper part of the cutting blade so that a blade edge part of a bush cutter may not greatly bounce in recoil, unlike a conventional bush cutter which may, even if the blade edge of the bush cutter comes into contact with hard foreign materials. The above-mentioned rotations in mutually opposite directions cancel reaction forces of respective rotations to prevent the blade edge of the bush cutter from the dangerous bouncing back even if the cutting blade comes into contact with the hard foreign materials. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062399 A 20150409](#)

Applicant: SHIGEI HARUO
Inventor: SHIGEI HARUO
Prio:
Appl.No: JP2013212306
IPC: A01D 34/68 2006.01 (IA)

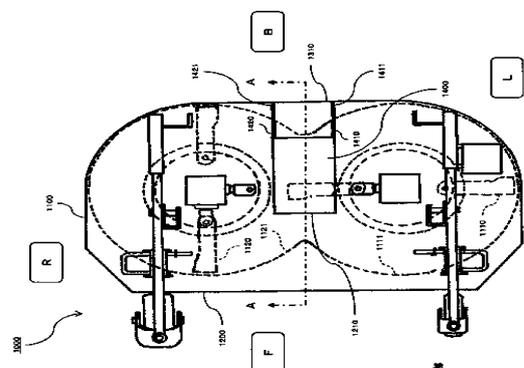


RIDING MOWER

PROBLEM TO BE SOLVED: To solve the problems caused in the grass collecting work in which the occurrence of mowed-grass clogging is often seen. **SOLUTION:** A riding mower includes a mower 1000 for mowing grass having a mower deck 1100 with an upper surface covered by a mower deck top plate member 1200 and a lower surface opened. The mower 1000 has a pair of cutting blades 1110 and 1120 juxtaposed in the lateral direction and mowing grass, and a mowed grass guide channel 1400 provided in the right and left central parts and guiding the mowed grass, in the mower deck 1100. A suction hole 1210 is provided in a portion of the mower deck top plate member 1200 of the upper side of the mowed grass guide channel 1400. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015062402 A 20150409](#)

Applicant: ISEKI & CO LTD
Inventor: MATSUKI SATOSHI; TODA HIROTAKE; KURITA KAZUYUKI; YOSHIKI SHINYA
Prio: JP 20130828 2013176563
Appl.No: JP2014069298
IPC: A01D 34/64 2006.01 (IA)



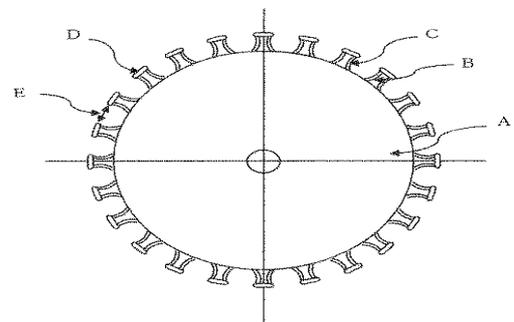
1000 刈り機
1100 刈り機本体
1110、1120 刈り刃
1200 刈り機本体上板
1210 吸引孔
1310、1320 刈り機本体側板
1400 刈り機本体側板
1410、1420、1430、1440、1450、1460、1470、1480、1490、1500、1510、1520、1530、1540、1550、1560、1570、1580、1590、1600、1610、1620、1630、1640、1650、1660、1670、1680、1690、1700、1710、1720、1730、1740、1750、1760、1770、1780、1790、1800、1810、1820、1830、1840、1850、1860、1870、1880、1890、1900、1910、1920、1930、1940、1950、1960、1970、1980、1990、2000

ROTARY BLADE ATTACHED WITH BLADE ON BOTH SIDES OF MOWER BLADE AND ATTACHED GUARD ON THE TIP

PROBLEM TO BE SOLVED: To provide a rotary blade of a mowing machine with an engine in which the rotary blade enables left rotation and also right rotation, and even if the rotary blade hits a leg of people, the rotary blade may not cause a cutting accident of cutting legs and the fatal accident. **SOLUTION:** A mower blade of a rotary blade is placed in the inside of a rotating plate from an outer circumference of the rotating plate, and blades are added to both sides of the mower blade and a guard is attached to the tip of the mower blade. When the rotary blade rotates, the guard attached on the tip of the mower blade rotates and is turned around an outer circumference of the rotary blade. Even if a leg hits the rotary blade, the guard bounces the leg and prevents the leg from hitting the blade attached to the mower blade. The guard is attached to the tip of the mower blade, and thereby the blades can be attached on both sides of the mower blade. Accordingly, the rotary blade becomes to have the left rotation and also the right rotation, and thereby the rotary blade can be easily and quickly reversed by operating a rotary lever of the mowing machine with the engine. COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015062413 A 20150409](#)

Applicant: IKUSHIMA EIJI
Inventor: IKUSHIMA EIJI
Prio: JP 20130831 2013193451
Appl.No: JP2014189414
IPC: A01D 34/68 2006.01 (IA)

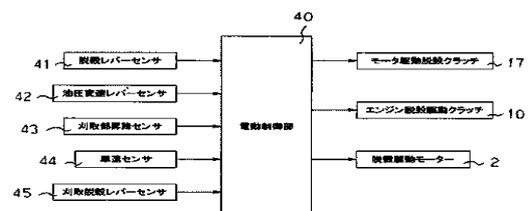


COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a combine harvester in which an engine can be miniaturized, fuel consumption is less, and exhaust gas is less exhausted. **SOLUTION:** The combine harvester is provided with an engine threshing driving clutch (10) for connecting/disconnecting driving force from an engine (1) to a threshing device (25), load determination means for determining a load condition of the engine (1), and threshing driving motor (2) for directly driving the threshing device (25). When the load determination means determines a low load condition, the rotation speed of the engine (1) is automatically lowered, and the engine threshing driving clutch (10) is disconnected so that the threshing device (25) is driven only by a driving force of the threshing driving motor (2). COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015065816 A 20150413](#)

Applicant: ISEKI & CO LTD
Inventor: MIYAMOTO AKIFUMI; UEKA IKURO;
 KAWAGUCHI HIROMICHI; WATABE HIROKI;
 UCHIYAMA RYUSUKE
Prio:
Appl.No: JP2013200023
IPC: A01D 69/00 2006.01 (IA)



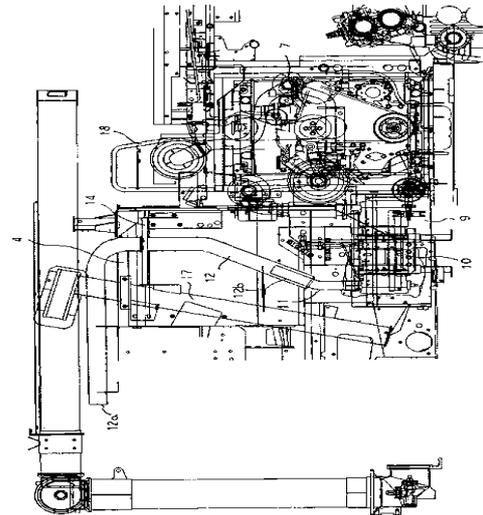
COMBINE HARVESTER

PROBLEM TO BE SOLVED: To enhance safety in reaping and harvesting work of a combine harvester by preventing accumulation of waste straw and dust in an exhaust processing device and exhaust pipe so as not to allow high temperature exhaust gas to be blown to threshed waste culms.**SOLUTION:** An exhaust processing device (13) is installed which purifies exhaust gas exhausted from an engine (7), and in front of a first product grain-lifting cylinder (17) of a threshing device (5), an exhaust pipe (11) is erected from the exhaust processing device (13) upwardly. An exhaust guiding pipe (12) is connected to an upper part of the exhaust pipe (11), and the exhaust guiding pipe (12) is extended rearward at above the threshing device (5), so that an exhaust port (12a) opens rearward.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065817 A 20150413](#)

Applicant: ISEKI & CO LTD
Inventor: IWAMOTO HIROSHI; GOTO KAZUMI;
OKUMURA KAZUYA

Prio:
Appl.No: JP2013200024
IPC: A01D 41/12 2006.01 (IA)

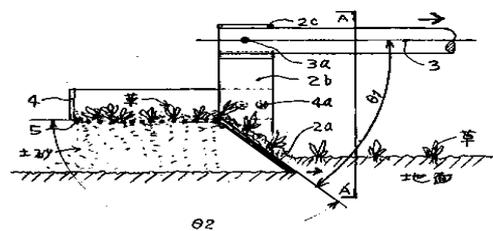


WEEDING TOOL

PROBLEM TO BE SOLVED: To provide a weeding tool that digs up weed roots with a root cutting blade, collects them in a collection box, and shakes off the soil adhering to the weed roots by a net part.**SOLUTION:** A continuous surface is formed by applying an angle of θ_2 to a top face of a root cutting blade 2a and a bottom face of a collection box 4, and an angle of θ_1 is applied to the top face of the root cutting blade 2a and a center line of a handle 3, thereby facilitating a weeding operation.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065830 A 20150413](#)

Applicant: SUZUKI MASARU
Inventor: SUZUKI MASARU
Prio:
Appl.No: JP2013200594
IPC: A01D 1/14 2006.01 (IA)

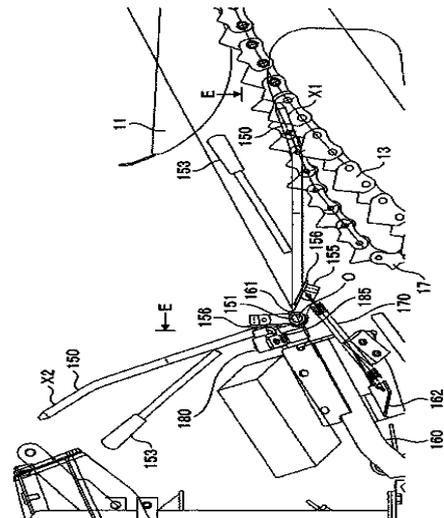


COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a combine harvester capable of enhancing the safety easily at a manual threshing work.
SOLUTION: A combine harvester 1 comprises: a feed chain 13 for feeding grain culm mowed by a mowing device 7 to a thresher 5; a synchronous chain 17 arranged partially over the feed chain 13, as viewed in the transverse direction of the machine body, for transferring the grain culm mowed by the mowing device 7, to the feed chain 13; a regulation member 150 capable of switching a regulation position X1, at which contact is made with the synchronous chain 17 from above the synchronous chain 17, and an open position X2, at which an upward spacing is made from the synchronous chain 17; a spring 170 for applying a biasing force to push the regulation member 150 to the synchronous chain 17, to the regulation member 150; and a switch 180 for detecting that the regulation member 150 is at the open position X2. When it is detected by the switch 180 that the regulation member 150 is at the open position X2, the transportation speed of the grain culm by the feed chain 13 is decelerated.
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Publication: [JP 2015065852 A 20150413](#)

Applicant: ISEKI & CO LTD
Inventor: KITAGAWA TOMOSHI; IKESUE EIJI
Prio:
Appl.No: JP2013201857
IPC: A01D 61/00 2006.01 (IA)

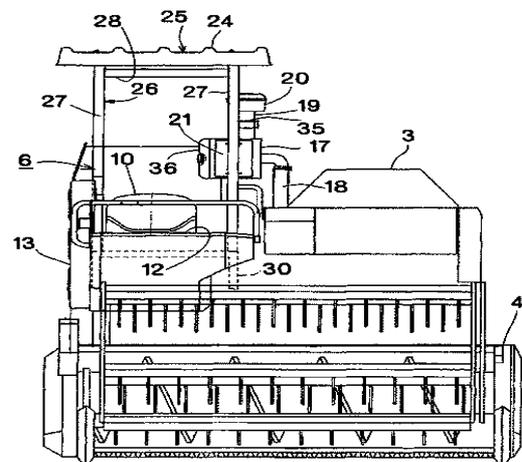


COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a combine harvester capable of solving a problem, in which an air cleaner is allowed to have a narrow mounting space so that it cannot be enlarged, because of the construction, in which the air cleaner is disposed above an engine, in which a driver's seat is disposed above the air cleaner, and in which a sun visor is disposed above the driver's seat.
SOLUTION: A driving section 6 is disposed in front of a grain tank 5. A sun visor 25 is disposed above a driver's seat 10 of the driving section 6. An air cleaner 17 is arranged in the space between a thresher 3 and the grain tank 5. In the combine harvester, the air cleaner 17 is supported by a visor frame 26 for supporting the sun visor 25.
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Publication: [JP 2015065861 A 20150413](#)

Applicant: ISEKI & CO LTD
Inventor: SAITO MANABU; OHARA KAZUSHI
Prio:
Appl.No: JP2013202265
IPC: A01D 41/12 2006.01 (IA)



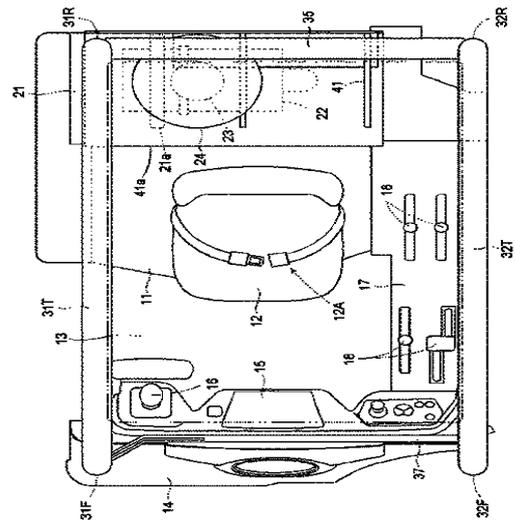
COMBINE HARVESTER

PROBLEM TO BE SOLVED: To rationally configure a combine harvester having a safety frame corresponding to a machine body constitution. **SOLUTION:** A combine harvester comprises: a first rear column part 31R on one transverse side at the back of a driver's seat 12; a first upper frame part 31T extending to the front side at the upper end of the first rear column part 31R and on the upper side of the driver's seat 12; and a first front column part 31F extending downward from the front end of the first upper frame part 31T. Further comprised are: a second rear column part 32R at the back of the driver's seat 12 and on the other side of the transverse direction; a second upper frame part 32T extending to the front side of the driver's seat 12 on the upper side of the second rear column part 32R; and a second front column part 32F extending downward from the front end of the second upper frame part 32T. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065872 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: OMORI MIKIO; TERAZONO HARUKA; KATO KATSUHIDE; IKEDA FUTOSHI

Prio:
Appl.No: JP2013202689
IPC: A01D 67/00 2006.01 (IA)



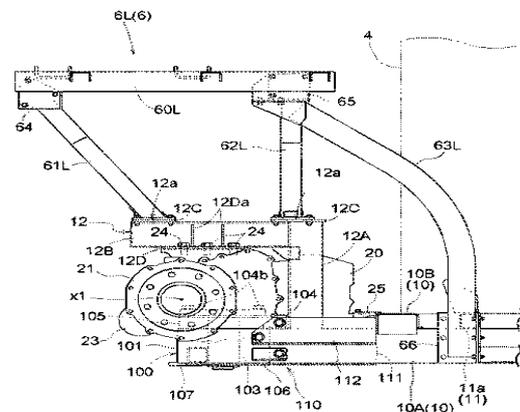
HARVESTER

PROBLEM TO BE SOLVED: To provide a harvester in which a vertical direction length of an operation part frame for supporting the operation part is shortened as much as possible on maintaining forward visibility well by setting an operation part in a predetermined height, and the rigidity is improved while avoiding an increase of strength and the number of usage of an operation part frame in itself. **SOLUTION:** A harvester includes a main frame 10 with a working device installed thereon, and a support base frame 12 connected to the main frame 10 and having an operation part frame 6 installed thereon. The support base frame 12 includes an installation part 12a of the operation part frame 6 for supporting the operation part at the position higher than the upper surface of the main frame 10, and is disposed so that a drive shaft to a traveling device provided to a transmission unit 21 may be positioned below this support base frame 12. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065873 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: ARAYA MAMORU; YAGISAWA TOSHIO; YAMAGATA KOJI; UCHI TAKAHIRO; KAMIKITA CHIHARU

Prio:
Appl.No: JP2013202690
IPC: A01D 67/00 2006.01 (IA)



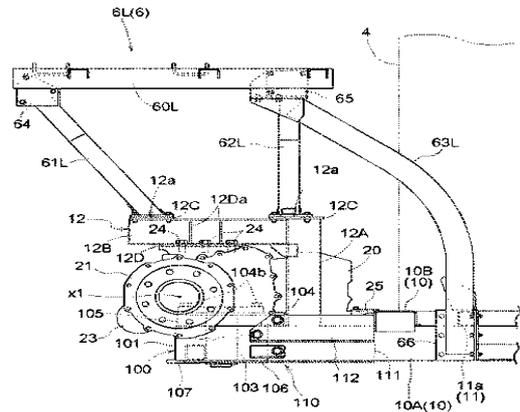
NORMAL TYPE COMBINE

PROBLEM TO BE SOLVED: To provide a normal type combine improved by solving such problems that it becomes hard to perform attachment/detachment and maintenance work of various equipment due to the existence of an operation part frame for maintaining forward visibility well by setting an operation part in a predetermined height.**SOLUTION:** A normal type combine includes an operation part on which an operator can get, and an operation part frame 6 making a vehicle body frame support the operation part. The operation part frame 6 is detachably constituted while a portion thereof supports the operation part in the vehicle body frame.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065874 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: ARAYA MAMORU; YAGISAWA TOSHIO;
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Prio:
Appl.No: JP2013202691
IPC: A01D 67/00 2006.01 (IA)



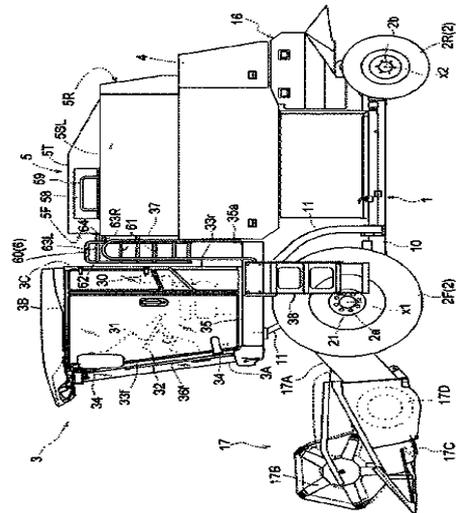
COMBINE HARVESTER

PROBLEM TO BE SOLVED: To allow the inside of a grain tank to be easily checked from the side of a driving part.**SOLUTION:** A combine harvester comprises: a driving part 3 in which a driver can ride; and a grain tank 5 that stores grains. The grain tank 5 includes a climbing step 6 that the driver climbs to a top plate 55 of the grain tank 5.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065875 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: TATENO YUSUKE; YOSHIDA YUSAKU;
FUKUOKA YOSHITAKE; MITSUI TAKAFUMI

Prio:
Appl.No: JP2013202692
IPC: A01D 67/00 2006.01 (IA)



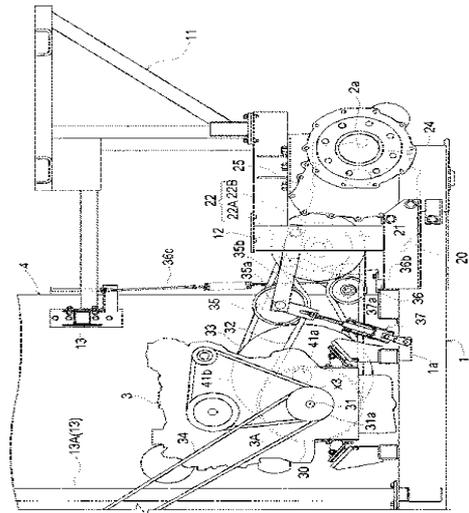
COMBINE

PROBLEM TO BE SOLVED: To provide a combine in which power transmission from an engine to a threshing device is constituted by rational structure.**SOLUTION:** The combine includes an engine 3, a transmission 20 for transmitting a driving force to a traveling device, and a threshing device 4. The combine is constituted in such a manner that the power of the engine 3 is branched and transmitted to the threshing device 4 through an input shaft 21 of the transmission 20. As a result, the input shaft 21 of the transmission 20 essential as a transmission mechanism to a traveling system can be effectively utilized as a relay shaft in the transmission system of the threshing device 4, and thereby the transmission mechanism from the engine 3 to the threshing device 4 may be constituted without trouble, even if the output part of the engine 3 and the input part of the threshing device 4 come close each other in a front-rear direction.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065876 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: YAMAGATA KOJI; NAKAJIMA SHINROKU;
OSADA YUKI

Prio:
Appl.No: JP2013202693
IPC: A01D 69/06 2006.01 (IA)



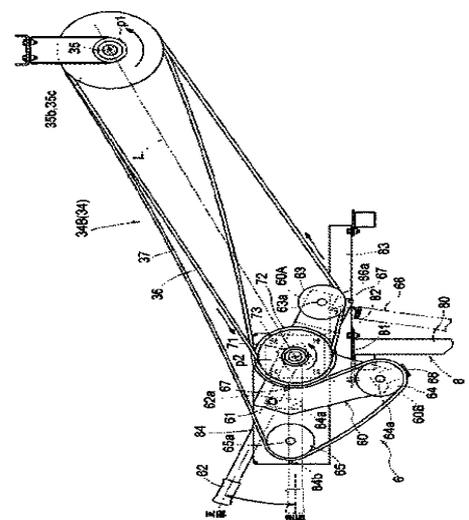
WORKING MACHINE

PROBLEM TO BE SOLVED: To provide a working machine in which power transmission from an engine to a radiator cooling fan is constituted by a rational structure and with a simple structure.**SOLUTION:** A working machine includes a drive unit for driving a radiator cooling fan based on the power of an engine 3. The drive unit includes two systems of power transmission mechanisms of a forward system power transmission mechanism capable of transmitting forward power in an endless turning band, and a reverse system power transmission mechanism capable of transmitting reverse power in another endless turning band. Also, the drive unit includes a forward and reverse selection mechanism 6 capable of alternatively selecting the power from either one of the power transmission mechanisms and transmitting the power to an input rotating body 72 of the radiator cooling fan.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065877 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: YAMAGATA KOJI; NAKAJIMA SHINROKU

Prio:
Appl.No: JP2013202694
IPC: A01D 41/12 2006.01 (IA)

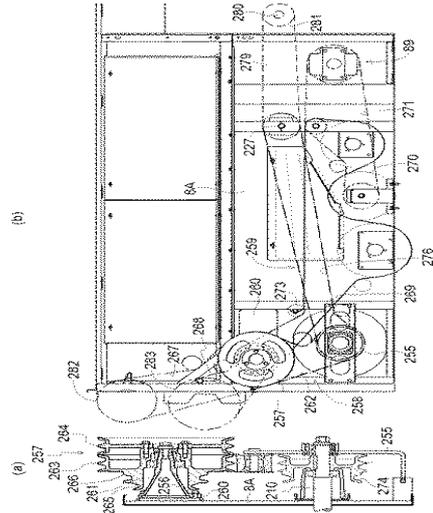


COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a combine-harvester capable of constituting a rational airframe-arranging construction hardly having a useless installation space although a transmission structure is simple. **SOLUTION:** A combine-harvester comprises: a counter shaft 210 including a feeder for transporting back a crop plant reaped by a reaping part at a machine body front part, and a thresher for threshing the crop plant being transported by the feeder, extending through the inside of the thresher for transmitting power from an engine to the thresher on the side opposite to the engine; a relay shaft 256 different from the counter shaft 210; a relay transmission mechanism 258 for transmitting the power from a drive rotor 255 mounted on the counter shaft 210 to a driven rotor 257 mounted on the relay shaft 256; and a distribution transmission mechanism 259 for distributing and feeding the power from the driven rotor 257 to a threshing drum and the feeder. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065878 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: MITSUI TAKAFUMI
Prio:
Appl.No: JP2013202695
IPC: A01D 69/06 2006.01 (IA)

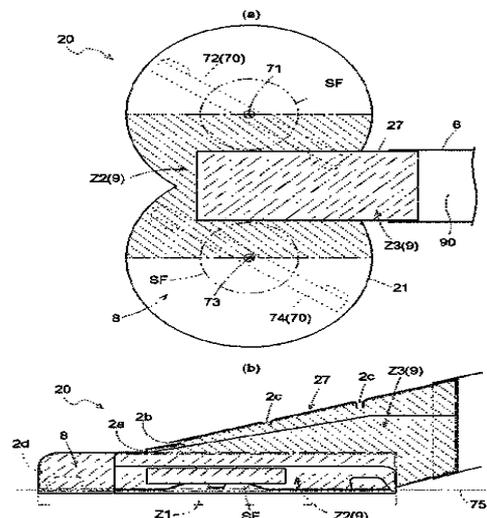


MOWER UNIT

PROBLEM TO BE SOLVED: To increase air capacity to carrier air created by a blade unit, and thereby mowed grass can smoothly be conveyed even in a flow path from a discharging cover to a conveying duct. **SOLUTION:** A mower unit includes: a blade unit 70 having a blade rotating around a first shaft core 71 and a second shaft core 72; a blade housing 21 forming a mowed grass discharge port 29 for discharging mowed grass between the first shaft core and the second shaft core, and forming a mowing space 8 by a top plate and side plates; and a discharging cover 27 for forming a discharge/conveyance flow path 90 coming into communication with the mowing space 8 through the mowed grass discharge port 29. An intake part 2 is opened to a mowed grass discharging space 9 comprising a mowed grass discharging front area Z2 being an area of the mowing space 8 upper from a mowing plane 75 between the first shaft core 71 and the second shaft core 72 and defined by a blade rotation locus, and a mowed grass discharging rear area Z3 being an area in the vicinity of the mowed grass discharge port 29 in the discharge/conveyance flow path 90. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065885 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: NISHIHARA HIRONOBU; ITO HIROKAZU;
 YAMASHITA NOBUYUKI; KANAI TOSHIKI; AKAI
 YUTO; NAGAI HIROKI; IZUMI MASAHIRO
Prio:
Appl.No: JP2013202704
IPC: A01D 34/64 2006.01 (IA)



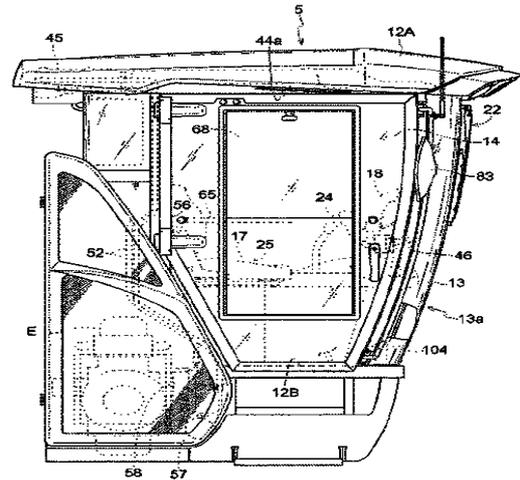
SERVICE VEHICLE

PROBLEM TO BE SOLVED: To provide a combine that enables an operator to get access to the outside of a cabin from the inside thereof or to the inside thereof from the outside thereof, even when a door cannot be opened. **SOLUTION:** A combine comprises a cabin 5 into which an operator gets, an openable/closable door 14 that is provided in a lateral part on the machine-body lateral outside of the cabin 5, and an openable/closable window part 68 that is provided in the door 14. The window part 68 can be attached to/detached from the door 14. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065888 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: SAKO KAZUSHI; MIGAKI YUSUKE; TAKENAKA MITSURU; TOMINAGA TOSHIO

Prio:
Appl.No: JP2013202707
IPC: A01D 67/02 2006.01 (IA)

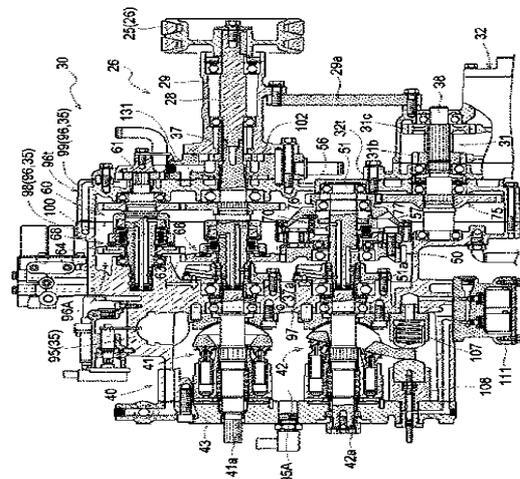


COMBINE

PROBLEM TO BE SOLVED: To provide a combine capable of avoiding drive failure of a continuous variable transmission unit without having a travel transmission device equipped with a special deceleration function, the combine including: the variable transmission device having a static hydraulic continuous transmission unit for variably shifting a driving force of an input shaft that inputs a driving force from an engine, and a planetary transmission unit for outputting, from a planetary output shaft, a combined driving force produced by combining the driving force of the input shaft and the driving force of a continuous output shaft of the continuous transmission unit; and the travel transmission device for transmitting the combined driving force from the planetary output shaft to a traveling device. **SOLUTION:** In a combine, a deceleration output shaft 38 is provided in a variable transmission device 30. The deceleration output shaft 38 is operated in an interlocking manner with a planetary output shaft 56 via a deceleration transmission mechanism 75 and outputs a combined driving force from the planetary output shaft 56 to a travel transmission device 31 after decelerating the combined driving force. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065892 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: KATO YUJI; NORITA SEIJI
Prio:
Appl.No: JP2013202780
IPC: A01D 69/06 2006.01 (IA)



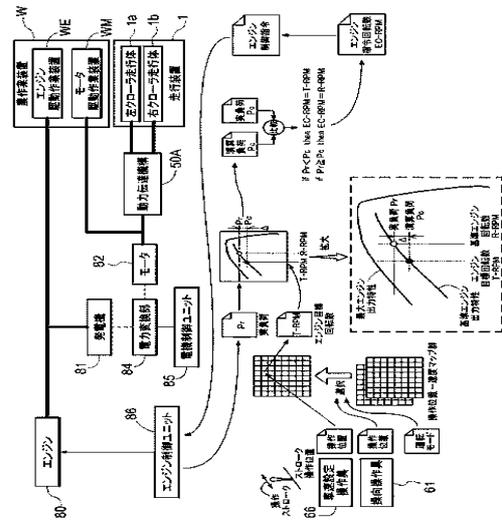
SERIES HYBRID COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a combine-harvester which adopts a motor driven only by electric power directly supplied from a generator driven by an engine, and mounts an engine speed controller which realizes reduction of engine noise and suppression of fuel consumption by use of a smallest possible engine. **SOLUTION:** A series hybrid combine-harvester comprises: a travel unit 1 which causes a vehicle to travel by use of rotation power from a motor 82 driven by electric power supplied from a generator 81 driven by an engine output; and an agricultural working device W. The series hybrid combine-harvester comprises: an engine target speed calculation unit which calculate a target rotational number of an engine 80 on the basis of an operation position of a vehicle speed setting operation tool 66; an actual loading acquisition unit which acquires an actual loading of the engine 80; a reference engine rotational number calculation unit which calculates a reference engine rotational number from the actual loading on the basis of the reference engine output characteristics; and an engine command rotational number calculation unit which calculates an engine command rotational number on the basis of the target rotational number and the reference engine rotational number. COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015065893 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: YAMANAKA YUKIFUMI; NAKAJIMA TETSUYA; NORITA SEIJI

Prio:
Appl.No: JP2013202783
IPC: A01D 69/00 2006.01 (IA)



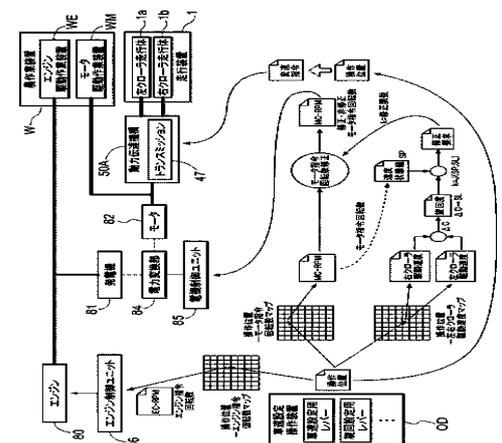
SERIES HYBRID COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a series hybrid combine-harvester in which a travel unit is driven by a motor excellent in gear-shift characteristics, and which mounts a small-sized engine excellent in fuel consumption performance as a driving source of the motor. **SOLUTION:** A series hybrid combine-harvester comprises: a motor 82 which is driven by electric power supplied from a generator 81 driven by an engine output; a travel unit 1 which includes a left crawler-traveling body 1a and a right crawler-traveling body 1b driven independently of each other by rotation power from the motor 82; a vehicle speed setting operation device which sets a vehicle speed according to an operation position; a motor rotational number calculation unit which calculates a motor command rotational number on the basis of the operation position to be used as a control target rotational number of the motor; and a motor rotational number correction unit which corrects the motor command rotational number on the basis of a turning degree derived from driving speed difference between the left crawler-traveling body 1a and the right crawler-traveling body 1b. COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015065894 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: YAMANAKA YUKIFUMI; NAKAJIMA TETSUYA; OSHITANI MAKOTO; TAKAO YOSHIRO; IKEDA HIROSHI

Prio:
Appl.No: JP2013202784
IPC: A01D 69/02 2006.01 (IA)



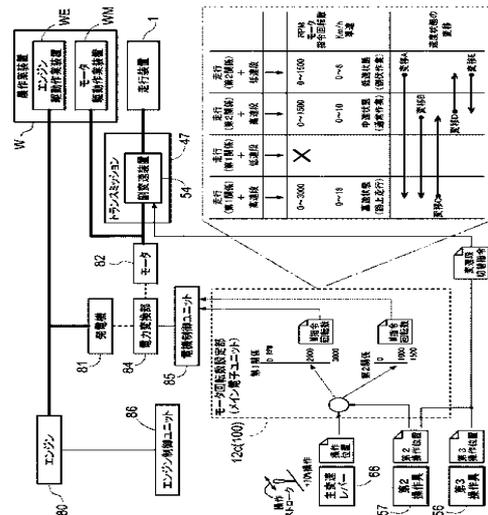
SERIES HYBRID COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To improve energy consumption of a hybrid combine-harvester in which a travel unit is driven by a motor. **SOLUTION:** A series hybrid combine-harvester comprises: a travel unit 1 which causes a vehicle to travel by use of rotation power from a motor 82 driven by electric power supplied from a generator 81 driven by output of an engine 80; a cutting processing part which is driven by rotation power from the motor 82; and an electric machine control unit 85 which controls the generator 81 and the motor 82. The series hybrid combine-harvester includes a motor rotational number setting unit 12c which assigns a motor command rotational number to the motor 82 according to an operation position of a first operation tool 66 adjusting driving speed of the travel unit 1 by use of either a first relation or a second relation selected based on operation of a second operation tool 57. A faster motor command rotational number is assigned to the first relation in comparison with the second relation. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065895 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: YAMANAKA YUKIFUMI; NAKAJIMA TETSUYA; KURAMAE YUKI

Prio: JP2013202785
Appl.No: A01D 69/00 2006.01 (IA)



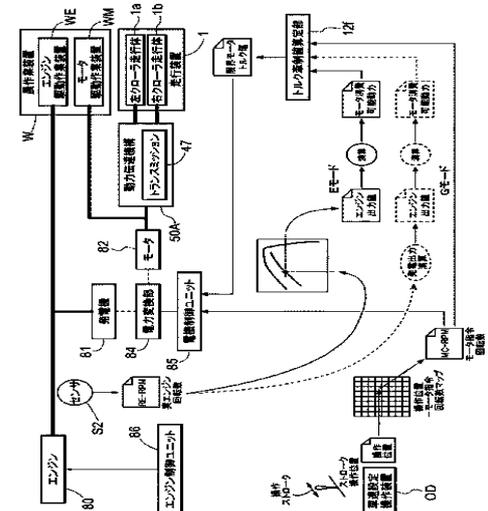
SERIES HYBRID COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a series hybrid combine-harvester so as not to stop a vehicle accompanied with unexpected stop of a generator while adopting a smallest possible (small output) engine and generator to improve fuel consumption performance of the engine which becomes a driving source of the motor. **SOLUTION:** A series hybrid combine-harvester comprises: a generator 81 which is driven by engine output; a motor 82 which is driven by electric power supplied from the generator 81; an electric machine control unit 85 which controls the generator 81 and the motor 82; a travel unit 1 which causes a vehicle to travel by use of rotation power from the motor; a vehicle speed setting operation device OD which sets a vehicle speed according to an operation position; and an engine rotation sensor S2 which acquires a rotational number of the engine. The series hybrid combine-harvester is constructed to check output torque of the motor 82 so that a power generation load of the generator 81 does not exceed an allowable load. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065896 A 20150413](#)

Applicant: KUBOTA CORP
Inventor: YAMANAKA YUKIFUMI; NAKAJIMA TETSUYA; FUJII ASAMI; TAKAO YOSHIRO; IKEDA HIROSHI

Prio: JP2013202786
Appl.No: A01D 69/00 2006.01 (IA)



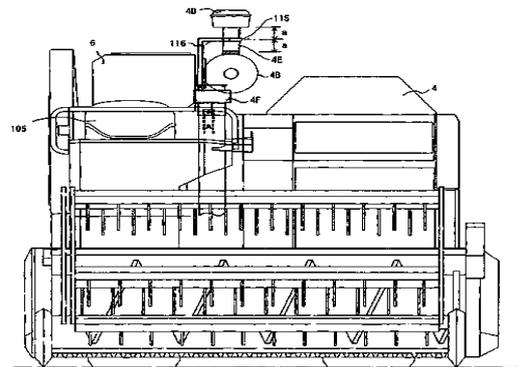
COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a combine harvester capable of solving the problem of the prior art, in which the combine harvester is disposed in a narrow space between a drive section and a grain tank so that a second air cleaner for clearing fine dust cannot be enlarged to have a high suction resistance of an engine due to the second air cleaner. **SOLUTION:** A combine harvester comprises: a thresher (4) disposed on one transverse side of a machine body frame (2) for threshing grain culm; a grain tank (6) disposed on the other transverse side for reserving the grain threshed in the thresher (4); an engine (E) mounted on the front side of the grain tank (6); a first air cleaner (4D) for cleaning air while sucking the air; and a second air cleaner (4B) for cleaning the air having passed the first air cleaner (4D) to feed the cleaned air to the engine (E). The second air cleaner (4B) is placed, as seen in the front view of the machine body, at a portion between the upper portion of the thresher (4) and the upper portion of the grain tank (6). **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065898 A 20150413](#)

Applicant: ISEKI & CO LTD
Inventor: IIZUMI KIYOSHI; ISHIKAWA MICHIO; OSAKI MASAMI; AKIYAMA TAKAFUMI; TAGAMI KAZUNARI; SAITO MANABU

Prio:
Appl.No: JP2013202832
IPC: A01D 41/12 2006.01 (IA)

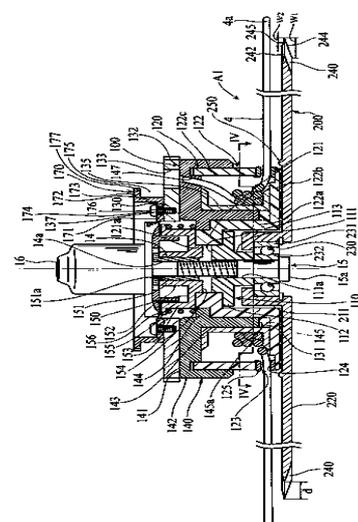


ROTARY CUTTER FOR MOWING MACHINE AND MOWING MACHINE USING THE SAME

PROBLEM TO BE SOLVED: To provide a rotary cutter for a mowing machine with a guide member to cut weed at a tip of a turning cord-like cut member which can perform more effective cutting operation. **SOLUTION:** A rotary cutter for mowing machine A1 comprises: a retainer member 100 attached to a rotary cutter installation shaft 14 of a mowing machine B and being rotated; a cord-like cut member 4a held at a proximate end side by the retainer member 100 and being derived to a tip side in a radial direction outwardly; and a guide member 200 which can rotate relatively below the retainer member 100 with respect to the retainer member 100 around the rotary central axis. A protection member 170 forming a lap groove 175 to open toward the radial direction outward is provided on the upper surface side of the retainer member 100. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015065907 A 20150413](#)

Applicant: YAMADA SAKUJI
Inventor: YAMADA SAKUJI
Prio:
Appl.No: JP2013203321
IPC: A01D 34/73 2006.01 (IA)



DRIVER'S SEAT OF COMBINE

PROBLEM TO BE SOLVED: To provide a driver's seat of a combine in which a horizontally extending part extended to a front panel side is integrally formed at the front end of a side panel, and thereby a sense of unity with the side panel and the front panel is enhanced and it is easy to secure a wide installation space in the extending part.**SOLUTION:** A front panel 24 disposed and formed in front of a seat 19 and a side panel 26 laterally disposed and formed at the side of the seat 19 are separately provided. A horizontally extending part 33 extended to the front panel 24 side is integrally formed in the front end of the side panel 26. A lever operation tool 27 for performing a lifting operation of a pre-processing part 3 by longitudinal rocking and performing steering operation by horizontal rocking is provided to the front panel 24. Gearshift levers 36, 37 are provided at the side panel 26. The extending part 33 is consecutively formed to the position reaching the front panel 24, and is linked with the front panel 24. An operation panel or a display panel is provided in the extending part 33.**COPYRIGHT:** (C)2015,JPO&INPIT

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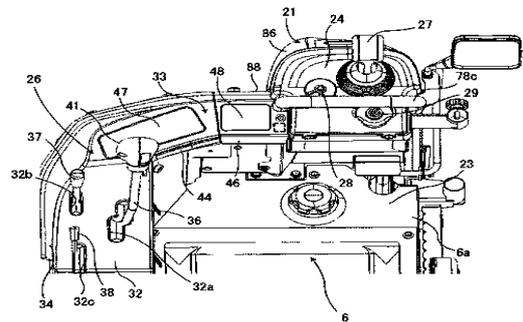
Applicant: MITSUBISHI AGRICULTURAL MACHINERY CO LTD

Inventor: YAMANE TATSUYA; BABA KEIICHI

Prio:

Appl.No: JP2013204128

IPC: A01D 67/00 2006.01 (IA)



COCKPIT OF WORK VEHICLE

PROBLEM TO BE SOLVED: To provide a cockpit of a work vehicle in which a front cover for covering the front side of a seat is attached and supported to a support frame installed upright from a chassis frame side, attachment work of the front cover is easy, and attachment strength is excellent.**SOLUTION:** A front cover 21 for covering the front side of a seat 19 is attached and supported to a support frame 78 installed upright from a chassis frame 2a side, a columnar attachment part 78b extending in the vertical direction is formed in the support frame 78, an engaging groove 93 whose rear side is opened so that the peripheral surface of the attachment part 78b is engaged therewith in a fitting state is formed in the front cover 21, and a range at least from a middle part to a lower end of the engaging groove 93 is made to be an enlarged part 93a formed in such a tapered shape that a space in the groove is gradually enlarged downward.**COPYRIGHT:** (C)2015,JPO&INPIT

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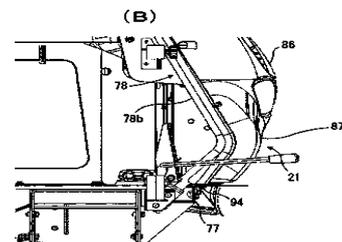
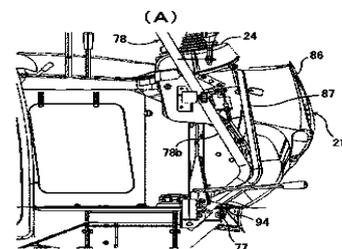
Applicant: MITSUBISHI AGRICULTURAL MACHINERY CO LTD

Inventor: YAMANE TATSUYA; BABA KEIICHI; ISHIBASHI TOSHIYUKI

Prio:

Appl.No: JP2013204132

IPC: A01D 67/00 2006.01 (IA)



COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a combine-harvester with high maintainability and workability and with a compact configuration. **SOLUTION:** A combine-harvester comprises a machine body frame 11 having: left and right longitudinal frames 35L, 35R extending in a machine body longitudinal direction with rear ends protruding behind crawler travel devices 2L, 2R; and a plurality of transverse frames 36 for connecting the longitudinal frames 35L, 35R. In the longitudinal frames 35L, 35R, selectively fixable extension frames 40L, 40R are provided in an extended position where the extension frames project forward from the crawler travel devices 2L, 2R, or in a normal position where the extension frames are housed in the longitudinal frames 35L, 35R. Fixing holes 42, 43 for fixing a rigid rack 45 (substrate) that lifts the crawler travel devices 2L, 2R to the ground are provided respectively at a portion protruding behind the crawler travel devices 2L, 2R of the machine body frame 11 and at front ends of the left and right extension frames 40L, 40R. **COPYRIGHT:** (C)2015,JPO&INPIT

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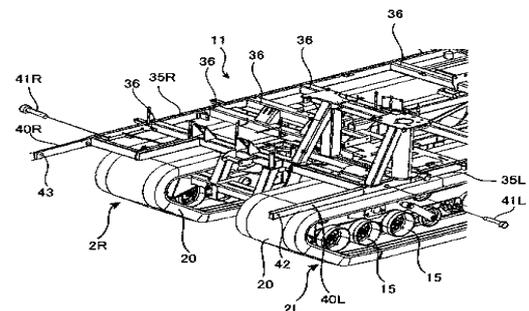
Applicant: MITSUBISHI AGRICULTURAL MACHINERY CO LTD

Inventor: FUKUDA SADAHIKO

Prio:

Appl.No: JP2013205358

IPC: A01D 67/00 2006.01 (IA)



COMBINE

PROBLEM TO BE SOLVED: To provide a combine capable of intuitively grasping a circumferential state over a wide range. **SOLUTION:** A combine includes a reaping part, a plurality of cameras, a bird's eye video creation part, and a display part 44. The reaping part reaps grain culms 71. The plurality of cameras acquire a peripheral image which is an image of the periphery of the combine. The bird's eye video creation part creates a bird's eye video which is a pseudo video viewing the combine from above based on the peripheral image acquired by the cameras and a plane view of the combine stored beforehand. The display part 44 displays the bird's eye video created by the bird's eye video creation part. **COPYRIGHT:** (C)2015,JPO&INPIT

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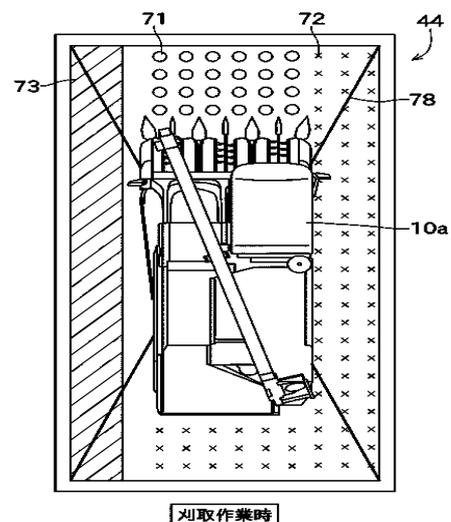
Applicant: YANMAR CO LTD

Inventor: SATO SHOICHI

Prio:

Appl.No: JP2013206793

IPC: A01D 41/12 2006.01 (IA)



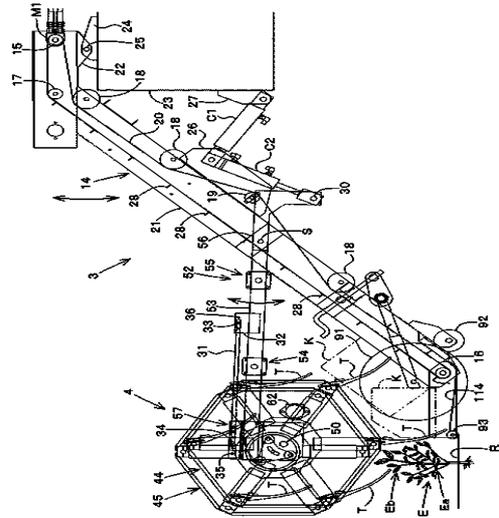
LEGUME HARVESTER

PROBLEM TO BE SOLVED: To provide a legume harvester capable of surely shelling pods while suppressing damage to the pods of legumes. **SOLUTION:** A legume harvester is provided, which shells pods of legumes planted on the farm field while running. On the front side of the running harvester, a carrying conveyor is provided in an inclined manner toward the front, for carrying the shelled pods of the legumes toward the rear upper part. Support wheels are provided in the carrying conveyor, for supporting the carrying conveyor by being grounded. In front of the carrying conveyor, a pod shelling reel is provided, which has a plurality of tines arranged in a row with a predetermined space provided between each other in the horizontal direction, for rotating in the forward direction and shelling the pods of the legumes between the tines. Below the pod shelling reel and at the lower end front part of the carrying conveyor, a contact member is provided near the field surface, for making contact with the legumes from the rear when shelling with the tines. Between the contact member and the lower end side of the carrying conveyor, a pod receiving member is provided, for receiving the shelled pods. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015070809 A 20150416](#)

Applicant: HONDA NOKI KOGYO KK; HOKUEI CO LTD
Inventor: HONDA MASAYOSHI; NOMURA FUJIO;
 YAMADA NORIKATSU

Prio:
Appl.No: JP2013207845
IPC: A01D 45/22 2006.01 (IA)

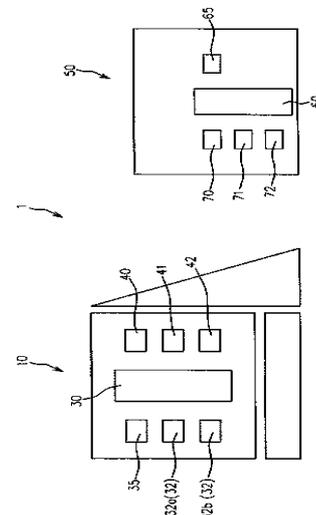


CROP INFORMATION MANAGEMENT SYSTEM

PROBLEM TO BE SOLVED: To provide a crop information management system that is effectively utilizable in next fertilizer application. **SOLUTION:** A harvester is provided with field specification means, working state input means, harvest information detection means and a harvester-side controller, a terminal is provided with a terminal-side controller, and at least one of the harvester and the terminal is provided with fertilizer input means. The terminal-side controller stores harvest information transmitted from the harvester and fertilizer information input by the fertilizer input means, in association with field information, and then determines, in units of fields, the suitability of a fertilizer applied on the basis of a crop yield per unit area that is calculated on the basis of the harvest information and the field information. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015070812 A 20150416](#)

Applicant: YANMAR CO LTD
Inventor: MIYAMOTO MUNENORI
Prio:
Appl.No: JP2013207902
IPC: A01D 41/12 2006.01 (IA)



SCATTER PREVENTION DEVICE, WORK VEHICLE INCLUDING THE SAME, AND SCATTER PREVENTION METHOD

PROBLEM TO BE SOLVED: To provide a scatter prevention device moving together with a work vehicle without loads on a plurality of workers to prevent scatter of stones, plants, or the like even if a range for preventing the scatter of the stones, the plants, or the like is very wide, when performing mowing/cutting work of weeds, useless small trees, or the like by the work vehicle such as a hydraulic shovel, to provide the work vehicle including the scatter prevention device, and to provide a scatter prevention method.**SOLUTION:** A fence support 61 is attached to a side of a lower traveling body 2 of a hydraulic shovel 1 mounted with a mower to an upper turn structure 3 turnably installed on the lower traveling body 2, and the fence support 61 is made to support a protective fence 62.
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Publication: [JP 2015073437 A 20150420](#)

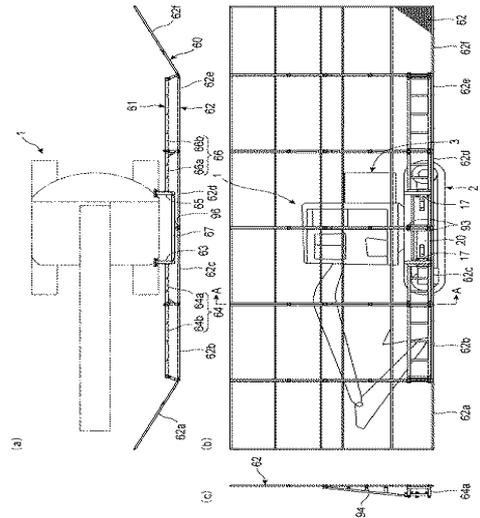
Applicant: NISHI NIHON KOSOKU DORO MAINTENANCE
KYUSHU KK; KOKONOE RYOKKA SANGYO CO
LTD

Inventor: HORI MASAOKI; KUSHIYAMA SATOSHI

Prio:

Appl.No: JP2013209318

IPC: A01D 42/00 2006.01 (IA)



CROP HARVESTING MACHINE

PROBLEM TO BE SOLVED: To provide a crop harvesting machine that guides a foliage part to be discharged to a field to a ridge furrow and can prevent the foliage part from coiling around a travel unit or the like and from falling on a crop plant placed on a ridge.**SOLUTION:** A crop harvesting machine is provided with: travel units 84L and 84R that travel along a ridge furrow; a pulling-out and conveying unit 20 that holds a foliage part and then pulls a crop plant from a field; a discharged-leave conveying unit 25 that receives the foliage part from the pulling-out and conveying unit 20 and then conveys it; drive units 2 and 3 that are provided at a machine body frame 1; transmission cases 80L and 80R that transmit driving force of the drive units 2 and 3 to the travel units 84L and 84R; a first discharged-leave guiding member 130 that is provided between the transmission cases 80L and 80R and the travel units 84L and 84R; and a second discharged-leave guiding member 132 that is provided between the transmission cases 80L and 80R and the pulling-out and conveying unit 20. The first discharged-leave guiding member 130 and the second discharged-leave guiding member 132 are arranged at an interval.
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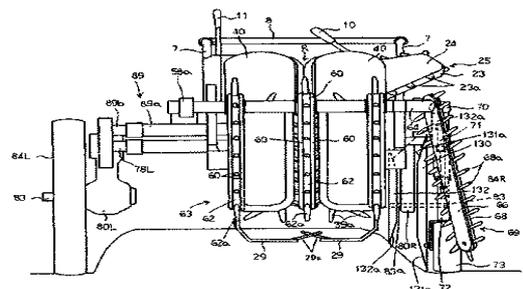
Publication: [JP 2015073438 A 20150420](#)

Applicant: ISEKI & CO LTD
Inventor: MURANAMI MASAMI; TAKAGI SHINGO;
KUROSE HIDEAKI; YUMITATSU TAKESHI;
MATSUIE SHINICHI

Prio:

Appl.No: JP2013209335

IPC: A01D 25/00 2006.01 (IA)



WORKING STATE MANAGEMENT SYSTEM

PROBLEM TO BE SOLVED: To provide information efficiently performing an arrangement of post processing such as drying processing of the harvest, besides an arrangement of a truck for transporting the harvest from a harvesting machine. **SOLUTION:** A harvesting machine-side control device inputs yield information and quality information from a weight sensor and a quality sensor in response to a work start signal from working state input means. Besides the yield information and quality information, a terminal machine-side control device receives from the harvesting machine-side control device, field information of a field on which harvesting work is performed, and harvesting machine information of a harvesting machine performing the harvesting work, stores the yield information and quality information associated with the harvesting machine information and field information, and displays them on terminal machine-side display means. **COPYRIGHT:** (C)2015, JPO&INPIT

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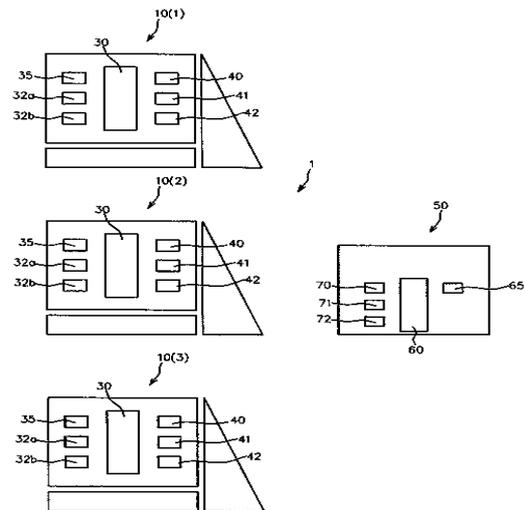
Applicant: YANMAR CO LTD

Inventor: MIYAMOTO MUNENORI

Prio:

Appl.No: JP2013209557

IPC: A01D 41/127 2006.01 (IA)



POWER TRANSMISSION DEVICE AND GARDENING CLIPPER EMPLOYING POWER TRANSMISSION DEVICE

PROBLEM TO BE SOLVED: To reduce vibration and gear noise from a gear pair formed by a drive gear driving by receiving driving force of a motor of a power transmission device and one or more driven gears rotatably supported by support shafts. **SOLUTION:** A power transmission device 20 for a gardening clipper 10 includes: a drive gear 21 driving by receiving driving force of a motor 13; and driven gears 23a, 23b, and 25 that are rotatably supported by support shafts 22 and 24 fixed to fitting parts 11a and 11c of a housing 11. The drive gear 21 and the driven gears 23a, 23b, and 25 form two sets of gear pairs and transmit the drive force of the motor 13 to driven members 31 and 32 via a crank cam 27. The support shaft 22 is fixed to the fitting part 11a via a vibration-proof member 26 consisting of a soft and elastic member. **COPYRIGHT:** (C)2015, JPO&INPIT

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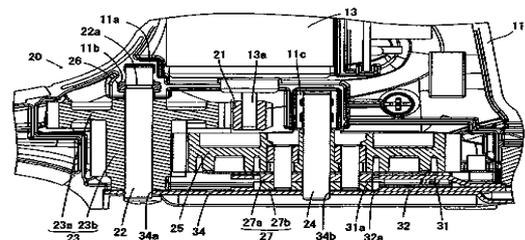
Applicant: MAKITA CORP

Inventor: KAMIYA TAKAHIRO; TAKAHASHI TOMOAKI

Prio:

Appl.No: JP2013212116

IPC: A01D 34/13 2006.01 (IA)

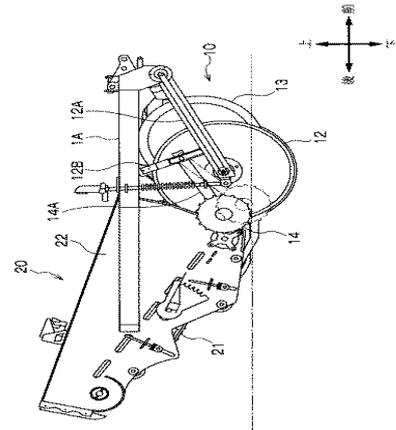


GROUND CROP HARVESTER

PROBLEM TO BE SOLVED: To provide a ground crop harvester capable of performing a harvesting work without any interference of a foliage extending from an adjoining levee unharvested with a digging part, at the passing time of the digging part.**SOLUTION:** A ground crop harvester 1 for digging and harvesting ground crops while running along levees comprises: a digging part 10 for digging out the ground crops; and a transportation conveyor 21 for conveying the crops dug out by the digging part 10, backward of the advancing direction. The digging part 10 includes: side plates 22 disposed on the two transverse sides of the transportation conveyor 21; a digging blade 11 arranged on the front side of the front end of the transportation conveyor 21; and a colter 12 arranged on the sides of the digging blade 11. On the outer side of the front position of the side plates 22, there is arranged an inter-levee suppressing roller 14 supported rotatably by a grounding resistance.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015077081 A 20150423](#)

Applicant: SANEI KOGYO KK
Inventor: MORI TAKESHI
Prio:
Appl.No: JP2013215110
IPC: A01D 13/00 2006.01 (IA)

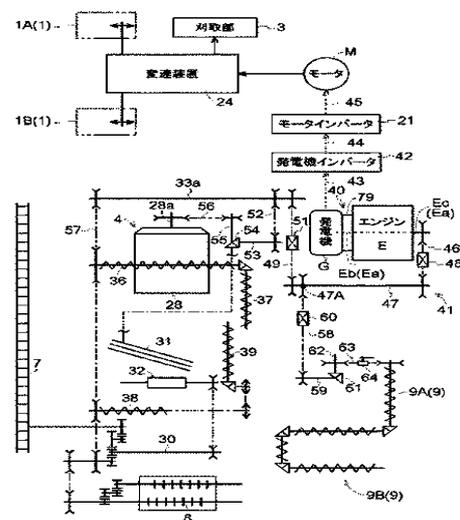


SERIES HYBRID COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a series hybrid combine harvester in which a power generator can be made compact.**SOLUTION:** A series hybrid combine harvester comprises an engine E, a power generator G that is driven by an output of the engine E, a motor M that is driven by electric power from the power generator G, a traveling device 1 that allows a machine body to travel by rotational power from the motor M, a reaping part 3 that reaps planted grain culms, and a threshing device 4 that threshes reaped grain culms reaped by the reaping part 3, and separately comprises a first transmission part 40 that transmits the output of the engine E to the power generator G and a second transmission part 41 that transmits the output of the engine E to the threshing device 4. The threshing device 4 is driven by power transmitted by the second transmission part 41.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015077089 A 20150423](#)

Applicant: KUBOTA CORP
Inventor: NAKAJIMA TETSUYA; NORITA SEIJI;
 YAMANAKA YUKIFUMI; OSHITANI MAKOTO;
 FUJII ASAMI; KURAMAE YUKI
Prio:
Appl.No: JP2013215698
IPC: A01D 69/02 2006.01 (IA)



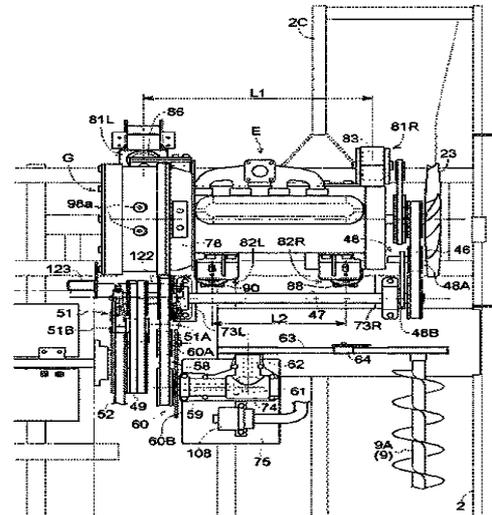
SERIES HYBRID COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a series hybrid combine harvester in which an engine and a power generator are compactly arranged. **SOLUTION:** In an engine room, an engine E, a power generator G, and a cooling fan 23 are aligned in a right-left direction. An output shaft of the engine E and a rotor of the power generator G are directly connected, and a flywheel housing 78 and a housing of the power generator G are connected. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015077090 A 20150423](#)

Applicant: KUBOTA CORP
Inventor: NAKAJIMA TETSUYA; NORITA SEIJI;
 YAMANAKA YUKIFUMI; OSHITANI MAKOTO;
 FUJII ASAMI; KURAMAE YUKI

Prio:
Appl.No: JP2013215699
IPC: A01D 69/00 2006.01 (IA)



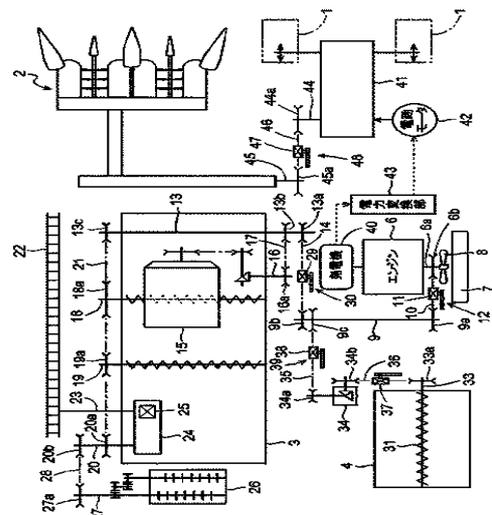
COMBINE HARVESTER

PROBLEM TO BE SOLVED: To configure a combine harvester so as to be capable of handling design change of the vicinity of a motor part while configuring the combine harvester so that an operator can easily operate a threshing clutch and a work clutch to a transmission state and a cut-off state. **SOLUTION:** A combine harvester has upstream side transmission systems 9, 10 to which power of a motor part 6 is transmitted and from which threshing transmission systems 13, 14, 17, 21 connected to a thresher 3 and work transmission systems 34, 35, 36 connected to a work device 31 branch out. The upstream side transmission system 9 comprises an upstream side clutch 12; the threshing transmission system 14 comprises a threshing clutch 30; and the work transmission system 35 comprises a work clutch 39. The combine harvester comprises an operation device which operates the upstream side clutch 12, the threshing clutch 30, and the work clutch 39 to a transmission state and a cut-off state. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015077091 A 20150423](#)

Applicant: KUBOTA CORP
Inventor: NAKAJIMA TETSUYA; NORITA SEIJI;
 YAMANAKA YUKIFUMI; FUJII ASAMI

Prio:
Appl.No: JP2013215701
IPC: A01D 69/00 2006.01 (IA)

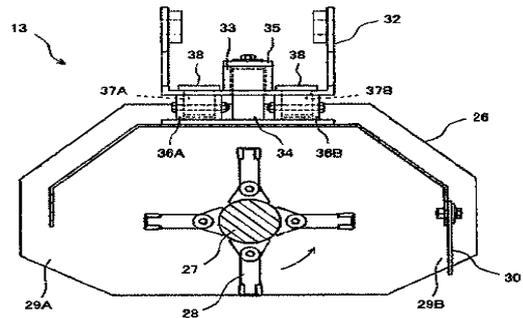


MOWING ATTACHMENT OF CONSTRUCTION MACHINE

PROBLEM TO BE SOLVED: To provide a mowing attachment of a construction machine capable of improving durability.**SOLUTION:** A mowing attachment 13 includes: a bracket 32 rotatably connected to a tip side of an arm 12 that rotates by the telescopic drive of a hydraulic cylinder 16 for the attachment; a rotary cylinder 33 provided in the bracket 32; a rotation shaft 34 provided in a casing 26 which is inserted into the rotary cylinder 33 of the bracket 32 in a freely rotatable manner; a disc 35 attached to a tip of the rotation shaft 34; fixing cylinders 36A-36D provided in the casing 26 which are arranged so as to be rotationally symmetrical around the rotation shaft 34; fixing holes 37A-37D formed on the bracket 32 which are arranged so as to correspond to the fixing cylinders 36A-36D of the casing 26; and four fixing pins 38 inserted into a combination of the fixing cylinders of the casing 26 and the fixing holes of the bracket 32.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015080422 A 20150427](#)

Applicant: HITACHI CONSTR MACH CO LTD
Inventor: YOSHIMASU KOJI; HORII YASUTAKA
Prio:
Appl.No: JP2013218593
IPC: A01D 34/86 2006.01 (IA)

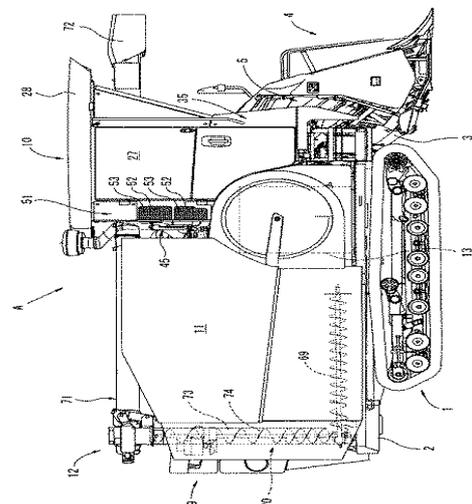


COMBINE HARVESTER

PROBLEM TO BE SOLVED: To provide a combine harvester capable of removing dust attached to an air conditioner by reversely rotating a rotary fan during a harvesting work.**SOLUTION:** A cabin is provided with an air conditioner having a rotary fan rotatable normally and reversely and an outside air intake port with which a dust-proof net is stretched. While outside air for heat exchange is supplied to the air conditioner through the outside air intake port by the rotary fan rotating normally, blow-off removal wind for blowing off dust attached to the dust-proof net so as to remove the dust is blown toward the outside of the cabin through the outside air intake port by the rotary fan rotating reversely. The outside air intake port is provided on either one of left and right side walls of the cabin. A grain delivering part has a tiltable and rotatable delivering horizontal auger with a base end part as a fulcrum. A grain delivering port is provided at a tip of the delivering horizontal auger. When the rotary fan rotates reversely and the blow-off removal wind is blown through the outside air intake port, if the grain delivering port is disposed on the downstream side of the blow-off removal wind, the reverse rotating operation of the rotary fan is stopped.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015080425 A 20150427](#)

Applicant: YANMAR CO LTD
Inventor: MURAYAMA MASAOKI
Prio:
Appl.No: JP2013218710
IPC: A01D 67/02 2006.01 (IA)



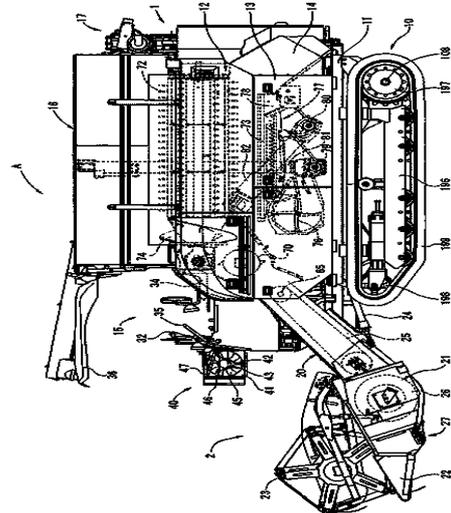
COMBINE-HARVESTER

PROBLEM TO BE SOLVED: To provide a combine-harvester which exerts no harmful effect on work to operators being seated in an operation part and making operation or the like and can secure dustproof effect. **SOLUTION:** In the combine-harvester, a reaping part is attached to the front end of a self-propelling traveling machine body, a threshing/selecting part is arranged to a side of the right and left sides of the traveling machine body and an operation part is arranged in the front of the other side of the right and left sides. A dust-proof fan device is arranged between the operation part and the reaping part and the dust-proof fan device forms a dust-proof air curtain shielding the operation part and the reaping part. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015080426 A 20150427](#)

Applicant: YANMAR CO LTD
Inventor: MITANI SHUICHI; SATO TAKAYASU; ABE DAISUKE

Prio:
Appl.No: JP2013218711
IPC: A01D 67/02 2006.01 (IA)

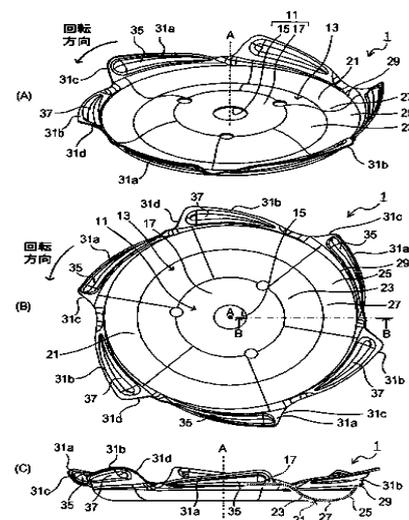


GRASS-MOWING BLADE AND GRASS MOWER

PROBLEM TO BE SOLVED: To provide a grass-mowing blade and a grass mower which are improved in safety. **SOLUTION:** A center of a grass-mowing blade 1 comprises a connection part 11 to be connected to a grass mower 3 and a peripheral part 13 extending around the connection part 11. The peripheral part 13 is annular around the connection part 11, and a bulging part 21 bulging downward is formed therein. The bulging part 21 has a first inclined plane 23 inclined outwardly and downwardly and a second inclined plane 25 expanding outwardly and upwardly from an extended tip of the first inclined surface 23. A lower area 27 which is a connection part of the first inclined plane 23 and second inclined plane 25 is an area located below the connection part 11. A plurality of extension pieces 31 (inward extension pieces 31a and outward extension pieces 31b) extending outwardly and upwardly from an upper area 29, which is an upper end part of the second inclined plane 25 in the bulging part 21 and an area located at the same height as the connection part 11, are formed. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015080437 A 20150427](#)

Applicant: ITO RACING SERVICE CO LTD
Inventor: ITO TAKESHIRO
Prio:
Appl.No: JP2013219202
IPC: A01D 34/73 2006.01 (IA)



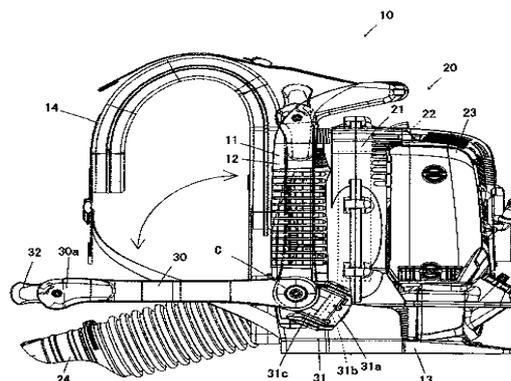
KNAPSACK TYPE IMPLEMENT

PROBLEM TO BE SOLVED: To provide a knapsack type implement, in which an arm is attached to the lower part of a knapsack frame and equipped at its tip with a throttle lever for adjusting the output of a prime mover. **SOLUTION:** A knapsack type implement 10 comprises: a prime mover 23 mounting a knapsack frame 11; a driven device 20 to be driven by the prime mover 23; and an arm 30 attached rotatably on the axis in the longitudinal direction to the lower part of the knapsack frame 11 and equipped at its tip with a throttle lever 32 for adjusting the output of the prime mover 23. The knapsack frame 11 is equipped at its lower part with a support shaft 31b fixed as an axial direction within the longitudinal range in the vertical direction, and the arm 30 is so supported on the support shaft 31b as to rotate on the axial direction. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015082989 A 20150430](#)

Applicant: MAKITA CORP
Inventor: NASHIMOTO TOMONOBU; KONISHI TAKUO;
 SHIMOOKA RYOICHI; ISHIKAWA MOTONOBU

Prio:
Appl.No: JP2013222793
IPC: A01D 34/68 2006.01 (IA)



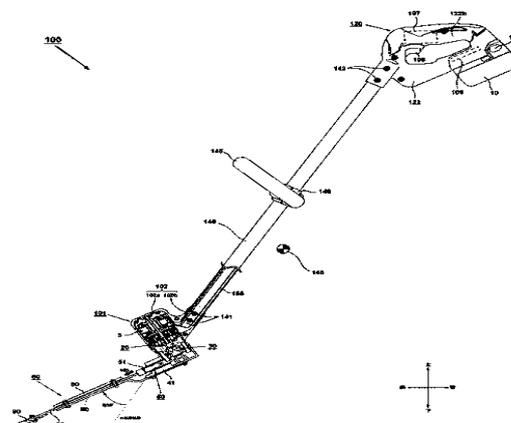
STRIKING TOOL

PROBLEM TO BE SOLVED: To provide a striking tool (or a weeder) enabled to perform a weeding operation efficiently by using a striking mechanism to apply a striking force to a blade. **SOLUTION:** A striking tool (or a weeder) 100 is constituted to comprise: a battery 10; a motor 3 driven by the battery; a switch 108 for controlling the drive of the motor 3; a handle 120 gripped by an operator; a long-handled part 140 interposed between the handle and the motor; a cutter holding part 60 for reciprocatably holding a blade 90 having a tapering part on the leading end side; and an impact transmission part 101 for applying the rotating force of the motor as the striking force to said blade. To the blade 90, there is applied the striking force, as indicated by an arrow 165, by the impact transmission part 101. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015082991 A 20150430](#)

Applicant: HITACHI KOKI CO LTD
Inventor: IIMURA YOSHIO; NISHIKAWA TOMOMASA;
 ITO TATSUYA

Prio:
Appl.No: JP2013222808
IPC: A01D 34/13 2006.01 (IA)

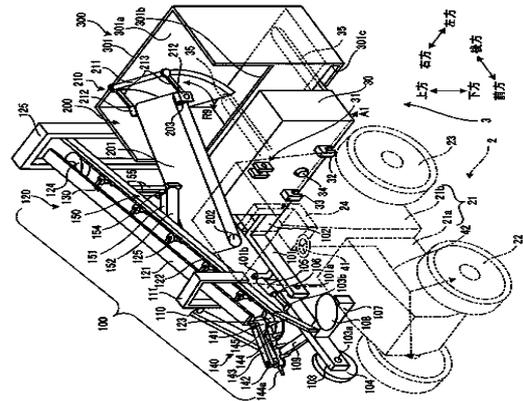


HARVESTER AND INSTALLATION TYPE HARVESTING DEVICE

PROBLEM TO BE SOLVED: To provide a harvester whose turning performance at the time of steering is comparatively high.**SOLUTION:** A harvesting device 3 comprises: a harvest part 100 which harvests crops grown in a cultivated field; a container 301 which houses the crops harvested by the harvest part 100; and a conveyance part 200 which conveys the crops from the harvest part 100 to the container 301. In the harvesting device 3, the harvest part 100, the container 301, and the conveyance part 200 are installed to the rear part of a traveling device 2, which is behind a rear-wheel 23 of the traveling device 2 and in the state of separating from the ground.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015082997 A 20150430](#)

Applicant: OSADA NOKI KK
Inventor: HIGASHIYAMA MANABU; KAMATA KAZUAKI
Prio: JP 20130918 2013192957
Appl.No: JP2014110387
IPC: A01D 45/02 2006.01 (IA)

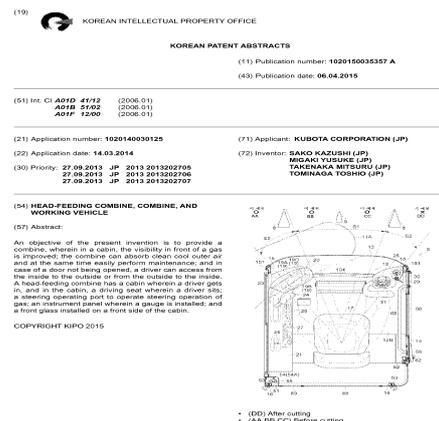


HEAD-FEEDING COMBINE, COMBINE, AND WORKING VEHICLE

An objective of the present invention is to provide a combine, wherein in a cabin, the visibility in front of a gas is improved; the combine can absorb clean cool outer air and at the same time easily perform maintenance; and in case of a door not being opened, a driver can access from the inside to the outside or from the outside to the inside. A head-feeding combine has a cabin wherein a driver gets in, and in the cabin, a driving seat wherein a driver sits; a steering operating port to operate steering operation of gas; an instrument panel wherein a gauge is installed; and a front glass installed on a front side of the cabin.

Publication: [KR 20150035357 A 20150406](#)

Applicant: KUBOTA CORPORATION, JP
Inventor: SAKO KAZUSHI, JP; MIGAKI YUSUKE, JP;
 TAKENAKA MITSURU, JP; TOMINAGA TOSHIO, JP
Prio: JP 20130927 2013 2013202707
Appl.No: KR1020140030125
IPC: A01D 41/12 2006.01 (IA)



COMBINE

A subject of the present invention is to configure a combine equipped with a safety frame corresponding to a machine body configuration. A first rear prop part (31R) is equipped in a side of left and right directions at the rear of a driving seat (12); at this top part, a first upper frame part (31T) extended to a front side is equipped in an upper side of the driving seat (12); and a first front prop part (31F) extended from this front side to a lower side is equipped. Additionally, at the rear side of the driving seat (12), a second rear prop part (32R) is equipped at another side of left and right directions; at this top part, a second upper frame part (32T) extended to the front in an upper side of the driving seat (12) is equipped; and a second front prop part (32F) extended from this front part to a lower side is equipped to configure a safety frame (S).

Publication: [KR 20150035389 A 20150406](#)

Applicant: KUBOTA CORPORATION, JP
Inventor: OOMORI MIKIO, JP; TERAJONO HARUKA, JP;
 KATOU KAZUHIDE, JP; IKEDA MASARU, JP
Prio: JP 20130927 2013 2013202689
Appl.No: KR1020140117167
IPC: A01D 41/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

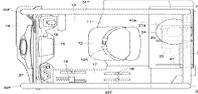
(11) Publication number: 1020150035389 A
 (43) Publication date: 06.04.2015

(54) Int. Cl. **A01D 41/00** (2006.01)
A01D 47/04 (2006.01)
A01D 75/20 (2006.01)

(21) Application number: 1020140117167 (72) Inventor: OOMORI MIKIO (JP)
 TERAJONO HARUKA (JP)
 KATOU KAZUHIDE (JP)
 IKEDA MASARU (JP)

(22) Application date: 03.09.2014
 (30) Priority: 27.09.2013 JP 2013 2013202689
 (71) Applicant: KUBOTA CORPORATION (JP)

(54) COMBINE
 (57) Abstract:
 A subject of the present invention is to configure a combine equipped with a safety frame corresponding to a machine body configuration. A first rear prop part (31R) is equipped in a side of left and right directions at the rear of a driving seat (12); at this top part, a first upper frame part (31T) extended to a front side is equipped in an upper side of the driving seat (12); and a first front prop part (31F) extended from this front side to a lower side is equipped. Additionally, at the rear side of the driving seat (12), a second rear prop part (32R) is equipped at another side of left and right directions; at this top part, a second upper frame part (32T) extended to the front in an upper side of the driving seat (12) is equipped; and a second front prop part (32F) extended from this front part to a lower side is equipped to configure a safety frame (S).



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SERIES HYBRID COMBINE

According to the present invention, a series hybrid combine comprises: an engine; a generator driven by an output of the engine; a motor driven by power from the generator; a driving device driving a vehicle by a rotational power from the motor; a vehicle speed setting operation port setting the vehicle speed in accordance with the operating position; an engine control unit controlling the output of the engine; and an agriculture working device harvesting agricultural crops.

Publication: [KR 20150035391 A 20150406](#)

Applicant: KUBOTA CORPORATION, JP
Inventor: YAMANAKA YUKIFUMI, JP; NAKAJIMA
 TETSUYA, JP; NORITA SEIJI, JP
Prio: JP 20131003 2013 2013208434
Appl.No: KR1020140117519
IPC: A01D 41/02 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150035391 A
 (43) Publication date: 06.04.2015

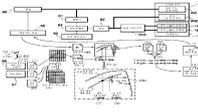
(54) Int. Cl. **A01D 41/02** (2006.01)
A01D 63/06 (2006.01)
B60W 10/24 (2006.01)

(21) Application number: 1020140117519 (71) Applicant: KUBOTA CORPORATION (JP)

(22) Application date: 04.09.2014 (72) Inventor: YAMANAKA YUKIFUMI (JP)
 NAKAJIMA TETSUYA (JP)
 NORITA SEIJI (JP)

(30) Priority: 27.09.2013 JP 2013 2013202782
 27.09.2013 JP 2013 2013202782
 03.10.2013 JP 2013 2013208434

(54) SERIES HYBRID COMBINE
 (57) Abstract:
 According to the present invention, a series hybrid combine comprises: an engine; a generator driven by an output of the engine; a motor driven by power from the generator; a driving device driving a vehicle by a rotational power from the motor; a vehicle speed setting operation port setting the vehicle speed in accordance with the operating position; an engine control unit controlling the output of the engine; and an agriculture working device harvesting agricultural crops.



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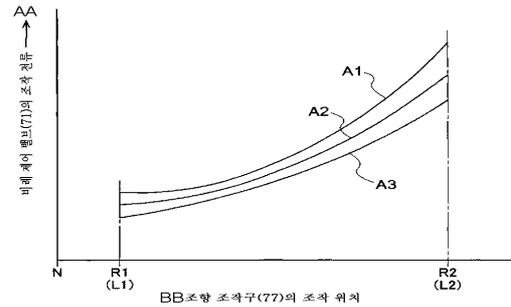
- (1) Driving device
- (1a) Left side crawler travel body
- (1b) Right side crawler travel body
- (2) Power transmission device
- (51) Steering control device
- (62) Vehicle speed setting operation port
- (80) Engine
- (81) Generator
- (82) Motor
- (83) Power converting unit
- (84) Electric control unit
- (85) Electric control unit
- (86) Engine control unit

WORK VEHICLE

A work vehicle with enhanced swiveling performance and property of swiveling manipulation and equipped with a first and a second swiveling apparatus to give a speed different to left and right traveling devices is provided. The work vehicle is configured so that unit speed difference by a first swiveling apparatus (a second swiveling apparatus) to a unit manipulated variable of a steering manipulation unit (77) be small in an area of a going straight position (N) side of the steering manipulation unit (77) and be great in an area of a steering limit side of the steering manipulation unit (77). Set variation characteristics of unit speed difference of a first state differently from variation characteristics of unit speed difference of a second state.

Publication: [KR 20150035923 A](#) [20150407](#)

Applicant: KUBOTA CORPORATION, JP
Inventor: YAMANAKA YUKIFUMI, JP; HAYASHI SHIGEKI, JP; KATO YUJI, JP; OKUYAMA TAKASHI, JP; SHIMODA YOHEI, JP; IKEDA MASARU, JP; KATO KATSUhide, JP; YAMAGATA KOJI, JP; KITAHASHI TOSHIYUKI, JP; YONEDA YASUTAKA, JP; KOTANI SHINSUKE, JP; MIYAZAKI MAKOTO, JP; OMORI MIKIO, JP
Prio: JP 20071017 2007 2007270439
Appl.No: KR1020150032486
IPC: A01D 41/12 2006.01 (IA)



BALE TONGS

The present invention relates to bale tongs, and more specifically, to bale tongues which can smoothly move a slider and have an elegant appearance by keeping a horizontal bar clean. To this end, the invention comprises: a main frame equipped at a loader front-end; a slider which is equipped individually at both sides of the front surface of the main frame and reciprocates in sliding motion by a moving means; and tongs which are equipped at the slider and binds a bale, wherein an upper tube and a lower tube are formed at the upper and lower parts of the slider to penetrate through a horizontal bar equipped at the upper and lower parts of the main frame. The upper tube and the lower tube comprises: a penetrating tube with a set length which penetrates through the horizontal bar; an oil-filling unit which is separated from the horizontal bar and formed to fill oil into the inner side of the penetrating tube; and a prevention cap which is equipped at both ends of the penetrating tube to prevent leakage of oil which is filled into the oil-filling unit, wherein the penetrating tube includes an oil inlet for injecting oil into the oil-filling unit, the oil inlet is equipped with an oil cap.

Publication: [KR 20150037099 A](#) [20150408](#)

Applicant: SONG HYUN CO., LTD., KR
Inventor: OH, DAE SEOK, KR
Prio:
Appl.No: KR1020130116353
IPC: A01D 85/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS
 (11) Publication number: 1020150037099 A
 (43) Publication date: 08.04.2015

(51) Int. Cl. **A01D 85/00** (2006.01)
A01D 90/02 (2006.01)
A01F 15/00 (2006.01)

(21) Application number: 1020130116353 (71) Applicant: SONG HYUN CO., LTD. (KR)
 (22) Application date: 30.09.2013 (72) Inventor: OH, DAE SEOK (KR)

(54) **BALE TONGS**

(57) **Abstract:**
 The present invention relates to bale tongs, and more specifically, to bale tongs which can smoothly move a slider and have an elegant appearance by keeping a horizontal bar clean. To this end, the invention comprises: a main frame equipped at a loader front-end; a slider which is equipped individually at both sides of the front surface of the main frame and reciprocates in sliding motion by a moving means; and tongs which are equipped at the slider and binds a bale, wherein an upper tube and a lower tube are formed at the upper and lower parts of the slider to penetrate through a horizontal bar equipped at the upper and lower parts of the main frame. The upper tube and the lower tube comprises: a penetrating tube with a set length which penetrates through the horizontal bar; an oil-filling unit which is separated from the horizontal bar and formed to fill oil into the inner side of the penetrating tube; and a prevention cap which is equipped at both ends of the penetrating tube to prevent leakage of oil which is filled into the oil-filling unit, wherein the penetrating tube includes an oil inlet for injecting oil into the oil-filling unit, the oil inlet is equipped with an oil cap.

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WEEDER

According to an embodiment of the present invention, a weeder comprises: a pair of left and right wheels laid on the ground and separated from each other for a predetermined distance to be rotated; a frame which has a handle on one side and to both lower ends of which the pair of wheels is separately joined to face each other and to be rotated; a cutter module transporter joined to one side of the frame with both ends to be moved up and down; a cutter module joined to the cutter module transporter to be moved up and down with the cutter module transporter; a driving module connected to the wheels to rotate the cutter module with the rotation of the wheels; and a cutting part arranged in the lower side of the cutter module to cut a seedling planted in the ground as the cutter module rotates and comes in contact with the seedling. Therefore, according to the present invention, the weeder enables user to adjust the height of the cutter module to correspond to the height of various cutting target seedlings and to prevent a highly viscous resin coming out of the cut surface of the seedlings during a cutting process from gathering and adhering to a specific area on a cutter blade.

Publication: [KR 20150037188 A 20150408](#)

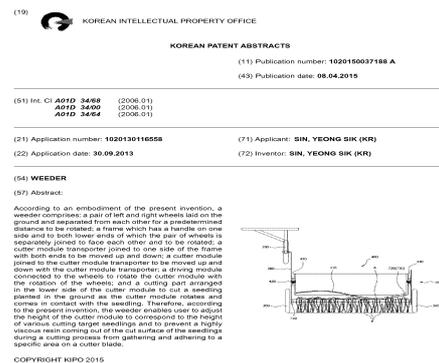
Applicant: SIN, YEONG SIK, KR

Inventor: SIN, YEONG SIK, KR

Prio:

Appl.No: KR1020130116558

IPC: A01D 34/68 2006.01 (IA)



SAFETY CUTTER FOR BRUSH CUTTING MACHINE

The present invention relates to a cutter combined to a brush cutting machine to quickly cut the grass or weeds to be removed. More specifically, a driving sprocket and a driven sprocket, which are connected between an upper fixing plate and a lower fixing plate with an additional chain, are formed to be rotatable. A separate induction cover is formed to be combined to the outside of the upper fixing plate and the lower fixing plate. Blades are alternately formed to be fixed to the chain. A safety cutter having induction grooves to be alternately formed to expose the blades is equipped to be connected to the rotational axis of the brush cutting machine. Therefore, the blades to cut the grass and weeds are not exposed to the outside, so the blades are safe. Also, the cutter can perform easy and safe cutting on the ground having a lot of gravels or an uneven ground. The cutter has a shape to directly cut weeds like scissors, not to forcibly bend and cut weeds with blade-type knives that are rotated at a high speed. Therefore, even when a brush cutting machine engine is operated at a low speed, the cutter can efficiently and quietly cut the grass. When the cutter is operated at a high speed, the cut weed is prevented from being scattered or being fallen, so cutting results can be very excellent.

Publication: [KR 20150041911 A 20150420](#)

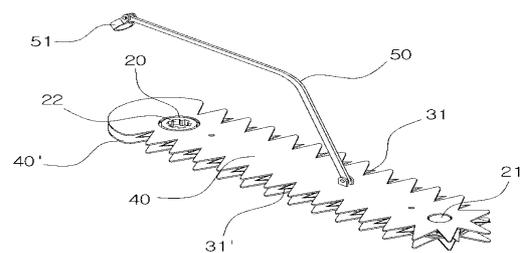
Applicant: LEE, BYEONG HEE, KR

Inventor: LEE, BYEONG HEE, KR

Prio:

Appl.No: KR1020130120458

IPC: A01D 34/412 2006.01 (IA)

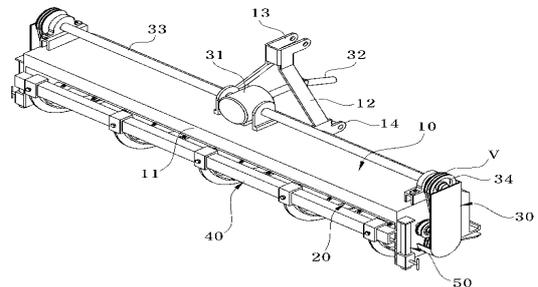


STEM REMOVAL APPARATUS FOR ROOT CROPS UNDER GROUND

The present invention relates to a stem removal apparatus for root crops under the ground, removing the stem of a sweet potato or the like while being driven by a driving unit. The stem removal apparatus comprises: a frame portion (10) which is formed in the shape of a case in which the bottom and the front are open; a cutting portion (20) which is installed on the bottom inside the frame portion, and has a plurality of cutting blades (22) radially formed on a rotational shaft (21), and rotates; a driving portion (30) rotationally driving the rotational shaft (21) by receiving power from the driving unit; and a stem guide portion (40) placed in a lower portion of the cutting portion (20) and raising the stem of crops from the ground to a predetermined height to guide the stem to the cutting portion (20). As listed above, the present invention raises the stem which is close to the ground to a predetermined height to be cut, thereby evenly cutting the stem placed on a ridge and a furrow of a field on the whole.

Publication: [KR 20150043575 A 20150423](#)

Applicant: YEO MUL REA, KR; KIM, JEONG JOO, KR
Inventor: KIM, JEONG JOO, KR; KIM, TO GWAN, KR
Prio:
Appl.No: KR1020130120985
IPC: A01D 23/04 2006.01 (IA)



THE DIAMETER DIFFERENT HEIGHT CONTROL

The present invention relates to a height control apparatus using pipes of different diameters that can easily adjust a height of a pole composed of pipes of different diameters. The present invention comprises a main pipe and an extension pipe, wherein the extension pipe is disposed on one end of the main pipe; the extension pipe is cut in a longitudinal direction and has protrusion plates on an upper portion of a cut area thereof; a gap between the protrusion plates can be compressed with a 'c' shape lever hinge-connected on protrusions of the main pipe; the protrusion plates are inserted into a groove recess on the 'c' shape lever; and thereby the gap is shortened and a diameter of the extension pipe is reduced. Accordingly, a height of a small pipe inserted into the extension pipe installed on the front end of the main pipe of a larger diameter can be adjusted. The 'c' shape lever squeezes and holds the smaller pipe by shortening the gap and reducing the diameter of the extension pipe. Thereby, a pipe of a larger diameter can firmly hold a pipe of a smaller diameter. The structure is simple and easy to use.

Publication: [KR 20150044095 A 20150424](#)

Applicant: KWON, JEE YEAL, KR
Inventor: KWON, JEE YEAL, KR
Prio:
Appl.No: KR1020130122992
IPC: A01D 46/24 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150044095 A
(43) Publication date: 24.04.2015

(51) Int. Cl. A01D 46/24 (2006.01)
A01D 46/00 (2006.01)
F16L 37/00 (2006.01)

(21) Application number: 1020130122992 (71) Applicant: KWON, JEE YEAL (KR)
(22) Application date: 16.10.2013 (72) Inventor: KWON, JEE YEAL (KR)

(54) THE DIAMETER DIFFERENT HEIGHT CONTROL

(57) Abstract:
The present invention relates to a height control apparatus using pipes of different diameters that can easily adjust a height of a pole composed of pipes of different diameters. The present invention comprises a main pipe and an extension pipe, wherein the extension pipe is disposed on one end of the main pipe; the extension pipe is cut in a longitudinal direction and has protrusion plates on an upper portion of a cut area thereof; a gap between the protrusion plates can be compressed with a 'c' shape lever hinge-connected on protrusions of the main pipe; the protrusion plates are inserted into a groove recess on the 'c' shape lever; and thereby the gap is shortened and a diameter of the extension pipe is reduced. Accordingly, a height of a small pipe inserted into the extension pipe installed on the front end of the main pipe of a larger diameter can be adjusted. The 'c' shape lever squeezes and holds the smaller pipe by shortening the gap and reducing the diameter of the extension pipe. Thereby, a pipe of a larger diameter can firmly hold a pipe of a smaller diameter. The structure is simple and easy to use.

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COMBINE

A subject of the present invention is to configure thrashing clutch and working clutch to be operated easily by a driver in a state of electro-motive and cut-off in a combine. An upstream side electro-motive system (9, 10) to transfer power to a motor part (6) is branched into thrashing electro-motive systems (13, 14, 17, 21) connected to a thrashing device (3) and working electro-motive systems (34, 35, 36) connected to a working device (31). An upstream side clutch (12) is provided in an upstream side electro-motive system (9), a thrashing clutch (30) is provided in a thrashing electro-motive system (14), and a working clutch (39) is provided in a working electro-motive system (35). The upstream clutch (12) and the thrashing clutch (30) are equipped with operating devices in a state of electro-motive and cut-off.

Publication: [KR 20150044377 A 20150424](#)

Applicant: KUBOTA CORPORATION, JP
Inventor: NAKAJIMA TETSUYA, JP; NORITA SEIJI, JP; YAMANAKA YUKIFUMI, JP; FUJII MAMI, JP
Prio: JP 20131016 2013 2013215701
Appl.No: KR1020140117521
IPC: A01D 41/02 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150044377 A
 (43) Publication date: 24.04.2015

(51) Int. Cl. **A01D 41/02** (2006.01)
A01D 69/00 (2006.01)

(21) Application number: 1020140117521 (72) Inventor: NAKAJIMA TETSUYA (JP)
 NORITA SEIJI (JP)
 YAMANAKA YUKIFUMI (JP)
 FUJII MAMI (JP)

(22) Application date: 04.09.2014
 (30) Priority: 16.10.2013 JP 2013 2013215701
 (71) Applicant: KUBOTA CORPORATION (JP)

(54) **COMBINE**

(57) Abstract:

A subject of the present invention is to configure thrashing clutch and working clutch to be operated easily by a driver in a state of electro-motive and cut-off in a combine. An upstream side electro-motive system (9, 10) to transfer power to a motor part (6) is branched into thrashing electro-motive systems (13, 14, 17, 21) connected to a thrashing device (3) and working electro-motive systems (34, 35, 36) connected to a working device (31). An upstream side clutch (12) is provided in an upstream side electro-motive system (9), a thrashing clutch (30) is provided in a thrashing electro-motive system (14), and a working clutch (39) is provided in a working electro-motive system (35). The upstream clutch (12) and the thrashing clutch (30) are equipped with operating devices in a state of electro-motive and cut-off.

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ROOT CROPS HARVESTER

The present invention relates to a root crops harvester. The root crops harvester comprises: a harvester main body which includes side plates laterally separated from each other in an axial direction and a blade part installed on one end part of the side plate to be slope and digging up root crops; a conveyor which includes chains, arranged to be separated from the side plates and moving in a certain circulation route, and connection rods, arranged to be separated in a movement direction of the chain and connecting the chains, and conveys the root crops dug up by the blade part in a discharging direction; and stuck prevention members which are installed on the chains and prevent the root crops from being stuck in gaps between the side plates and the chains. Therefore, the root crops harvester can minimize the root crops from being damaged and ensure large harvest using an agricultural machine by preventing the root crops from being stuck between the side surface of the main body frame and the chain when the root crops are dug up in a laterally sloping place.

Publication: [KR 20150045270 A 20150428](#)

Applicant: YUN, TAE WOOK, KR; YUN, BYONG UN, KR
Inventor: YUN, TAE WOOK, KR; YUN, BYONG UN, KR
Prio:
Appl.No: KR1020130124769
IPC: A01D 17/10 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150045270 A
 (43) Publication date: 28.04.2015

(51) Int. Cl. **A01D 17/10** (2006.01)
A01D 17/00 (2006.01)
A01D 31/00 (2006.01)

(21) Application number: 1020130124769 (72) Inventor: YUN, TAE WOOK (KR)
 YUN, BYONG UN (KR)

(22) Application date: 16.10.2013
 (71) Applicant: YUN, TAE WOOK (KR)
 YUN, BYONG UN (KR)

(54) **ROOT CROPS HARVESTER**

(57) Abstract:

The present invention relates to a root crops harvester. The root crops harvester comprises: a harvester main body which includes side plates laterally separated from each other in an axial direction and a blade part installed on one end part of the side plate to be slope and digging up root crops; a conveyor which includes chains, arranged to be separated from the side plates and moving in a certain circulation route, and connection rods, arranged to be separated in a movement direction of the chain and connecting the chains, and conveys the root crops dug up by the blade part in a discharging direction; and stuck prevention members which are installed on the chains and prevent the root crops from being stuck in gaps between the side plates and the chains. Therefore, the root crops harvester can minimize the root crops from being damaged and ensure large harvest using an agricultural machine by preventing the root crops from being stuck between the side surface of the main body frame and the chain when the root crops are dug up in a laterally sloping place.

COPYRIGHT KIPO 2015

APPARATUS FOR HARVESTING LOTUS ROOTS

The present invention provides an apparatus for harvesting lotus roots. The apparatus for harvesting lotus roots comprises: a body (10) loading an engine which generates output; a tracked driving unit (30) installed on both sides to drive the body; and a spray pipe (50) installed on the body and spraying water supplied from the outside. The tracked driving unit comprises: a rubber track (40); a pair of rotary floats (32,36) installed on the front and the rear of the rubber track, where one rotates the rubber track by using output of the engine; and an idler (34) installed between the rotary floats. The rotary floats and the idler (34) therebetween have buoyancy. A soft hose (60) which is removable and can spray water supplied from the outside is installed on the spray pipe. A connection hose (61) of the spray pipe is formed with a soft part. One end of the spray pipe can rotate in the left and right direction in a certain section, and can move to the up and down direction.

Publication: [KR 20150046497 A 20150430](#)

Applicant: TONGYANG MOOLSAN CO., LTD., KR
Inventor: KANG, YOUNG SUN, KR; SO, JIN HWAN, KR;
 NAM, YO SANG, KR; SHIN, SEO YONG, KR

Prio:
Appl.No: KR1020130125797
IPC: A01D 31/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150046497 A
 (43) Publication date: 30.04.2015

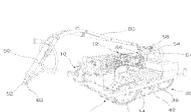
(51) Int. Cl. A01D 31/00 (2006.01)
 A01D 33/00 (2006.01)
 A01D 33/00 (2006.01)

(21) Application number: 1020130125797 (72) Inventor: KANG, YOUNG SUN (KR)
 SO, JIN HWAN (KR)
 NAM, YO SANG (KR)
 SHIN, SEO YONG (KR)

(22) Application date: 22.10.2013
 (71) Applicant: TONGYANG MOOLSAN CO., LTD. (KR)

(54) APPARATUS FOR HARVESTING LOTUS ROOTS

(57) Abstract:
 The present invention provides an apparatus for harvesting lotus roots. The apparatus for harvesting lotus roots comprises: a body (10) loading an engine which generates output; a tracked driving unit (30) installed on both sides to drive the body; and a spray pipe (50) installed on the body and spraying water supplied from the outside. The tracked driving unit comprises: a rubber track (40); a pair of rotary floats (32,36) installed on the front and the rear of the rubber track, where one rotates the rubber track by using output of the engine; and an idler (34) installed between the rotary floats. The rotary floats and the idler (34) therebetween have buoyancy. A soft hose (60) which is removable and can spray water supplied from the outside is installed on the spray pipe. A connection hose (61) of the spray pipe is formed with a soft part. One end of the spray pipe can rotate in the left and right direction in a certain section, and can move to the up and down direction.



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APPARATUS FOR HARVESTING LOTUS ROOTS CAPABLE OF ADJUSTING WATER SPRAYING ANGLE

The present invention relates to an apparatus for harvesting lotus roots, which collects lotus roots in the mud by high pressure water spray. The apparatus comprises: a body frame loading an engine; and a tracked running unit including a driving sprocket rotated by output of the engine, and a rubber track rotated by the driving sprocket. Also, the apparatus comprises: a water supply pipe to spray supplied water to a desired point of lotus root plantation; a nozzle unit installed on an end of the water supply pipe; and a rotation means rotating the water supply pipe in at least one direction among a front and back direction, an upper and lower direction, or a horizontal direction for a certain section. The water supply pipe can move in the front and back direction (A), the upper and lower direction (B), and the horizontal direction (C) for a certain section by the rotation means.

Publication: [KR 20150046500 A 20150430](#)

Applicant: TONGYANG MOOLSAN CO., LTD., KR
Inventor: KANG, YOUNG SUN, KR; SO, JIN HWAN, KR;
 NAM, YO SANG, KR; PARK, DONG SEOK, KR

Prio:
Appl.No: KR1020130125800
IPC: A01D 31/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150046500 A
 (43) Publication date: 30.04.2015

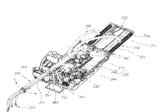
(51) Int. Cl. A01D 31/00 (2006.01)
 A01D 33/00 (2006.01)
 A01D 33/00 (2006.01)

(21) Application number: 1020130125800 (72) Inventor: KANG, YOUNG SUN (KR)
 SO, JIN HWAN (KR)
 NAM, YO SANG (KR)
 PARK, DONG SEOK (KR)

(22) Application date: 22.10.2013
 (71) Applicant: TONGYANG MOOLSAN CO., LTD. (KR)

(54) APPARATUS FOR HARVESTING LOTUS ROOTS CAPABLE OF ADJUSTING WATER SPRAYING ANGLE

(57) Abstract:
 The present invention relates to an apparatus for harvesting lotus roots, which collects lotus roots in the mud by high pressure water spray. The apparatus comprises: a body frame loading an engine; and a tracked running unit including a driving sprocket rotated by output of the engine, and a rubber track rotated by the driving sprocket. Also, the apparatus comprises: a water supply pipe to spray water to a desired point of lotus root plantation; a nozzle unit installed on an end of the water supply pipe; and a rotation means rotating the water supply pipe in at least one direction among a front and back direction, an upper and lower direction, or a horizontal direction for a certain section. The water supply pipe can move in the front and back direction (A), the upper and lower direction (B), and the horizontal direction (C) for a certain section by the rotation means.



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APPARATUS FOR HARVESTING LOTUS ROOTS

The present invention relates to an apparatus for harvesting lotus roots, which collects lotus roots in the mud by high pressure water spray, and more specifically, to an apparatus for harvesting lotus roots, comprising: a body frame loading an engine; and a tracked running unit including a driving sprocket rotated by output of the engine, and a rubber track rotated by the driving sprocket. Also, the apparatus for harvesting lotus roots comprises: a water pump (230) installed on the body frame and operated by power of the engine; a water supply pipe (280) to spray water supplied from a water pump to a desired point; and a filter assembly (250) filtering foreign substances of water in lotus root plantation and connecting the same to the water pump. The water supply pipe is connected through the water pump and a soft connection hose (282), and can move in the longitudinal direction (A) by a hydraulic cylinder by being supported by a guide member (310). Also, the water supply pipe can rotate to the up and down direction (B) in a certain section by operation of the hydraulic cylinder, and to the horizontal direction (C) by operation of the hydraulic cylinder (360).

Publication: [KR 20150046501 A 20150430](#)

Applicant: TONGYANG MOOLSAN CO., LTD., KR
Inventor: KANG, YOUNG SUN, KR; SO, JIN HWAN, KR;
 NAM, YO SANG, KR; PARK, DONG SEOK, KR

Prio:
Appl.No: KR1020130125801
IPC: A01D 31/00 2006.01 (IA)



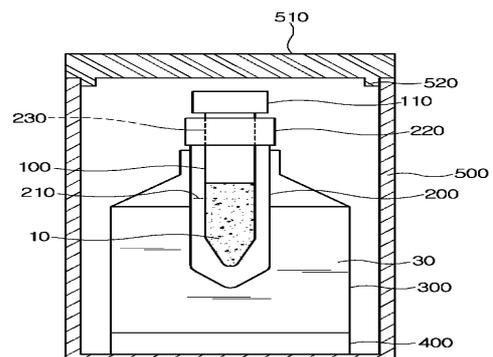
CASE DEVICE FOR CARRYING SPERM OF COW

The present invention relates to a case device for carrying sperm of cow and, more specifically, to a case device for carrying sperm of cow capable of inevitably carrying sperm of cow due to physical distance generated between a space for collecting sperm of cow and a service space, and also optimizing the fertility and survival rate of sperm. According to the present invention, the case device for carrying sperm of cow comprises: a sperm tube unit (100) which accommodates sperm diluted solution (10) in which heated diluted water is diluted with sperm to be covered with a cover (110); an air tube unit (200) which accommodates a lower part of the sperm tube unit (100) therein so that an upper part of the sperm tube unit is exposed to the outside and is filled with air to form an air layer (210) so that the internal temperature of the sperm tube unit (100) is affected by the external temperature in a time differential manner; a water tube unit (300) which accommodates a lower part of an air tube unit (200) therein so that an upper part is exposed to the outside and is filled with water (30) at a temperature of 25 to 35°C so that the temperature of the water (30) is thermally conducted to the air tube unit (200); a cooling unit (400) which is attached to the water tube unit (300) to cool the water (30) in the water tube unit (300); and a sealing unit (500) which maintains the internal temperature through the cooling unit (400) and seals the water tube unit (300), the air tube unit (200), and the sperm tube unit (100) accommodated therein.

Publication: [KR 101508850 B1 20150407](#)

Applicant: KNU-INDUSTRY COOPERATION FOUNDATION, KR
Inventor: PARK, CHOON KEUN, KR; LEE, SANG HEE, KR;
 LEE, SEUNG HWAN, KR; WOO, JEA SEOK, KR

Prio:
Appl.No: KR1020130139103



IPC: A01D 19/00 2006.01 (IA)

CRUSHER FOR HARVEST CROP

The present invention provides a crusher for harvest crop comprising: a crusher body unit having a plurality of wheels, and towed by being connected to a driving device; a crop crushing guide unit installed in a front end of the crusher body unit, rotated by an external power and collecting harvest formed in a field inside the crusher body unit; a crop erecting guide unit installed in the crusher body unit to be positioned in a rear end of the crop crushing guide unit, rotated by the external power, and forcibly erecting the collected harvest crop; and a crop crushing unit installed in the crusher body unit to be positioned in a rear end of the crop erecting guide unit, rotated by the external power and crushing the harvest crop which is forcibly erected to be discharged through a rear end of the crusher body unit.

Publication: **KR 101509412 B1 20150407**

Applicant: LEE, WEL YOUNG, KR; LEE, TAEK GI, KR

Inventor: LEE, WEL YOUNG, KR; LEE, TAEK GI, KR

Prio:

Appl.No: KR1020140187566

IPC: A01D 43/10 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Registration number: 101509412 B1
(45) Issue date: 07.04.2015
(24) Registration date: 31.03.2015

(51) Int. Cl. A01D 43/10 (2006.01)
A01D 43/00 (2006.01)

(21) Application number: 1020140187566 (72) Inventor: LEE, WEL YOUNG (KR)
LEE, TAEK GI (KR)

(22) Application date: 23.12.2014 (56) Pub. No. KR 100003927153 A
KR 1020040075535 A
KR 2000/2963 Y1
* Documents cited by examiner

(54) CRUSHER FOR HARVEST CROP

(57) Abstract:
The present invention provides a crusher for harvest crop comprising a crusher body unit having a plurality of wheels, and towed by being connected to a driving device; a crop crushing guide unit installed in a front end of the crusher body unit, rotated by an external power and collecting harvest formed in a field inside the crusher body unit; a crop erecting guide unit installed in the crusher body unit to be positioned in a rear end of the crop crushing guide unit, rotated by the external power, and forcibly erecting the collected harvest crop; and a crop crushing unit installed in the crusher body unit to be positioned in a rear end of the crop erecting guide unit, rotated by the external power and crushing the harvest crop which is forcibly erected to be discharged through a rear end of the crusher body unit.

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Full-automatic peanut pickup machine

The invention relates to a full-automatic peanut pickup machine which comprises a compartment. Chassis wheels are arranged on the two sides of the lower portion of the compartment, the bottom of the compartment is of a sieve-shaped structure, a downward-inclined pickup metal shovel is arranged at the bottom end of the head portion of the compartment and is of a sieve-shaped structure, the other end of the pickup metal shovel is arranged horizontal to the ground, supporting plates are fixed to the two sides of the pickup metal shovel, a gear drive structure is arranged on the supporting plate on one side, a gear tooth rolling rod is arranged between the supporting plates on the two sides, a driving wheel of the gear drive structure is connected with an output shaft of a drive motor, a driven wheel of the gear drive structure is connected with the gear tooth rolling rod, a plurality of sets of gear rakes are arranged on the circumference of the gear tooth rolling rod at equal intervals, a row of gear racks is arranged at the positions, between the gear tooth rolling rod and the compartment, of the supporting plates, and a ceiling is arranged at the positions, between the gear racks and the compartment, of the supporting plates. The gear racks and the gear rakes on the gear tooth rolling rod are of a staggered structure, lifted peanuts are prevented from falling off, and the full-automatic peanut pickup machine has the advantages of being high in pickup efficiency and low in loss rate, saving manpower and the like, and is suitable for picking up peanuts left on the ground.

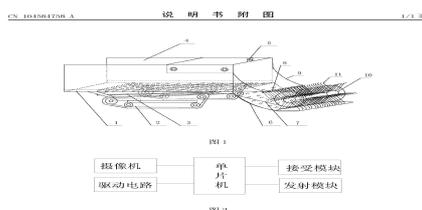
Publication: **CN 104584758 A 20150506**

Applicant: UNIV SHENYANG NORMAL

Inventor: BIAN WEI; CHEN XIUYAN; GAO PENG; LI QIANHUA; ZHOU BO

Prio:

Appl.No: CN201410198385



IPC: A01D 29/00

Nut picking roller with nut picking ribs for peanut combine harvester

The invention discloses a nut picking roller with nut picking ribs for a peanut combine harvester. The nut picking roller comprises cylinder-shaped round steel nut picking rollers and the nut picking ribs. The number of the cylinder-shaped round steel nut picking rollers is two. The cylinder-shaped round steel nut picking rollers rotate inward in the opposite direction. The nut picking ribs are evenly distributed and fixedly arranged on the surfaces of the cylinder-shaped round steel nut picking rollers in a welding mode. Gaps exist between the nut picking ribs and the cylinder-shaped round steel rollers. Due to the gaps, peanuts can be completely picked without being damaged when the nut picking rollers are utilized. The front end of each nut picking rib is provided with a taper-shaped chamfer. According to the nut picking roller with the nut picking ribs for the peanut combine harvester, compared with the form of prior adopted nut picking vanes, the rotation of the nut picking rollers are smoother, film-covers and peanut straws are not likely to be wound on the nut picking ribs, the complete picking rate is improved, and meanwhile the integrity of the peanuts is guaranteed.

Publication: **CN 104584759 A 20150506**

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; LIU YULIN

Prio:

Appl.No: CN201410805799

IPC: A01D 29/00

CN 104584759 A 说明书附图 1/13页

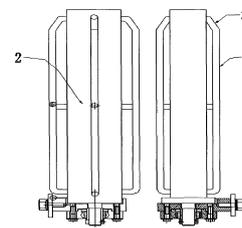


图 1

6

Peanut laying machine with soil shaking rod mechanism

The invention discloses a peanut laying machine with a soil shaking rod mechanism. The peanut laying machine comprises a rack, a suspension, a power transmission device, stalk lifting devices, a coulter assembly, a conveying device, a laying device, guide wheels and the soil shaking rod mechanism. The soil shaking rod mechanism is arranged on the lower portion of the conveying device. The power transmission device drives the stalk lifting devices, the conveying device and the soil shaking rod mechanism in sequence. According to the peanut laying machine with the soil shaking rod mechanism, a soil shaking rod is arranged at the bottom of the conveying device and can shake soil on peanuts conveyed by clamping chains completely, and therefore the clean degree of the peanuts laid in the field finally is ensured; meanwhile, the form of the clamping chains is adopted in the conveying device, the whole machine works easily, and the working efficiency of the laying machine is effectively improved; a laying device can be adjusted, the positions for laying peanut seedlings can be adjusted according to the actual conditions, and the flexibility of the whole machine is better.

Publication: **CN 104584760 A 20150506**

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; LIU YULIN

Prio:

Appl.No: CN201410805819

IPC: A01D 29/00

CN 104584760 A 说明书附图 1/13页

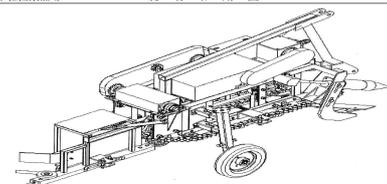


图 1

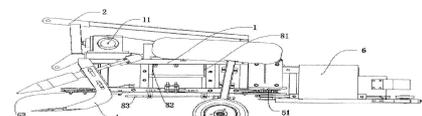


图 2

6

Adjustable grain lifter

The invention discloses an adjustable grain lifter. The adjustable grain lifter comprises a rack, a main transmission shaft, a driving wheel, driven wheels, first bearing seats, first transmission shafts, second bearing seats, first cardan joints, telescopic shaft sleeves, telescopic shafts, second cardan joints, third bearing seats, third bearing seat supporting plates, second transmission shafts, fourth bearing seats, fourth bearing seat supporting plates and grain lifting pointed cones. The first transmission shafts are connected with the telescopic shaft sleeves through the first cardan joints in a transmission mode, and the telescopic shafts are connected with the second transmission shafts through the second cardan joints in a transmission mode.

Publication: [CN 104584761 A 20150506](#)

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

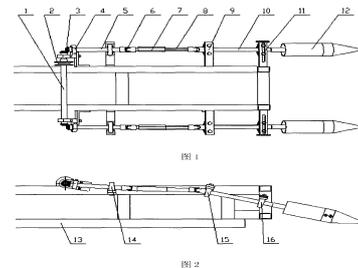
Inventor: GUO FASHAN; GUO NING; ZHAO JIQIANG

Prio:

Appl.No: CN201410807000

IPC: A01D 33/00

CN 104584761 A 说明书附图 1/1页



5

Push rod mechanism for garden tools

The invention relates to a push rod mechanism for garden tools. The mechanism comprises a connection rod, an operation rod and adjusting assemblies used for adjusting the relative positions of the connection rod and the operation rod. Each adjusting assembly has a locking position and a release position, and comprises a locking component and a limiting component. The limiting component fits the connection rod and the operation rod. A limiting block is arranged on the limiting component. When the adjusting assembly is in the locking position, the operation rod can rotate relative to the limiting block within a certain angle range. With the garden tool push rod mechanism provided by the invention, a push rod folding function is realized, such that package and storage volumes are reduced. Also, when a user is using the garden tool, the user can adjust the push rod within a certain angle range without operating on the adjusting assemblies of the push rod mechanism.

Publication: [CN 104584762 A 20150506](#)

Applicant: SKYBEST ELECTRIC APPLIANCE SUZHOU CO LTD

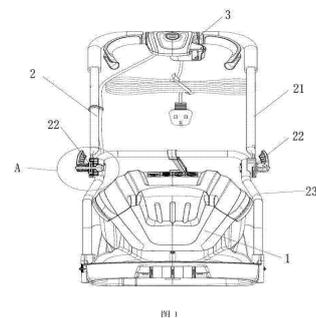
Inventor: HU BIN; WEI JUAN

Prio:

Appl.No: CN201310530114

IPC: A01D 34/00

CN 104584762 A 说明书附图 1/6页



6

Self-propelled small harvester

The invention provides a self-propelled small harvester. The self-propelled small harvester comprises a chassis, an engine, a soft shaft, a speed changing box, a gearbox, a front wheel, a rear driving wheel, a driving device and a harvesting tool, wherein the engine powers the speed changing box; the front wheel and the rear driving wheel are respectively arranged at the front end and the rear end of the chassis; the harvesting tool is arranged at the front end of the chassis; the soft shaft drives the harvesting tool through the gearbox to realize harvesting; a self-propelled gearbox is driven by the driving device to drive the rear driving wheel to realize self travelling of the harvester. A single-cylinder air-cooling two-stroke high-speed gasoline engine serves as power, and torque is transmitted to the gearbox through the soft shaft, and the harvesting tool is driven to move to harvest crops; due to the fact that the self-propelled rear driving wheel is adopted, a large amount of labor can be reduced; furthermore, a conveying device is arranged on the back surface of the harvesting tool, so that the crops are prevented from being placed in a mess, and the harvested crops can be transmitted to a field ridge tidily, and a large amount of labor is saved.

Publication: [CN 104584763 A 20150506](#)

Applicant: SHANGHAI KUNFU ENTPR GROUP CO LTD;
SHANGHAI KUNFU VEHICLE FITTINGS CO LTD;
SHANGHAI PUWO POWER MACHINERY MFG
CO LTD

Inventor: SHAO QIANG; SHI BINGJUN; SHI HUINA; SU
QICAN; YU RUNLIN

Prio:

Appl.No: CN201410850619

IPC: A01D 34/02

CN 104584763 A 说明书附图 1/1 31

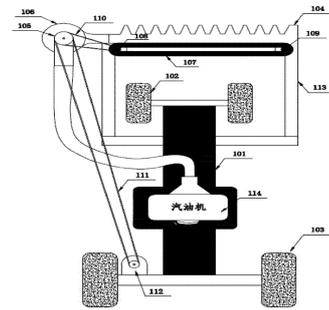


图 1

7

Spiral cutter shaft assembly

The invention relates to a spiral cutter shaft assembly. The spiral cutter shaft assembly comprises a cutter shaft welded part, mowing cutters and bearing installation seats arranged at two ends of the cutter shaft welded part, wherein each bearing installation seat comprises a clamping ring, a bearing and a bearing seat; the cutter shaft welded part comprises a cutter shaft pipe and cutter holders, the cutter holders are fixedly connected with the cutter shaft pipe and the mowing cutters are movably connected with the cutter holders; edges of adjacent mowing cutters are overlapped, and the cutter holders are sequentially, longitudinally and spirally arranged along an outer circumferential surface of the cutter shaft pipe at two ends in two directions in a 10, 12 or 14-equal partition manner; spiral lines are formed by two lines of cutter holders in the same quantity, the screw pitch of the two spiral lines is equal and is 206mm, and initial positions on end surfaces are different by 90 degrees. Since a spiral arrangement manner is adopted for the cutter holders of the spiral cutter shaft assembly, the quantity of mowing cutters is reduced; the since cutter holders are arranged according to a certain spiral sequence, only two or three cutters perform cutting at the same moment, the working resistance during mowing is greatly reduced, the load during operation is more uniform, the stability in the dynamic balance process is better and the working efficiency is increased.

Publication: [CN 104584764 A 20150506](#)

Applicant: CHANGZHOU KAIDELI MACHINERY CO LTD

Inventor: HE PEIZHAN

Prio:

Appl.No: CN201510061717

CN 104584764 A 说明书附图 1/1 31

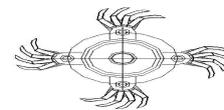


图 1

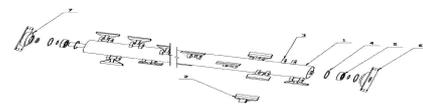


图 2

7

IPC: A01D 34/52

Mountain shrub cutting machine

The invention discloses a mountain shrub cutting machine, which comprises a power source, a support rod and an executing mechanism, wherein the power source is connected to a speed reducer, the speed reducer is in transmission connection with a transmission shaft through a shaft coupling, the transmission shaft is arranged in the support rod, a first bevel gear is arranged on the transmission shaft, the first bevel gear is engaged with a second bevel gear, and the second bevel gear is connected to the executing mechanism. The backpack type shrub cutting machine selects a gasoline engine as the power source, the power is transmitted to the bevel gears through a shaft so as to drive a disk saw to cut a shrub, the cutting intensity is large, the cutting effect is remarkable and the labor is saved.

Publication: **CN 104584765 A 20150506**

Applicant: YANGZHOU XINHE MACHINERY MFG CO LTD

Inventor: XU QINGPING

Prio:

Appl.No: CN201510052092

IPC: A01D 34/63

CN 104584765 A 说明书附图 1/3页

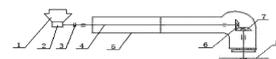


图 1

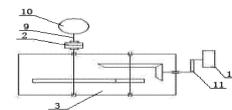


图 2

5

Double-layer cutting and crushing single cutter blade of mower

The invention discloses a double-layer cutting and crushing single cutter blade of a mower. The double-layer cutting and crushing single cutter blade comprises a cutter body, wherein the cutter body comprises a central installation part and two end parts, an installation hole and a positioning hole are respectively formed in the central installation hole, the two end parts do not stay on the same plane, the two end parts are different in height, one edge of each end part is provided with a cutting edge, and the other edge of each end part is provided with a blade part. The double-layer cutting and crushing single cutter blade is provided with two layers for cutting, the cutter blade is provided with the blade part, when the cutter body rotates, an airflow is formed in a shell, when weeds are arranged in the airflow, the weeds are absorbed and erected, the higher end of the cutter blade contacts the head part of the weed and cuts the head part of the weed, the head part of the weed is cut off, the erected stem part of the weed is remained, the lower end of the cutter blade is used for cutting the stem part of the weed, one weed is cut into three sections, the cut-off residual part of the weed is indirectly cut for multiple times in the shell, and the weeds are crushed after being cut for multiple times, so that the weeds can be thrown out to be collected and can be used as natural lawn fertilizer.

Publication: **CN 104584766 A 20150506**

Applicant: ANHUI TIANXIANG ELECTROMECHANICAL CO LTD

Inventor: MA BO

Prio:

Appl.No: CN201510003346

IPC: A01D 34/73

CN 104584766 A 说明书附图 1/3页

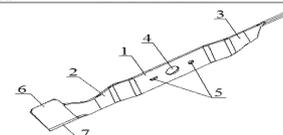


图 1



图 2

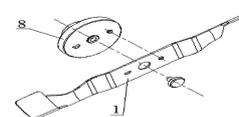


图 3

5

Small rice combine harvester

The invention discloses a small rice combine harvester and relates to the field of rice harvester manufacturing technology. The small rice combine harvester comprises a walking device, a harvesting device, a threshing device and a bin, wherein the walking device is provided with a rack, the harvesting device is located at the front end of the rack, the threshing device and the bin are arranged behind the harvesting device in sequence, the threshing device is communicated with the bin through a return device, the rack is provided with a receiver and a walking device controller, the receiver is connected with the walking device through the walking device controller, the receiver controls walking of the walking device through the walking device controller by receiving an instruction of a remote controller, and a bag sewing discharging device is arranged at the position, below an outlet of the bin, of the rack. Compared with the prior art, the small rice combine harvester has the advantages that no cab for riding by an operator is arranged, remote control operation is conducted in a remote control mode, the multiple functions of harvesting, threshing and bag sewing of rice are integrated, and the small rice combine harvester is affordable.

Publication: [CN 104584769 A 20150506](#)

Applicant: LIUZHOU MEINA MACHINERY CO LTD

Inventor: LIU ZHIMING

Prio:

Appl.No: CN201310700260

IPC: A01D 41/02

CN 104584769 A 说明书附图 1/1 页

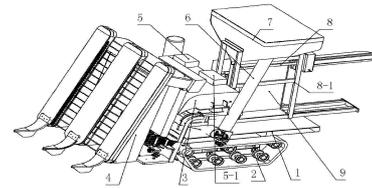


图 1

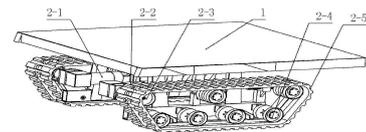


图 2

5

Harvester

The invention discloses a harvester which comprises a working chamber, a driving cabin and walking wheels. The working chamber is composed of a working chamber main body, a threshing bin, a storage bin, a feed hole and a discharge hole, the feed hole is located at the left end of the working chamber main body, the discharge hole is located on the bottom of the working chamber main body, the threshing bin and the storage bin are arranged in the working chamber main body, and the threshing bin is connected with the storage bin through a conveyor belt; walking wheels are arranged on the two sides of the working chamber main body; the driving cabin is composed of a driving cabin main body, a control panel, a steering wheel, an engine and a driving seat, the control panel is arranged at the left end of the driving cabin main body, the steering wheel is arranged on the control panel, the engine is arranged on the bottom of the control panel, and the driving seat is arranged at the right end of the driving cabin main body; two threshing rollers are arranged in the threshing bin. The harvester is simple in structure and convenient to operate; harvesting efficiency is improved through the two threshing rollers; safety coefficient is high due to the enclosed design; the design of a ceiling and an access door are more humanized; crawler wheels have small pressure on ground, and therefore damage to rice field is avoided.

Publication: [CN 104584770 A 20150506](#)

Applicant: NINGBO ZHENHAI WEICHEN MACHINERY MFG CO LTD

Inventor: HAN NA NA

Prio:

Appl.No: CN201410693678

CN 104584770 A 说明书附图 1/1 页

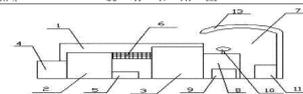


图 1

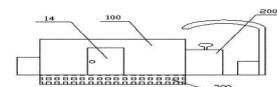


图 2



图 3

5

IPC: A01D 41/02

Novel stripping combine

The invention relates to a novel stripping combine. The novel stripping combine comprises a rack, wherein the front end of the rack is provided with a blade type standing grain pulling device; the rack is provided with upper and lower threshing cylinders on the rear part of the blade type rice pulling device; the upper and lower threshing cylinders rotate oppositely; the rear end of the lower threshing cylinder is provided with a secondary threshing cylinder; the lower end of the secondary threshing cylinder is provided with an arc-shaped sieve plate; the lower end of the arc-shaped sieve plate is provided with a vibrating screen structure; grains sieved by the vibrating screen structure are lifted into a grain impurity separation device at the rear end of the rack; meanwhile the lower end of the vibrating screen is provided with a spiral straw cutter which can lift and descend; the spiral straw cutter is fixedly arranged at the front ends of left and right supporting rods; the two supporting rods are integrally connected with a movable stem casing at the rear end respectively; a universal wheel is arranged at the bottoms of the front ends of the two supporting rods respectively; thus the height of the spiral straw cutter can be adjusted when the universal wheels are in contact with the ground so as to deal with straws of different heights. The novel stripping combine has the characteristics of convenience in use, simple structure, good use effect, high adaptability and the like.

Publication: **CN 104584771 A 20150506**

Applicant: ZHU CHUYANG
Inventor: LIU CHENGLU; ZHU CHUYANG
Prio:
Appl.No: CN201510065671
IPC: A01D 41/02

CN 104584771 A 说明书附图 1/2页

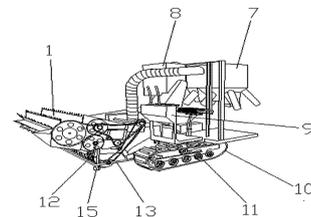


图 1

Self-propelled multifunctional straw harvesting grinder

The invention relates to a self-propelled multifunctional straw harvesting grinder. The grinder comprises a frame, wherein the frame is arranged on a front drive axle and a rear drive axle, the front end of the frame is provided with a driving cab, and one side of the driving cab is provided with an elevator; the front end of the elevator is provided with a header in a connecting way, and the rear end of the elevator is connected with a grinder body; the lower part of a connection junction between the elevator and the grinder is provided with a secondary recovery device, the lower part of the frame is provided with a stubble cleaner, and the frame at the upper part of the rear drive axle is provided with a hopper box. The self-propelled multifunctional straw harvesting grinder provided by the invention has the beneficial effects that vertical, inclined and lodging straws can be effectively harvested; furthermore, the harvested straws can be prevented from being mixed up with soil and impurities, and the sanitation of the ground straws can be ensured; meanwhile, the ground and leaked straws can be uniformly fed into the hopper box; in addition, the roots of the straws can be ground and returned to field when the straws are harvested; finally, the harvesting grinder is compact in structure, high in efficiency, convenient to harvest and transport and comfortable to operate, labor saving can be realized, and the great convenience can be provided for the harvesting and reusing of the crop straws.

Publication: **CN 104584772 A 20150506**

Applicant: WU AIGUO
Inventor: SUN YUAN; WU AIGUO; WU MENGSHU
Prio:
Appl.No: CN201510010747

CN 104584772 A 说明书附图 1/2页

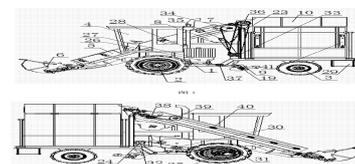


图 1

IPC: A01D 43/08

On-orbit self-propelled type harvesting device for greenhouse leaf vegetable harvesting robot and harvesting method

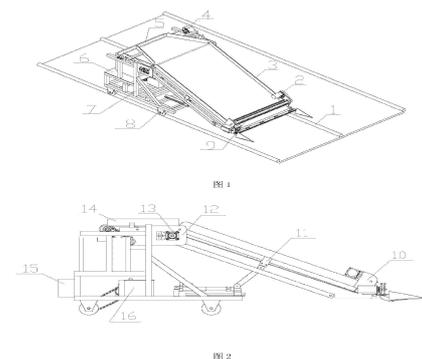
The invention discloses an on-orbit self-propelled type harvesting device for a greenhouse leaf vegetable harvesting robot and a harvesting method. According to the technical scheme adopted by the invention, the on-orbit self-propelled type harvesting device comprises a cutter device, a pushing-gathering device, a transmitting device, a tensioning device, a travelling device, a horizontal lifting mechanism, a control part and a storage battery, wherein the cutter device is used for harvesting leaf vegetables in a working area; the pushing-gathering device is used for pushing the harvested leaf vegetables to a conveyor belt; the transmitting device is used for transmitting the harvested leaf vegetables to a vegetable basket; the tensioning device is used for tensioning the conveyor belt in an operation process; the travelling mechanism is used for driving the whole machine to move on a parallel rail; the control part is used for controlling each motor to operate at proper time. According to the on-orbit self-propelled type harvesting device, self-propelled travelling on the parallel rail in the leaf vegetable harvesting process is realized without manually interfering a travelling direction and forwarding speed of the harvester, so that the harvesting efficiency is high and the labor power is saved. Cutters not only can regulate height above the ground, but also can be kept in a horizontal cutting gesture all the time; a rope section type pushing-gathering machine can be used for collecting, cutting and pushing the leaf vegetables to the conveyor belt under the condition of not damaging the leaf vegetables. Two cutters which oppositely move back and forth are adopted, so that efficient cutting is realized.

Publication: [CN 104584773 A 20150506](#)

Applicant: UNIV SHANDONG AGRICULTURE
Inventor: GONG LIANG; HU MIN; HUANG YIXIANG; LI MING; LI YANG; LIU CHENGLIANG; LIU XUEMEI; YUAN JIN

Prio:
Appl.No: CN201510028490
IPC: A01D 45/00

CN 104584773 A 说明书附图 1/4页



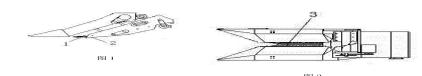
Cutting knife unit for corn harvesting machine

The invention relates to the field of agricultural machinery, and specifically to a cutting knife unit for a corn harvesting machine. The cutting knife unit for the corn harvesting machine comprises a cutting knife bench and cutting knives, wherein the distance between the cutting knives is 90 to 100 mm. According to the cutting knife unit for the corn harvesting machine, the distance between the cutting knives is changed, so that the accommodation space between the cutting knives is larger, better guiding performance is obtained, and corn straw is perfectly separated; in addition, since the cutting knives are arranged at the rear part of a clamping chain, the corn straw is clamped at first and then cut during harvesting, thereby preventing the corn straw from falling onto the ground and improving the working quality of the corn harvesting machine.

Publication: [CN 104584774 A 20150506](#)

Applicant: QINGDAO LANNONGGU AGRICULTURAL PRODUCT RES AND DEV CO LTD
Inventor: LI HONGWEI
Prio:
Appl.No: CN201310521611

CN 104584774 A 说明书附图 1/1页



IPC: A01D 45/02

Air filtering device used on corn harvester

The invention relates to the field of agricultural machinery, and specifically relates to an air filtering device used on a corn harvester. The corn harvester comprises the corn harvester and the air filtering device. The air filtering device is positioned right in front of the right side of the corn harvester. According to the corn harvester air filtering device provided by the invention, the position of the air filtering device on the corn harvester is changed, such that air entering the air filtering device is completely clean gas. Therefore, engine inlet air quality is improved; engine service life is prolonged; and corn harvester working efficiency is improved.

Publication: **CN 104584775 A 20150506**

Applicant: QINGDAO LANNONGGU AGRICULTURAL
PRODUCT RES AND DEV CO LTD

Inventor: LI HONGWEI

Prio:

Appl.No: CN201310521834

IPC: A01D 45/02

CN 104584775 A 说明书附图 1/3 页

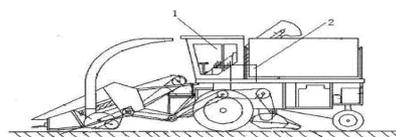


图 1

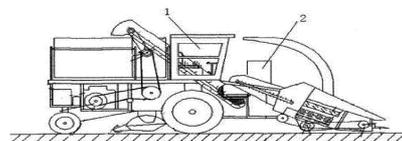


图 2

6

Rolling brush type small berry picking device

The invention discloses a rolling brush type small berry picking device, and belongs to the field of sea-buckthorn picking machines. The rolling brush type small berry picking device comprises a power part, a transmission part and a rolling brush part, wherein the power part comprises a power cable, a switch and a motor; the transmission part comprises a connection flange, a motor output shaft and a gear transmission mechanism; the gear transmission mechanism comprises a right end cover, a shell, a left end cover, a driving gear shaft, driven gears, driven gear shafts and bearings; the motor output shaft is fixedly connected with the driving gear shaft; a driving gear of the driving gear shaft is meshed with the driven gears; the driven gears are fixedly connected to the right ends of the driven gear shafts; the driven gear shafts are fixed in a cavity constructed by the right end cover, the shell and the left end cover through the bearings arranged on both sides of the driven gears, and pass through gear shaft through holes to be fixedly connected with the rolling brush part; the rolling brush part comprises brush bodies and brush needles fixed on the brush bodies. The picking device provided by the invention is suitable for small berries such as sea-buckthorns and Chinese wolfberry, has high working efficiency and high picking rate, and is wide in the application range; the breakage rate can meet the production requirement.

Publication: **CN 104584776 A 20150506**

Applicant: YAN LUN

Inventor: YAN LUN

Prio:

Appl.No: CN201510049164

IPC: A01D 46/00

CN 104584776 A 说明书附图 1/3 页

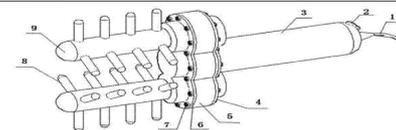


图 1

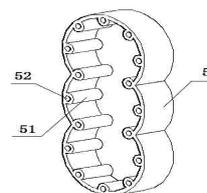


图 2

6

A cotton pick with a ground velocity synchronized with a driving unit and installed at a tractor at low costs

The invention provides cotton pick with a ground velocity synchronized with a driving unit and installed at a tractor at low costs. In the invention, a rear portion power output device (PTO) (501, 701, 801 and 901) operates in two operating modes which are a ground velocity driving mode and a normal mode. In the ground velocity driving mode, the velocity of the rear portion (PTO) (501, 701, 801 and 901) changes according to the ground velocity of the tractor and a gear automatically selected from a gear box. In the normal state, the rear portion PTO (501, 701, 801 and 901) operates at a constant speed, a variable velocity required by a driving unit is realized through changing a belt wheel or a chain wheel. The selection of the belt wheel or the chain wheel gives selection of an operation gear.

Publication: [CN 104584777 A 20150506](#)

Applicant: CNH IND
Inventor: B SYNGE; N D YADAV; R B A GANYUE; S KHURANA; S SRIVASTAVA
Prio: IN 20131031 MU 34712013
Appl.No: CN201410606117
IPC: A01D 46/08

CN 104584777 A 说明书附图 1/10页

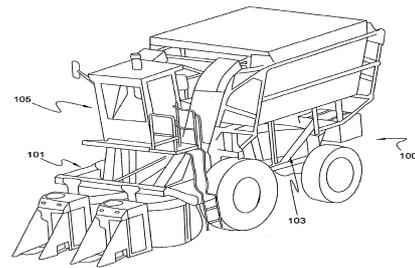


图 1

11

Telescopic fetching device

The invention relates to a daily necessity, and especially relates to a telescopic fetching device. The telescopic fetching device comprises a water tank and a rotation de-dusting hood arranged on the water tank. An outer dust suction nozzle is separately arranged on the de-dusting hood. The telescopic fetching device is characterized in that the outer dust suction nozzle communicates with an air exhaust passage which is arranged on the side of the water tank and which is bent backwards. A mechanical transmission exhaust fan parallel to the back surface of the water tank is arranged on the rear of the air exhaust passage. A mechanical transmission shaft is arranged on a side of the mechanical transmission exhaust fan. The telescopic fetching device provided by the invention has the following advantage: with the telescopic fetching device, items at high places can be easily fetched or cut. The telescopic fetching device is time-saving and effort-saving, and also has the advantages of simple structure and convenient operation. With the telescopic fetching device, great convenience is brought to our daily life.

Publication: [CN 104584778 A 20150506](#)

Applicant: MA CHUNJUAN
Inventor: MA CHUNJUAN
Prio:
Appl.No: CN201310523305
IPC: A01D 46/22

CN 104584778 A 说明书附图 1/3页

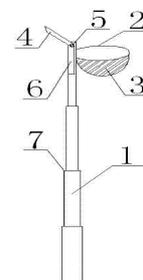


图 1

4

Apple maturity automatic detection and picking robot based on binocular vision

The invention discloses an apple maturity automatic detection and picking robot based on binocular vision. The apple maturity automatic detection and picking robot based on the binocular vision is characterized in that the apple maturity automatic detection and picking robot comprises a mobile platform, a binocular vision system connected with the mobile platform and a flexible manipulator, wherein the binocular vision system is arranged on the flexible manipulator; the binocular vision system consists of two image acquisition devices; each image acquisition device is connected with an intelligent control system via a data acquisition card and is arranged on a shelf which is vertically far away from the ground for 135cm; the shelf is fixedly arranged on the left side of the mobile platform; distance between the two image acquisition devices is 47cm, and the two image acquisition devices focus on a position before the flexible manipulator about 60cm. According to the apple maturity automatic detection and picking robot, the color, the size and the shape of an apple can be automatically detected, an obtained image is automatically processed, detected and identified so as to improve system operation efficiency, picking situations can be fed back in real time, picking accuracy is improved, the production automation level of the robot can be greatly improved, and the robot has the advantages of simple structure, high automation degree and wide applicability.

Publication: [CN 104584779 A 20150506](#)

Applicant: UNIV GUILIN ELECTRONIC TECH
Inventor: DANG XUANJU; HUANG GUOMING; LIU JINXIA; PENG ZHIYONG; SUN XIAN GANG; WANG JIEJUN; WU JUN; WU XIRU; ZHANG XIANGWEN

Prio:
Appl.No: CN201510034444
IPC: A01D 46/24

CN 104584779 A 说明书附图 1/4页

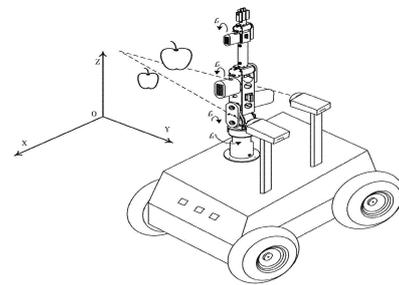


图1

8

Flexible manipulator for detecting fruit maturity and harvesting

The invention discloses a flexible manipulator for detecting fruit maturity and harvesting. The flexible manipulator is characterized by comprising a pneumatic shear hand mechanism, a rotary mechanism, a photoelectric mechanism and a transmission mechanism which are sequentially connected from top to bottom, wherein an image collecting device is arranged on the pneumatic shear hand mechanism and is connected with an intelligent control system. The flexible manipulator has the advantages that the structure is simple, the automation degree is high, the suitability is wide, and the portability is high; the flexible manipulator is widely suitable for harvesting and recovering the fruits and vegetables, and has broader prospect.

Publication: [CN 104584780 A 20150506](#)

Applicant: UNIV GUILIN ELECTRONIC TECH
Inventor: DANG XUANJU; HUANG GUOMING; LIU JINXIA; PENG ZHIYONG; SUN XIAN GANG; WU JUN; WU XIRU; YE SONG; ZHANG XIANGWEN

Prio:
Appl.No: CN201510035992
IPC: A01D 46/24

CN 104584780 A 说明书附图 1/10页

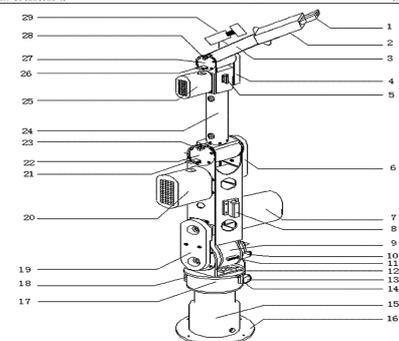


图1

8

Full-automatic lycium chinense picking harvesting machine

The invention discloses a full-automatic lycium chinense picking harvesting machine which comprises a traveling mechanism (1), a drive mechanism (3), a transmission mechanism (10), a door-shaped main frame body (7), a picking mechanism assembly, a fruit collection mechanism (11) and a fruit collection box (8), wherein two sides of the door-shaped main frame body (7) are provided with fruit conveying mechanisms (5) containing a conveyor belt body A (52); the conveyor belt body A (52) consisting of a plurality of tensioning wheels (55) and a roller A (56) is tensioned to an Z-shaped conveyor containing an upper horizontal section, a lower horizontal section and a vertical section placed in the middle; a lift bucket (53) is arranged on the conveyor belt body A (52); the lift bucket (53) is in a shape of trough capable of containing materials. Compared with the prior art, the full-automatic lycium chinense picking harvesting machine has the advantages that the structure is simpler, the harvested fruits can be collected and conveyed preferably, and the conveying effect is better.

Publication: [CN 104584781 A 20150506](#)

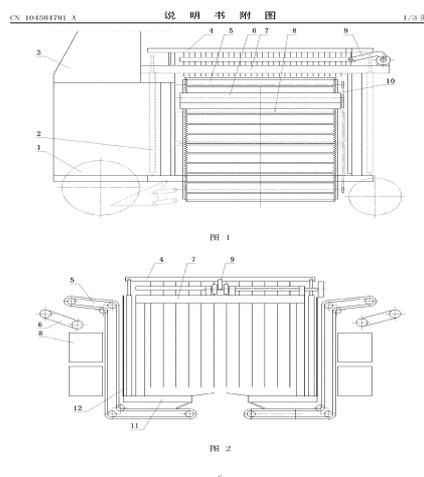
Applicant: HUI HUA; JINGHE AGRICULTURAL MACHINERY TECHNOLOGY PROMOTION CT; LIU WENHAI; MA WEIXING; ZHANG XIAOHU

Inventor: HUI HUA; LIU WENHAI; MA WEIXING; ZHANG XIAOHU

Prio:

Appl.No: CN201510068863

IPC: A01D 46/24



Collision prevention carrying device for fruit harvesting

The invention discloses a collision prevention carrying device for fruit harvesting, and relates to a fruit harvester. The collision prevention carrying device comprises a conveying pipe and a bracket, and is characterized in that the conveying pipe is a cloth hose; binding buckles are distributed on the outer side of the cloth hose; the bracket consists of a base plate, a telescopic base rod, a middle-section telescopic rod and an upper-section telescopic rod; the telescopic base rod is connected to the base plate; through holes are formed in the telescopic base rod, the middle-section telescopic rod and the upper-section telescopic rod in a circling manner; the cloth hose circles on the bracket in a spiral manner; the binding buckles distributed on the outer side of the cloth hose are respectively connected to the through holes in the telescopic base rod, the middle-section telescopic rod and the upper-section telescopic rod; the upper end of the cloth hose is provided with an upper free section; the head end of the upper free section is provided with a fruit carrying inlet; the lower end of the cloth hose is provided with a lower free section; the tail end of the lower free section is provided with a fruit outlet. According to the collision prevention carrying device, fruits can slowly fall into a fruit basket along the cloth hose in a spiral falling manner, so that collision of the fruits with tree branches or other objects is avoided, and the fruits can be preserved for a longer time.

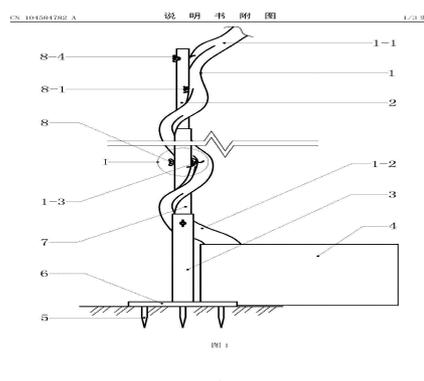
Publication: [CN 104584782 A 20150506](#)

Applicant: QUZHOU YUXIN AGRICULTURAL PRODUCTS PROC TECHNOLOGY

Inventor: WU SHUIXIAN

Prio:

Appl.No: CN201510074909



IPC: A01D 46/24

Portable fruit picking device

The invention relates to the technical field of fruit tree planting, and especially relates to a portable fruit picking device. The device comprises a fruit picking rod, a motor and a fruit picking bag. The motor is fixed on the top of the fruit picking rod. A blade is arranged on the output shaft of the motor. A conical hopper is fixed on the top of the fruit picking bag. The fruit picking bag communicates with the bottom of the conical hopper. According to the invention, the fruit picking device comprises the support rod, the net bag fixed on the support rod and the motor arranged above the net bag. When in use, a fruit is sleeved in the net bag; the starter motor is aligned with the stem of the fruit; the stem on the fruit can be rapidly cut by the blade on the motor; and the fruit falls into the fruit picking bag. The device is convenient to use, and does not cause any damage to the fruits. The device has high practicality.

Publication: **CN 104584783 A 20150506**

Applicant: TIANJIN JI COUNTY JIUHU FRUIT TREE GROWING SPECIALIZED COOPERATIVE

Inventor: ZHOU JIE

Prio:

Appl.No: CN201310530464

IPC: A01D 46/253

CN 104584783 A 说明书附图 1/3页

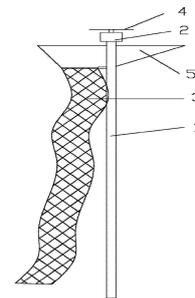


图 1

5

High-technology intelligent environmental-friendly portable multifunctional lithium fruit picking machine

The invention discloses a high-technology intelligent environmental-friendly portable multifunctional lithium fruit picking machine which comprises a power mechanism, a battery protection circuit board, a control mechanism, a transmission mechanism and a fruit picking mechanism. The power mechanism comprises a lithium battery pack, a charger and a power line, the battery protection circuit board is mounted in the power mechanism and connected with the lithium battery pack, the charger is connected with the lithium battery pack, the lithium battery pack is connected with the control mechanism through the power line, the length of the transmission mechanism is telescopic, the control mechanism is connected with the transmission mechanism, and the transmission mechanism is connected with the fruit picking mechanism. The high-technology intelligent environmental-friendly portable multifunctional lithium fruit picking machine has the advantages that the working strength of workers is reduced, and the work efficiency is improved; the lithium battery pack is adopted for power supply, and cleanliness and environmental protection are guaranteed; the machine is rain-proof, and cycle use is achieved; the service time is long, and the machine can work for a day by charging once; the machine is convenient to carry; the noise is low; the weight is light; the transmission mechanism is telescopic, and fruits at different heights can be picked.

Publication: **CN 104584784 A 20150506**

Applicant: NINGBO AOSHENG MACHINE CO LTD

Inventor: SHEN HUANJUN

Prio:

Appl.No: CN201410783558

CN 104584784 A 说明书附图 1/12页

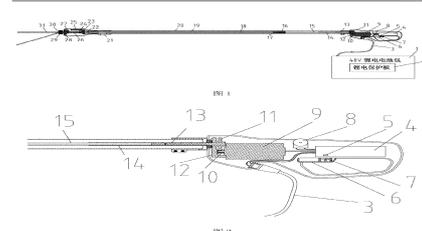


图 2

6

IPC: A01D 46/26

Pneumatic drive-based fruit-picking robot end effector

The invention discloses a pneumatic drive-based fruit-picking robot end effector, which belongs to the technical field of the development of automated picking end effectors for agricultural fruits and vegetables. The pneumatic drive-based fruit-picking robot end effector comprises a pneumatic translating clamping assembly and a pneumatic revolving cutter assembly, wherein the pneumatic translating clamping assembly is used for ensuring that concave spherical clamping fingers can horizontally move away from and toward each other under the drive of a double-acting air cylinder to implement the operation of clamping and releasing a fruit; the pneumatic revolving cutter assembly is used for ensuring that by means of a pneumatically driven revolving cutter holder mounted on the finger of one side, after an orange is tightly held by two fingers, a blade can revolve around the profile of the fingers by about 270 degrees to cut off the fruit stem. The pneumatic drive-based fruit-picking robot end effector has the advantages of simple structure, high universality, light components and no pollution.

Publication: **CN 104584785 A 20150506**

Applicant: NANJING INST TECHNOLOGY
Inventor: FENG HU; LIU GUIZHI; SHI JIANJUN; TONG GUI; XU YOUFENG; YANG WENLIANG; YU HANQI

Prio:
Appl.No: CN201510005950
IPC: A01D 46/30

CN 104584785 A 说明书附图 1/3页

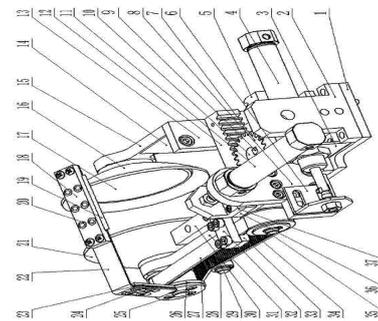


图 1

9

Vertical shaft disc type straw header device for combine harvester

The invention relates to a vertical shaft disc type straw header device for a combine harvester. The vertical shaft disc type straw header device comprises a rack, a grain divider set, a first gearbox, a second gearbox, a first set of vertical shaft disc cutter mechanisms, a second set of vertical shaft disc cutter mechanisms, a power transmission device, a clamping and feeding roller device, a lifting and conveying roller device and an output conveyor belt, wherein the rack is used for mounting each part. The vertical shaft disc type straw header device for the combine harvester can realize continuous rotary cutting and has very strong capabilities of lifting and backward conveying. Under root constraining force and spiral lift-slab clamping force, the bottoms of straws are effectively cut off through cutting effects of forward and reverse blades, the cutoff straws are quickly fed into a machine body by utilizing opposite rotation of the clamping and feeding roller device and friction effects of the straws, and then the cutoff straws are fed to the output conveyor belt through the lifting and conveying roller device. The device effectively prevents reverse lodging and accumulated plugging of the cutoff straws, realizes cutoff and collection of the straws, and mainly adapts to crops with thick stems and high stalks.

Publication: **CN 104584786 A 20150506**

Applicant: UNIV QINGDAO TECHNOLOGICAL
Inventor: LI CHANGHE; LI JIAXIN; LIU CHENGCHENG; MA ZHENGCHENG; SONG BIN; ZHANG XIAOYANG; ZHU ZHANWEI

Prio:
Appl.No: CN201510073476
IPC: A01D 47/00

CN 104584786 A 说明书附图 1/4页

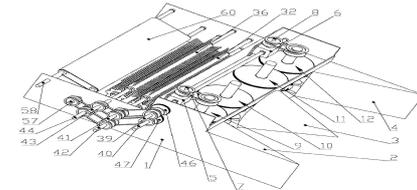


图 1

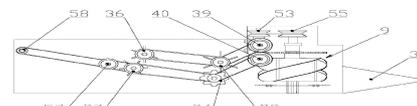


图 2

13

Small elevation device used on corn harvester

The invention relates to the field of agricultural machinery, and specifically relates to a small elevation device used on a corn harvester. The small elevation device comprises a transmission chain, a support, an elevation groove, scrapers, a protection hood, and sprockets. The protection hood is arranged at the top of the small elevation device, and has a parabolic shape. The scrapers are arranged in the elevation groove. According to the small elevation device used on the corn harvester, the protection hood on the upper end has the parabolic shape, such that ears of corn tossed by the scrapers enter an ear box through the parabolic protection hood, and are prevented from being rebounded by the protection hood. Therefore, the working efficiency of the corn harvester is improved.

Publication: [CN 104584787 A 20150506](#)

Applicant: QINGDAO LANNONGGU AGRICULTURAL
PRODUCT RES AND DEV CO LTD

Inventor: LI HONGWEI

Prio:

Appl.No: CN201310521565

IPC: A01D 57/00

CN 104584787 A 说明书附图 1/2页

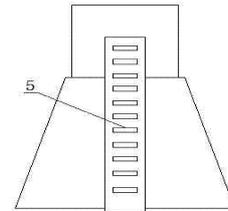


图 1

6

Novel stem bundling harvester

The invention belongs to the technical field of agricultural machinery and discloses a novel stem bundling harvester. A harvesting platform is arranged at the front end of the novel stem bundling harvester; the harvesting platform comprises a reeling wheel and a cutter; an integrated frame is arranged on the rear side of the cutter; a front conveying bin connected with the rear side of a conveying port is arranged on the integrated frame; a rear conveying bin is arranged on the rear side of the front conveying bin; a conveying auger is vertically connected with the lateral side at the top of the rear conveying bin; the conveying auger is directly connected with a straw bundling machine; an engine is mounted in the middle of the integrated frame; the engine is respectively connected with an adjacent gearbox and a driving variable pump on the rear side through a belt. According to the invention, the front and rear conveying bins are connected on the rear side of the harvesting platform, the front and rear conveying bins are in a split design and the conveying auger is directly connected with the bottom of the rear conveying bin, so that the feeding is continuous and powerful when the straws are bundled, the pushing force is enhanced, the straw packing is firmer, the power source of the integrated frame is only from the engine and the gearbox, the power is higher and the fault rate is low.

Publication: [CN 104584788 A 20150506](#)

Applicant: DEZHOU LUFA MACHINERY CO LTD

Inventor: ZHAO HONGLIN

Prio:

Appl.No: CN201510050924

IPC: A01D 57/00

CN 104584788 A 说明书附图 1/2页

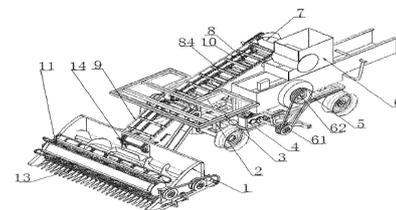


图 1

6

ROW DIVIDER FOR A CORN HEADER OF A COMBINE HARVESTER

An improved row divider for a corn head assembly of a combine harvester is disclosed. The row divider includes opposing non-vertical sidewalls that taper inwardly to define a narrow bottom. The non-vertical sidewalls may be planar, concave or convex. The sloping surfaces of the sidewalls result in less severe bending and shearing of corn stalks that are misaligned with respect to the row divider as the combine harvester traverses a corn field, thereby increasing crop yield.

Publication: [CN 104584789 A 20150506](#)

Applicant: CASE NEW HOLLAND CHINA MAN CO LTD
Inventor: PRIEPKE EDWARD HERMAN
Prio: US 20131015 201314053671
Appl.No: CN201410729425
IPC: A01D 57/01

CN 104584789 A 说明书附图 1/9页

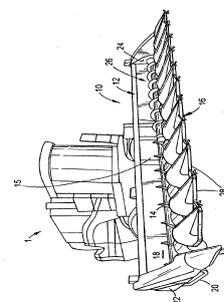


图 1

Manufacturing method of logarithmic curve arc wave straight wavy improved injection molding lawn mower gear box

The invention relates to a manufacturing method of a logarithmic curve arc wave straight wavy improved injection molding lawn mower gear box. The method is characterized in that a flange (1a5) is arranged in the middle part of a clutch slide block, a rear drive plate (1a7) is arranged on the rear end part of the clutch slide block, since warm extrusion powder metallurgy is incapable of realizing side withdrawing, a plurality of openings which are mutually staggered to one another are formed in the flange (1a5) arranged in the middle part of the clutch slide block and the rear drive plate (1a7) arranged on the rear end part of the clutch slide block, thus not only is the demoulding facilitated, but also the difficulty that a double-layer flange and the drive plate cannot be produced in the warm extrusion powder metallurgy can be solved, and a shifting fork is convenient to insert between the double-layer flange and the drive plate. Arc waves and straight waves are formed on 3 to 18 clutch cones with logarithmic spirals which are circumferentially arranged on the end part of each of the clutch slide block and a clutch block, each clutch cone is sequentially provided an upslope arc wave (1a1), a top arc convex (1a2), a downslope straight wave (1a3) and a bottom wave (1a4), namely, a contour curve of a main shape of the clutch slide block and the clutch block is a section of the logarithmic spiral, so that the scientific evidence that the pressure angle of advanced mathematics is almost equal everywhere can be provided when the logarithmic curve arc waves and straight waves are engaged and disengaged, more firmness and more reliability can be realized, and the logarithmic spiral clutch cone can be produced by an intermediate bench worker.

Publication: [CN 104584790 A 20150506](#)

Applicant: GUANGDE DIFA MACHINERY CO LTD
Inventor: LI SONGGUI; QI GUANGYONG; SU KE
Prio:
Appl.No: CN201510015195
IPC: A01D 69/06

CN 104584790 A 说明书附图 1/29页

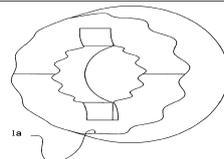


图 1

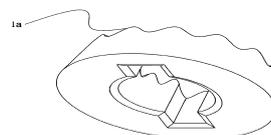


图 2

Straw deep-burying recycling machine

The invention discloses a straw deep-burying recycling machine, and relates to the field of agricultural machinery. The machine comprises a whole machine frame, a tillage blade mounting shaft, a tillage blade assembly, a press roller support, and a press roller. A transmission box is connected on the whole machine frame. A large sprocket is connected in the transmission box through a transmission shaft. An eccentric shaft is arranged on the back side of the transmission shaft, and is held on the whole machine frame through a bearing support. A small sprocket is connected on the eccentric shaft, and is connected to the large sprocket through a chain. Two ends of the eccentric shaft are respectively connected to connection rods. A straw-pressing blade support is arranged below the eccentric shaft. Two ends of the straw-pressing blade support are respectively hinged with corresponding connection rods through connection pins. Two vertically arranged slide rails are connected in the whole machine frame. Two sides of the straw-pressing blade support are respectively arranged in corresponding slide rails. A plurality of grass-pressing blades are connected below the straw-pressing blade support, wherein each straw-pressing blade is respectively arranged between the press roller and the tillage blade assembly. Each straw-pressing blade is provided with a sawtooth on the side facing the tillage blade assembly. With the straw deep-burying recycling machine, the straws can be buried deep. When seeds are sowed, a germination rate is high.

Publication: [CN 104584791 A 20150506](#)

Applicant: RONG JILIN
Inventor: RONG JILIN
Prio:
Appl.No: CN201310525553
IPC: A01D 82/00

CN 104584791 A 说明书附图 1/3 页

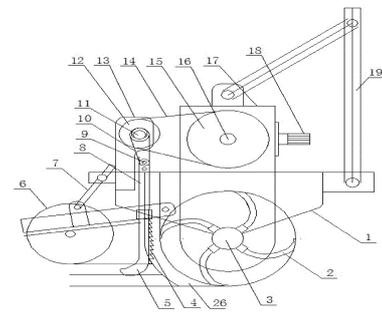


图 1

5

Maize straw segmented harvesting and comprehensive utilizing method

The invention discloses a maize straw segmented harvesting and comprehensive utilizing method, and belongs to an agricultural waste utilization technology. The maize straw segmented harvesting and comprehensive utilizing method comprises the steps of cutting off maize straws above maize ears while the maize ears are harvested by utilizing a maize harvester; synchronously smashing the maize straws of which the length is within 20mm into maize straw powder; dispersing the maize straw powder, and returning the maize straw powder to the field to cover the field; enabling maize straws under the maize ears to stand and exist in the field; carrying out precipitation processing by adopting a standing maize straw natural drying way; harvesting the maize straws when the water content is reduced to be below 30%; smashing, forming and pressing the maize straws into compact type maize straw briquette fuel. According to the maize straw segmented harvesting and comprehensive utilizing method disclosed by the invention, scientific, reasonable and comprehensive utilization on the maize straws in different parts is realized by adopting a segmented harvesting way according to different contents of lignin and fibrin of the maize straws above and under the maize ears, and the maize straw segmented harvesting and comprehensive utilizing method has the characteristics of simpleness, scientificity, reasonability and good straw utilization efficiency.

Publication: [CN 104584792 A 20150506](#)

Applicant: UNIV NORTHEAST AGRICULTURAL
Inventor: GUAN ZHENGJUN; WANG XINZHI; ZHANG XU;
ZHENG GUOXIANG

Prio:
Appl.No: CN201410849884

CN 104584792 A 说明书附图 1/3 页



图 1

5

IPC: A01D 82/00

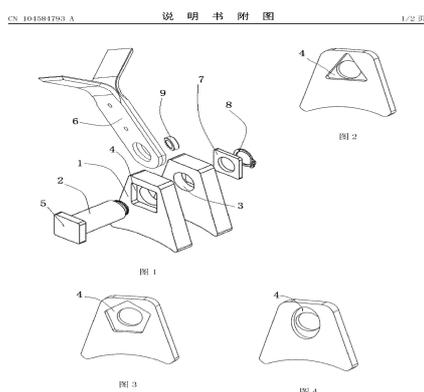
Straw returning machine and anti-autogenous abrasion tool aprons thereof

The invention relates to a straw returning machine and anti-autogenous abrasion tool aprons of the straw returning machine. The straw returning machine comprises a pair of tool aprons and a hinge pin; an axle hole is formed in the upper part of each tool apron; the hinge pin penetrates through the axle holes; a special-shaped counter bore is formed in the outer side of each axle hole; one end of the hinge pin is provided with a special-shaped boss; the special-shaped boss is matched with the special-shaped counter bores; the other end of the hinge pin is provided with a gasket and cotter pins. According to the straw returning machine and the anti-autogenous abrasion tool aprons of the straw returning machine disclosed by the invention, by matching the special-shaped counter bores with the special-shaped boss, the hinge pin is effectively prevented from rotating along with the rotation of a flail knife, and therefore the abrasion to the tool aprons is avoided, and the cost of harvesting operation is reduced.

Publication: [CN 104584793 A 20150506](#)

Applicant: ZOOMLION HEAVY MACHINERY CO LTD
Inventor: DING ZHENGYAO; LI SHUBO; WANG CONG;
WANG XIEN

Prio:
Appl.No: CN201510039216
IPC: A01D 82/00



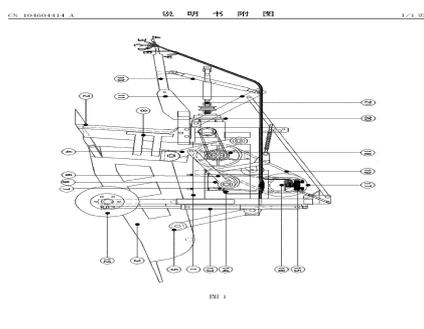
Intelligent digging machine for Chinese herbal medicines

The invention discloses an intelligent digging machine for Chinese herbal medicines. The intelligent digging machine comprises a mechanical main framework, a chassis hydraulic ascending-descending traveling and hydraulic depth limiting system, an intelligent electric control system and a variable-force speed regulator. A furrowing blade and a vibration screen are mounted in front and rear of the lower end of the mechanical main framework and connected onto the mechanical main framework through a front rocker arm and a rear rocker arm respectively. The chassis hydraulic ascending-descending traveling and hydraulic depth limiting system comprises a triangular traction frame, a tractor traction suspension plate and a hydraulic ascending-descending depth limiting wheel. The intelligent electric control system comprises a controller, a driven shaft rotation speed sensor, an electromagnetic valve and a hydraulic oil pipe. The variable-force speed regulator comprises a master disc of the variable-force speed regulator, an auxiliary disc of the variable-force speed regulator and a belt of the variable-force speed regulator. The intelligent digging machine for Chinese herbal medicines has the advantages of high operation efficiency, high soil adaptability, large digging depth and convenience in transport and installation control, and the problems of insufficient digging depth, uncleanness in digging, incoherence in digging operation, low digging efficiency, large power of a fitting tractor, difficulty in transport and the like.

Publication: [CN 104604414 A 20150513](#)

Applicant: NINGXIA TIANJIN MACHINERY EQUIPMENT
MFG CO LTD
Inventor: CHEN LEI; ZHANG JIANNING; ZHANG
JIANXIANG; ZHANG XIAOCHUN

Prio:
Appl.No: CN201510082983



IPC: A01D 15/04

Agricultural harvester

The invention discloses an agricultural harvester which comprises a digging shovel and a conveying mechanism. The digging shovel and the conveying mechanism are arranged on a support of the harvester. The conveying mechanism is connected with a driving motor of the harvester through a shaking chain. The agricultural harvester is characterized in that a chain cover is arranged on the support, the shaking chain is located in the chain cover, at least one opening face is arranged on the chain cover, and the included angle of the digging shovel and the horizontal direction ranges from 30 degrees to 45 degrees. According to the technical scheme, by means of the agricultural harvester, the chain can be prevented from being stuck by hard objects in the running process, and the maintenance and repair cost of the harvester is reduced.

Publication: **CN 104604415 A 20150513**

Applicant: CHENGDU JIAMEIJIA SCI & TECH

Inventor: LIANG FENG

Prio:

Appl.No: CN201410785268

IPC: A01D 17/08

CN 104604415 A 说明书附图 1/3页

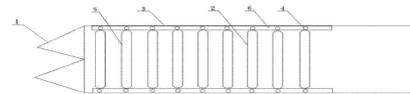


图 1

5

Chinese artichoke harvesting machine

A Chinese artichoke harvesting machine is novel agricultural production machinery and used in agricultural production to achieve that an industrial crop, namely, Chinese artichoke, is harvested efficiently, rapidly and cleanly. A shovel head with a 50-250 cm wide opening is pushed forward through power traction; soil which is planted with the Chinese artichoke is shoveled up through the shovel head, crushed through a horizontal tooth crushing wheel with a diameter ranges from 15 cm to 60 cm, lifted through a lifting belt which is 50-250 cm wide and 150 cm high, crushed for the second time through the horizontal tooth crushing wheel and a vertical tooth crushing wheel which are arranged above the shovel head, and sieved off through a shaky sliding sieve which is 100-250 cm long and 50-250 cm wide; then fleshy fruits of the Chinese artichoke is separated out, the fleshy fruits are conveyed through a horizontal movable net conveyor belt which is 100-500 cm long and 50-250 cm wide, and the fleshy fruits are lifted and put into a storage box of a Chinese artichoke harvesting machine which can harvest the Chinese artichoke in an efficient, rapid and clean mode through a secondary lifting belt.

Publication: **CN 104604416 A 20150513**

Applicant: MO FAN; YINCHUAN DUOBEI TECHNOLOGY CO LTD

Inventor: MO FAN; MO LIANYUN

Prio:

Appl.No: CN201510052796

IPC: A01D 17/08

CN 104604416 A 说明书附图 1/4页

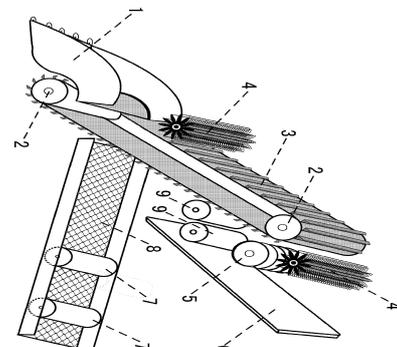


图 1

5

Harvesting machine for root-tuber crop in deep soil layer

The invention relates to a harvesting machine for a root-tuber crop in a deep soil layer. Straight growing root-tuber crops, such as Chinese yam, are almost harvested by manual operation, so that the efficiency is low and the cost is high. The existing harvesting equipment has the defects that the soil excavating depth is shallow, and the crop completeness is difficult to guarantee. The harvesting machine comprises a power device, a machine frame, spiral drilling rods, a front conveyor, a conveying belt mechanism and a soil discharging auger, wherein side baffles are fixed to the two sides of the machine frame; the spiral drilling rods are assembled at the lower part of the front section of the machine frame side by side; the front conveyor and the conveying belt mechanism are assembled on the machine frame in sequence, and are joined and matched in tandem to convey and lift the harvested crop and soil to the ground; the soil discharging auger which is connected with the spiral drilling rods and the power device transfers power and evacuates the soil below the machine frame and pushed by the spiral drilling rods backwards. According to the harvesting machine, through mechanical soil loosening and through two-stage conveying of the front conveyor and the conveying belt mechanism, the soil excavating depth is increased, the work efficiency is improved, and the labor intensity and the operation cost of the crops, such as the Chinese yam, are reduced.

Publication: [CN 104604417 A 20150513](#)

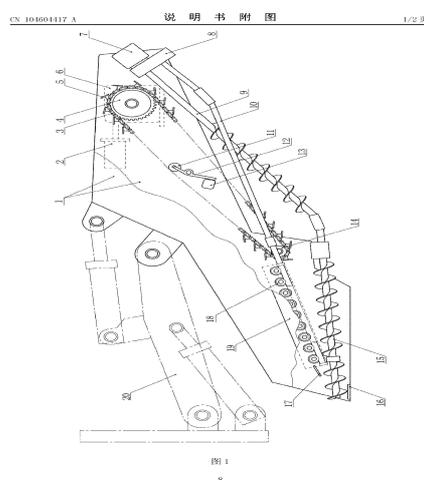
Applicant: WANG MAOCHENG

Inventor: WANG MAOCHENG

Prio:

Appl.No: CN201510101851

IPC: A01D 17/08



Root-leaf separating mechanism of carrot harvester

The invention relates to a root-leaf separating mechanism of a carrot harvester. The root-leaf separating mechanism comprises a left tool and a right tool, the left tool comprises a left blade, a driving tool base and a driven tool base, the right tool comprises a right blade, a driving tool base and a driven tool base, the center of the driving tool base is provided with a driving tool base center hole, the periphery of the driving tool base center hole is evenly provided with six tool mounting holes. When the root-leaf separating mechanism runs, with a conveyor belt conveying carrots from the ground to cutting tools, the cutting tools rotate nonstop; six blades on the two cutting tools coordinate in pairs and cut the carrots at the same positions to achieve root-leaf separation; after finishing cutting, two blades separate; next pair of the blades coordinate so as to avoid cutting missing; the cycle goes nonstop for cutting.

Publication: [CN 104604418 A 20150513](#)

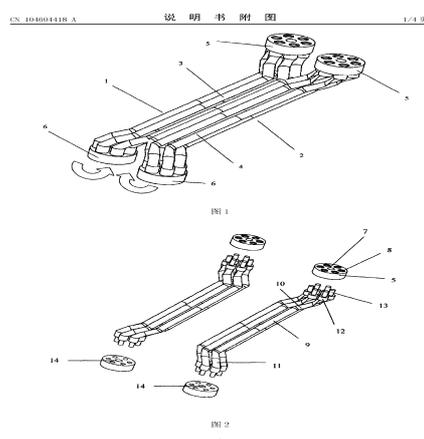
Applicant: MENOBLE CO LTD

Inventor: DU YONGQI; JIA JINGXIA; LI JIANDONG;
SHANG SHUQI; WANG JIASHENG; YANG
HONGWEI; YANG WEI

Prio:

Appl.No: CN201510087515

IPC: A01D 23/04



Spacing adjustable grain lifter

The invention discloses a spacing adjustable grain lifter. The spacing adjustable grain lifter comprises grain lifter bodies and grain lifter shafts, the grain lifter bodies are arranged at the front ends of the grain lifter shafts, the spacing adjustable grain lifter further comprises universal joints, the universal joints are arranged between the grain lifter bodies and the grain lifter shafts, one end of each universal joint is connected with the corresponding grain lifter shaft, and the other end of each universal joint is connected with the corresponding grain lifter body. Compared with an existing spacing constant grain lifter, the spacing adjustable grain lifter can better adapt to the condition that the spacing between peanut seedlings is large, can harvest peanuts with different line spacing, and is high in adaptability.

Publication: [CN 104604419 A 20150513](#)

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; ZHAO JIQIANG

Prio:

Appl.No: CN201410805837

IPC: A01D 29/00

CN 104604419 A 说明书附图 1/3页

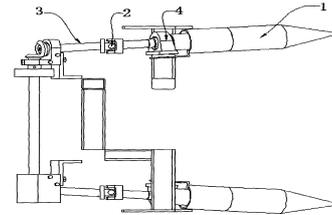


图 1

5

Peanut combine harvester cleaning device small in cleaning load

The invention discloses a peanut combine harvester cleaning device small in cleaning load. The peanut combine harvester specifically comprises a vibration screen and an induced draft fan. The vibration screen is composed of a vibration screen frame, seedling guiding rods, a vibration screen driving shaft and a connecting rod. The vibration screen driving shaft and the connecting rod are driven by a driving shaft at the bottom of a peanut combine harvester, the seedling guiding rods are evenly distributed and fixedly arranged in the rear middle of the vibration screen frame, the width of the vibration screen frame is 50-60 cm, and an air blower is arranged in a riser and is flush with the tail end of the vibration screen frame. According to the peanut combine harvester cleaning device small in cleaning load, a screening face is widened compared with a screening face in the prior art, the cleaning area is enlarged after the screening face is widened, the cleaning load is greatly reduced, the induced draft fan is arranged in the riser, and therefore residual impurities in the riser are sucked away by the induced draft fan, and the problem that the impurities are contained in a fruit bin is thoroughly solved.

Publication: [CN 104604420 A 20150513](#)

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; ZHAO JIQIANG

Prio:

Appl.No: CN201410807976

IPC: A01D 29/00

CN 104604420 A 说明书附图 1/2页

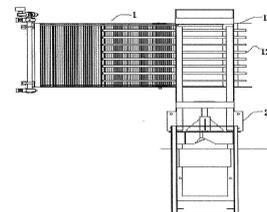


图 1

5

Peanut laying machine with soil shaking plate mechanism

The invention discloses a peanut laying machine with a soil shaking plate mechanism. The peanut laying machine comprises a rack, a suspension, a power transmission device, a straw lifting device, a coulter assembly, a conveying device, a laying device and guide wheels and further comprises the soil shaking plate mechanism. The soil shaking plate mechanism is arranged on the lower portion of the conveying device, and the power transmission device sequentially drives the straw lifting device, the conveying device and the soil shaking plate mechanism. According to the peanut laying machine with the soil shaking plate mechanism, a soil shaking plate is arranged at the bottom of the conveying device, soil on peanuts conveyed by a clamping chain can be flapped, the cleanness degree of the peanuts finally laid in the ground is ensured, and meanwhile, the mode of the clamping chain is adopted by the conveying device. The whole machine can easily work, the working efficiency of the laying machine is effectively improved, the adjustable mode is adopted in the laying device, the position of laid peanut straw can be adjusted according to actual conditions, and the flexibility of the whole machine is good.

Publication: [CN 104604421 A 20150513](#)

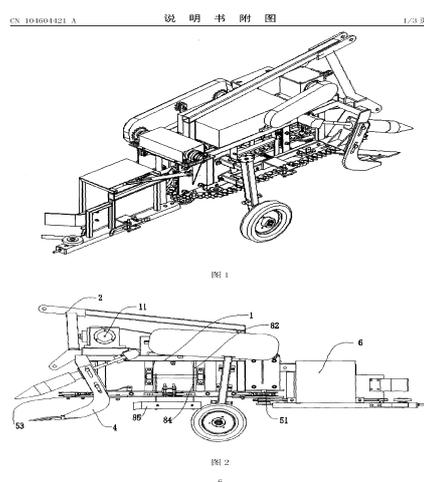
Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING

Prio:

Appl.No: CN201410807997

IPC: A01D 29/00



Two-ridge-four-column semi-feeding type wheel peanut combine harvester

The invention discloses a two-ridge-four-column semi-feeding type wheel peanut combine harvester. The two-ridge-four-column semi-feeding type wheel peanut combine harvester further comprises a repeated collecting device which is used for conducting a secondary collection on peanuts left on a clamping and conveying part and the ground; and a conveyer belt which is used for conveying peanut vines conveyed from the clamping and conveying part to a peanut vines collecting place through the conveyer belt. The repeated collecting device is arranged below the clamping and conveying part. The conveyer belt is arranged under the tail end of the clamping and conveying part. A walking part comprises rubber wheels. According to the two-ridge-four-column semi-feeding type wheel peanut combine harvester, the wheel type is adopted in the walking part, so that the walking is more convenient and flexible, and the soil is not prone to compaction. By arranging nut picking ribs on the surfaces of nut picking rollers, the peanuts on the peanut vines can be completely picked during the picking, and meanwhile the peanuts cannot prone to damage. By means of the conveyer belt, the picked peanut vines can be conveyed to the vines collecting place, the intact peanut vines can be collected again for the utilization.

Publication: [CN 104604422 A 20150513](#)

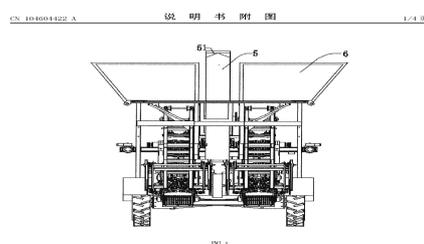
Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; LIU YULIN

Prio:

Appl.No: CN201510020898

IPC: A01D 29/00



Hover lawnmower

A hover lawnmower having an assembled state, and a disassembled state, the lawnmower comprising, in the assembled state: a housing 1 open on a bottom surface 5 thereof, the bottom surface having a circumference, a cutting element mounted in the housing and facing the bottom surface, and a lift-generating apparatus arranged to pressurise a chamber formed in the bottom surface relative to a local ambient pressure, in which the housing comprises a first portion 2 and a second portion 3, the first portion and the second portion forming, in the assembled state, part of the circumference, the first portion comprising a body 6 from which descends a skirt 7, the skirt defining part of the bottom surface and in which the second portion is mounted on the skirt of the first portion in the assembled state. This lawnmower has the advantage that it can be packed compactly into a box or other such container.

Publication: [CN 104604423 A 20150513](#)

Applicant: HUSQVARNA AB
Inventor: IAN ZETTERSTROM SMITH; JEFF LEAR LEAR
Prio: GB 20131105 201319489
Appl.No: CN201410635512
IPC: A01D 34/01

CN 104604423 A 说明书附图 1/2页

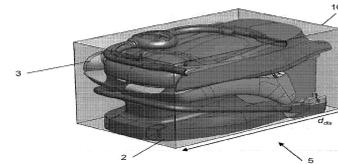


图 1

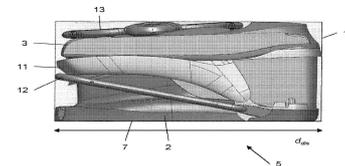


图 2

5

Knife of automatic mower

The invention discloses a knife of an automatic mower, and belongs to the technical field of agricultural machinery. The knife comprises folding swing arms, a knife body and a grass separation rod. The folding swing arms are hinged to the front end of a frame. The knife body and the grass separation rod are arranged below the folding swing arms and connected to the front end of the frame through connecting rods. Each folding swing arm comprises a rear arm hinged to the front end of the frame. One end of each rear arm is hinged to a corresponding front arm. First oil cylinders driving the rear arms to act are hinged between the rear arms and the frame. Second oil cylinders driving the front arms to act are hinged between the rear arms and the front arms. By the knife, the problems of high mowing labor intensity and low mowing efficiency of elephant grass can be solved.

Publication: [CN 104604424 A 20150513](#)

Applicant: LIU ZHIYUAN
Inventor: LIU ZHIYUAN
Prio:
Appl.No: CN201510073277
IPC: A01D 34/02

CN 104604424 A 说明书附图 1/2页

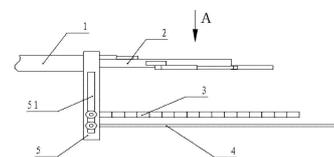


图 1

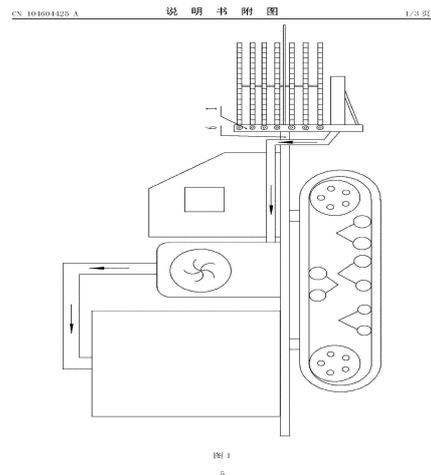
5

Elephant grass cutter

The invention discloses an elephant grass cutter and belongs to the technical field of agricultural machinery. The elephant grass cutter comprises at least in three layers of cutter bodies, a grass dividing rod and a hopper, the cutter body is connected with a front frame through a vertical support arm, the hopper is arranged under the cutter body, and supporting bars are connected between each two layers of the cutter bodies; the grass dividing rod is arranged among each two layers of the cutter bodies, both the cutter body and the grass dividing rod are tapered in the manner of opening backwards and connected at front ends, the front end of the grass dividing rod exceeds the front end of the cutter body, the rear end opening of the grass dividing rod is smaller than that of the cutter body, the length of the hopper corresponds to the position where grass is cut off by the cutter body, and the width of the hopper is not less than that of the rear opening of the cutter body. By the arrangement, problems of high labor intensity in existing elephant grass cutting and low cutting efficiency can be solved.

Publication: [CN 104604425 A 20150513](#)

Applicant: LIU ZHIYUAN
Inventor: LIU ZHIYUAN
Prio:
Appl.No: CN201510073164
IPC: A01D 34/13

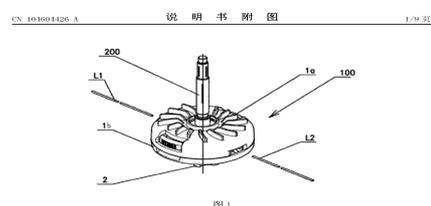


Grass trimming head

The invention provides a grass trimming head. According to the invention, the grass trimming head can be connected to a driving shaft of a grass trimmer. The grass trimming head comprises a shell and a spool, wherein the shell is connected with the driving shaft and is provided with at least one wire outlet hole; the spool is connected with the shell, and under the mode of wire wrapping, the spool has at least one position where a part of a wiring channel is allowed to be aligned with the wire outlet hole while a flexible cutting wire can pass through the wire outlet hole and enters the wiring channel, wherein the wiring channel and the flexible cutting line are in clearance fit; and when the spool rotates relative to the shell, the part, in the wiring channel, of the flexible cutting wire is close in on the wiring channel while the part, extending from the wiring channel, of the flexible cutting wire is guided towards the body of the spool. The grass trimming head provided by the invention can conveniently load the flexible cutting wire on the spool of the grass trimming head and improves work efficiency of users.

Publication: [CN 104604426 A 20150513](#)

Applicant: NANJING CHERVON IND CO LTD
Inventor: LI HANZHENG; YAMAOKA TOSHINARI
Prio:
Appl.No: CN201310542646
IPC: A01D 34/416



Hover mower

A hover lawnmower comprises a housing 1 open on a bottom surface 14 thereof, the bottom surface having a circumference 11, 12, 13, a cutting element 5 mounted in the housing and facing the bottom surface 14 and a lift-generating apparatus 6 arranged to pressurise a chamber formed in the bottom surface relative to a local ambient pressure, in which the housing comprises a first portion 2 supporting the cutting element, and a second portion 3 mounted on the first portion at a mounting 15, in which the first portion and the second portion each have a distal edge 11, 13 distal from the mounting forming part of the circumference, the distal edges laying in a plane, in which the mounting is such that at least a part of the second portion including the distal edge 11 of the second portion can pivot relative to the first portion and in which pivoting the first and second portion relative to each other varies the distance of the cutting element from the plane.

Publication: [CN 104604427 A 20150513](#)

Applicant: HUSQVARNA AB
Inventor: IAN ZETTERSTROM SMITH; JEFF LEAR; PAUL STOCKLEY; RICHARD D SPARKES
Prio: GB 20131105 201319484
Appl.No: CN201410635663
IPC: A01D 34/84

CN 104604427 A 说明书附图 1/2 页

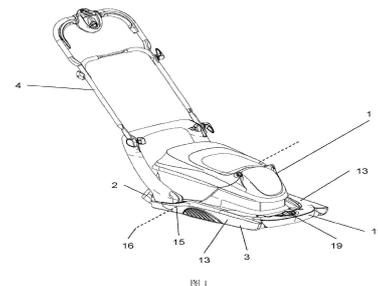


图 1

6

Multifunctional aquatic plant collection capacity reduction device

The invention relates to a multifunctional aquatic plant collection capacity reduction device which is arranged on a ship. The multifunctional aquatic plant collection capacity reduction device comprises a front harvesting unit, a water compressing and filtering unit, a baling capacity reduction unit, an intermediate storage unit and a collecting and transferring unit which are sequentially arranged from the front end to the rear end of the ship; during work, the front harvesting unit performs grass removing and cutting on aquatic plants to be treated, the harvested aquatic plants are conveyed to the water compressing and filtering unit, compressed and tiled, moisture is filtered out, the aquatic plants are then fed into the baling capacity reduction unit to be baled in rotation till the diameter of formed round bales reaches the set value, the round bales are conveyed to the intermediate storage unit and then uploaded to a designated location through the collecting and transferring unit, and the entire collection capacity process of the aquatic plants is completed. Compared with the prior art, the multifunctional aquatic plant collection capacity reduction device which is compact in structure and economical and practical has the advantages that the units work independently in section, linkage is good, working efficiency is high, collection cost can be effectively reduced, and a good application prospect is achieved.

Publication: [CN 104604428 A 20150513](#)

Applicant: UNIV SHANGHAI ENG SCIENCE
Inventor: HANG LUBIN; HU YIGANG; HUANG LIXIN; SHEN LEI; SONG ZHENYU
Prio:
Appl.No: CN201510083284
IPC: A01D 37/00

CN 104604428 A 说明书附图 1/2 页

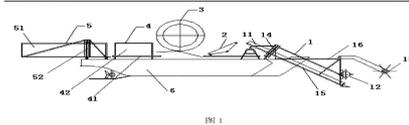


图 1

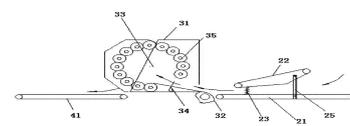


图 2

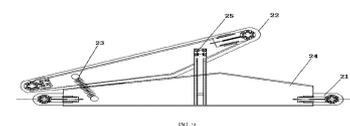


图 3

9

Flax harvester capable of obtaining capsules and flax stems separately after harvesting

The invention discloses a flax harvester capable of obtaining capsules and flax stems separately after harvesting. The harvester is composed of a harvester body, a rice-wheat header assembly, a conveying device, a capsule obtaining device and a stem bundling device. The rice-wheat header assembly is arranged at the front end of the harvester body, the conveying device is arranged on one side of the rice-wheat header assembly, the capsule obtaining device is arranged in the middle of the harvester body, and the stem bundling device is arranged on the rear portion of the harvester body. Compared with the prior art, flax with the mature flax fibers and immature flax seeds can be harvested mechanically, capsules are harvested from flax stems, the flax stems with the capsules removed are bundled, and subsequent threshing of the flax seeds and collecting of the flax stems are convenient. The harvesting efficiency of the flax for both the oil and the fibers is greatly improved.

Publication: [CN 104604429 A 20150513](#)

Applicant: RES INST OF AGRO PRODUCTS PROC SHANXI
ACADEMY OF AGRICULTURAL SCIENCES

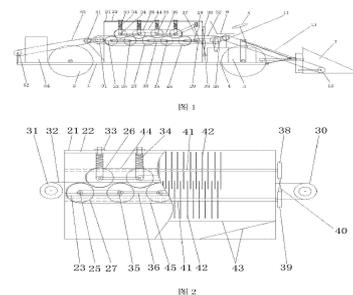
Inventor: GAO ZHONGDONG; HU XIAOJUN; LI QUN; LIU
CHAO; QIU XIA; WANG ZHEN; XU GUANGYING

Prio:

Appl.No: CN201510048705

IPC: A01D 41/02

CN 104604429 A 说明书附图 1/2页



6

Elephant grass harvester

The invention discloses an elephant grass harvester and belongs to the technical field of agricultural machinery. The elephant grass harvester comprises a cutter and a feed box, and the cutter is connected to the front end of a frame through a vertical support arm, the feed box is arranged at the back of a cab; the cutter comprises a cutter body arranged in layer, a grass dividing rod and a hopper which is arranged under the cutter body, and a discharge hole of the hopper is communicated with a feed inlet of the feed box through a centrifugal feeder. By the arrangement, problems of high labor intensity in existing elephant grass cutting and low cutting efficiency can be solved.

Publication: [CN 104604430 A 20150513](#)

Applicant: LIU ZHIYUAN

Inventor: LIU ZHIYUAN

Prio:

Appl.No: CN201510073191

IPC: A01D 43/08

CN 104604430 A 说明书附图 1/2页

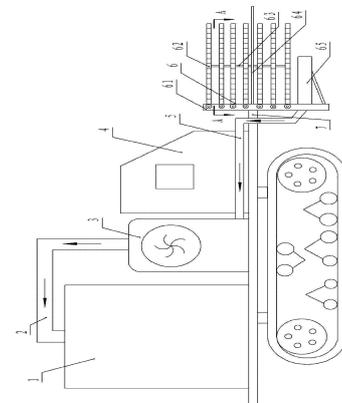


图 1

6

Harvest ship

The invention provides a harvest ship which comprises a hull. A feeding device, a cleaning mechanism and a collecting chamber are arranged on the hull, the feeding device comprises a feeding belt, materials can be conveyed and fed by the feeding belt in the front-back directions of the hull under the belt conveying effect, hooks which are used for dragging seedling ropes are arranged on the feeding belt, the front end of a dragging feeding portion, which is positioned in the front section of the hull, of the feeding belt can extend into positions below sea surfaces, and platforms which are forwardly protruded relative to the front of the hull and can bring convenience for manually releasing hang ropes are arranged on the hull and are respectively positioned on two sides of the front end of the dragging feeding portion; the collecting chamber is arranged on the hull and is positioned at the rear end of a collecting and feeding portion, a detachable collecting net is arranged in the collecting chamber, and a crane is arranged on a side of the collecting chamber; the cleaning mechanism comprises cleaning spray nozzles for spraying water on the surface of the dragging feeding portion of the feeding belt, the water can be supplied to the cleaning spray nozzles by a high-pressure water pump which is connected with sea water, and a filter is arranged at a water inlet end of the high-pressure water pump. The harvest ship has the advantages that large seaweeds which are cultivated in a hung manner by the aid of the seedling ropes can be efficiently harvested by the harvest ship, and accordingly the harvest ship is applicable to industrial cultivation.

Publication: [CN 104604431 A 20150513](#)

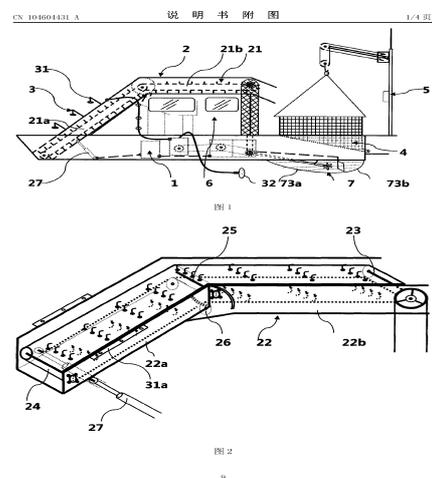
Applicant: DONGTOU AQUATIC SCIENT TECHNOLOGY INST; UNIV NORTHEAST FORESTRY; UNIV WENZHOU

Inventor: CHEN SIHANG; HONG LITAO; LIN JIXIANG; LIN LIDONG; MA ZENGLING; WU MINGJIANG; YU PING; ZHENG YING

Prio:

Appl.No: CN201510088115

IPC: A01D 44/00



Husk leaf shredding machine

The invention relates to a husk leaf shredding machine, in particular to a husk leaf shredding machine of a maize harvesting machine, and belongs to the technical field of agricultural machines. The husk leaf shredding machine comprises a feeding box, a shredding box and a discharging box, a conveying and shredding assembly and a stationary cutter assembly are arranged in the shredding box, and the conveying and shredding assembly comprises a main output shaft, a feeding screw, a first screw panel, a second screw panel, a moving cutter and a stirring assembly. The main output shaft comprises a feeding segment, a shredding segment and a stirring segment in sequence in the material conveying direction, the feeding screw is arranged on the feeding segment, the first screw panel and the second screw panel are symmetrically arranged on the two sides of the shredding segment, the moving cutter is arranged between the first screw panel and the second screw panel, and the stirring assembly is arranged on the stirring segment. The conveying capacity of husk leaves in the shredding box is greatly improved, blocking is not likely to occur, and the handling capacity is improved.

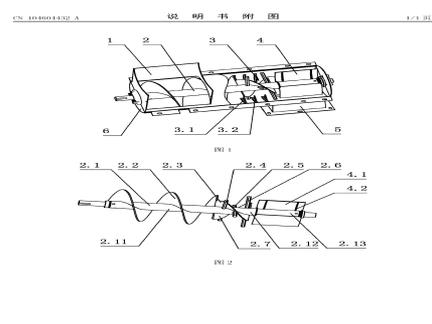
Publication: [CN 104604432 A 20150513](#)

Applicant: SHANDONG RUIHAO MACHINERY CO LTD

Inventor: LI SHULIANG

Prio:

Appl.No: CN201510057179



IPC: A01D 45/02

Sugarcane harvester

The invention discloses a sugarcane harvester, relating to the technical field of agricultural machinery manufacture. The sugarcane harvester comprises a timber frame, wherein both sides of the timber frame are movably provided with crawler walking units; the front end of the timber frame is provided with two oppositely-rotating sugarcane up-lifting units; the lower part of the front end of the timber frame is provided with a floating sugarcane cutter driven by a hydraulic motor; and the timber frame is provided with a sugarcane leaf-stripping unit which is located behind floating sugarcane cutter. Compared with the prior art, the sugarcane harvester provided by the invention can overcome the problems that conventional sugarcane harvesters have high gravity centers and are prone to rollover during harvesting on a slope.

Publication: **CN 104604433 A 20150513**

Applicant: LIUZHOU ZHONGNONG XINYE TECHNOLOGY CO LTD

Inventor: HUANG MINZHANG; HUANG YUE; QI JINGHAO

Prio:

Appl.No: CN201410701325

IPC: A01D 45/10

CN 104604433 A 说明书附图 1/3页

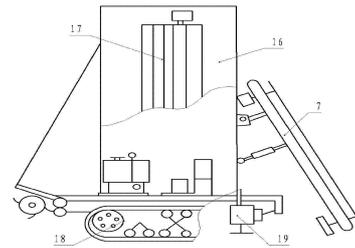


图 1

5

Cutting device of sugarcane harvester

The invention provides a cutting device of a sugarcane harvester. The cutting device of the sugarcane harvester comprises a left sawtooth-shaped round cutter disc, a right sawtooth-shaped round cutter disc, cutter disc driving mechanisms, a cutter disc fixing table rack, an elastic supporting assembly and a pitching lifting table rack, wherein the left sawtooth-shaped round cutter disc and the right sawtooth-shaped round cutter disc are connected with the cutter disc driving mechanisms respectively, the cutter disc driving mechanisms are fixedly connected with the cutter disc fixing table rack, and the two ends of the elastic supporting assembly are universally hinged to the cutter disc fixing table rack and the pitching lifting table rack respectively. The cutting device of the sugarcane harvester is provided with the elastic supporting assembly, the left sawtooth-shaped round cutter disc and the right sawtooth-shaped round cutter disc are connected with the cutter disc driving mechanisms respectively, the cutter disc driving mechanisms are fixedly connected with the cutter disc fixing table rack, the cutter disc fixing table rack and the elastic supporting assembly are universally hinged, therefore, force energy, acted on sugarcanes, of sawtooth-shaped round cutters can be effectively controlled in a range capable of being borne by the sugarcanes, it is ensured that the sugarcanes will not be broken or damaged, and the quality of cuts of the sugarcanes and the service life of saw discs are guaranteed.

Publication: **CN 104604434 A 20150513**

Applicant: HUANG HUA; HUANG RONGBIAO; MAI YONGQIANG

Inventor: HUANG HUA; HUANG RONGBIAO; MAI YONGQIANG

Prio:

Appl.No: CN201410779488

IPC: A01D 45/10

CN 104604434 A 说明书附图 1/3页

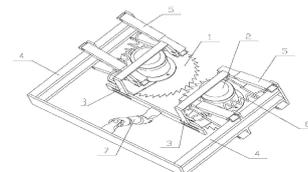


图 1

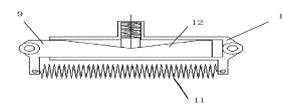


图 2

7

Seed melon picking harvester

The invention discloses a seed melon picking harvester which comprises a rack, a traction frame (51), walking wheels (57), a transmission mechanism (41) and a seed melon picking mechanism. A seed melon separation mechanism is arranged above the front portion of the seed melon picking mechanism, and a seed seedling separation mechanism is arranged on the rear portion of the seed melon picking mechanism. The seed seedling separation mechanism comprises a rotating shaft (12) which is provided with soft bar-shaped bodies (11). Compared with the prior art, the seed melon picking harvester can effectively remove melon seedlings of picked seed melons, especially, the melon seedlings can be removed while picking is conducted, the melon seedlings wound on the picking mechanism are reduced, the working efficiency is greatly improved, the working quality is good, and the seed melon picking harvester is suitable for seedling watermelons and also suitable for harvesting and seed obtaining of crops such as seed pumpkins and seed calabashes.

Publication: [CN 104604435 A 20150513](#)

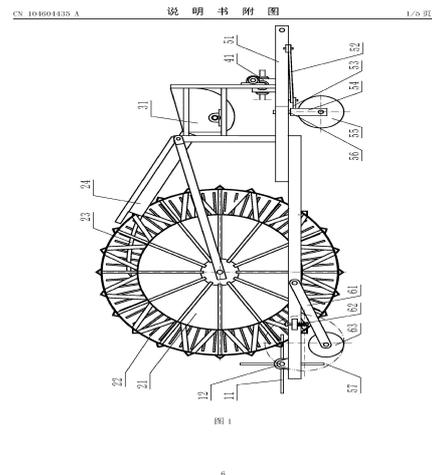
Applicant: MANASI XINMINSHENG AGRICULTURAL EQUIPMENT CO LTD

Inventor: WANG XUEWEN; XIAO FEI; XIAO QIANG; XIAO YUMIN

Prio:

Appl.No: CN201510062096

IPC: A01D 46/00



Convenient-to-use tea-leaf single bud tea-leaf picker

The invention discloses a convenient-to-use tea-leaf single bud tea-leaf picker. Multiple bottom bores which can be passed only by tea-leaf single buds are formed in a base plate of a shell, and cutting knives driven by the movements of electromagnets are arranged beside the near sides of the bottom bores; a middle plate is arranged above the base plate, upper holes which are aligned with the bottom bores of the base plate in vertical direction are formed in the middle plate, U-shaped photoelectric sensors are arranged around the peripheries of the upper holes on the upper surface of the middle plate, and the U-shaped photoelectric sensors are in circuit connection with the electromagnets; a pair of slant baffles in a splay shape are arranged on the upper end of the middle plate, and clearances through which the buds passing are formed between the top ends of the two slant baffles; ventilating baffles are arranged above the slant baffles; a top plate of the shell is arranged above the ventilating baffles, and an induced draft hole connected with an induced draft pipe is formed in the top plate of the shell. The convenient-to-use tea-leaf single bud tea-leaf picker is reasonable in structure, convenient to use and good in effect.

Publication: [CN 104604436 A 20150513](#)

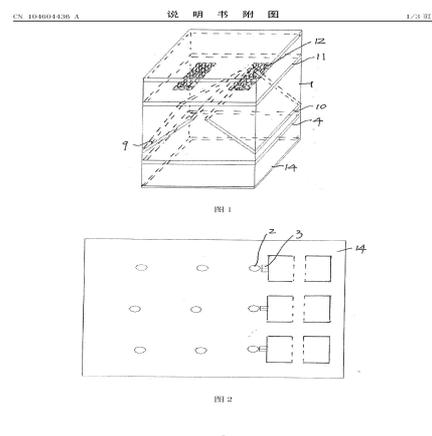
Applicant: UNIV NANTONG

Inventor: CAI TING; CAO BO; DENG YONG; SHAO JIANXIN; WANG GENG; WANG XULIANG; YAN WANLIN

Prio:

Appl.No: CN201510064211

IPC: A01D 46/04



New fruit picking device

The invention relates to a new fruit picking device capable of saving time and effort. The device comprises a bracket, wherein one end of the bracket is installed with a hook, and a container is fixed below the hook. The device is simple in structure and easy to use, and can make fruit growers easily gather fruits higher than branches, and ensure that the fruits do not fall to the ground to cause the damage. The device can increase the fruit yield and improve the fruit grower income, and has the advantages of simple manufacture, low cost and high application values.

Publication: [CN 104604437 A 20150513](#)

Applicant: HU WENHUI
Inventor: HU WENHUI
Prio:
Appl.No: CN201310540012
IPC: A01D 46/247

CN 104604437 A 说明书附图 1/1 页

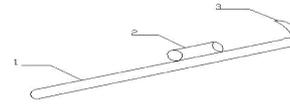


图 1

Telescopic fruit picker

The invention discloses a telescopic fruit picker. The telescopic fruit picker comprises a clamping jaw, a clamping jaw fixing seat, a spring, a control handle, a connecting bracing wire and a supporting rod, wherein the clamping jaw is arranged on the clamping jaw fixing seat; the bottom end of the clamping jaw fixing seat is connected with the supporting rod; the control handle is arranged on the supporting rod; the clamping jaw comprises at least three or more than three symmetrically-distributed clamping arms; one ends of the clamping arms are rotatably connected with the clamping jaw fixing seat; the other ends of the clamping arms are oppositely bent and end surfaces of the clamping arms respectively form clamping faces which are used for clamping fruits; the clamping jaw fixing seat is internally provided with the spring; and one end of the spring is arranged on the connecting bracing wire and elastically and tightly props against the clamping arms. The telescopic fruit picker provided by the invention can significantly improve fruit-picking speed and efficiency, is not limited by landform conditions, lightens labor intensity and effectively reduces damages to picked fruits.

Publication: [CN 104604438 A 20150513](#)

Applicant: CHENGDU ASIAYAK TECH CO LTD
Inventor: WANG DONGXU
Prio:
Appl.No: CN201310541768
IPC: A01D 46/247

CN 104604438 A 说明书附图 1/1 页

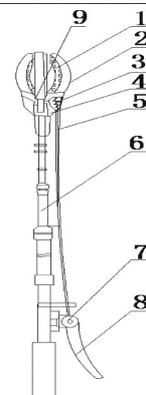


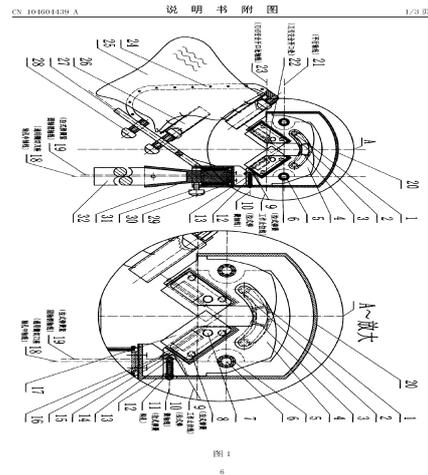
图 1

Automatic high-branch fruit chopping, pulling, cutting and harvesting tool with flat axis and pull-type spring chopping cutter holder returning function

The invention relates to and belongs to an automatic chopping, pulling and cutting tool for harvesting agricultural high-branch fruits (anise, hawthorn, Sichuan pepper, apples, apricots, longans, litchis and the like). When an automatic high-branch fruit chopping, pulling, cutting and harvesting tool with flat axis and a pull-type spring chopping cutter holder returning function is used, the high-branch fruits can be automatically cut and harvested easily, conveniently and quickly at 360 degrees on the ground by almost aligning the high-branch fruits and pulling back by an operator. According to the tool, the spare and accessory parts are high in interchangeability, so that standardized batch production can be realized.

Publication: [CN 104604439 A 20150513](#)

Applicant: FANG SUNDIAN
Inventor: FANG SUNDIAN
Prio:
Appl.No: CN201510093751
IPC: A01D 46/247

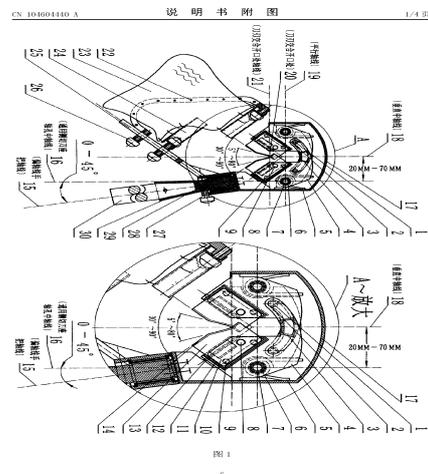


Automatic high-branch fruit chopping, pulling, cutting and harvesting tool with flat axis and special-shaped universal cutter with offset axis

The invention relates to and belongs to an automatic chopping, pulling and cutting tool for harvesting agricultural high-branch fruits (anise, hawthorn, Sichuan pepper, apples, apricots, longans, litchis and the like). When an automatic high-branch fruit chopping, pulling, cutting and harvesting tool with flat axis and special-shaped universal cutter with offset axis is used, the high-branch fruits can be automatically cut and harvested easily, conveniently and quickly at 360 degrees on the ground by almost aligning the high-branch fruits and pulling back by an operator. According to the tool, the spare and accessory parts are high in interchangeability, so that standardized batch production can be realized.

Publication: [CN 104604440 A 20150513](#)

Applicant: FANG SUNDIAN
Inventor: FANG SUNDIAN
Prio:
Appl.No: CN201510093765
IPC: A01D 46/247

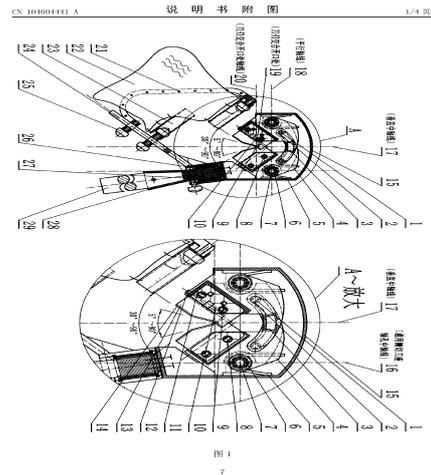


Automatic high-branch fruit chopping, pulling, cutting and harvesting tool with flat axis and special-shaped chopping cutter holder with horizontal central axis

The invention relates to and belongs to an automatic chopping, pulling and cutting tool for harvesting agricultural high-branch fruits (anise, hawthorn, Sichuan pepper, apples, apricots, longans, litchis and the like). When an automatic high-branch fruit chopping, pulling, cutting and harvesting tool with a flat axis and a special-shaped chopping cutter holder with a horizontal central axis is used, the high-branch fruits can be automatically cut and harvested easily, conveniently and quickly at 360 degrees on the ground by almost aligning the high-branch fruits and pulling back by an operator. According to the tool, the spare and accessory parts are high in interchangeability, so that standardized batch production can be realized.

Publication: [CN 104604441 A 20150513](#)

Applicant: FANG SUNDIAN
Inventor: FANG SUNDIAN
Prio:
Appl.No: CN201510102931
IPC: A01D 46/247

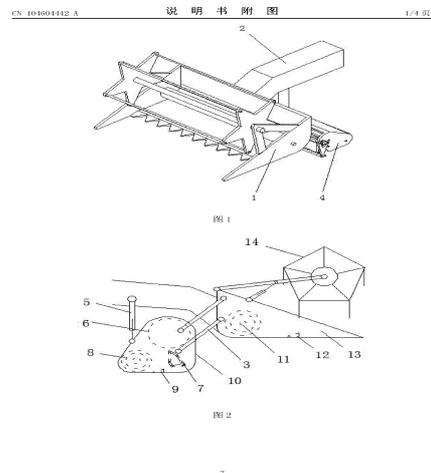


Double-tier cutter of combine harvester

The invention relates to a double-tier cutter of a combine harvester. The double-tier cutter comprises an upper cutter fixed on a frame and a lower cutter fixed on the frame. The lower cutter is disposed below the upper cutter and comprises a lower cover, a lower cutting blade, a pulling component, a crank-rocker mechanism and a lower screw vane; the lower cutting blade, the pulling component, the crank-rocker mechanism and the lower screw vane are disposed within the lower cover; pulling claws re fixed to the crank-rocker mechanism; the crank-rocker mechanism drives the pulling claws to reciprocate for collecting, gripping and guiding wheat stubbles; the wheat stubbles are then cut by the lower cutting blade; finally, the lower screw vane receives the cut wheat stubbles under the auxiliary pushing action of the pulling claws and gathers the wheat stubbles for discharging and ridging. The double-tier cutter is capable of cutting the wheat stubbles twice, and residue of the wheat stubbles can be thoroughly cleared.

Publication: [CN 104604442 A 20150513](#)

Applicant: UNIV JIANGSU TECHNOLOGY
Inventor: HAN ZHAOSHUN; HE QING; HONG YANYUN
Prio:
Appl.No: CN201510085525
IPC: A01D 47/00



Brake cable connecting device

The invention discloses a brake cable connecting device, and belongs to the technical field of special vehicle accessories. The brake cable connecting device comprises an outer circular ring which is fixedly connected with a mower handlebar through a first connecting piece. The annular inner wall of the outer circular ring is provided with a groove which is in the same direction as the annular inner wall and is used for rotation of an inner rotating disc. The outer circular ring is provided with a locating column. The inner rotating disc is provided with a locating rod corresponding to the locating column and connected with a brake cable through a second connecting piece. The brake cable connecting device can solve the problem that when a steel wire rope is fixedly connected to the handlebar, the end of the steel wire rope is prone to breakage.

Publication: [CN 104604443 A 20150513](#)

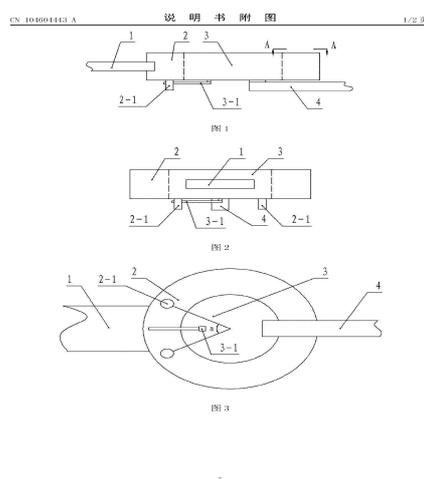
Applicant: LIUZHOU CITY YING HANG AUTO PARTS CO LTD

Inventor: CHEN YONGLIANG

Prio:

Appl.No: CN201510029742

IPC: A01D 69/10



Guide vane adjusting device for straw smashing and dispersing returning machine

The invention belongs to the technical field of agricultural machines, and particularly relates to a guide vane adjusting device for a straw smashing and dispersing returning machine. The guide vane adjusting device comprises up-down synchronous adjusting mechanisms, a left-right synchronous adjusting mechanism and a front-rear synchronous adjusting mechanism. The tail ends of the two up-down synchronous adjusting mechanisms are mounted on a machine shell, the front ends of the two up-down synchronous adjusting mechanisms are connected with the two sides of the front end of a guide plate, and the rear end of the guide plate is connected with the machine shell through a rotating shaft. The up-down synchronous adjusting mechanisms are of an extensible structure. Guide vanes on the guide plate can move up and down by rotating threaded adjusting sleeves, guide vanes in left-right adjusting plates can rotate left and right by moving connecting rod pins up and down, and guide vanes which are fixedly connected with short racks can move front and back by moving long racks left and right. All the adjusting devices are designed in a modular mode, so that mounting, dismounting and adjusting are easy, the dispersing velocity, the width and the uniformity can be adjusted within a large range, smashed straw can evenly cover the earth surface, and therefore soil organic matter is increased.

Publication: [CN 104604444 A 20150513](#)

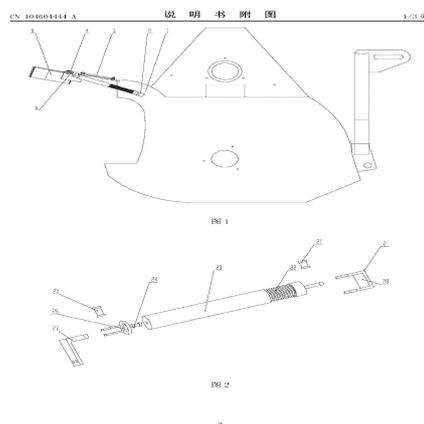
Applicant: UNIV CHINA AGRICULTURAL

Inventor: CHEN WANZHI; HE JIN; LI HONGWEN; NIU QI; SUN SIJIA; WANG QINGJIE; WANG XIANLIANG; ZHANG YIFU; ZHANG ZHIQIANG; ZHENG KAN

Prio:

Appl.No: CN201510016368

IPC: A01D 82/00



Straw field returning device

The invention discloses a straw field returning device which is arranged at a straw outlet of a combine harvester. The straw field returning device comprises a straw smashing bin, a straw forming bin and a discharging bin which are sequentially communicated and vertically arranged. A straw smashing device is arranged in the straw smashing bin, the straw smashing device comprises a vertical rotating shaft, and a movable and fixed knife set and a set of hammer slices are arranged in the axial direction of the rotating shaft from top to bottom. A straw flat-die grinding and forming device is arranged in the straw forming bin. A discharging impeller is arranged in the discharging bin, and a discharging opening is formed in the position, corresponding to the discharging impeller, of the side wall of the discharging bin. Straw separated from the combine harvester is smashed through the straw smashing bin, the smashed straw is ground by the straw flat-die grinding and forming device in the straw forming bin, the straw can form straw particles of the unified specification and dimension through flat-die holes, the straw particles are finally discharged into farmland through the discharging impeller in the discharging bin so that straw recycling can be achieved, the structure is simple, and using is convenient.

Publication: [CN 104604445 A 20150513](#)

Applicant: MENG LINGQI
Inventor: MENG LINGQI
Prio:
Appl.No: CN201510032088
IPC: A01D 82/00

CN 104604445 A 说明书附图 1/6页

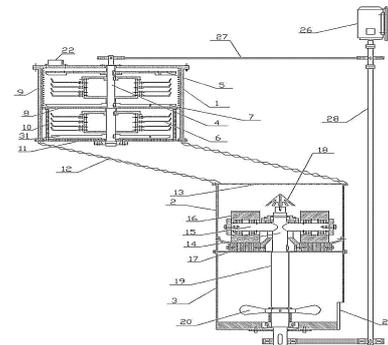


图1

7

Straw returning device

The invention discloses a straw returning device which comprises an outer cover, a drive structure, a rotary rod and a plurality of smashing cutters. The drive structure is mounted on the outer cover and comprises a hydraulic motor. The rotary rod is rotatably mounted in the outer cover. The smashing cutters sleeve the outer periphery of the rotary rod. The hydraulic motor can drive the rotary rod to rotate. The smashing cutters can rotate along with the rotary rod to smash straw. The straw returning device has the advantages that the smashing cutters sleeve the rotary rod, the smashing cutters can rotate along with the rotary rod driven to rotate by the hydraulic motor so as to smash the straw; in addition, the straw returning device is simple in structure, the rotation directions of the rotary rod can be adjusted easily due to the fact that the rotary rod is driven by the hydraulic motor, the rotation directions of the smashing cutters can be adjusted therefore, and work efficiency is increased.

Publication: [CN 104604446 A 20150513](#)

Applicant: LI YANGMING
Inventor: LI YANGMING
Prio:
Appl.No: CN201510079477
IPC: A01D 82/00

CN 104604446 A 说明书附图 1/2页

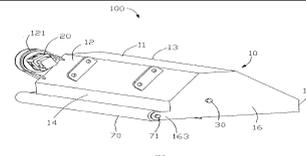


图1

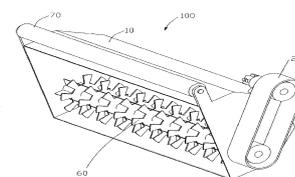


图2

7

Straw returning device

The invention discloses a straw returning device which comprises an outer cover, a smashing structure and at least one fan. The smashing structure comprises a rotary rod and a plurality of smashing cutters which are respectively disposed on the outer periphery of the rotary rod. Each fan is mounted in the outer cover, and negative pressure is formed in the outer cover when the fan rotates so as to suck straw to the preset work range of the smashing cutters. The rotary rod is mounted in the outer cover and can rotate relative to the outer cover so as to drive the smashing cutter to rotate. The straw returning device has the advantages that when each fan rotates in the outer cover, the negative pressure is formed in the outer cover to suck the straw in a field to the preset work range of the smashing cutters, the smashing cutter can rotate along with the rotary rod to smash the straw, incineration is avoided, environments are protected, and the straw returning device is simple in structure and low in cost.

Publication: [CN 104604447 A 20150513](#)

Applicant: LI YANGMING

Inventor: LI YANGMING

Prio:

Appl.No: CN201510079503

IPC: A01D 82/00

CN 104604447 A 说明书附图 1/4页

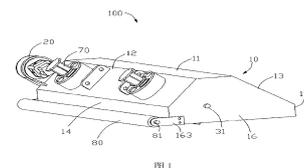


图1

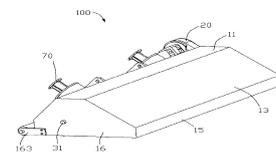


图2

8

Straw returning device

The invention discloses a straw returning device which comprises an outer cover, a drive structure, a rotary rod, a plurality of air suction blades and a plurality of smashing cutters. The drive structure is mounted on the outer cover and comprises a motor. The air suction blades and the smashing cutters are respectively disposed on the outer periphery of the rotary rod. The motor can drive the rotary rod to rotate so as to rotate the air suction blades and the smashing cutters. The air suction blades and the outer cover form negative pressure when the air suction blades rotate, the negative pressure sucks straw to the preset work range of the smashing cutters, and the smashing cutters smashes the straw during rotation. The straw returning device has the advantages that the air suction blades rotate along with the rotary rod, the air suction blades and the outer cover form the negative pressure when the air suction blades rotate, the negative pressure sucks the straw to the preset work range of the smashing cutters, the smashing cutters smash the straw and return the smashed straw to a field, and the straw returning device is simple in structure. In addition, the straw returning device is high in reliability due to the fact that motor drive is used.

Publication: [CN 104604448 A 20150513](#)

Applicant: LI YANGMING

Inventor: LI YANGMING

Prio:

Appl.No: CN201510079520

IPC: A01D 82/00

CN 104604448 A 说明书附图 1/3页

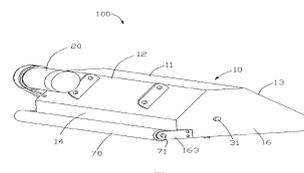


图1

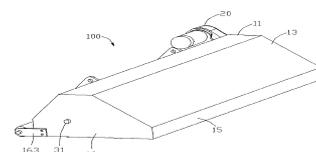


图2

8

Straw returning device

The invention discloses a straw returning device which comprises an outer cover, a smashing structure and an air suction structure. The smashing structure and the air suction structure are mounted in the outer cover. The smashing structure comprises a rotary rod and a plurality of smashing cutters which are respectively disposed on the outer periphery of the rotary rod. The air suction structure is rotatably mounted in the outer cover. When the air suction structure rotates, negative pressure is formed in the outer cover to suck straw to the preset work range of the smashing cutters. The rotary rod can rotate relative to the outer cover so as to rotate the smashing cutters. The straw returning device has the advantages that the negative pressure is formed in the outer cover to suck the straw to the work range of the smashing cutters when the air suction structure rotates, the smashing cutters rotates at high speed along with the rotary rod so as to smash the straw, incineration is avoided, environments are protected, and the straw returning device is simple in structure and low in cost.

Publication: [CN 104604449 A 20150513](#)

Applicant: LI YANGMING

Inventor: LI YANGMING

Prio:

Appl.No: CN201510079615

IPC: A01D 82/00

CN 104604449 A 说明书附图 1/3页

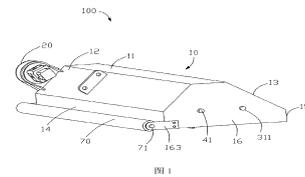


图1

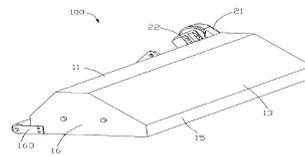


图2

8

Straw returning device

The invention discloses a straw returning device which comprises an outer cover, a drive structure mounted on the outer cover, a rotary rod, at least an air suction blade and a plurality of smashing cutters. The rotary rod is rotatably mounted in the outer cover. Each air suction blade and the smashing cutters are respectively disposed on the outer periphery of the rotary rod. The drive structure is connected with the rotary rod and can drive the rotary rod to rotate. Each air suction blade can rotate along with the rotary rod, and the air suction blade and the outer cover form negative pressure when the air suction blade rotates. By the arrangement, the straw returning device has the advantages that straw in a field can be sucked to the work range of the smashing cutters by the negative pressure, the smashing cutters smash the straw and return the straw to the field, and the straw returning device is high in efficiency and simple in structure.

Publication: [CN 104604450 A 20150513](#)

Applicant: LI YANGMING

Inventor: LI YANGMING

Prio:

Appl.No: CN201510079688

IPC: A01D 82/00

CN 104604450 A 说明书附图 1/3页

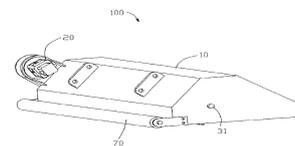


图1

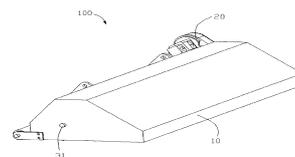


图2

8

Straw collector of bundling machine

The invention provides a straw bundle collection machine of a crop straw harvesting device. The tractor traction is adopted, and straw bundles are transmitted to a straw collector compartment through a conveyor belt (2) on a traction bridge (1). When the straw bundles are pushed onto an auger chain tensioning wheel movable pressing plate (10), an auger chain (5) can make contact with an auger rotation driving chain wheel (7) through a tensioning wheel, and augers rotate to push the straw bundles on the augers to the opposite side; when the straw bundles are pushed onto the auger chain tensioning wheel movable pressing plate (10), the movable pressing plate automatically returns, and the chain stops rotating. When a touch pressing plate (13) is pushed and pressed by the straw bundles pushed to the touch pressing plate (13), straw push rod movement driving chain wheels (15) rotate, straw push rod chains (11) are driven to rotate, and the straw bundles are automatically pushed backwards through the straw push rods (12); when the straw bundles are pushed to leave the compartment, the touch pressing plate (13) automatically returns, and the straw push rod chains (11) stop rotating. The collected straw bundles fall onto the ground in order while the machine walks, and the mechanical straw bundle collection is achieved.

Publication: [CN 104604451 A 20150513](#)

Applicant: GUO ZHILIN; NINGXIA LINONG INDUSTRY AND TRADE CO LTD

Inventor: BAI ZHILIN; CHEN LEI; GUO JINLIAN; GUO ZHILIN; KUAI SHUXIA; YIN HUIPING

Prio:

Appl.No: CN201410765593

IPC: A01D 85/00

CN 104604451 A 说明书附图 1/2 页

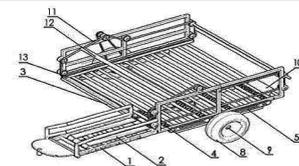


图 1

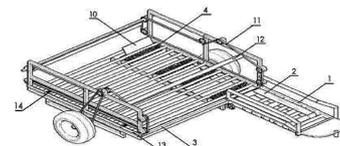


图 2

7

Rotary cutting head with wires and assembly consisting of such a head and a drive shaft for driving said head

The invention relates to a rotary cutting head with wires for a brush cutter, a grass trimmer, an edge trimmer, a hedge trimmer or the like, said head comprising a housing (1) containing a supporting body (2) comprising a system (3, 3', 4, 4', 12) for blocking at least two cutting or shearing wires, and a peripheral wall (6) allowing the or each wire to be wound around said wall in said head. Said blocking system comprises at least two movable blocking elements (3, 3') that are independent from each other and each associated with a clamping surface (4, 4') built into the supporting body (2) and comprising a clamping face (10, 10') and a supporting face (11, 11'), and a single elastic body (12) that can exert stress on each clamping face (11, 11') for clamping and blocking each wire.

Publication: [CN 104619160 A 20150513](#)

Applicant: PELLENC SA

Inventor: BLACHE MATTHIEU; PELLENC ROGER

Prio: FR 20130913 2013052107, FR 20120914 1258674

Appl.No: CN201380047653

IPC: A01D 34/416

CN 104619160 A 说明书附图 1/1 页

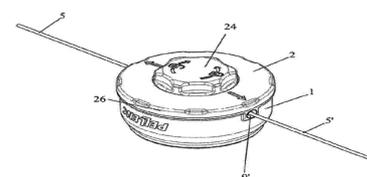


图 1

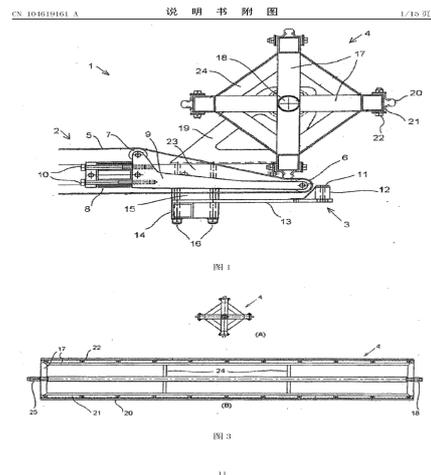
13

Improvements to selective tea plucking

Apparatus for selectively harvesting plant material, particularly the leaves and bud of a plant having a stem, such as a tea plant, is provided. The apparatus includes a conveyor belt (5), plant engaging members (20) movable relative to the conveyor belt (5) to trap the plant matter between the conveyor belt (5) and the plant engaging members (20) at a first level, and a stem engaging member (11) arranged to contact a stem of the plant at a predetermined second level, lower than the first, wherein when the stem of trapped plant material extending above the predetermined second level is broken by the stem engaging member (11) to harvest the trapped plant material. In one embodiment, the stem engaging member is a breaker bar (11). In an alternative embodiment, the stem engaging member is a cable, wire or cord maintained in tension at the predetermined second level.

Publication: [CN 104619161 A 20150513](#)

Applicant: WILLIAMES TEA PTY LTD
Inventor: WILLIAMES GEOFFREY ALAN
Prio: AU 20120502 2012901790, AU 20130502 2013000456
Appl.No: CN201380035358
IPC: A01D 46/00

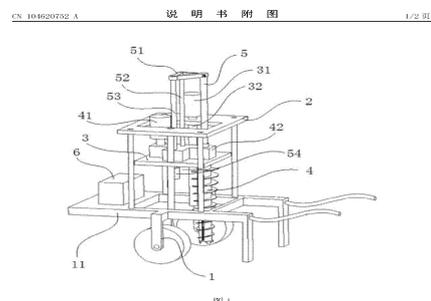


Chinese yam harvester

The invention discloses a Chinese yam harvester. The Chinese yam harvester comprises a cart body, a rack, a lifting table, a digging knife, a driving device and a pushing rod. The cart body is provided with a bearing plate, the rack is fixedly erected on the bearing plate, and the lifting table is arranged on the rack and is driven by a lifting device to ascend and descend. The digging knife comprises a hollow knife rod, a spiral blade and a plurality of knife heads, wherein the upper end and the lower end of the hollow knife rod are each provided with an opening, a plurality of mud grooves parallel with the axis are evenly formed in the side wall of the hollow knife rod in the circumferential direction, the spiral blade is arranged on the side wall of the hollow knife rod, and the knife heads are arranged at the lower end of the hollow knife rod. The driving device is arranged on the lifting table and connected with the hollow knife rod of the digging knife. The pushing rod is arranged on the lifting table through a pushing device and can slide downwards to be sleeved with the hollow knife rod. The Chinese yam harvester can mechanically dig Chinese yams, discharges the Chinese yams from the hollow knife rod, and is high in working efficiency.

Publication: [CN 104620752 A 20150520](#)

Applicant: UNIV GUANGXI
Inventor: DUAN YUEXING; HUANG WEI; WANG YONGKANG; XIN XIAOGANG; XU MINMIN; ZHANG YALI; ZHANG ZHANG
Prio:
Appl.No: CN201510033047
IPC: A01D 13/00



Fruit picking roller mechanism for peanut combine harvester

The invention discloses a fruit picking roller mechanism for a peanut combine harvester. Fruit picking ribs are evenly distributed and fixedly arranged on the surface of a cylindrical round steel fruit picking roller in a welded mode, gaps are formed between the fruit picking ribs and the cylindrical round steel fruit picking roller, and the front ends of the fruit picking ribs are provided with conic chamfers. The fruit picking roller mechanism further comprises a fruit picking roller box assembly which is specifically composed of a box body, a transmission shaft, transmission gears and an end cover. The transmission shaft drives the cylindrical round steel fruit picking roller to rotate. By the adoption of the fruit picking roller mechanism for the peanut combine harvester, the fruit picking roller rotates more smoothly, mulching films and peanut vines are not prone to be twisted, the complete picking rate is increased, and meanwhile integrity of peanuts is guaranteed. The whole box body is closed and cast, the center distance of two fruit picking roller shafts is fully guaranteed, the concentricity of inner bearing holes of two end faces is guaranteed, the meshing gaps of two pairs of bevel gears are more accurate, and the service life of the bevel gears is prolonged.

Publication: [CN 104620753 A 20150520](#)

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; LIU YULIN

Prio:

Appl.No: CN201410796574

IPC: A01D 29/00

CN 104620753 A 说明书附图 1/2页

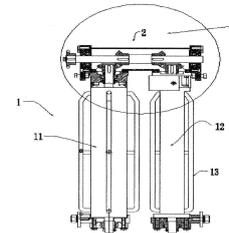


图 1

6

Safety device for peanut combine harvester lifter

The invention discloses a safety device for a peanut combine harvester lifter. The safety device comprises a lifter shaft, a transmission chain wheel, toothed pads and a compression spring. The transmission chain wheel, the toothed pads and the compression spring are all arranged on the lifter shaft. The transmission chain wheel is arranged on the right side of the lifter shaft and used for transmitting external power inside. The toothed pads specifically comprises the first toothed pad and the second toothed pad, the first toothed pad is fixedly arranged on the right end face of the transmission chain wheel, the second toothed pad and the first toothed pad are in meshing transmission, one end of the compression spring is connected with the second toothed pad, the other end of the compression spring is fixed to the lifter shaft through a gasket and a nut, and a flat key is embedded in the second toothed pad. By the adoption of the safety device for the peanut combine harvester lifter, when the lifter is stuck or blocked, the first toothed pad and the second toothed pad can be separated, the transmission chain wheel is in a slip state, the lifter shaft stops operating, and the phenomenon that a lifter chain is snapped due to large torque is prevented.

Publication: [CN 104620754 A 20150520](#)

Applicant: QINGDAO HONGSHENG AUTO PARTS CO LTD

Inventor: GUO FASHAN; GUO NING; LIU YULIN

Prio:

Appl.No: CN201410796575

CN 104620754 A 说明书附图 1/2页

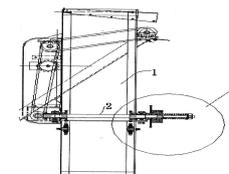


图 1

6

IPC: A01D 29/00

Durability testing device and method for walking system of lawn mower

A durability testing device for a walking system of a lawn mower comprises a test board, a fixing mechanism which is arranged on the test board and is used for fixing a mower, a load mechanism which is arranged on the test board and is used for providing a load to a driving wheel, and a control device, wherein the load mechanism comprises a load wheel which is rotationally arranged on the test board by a wheel shaft, a load motor which is connected by a transmission mechanism to drive the load wheel to rotate, and a frequency converter connected with the load motor; the transmission mechanism is provided with a torque rotary speed sensor for testing a torque and a rotary speed of the wheel shaft; the control device is connected with the frequency converter and the torque rotary speed sensor and is used for controlling the torque and the rotary speed of the wheel shaft; when the durability testing device is used for testing, the driving wheel is supported on the load wheel and the resistance of the load wheel can be overcome to drive the load wheel to rotate. The durability testing device can simulate the mower to work under various environments so as to meet the testing requirements of various lawn mowers.

Publication: **CN 104620755 A 20150520**

Applicant: FUJIAN JINJIANG SANLI ENGINE CO LTD
Inventor: HU DINGSHENG; LIU QINGGUO; TANG BO
Prio:
Appl.No: CN201510069020
IPC: A01D 34/00

CN 104620755 A 说明书附图 1/2页

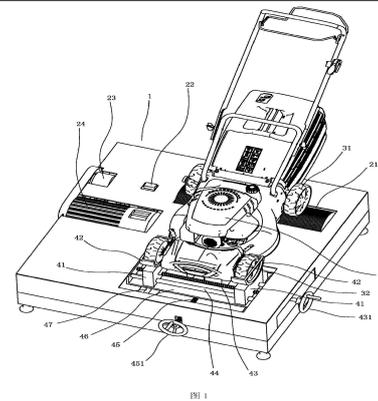


图1

9

Grass trimmer

The invention provides a grass trimmer. The grass trimmer comprises a shell, a motor arranged in the shell, a grass trimming head driven by the motor to carry out grass trimming operation, a handle assembly connected with the shell, and a protection cover fixedly arranged relative to the grass trimming head. The protection cover comprises a fixed protection cover body and a movable protection cover body rotationally connected to the fixed protection cover body. When the movable protection cover body rotates relative to the fixed protection cover body, the width of the protection cover composed of the fixed protection cover body and the movable protection cover body is reduced. The protection cover of the grass trimmer comprises the fixed protection cover body and the movable protection cover body rotationally connected to the fixed protection cover body. When the movable protection cover body rotates towards the straight line where the rotating center connecting line of the fixed protection cover body and the grass trimming head is located, the width of the protection cover composed of the fixed protection cover body and the movable protection cover body is reduced. Accordingly, the grass trimmer can enter the narrow space to carry out operation, and convenience is brought to users to use the grass trimmer.

Publication: **CN 104620756 A 20150520**

Applicant: POSITEC POWER TOOLS SUZHOU CO
Inventor: XIE MINGJIAN; ZHANG SHISONG
Prio:
Appl.No: CN201310547212

CN 104620756 A 说明书附图 1/2页

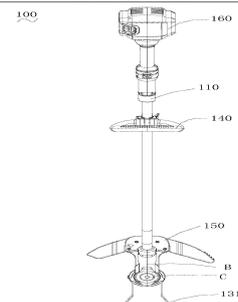


图1

7

IPC: A01D 34/68

Electric mower

The invention relates to an electric mower. The electric mower comprises a shell with a cutting cavity and a drive motor installed in the shell. The drive motor is provided with a stretching-in part stretching in the cutting cavity. The drive motor is provided with an output shaft which stretches out of the stretching-in part and is used for installing cutting blades. The stretching-in part is provided with a heat dissipating port, the cutting cavity is internally provided with a sprayer used for spraying water, and the cutting cavity is internally provided with a waterproof structure arranged between the heat dissipating port and the sprayer. According to the electric mower, the waterproof structure is arranged between the heat dissipating port and the sprayer, water can be prevented from flowing into the motor through the heat dissipating port of the drive motor, and the electric mower is suitable for water washing.

Publication: **CN 104620757 A 20150520**

Applicant: POSITEC POWER TOOLS SUZHOU CO
Inventor: DU JIANG; SUN SHUCHEN; SUN YUNHONG
Prio:
Appl.No: CN201310548677
IPC: A01D 34/68

CN 104620757 A 说明书附图 1/3页

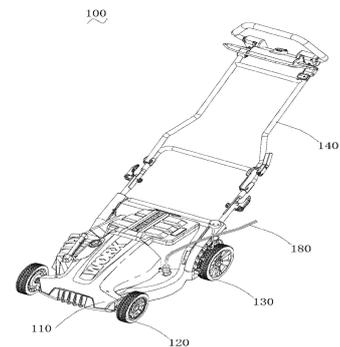


图1

7

Electric mower

The invention relates to an electric mower. The electric mower comprises a shell with a cutting cavity and a drive motor installed in the shell. The drive motor is provided with a stretching-in part stretching in the cutting cavity. The drive motor is provided with an output shaft which stretches out of the bottom of the stretching-in part and is used for installing cutting blades. The bottom and the side face of the stretching-in part are sealed, and the cutting cavity is internally provided with a sprayer used for spraying water. According to the electric mower, the bottom and the side face of the stretching-in part of the drive motor are sealed, and therefore when the sprayer in the cutting cavity works, water cannot enter the drive motor, and the electric mower is suitable for water washing.

Publication: **CN 104620758 A 20150520**

Applicant: POSITEC POWER TOOLS SUZHOU CO
Inventor: DU JIANG; SUN SHUCHEN; SUN YUNHONG
Prio:
Appl.No: CN201310549146
IPC: A01D 34/68

CN 104620758 A 说明书附图 1/3页

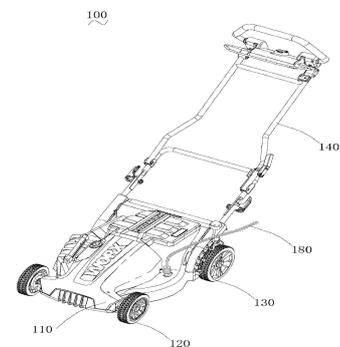


图1

6

Electric mower

The invention relates to an electric mower. The electric mower comprises a shell with a cutting cavity and a drive motor installed in the shell. The drive motor is provided with a stretching-in part stretching in the cutting cavity. The drive motor is provided with an output shaft which stretches out of the bottom of the stretching-in part and is used for installing cutting blades. The drive motor is provided with an air inlet located outside the cutting cavity, an air outlet is formed in the bottom of the stretching-in part, the output shaft is provided with an axial fan, and a sprayer used for spraying water is arranged in the cutting cavity. According to the electric mower, the output shaft of the drive motor is further provided with the axial fan, the axial fan can produce continuously flowing cooling air during working, the cooling air prevents water from flowing into the motor, and therefore the electric mower is suitable for water washing.

Publication: [CN 104620759 A 20150520](#)

Applicant: POSITEC POWER TOOLS SUZHOU CO
Inventor: DU JIANG; SUN SHUCHEN; SUN YUNHONG
Prio:
Appl.No: CN201310549147
IPC: A01D 34/68

CN 104620759 A 说明书附图 1/3 页

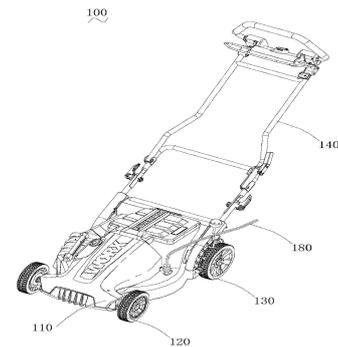


图 1

6

Self-adaptation telescopic weeder

A self-adaptation telescopic weeder comprises a single-freedom-degree telescopic cutter head, a blade dragging engine, walking wheels, a walking mechanism, single-freedom-degree telescopic blades, a handrail, a handrail frame, a cutter head blade telescopic motor, a left control button and a right control button. The single-freedom-degree telescopic blades are installed in the single-freedom-degree telescopic cutter head. The blade dragging engine and the cutter head blade telescopic motor are arranged at the upper portion of the single-freedom-degree telescopic cutter head. The walking mechanism is mainly composed of a chassis and the walking wheels. The bottom end of the handrail frame and the walking mechanism are welded together, and the handrail is arranged at the top end of the handrail frame. The handrail makes direct contact with operator hands, and the left control button and the right control button are installed on the handrail. The left control button is a point contact spring button and controls synchronous elongation of the single-freedom-degree telescopic blades and the single-freedom-degree telescopic cutter head. The self-adaptation telescopic weeder can effectively adapt to different road conditions.

Publication: [CN 104620760 A 20150520](#)

Applicant: LIU WANCAI
Inventor: LIU WANCAI
Prio:
Appl.No: CN201410529567
IPC: A01D 34/68

CN 104620760 A 说明书附图 1/2 页

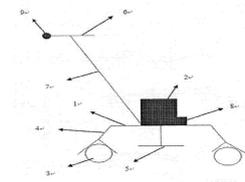


图 1

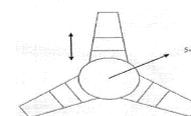


图 2

6

Reed/crop straw harvesting bundler

The invention discloses a reed/crop straw harvesting bundler, and belongs to the technical field of harvesters. The harvesting bundler mainly comprises a cutting knife mechanism, feeding mechanisms, distributing mechanisms, bundling mechanisms, rope conveying mechanisms, rope conveying gear mechanisms, aligning mechanisms, bundle conveying mechanisms and a lifting mechanism. The transverse feeding mechanisms, the longitudinal feeding mechanisms, the distributing mechanisms, the bundling mechanisms, the rope conveying mechanisms, the rope conveying gear mechanisms, the aligning mechanisms and the bundle conveying mechanisms are symmetric about the center of a travelling mechanism. After materials harvested by the harvesting bundler are conveyed to the distributing mechanisms by the feeding mechanisms, the left distributing mechanism and the right distributing mechanism alternately distribute the materials to the two bundling mechanisms, the materials are aligned by the aligning mechanisms and then bundled by the bundling mechanisms, the rope conveying mechanisms convey ropes, and the materials are manually fastened, conveyed out, loaded and carried away by the bundle conveying mechanisms. According to the harvesting bundler, harvesting is combined with bundling, harvesting operation is completed once, labor is saved, transportation is facilitated, production efficiency is improved, and production cost is reduced.

Publication: [CN 104620761 A 20150520](#)

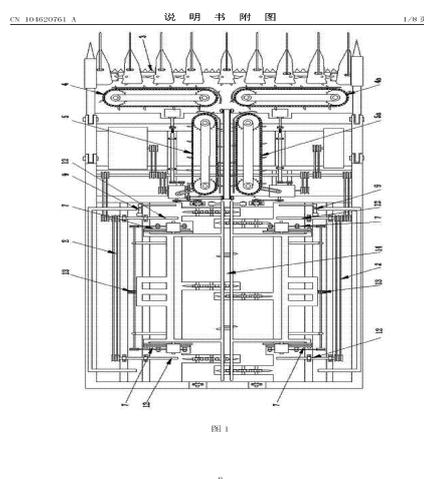
Applicant: HAN ZHIYU; LI QINGYUAN

Inventor: HAN ZHIYU; LI QINGYUAN

Prio:

Appl.No: CN201510076895

IPC: A01D 37/00



Granary-opening threshing cleaner of combine harvester

The invention provides a granary-opening threshing cleaner of a combine harvester. The granary-opening threshing cleaner of a combine harvester comprises hooks, a threshing cylinder, a grain collecting cylinder, a separating cylinder and a bran discharge cylinder. The granary-opening threshing cleaner has the advantages of reasonable design, simple structure, convenience in mounting and maintaining, high flexibility, high efficiency and capabilities of being operated movably and threshing and cleaning more than 6 tons of wheat per hour, thereby being a necessary facility for operation of the combine harvester.

Publication: [CN 104620762 A 20150520](#)

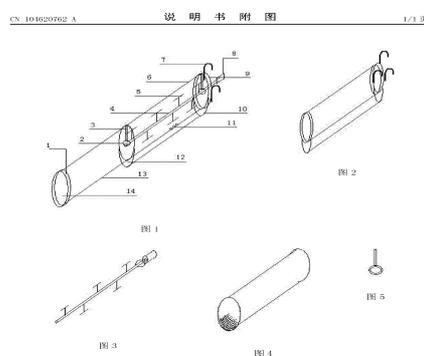
Applicant: KE ZAILI

Inventor: KE ZAILI

Prio:

Appl.No: CN201510086035

IPC: A01D 41/12



Wheat machine side wall

The invention discloses a wheat machine side wall. The wheat machine side wall comprises a side wall body, a short installing plate, a reserved opening, a through shaft opening, an installing plate, a reinforcing plate I, a reinforcing plate II and a round opening, wherein the short installing plate is welded to the top left corner of the side wall body, the reserved opening is formed in the lower side of the short installing plate, the through shaft opening is formed in the right side of the short installing plate, the installing plate is welded to the right side of the through shaft opening, the reinforcing plate I and the reinforcing plate II are sequentially welded to the right side of the installing plate, the round opening is formed between the reinforcing plate I and the reinforcing plate II, fixing grooves are formed in the short installing plate and the installing plate, and the welding technology of the wheat machine side wall is the spot welding technology. The wheat machine side wall has the advantages of being long in service life, free of deformation and high in overall strength.

Publication: [CN 104620763 A 20150520](#)

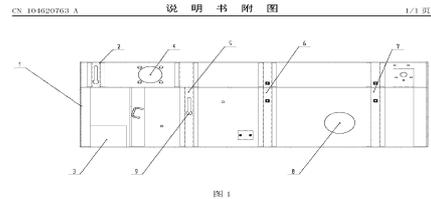
Applicant: SHANDONG LONGYUAN HYDRAULIC TECHNOLOGY CO LTD

Inventor: GAO PEIJIANG; LIU CHANGDONG

Prio:

Appl.No: CN201510034085

IPC: A01D 45/00



Rice harvesting device

The invention discloses a rice harvesting device, and relates to the technical field of rice machining. The rice harvesting device comprises a sugarcane holding rod transversely arranged at the front end of a vehicle frame. The left end and the right end of the sugarcane holding rod are bent forwards and outwards. The middle of the sugarcane holding rod is sunken inwards and backwards. A left cutting disc and a right cutting disc are arranged on the positions, behind the inwards-sunken position in the middle of the sugarcane holding rod, of the front end of the vehicle frame. The two cutting discs are connected and driven by a pair of meshed gears. Cutting edge portions and inward grooves are adjacently formed in the edges of the cutting discs. Compared with the prior art, the problem that an existing rice harvesting device is poor in cutting effect, and thus rice roots are damaged can be solved.

Publication: [CN 104620764 A 20150520](#)

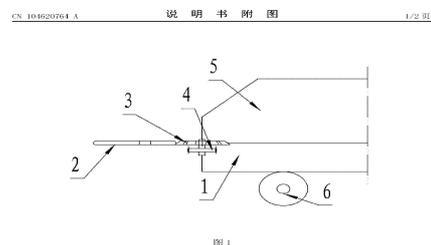
Applicant: ZHONG CHENG

Inventor: ZHONG CHENG

Prio:

Appl.No: CN201410732294

IPC: A01D 45/04



Sisal hemp harvesting machine

The invention discloses a sisal hemp harvesting machine. The sisal hemp harvesting machine comprises a panel workbench (1). A gradienter (4), an electric generator (7), a control cabinet (8) and multiple sisal hemp harvesting platforms (2) are arranged on the workbench (1). The lower portion of the workbench (1) is provided with horizontal adjusting hydraulic cylinders (6). The lower portions of the harvesting platforms (2) are provided with longitudinal position adjusting drive motors (3) and longitudinal guide rails (9). The harvest platforms (2) are provided with bases (10). The bases (10) are provided with height adjusting hydraulic cylinders (11), height adjusting guiding columns (12) and height adjusting sliding tables (19). The sliding tables (19) are provided with horizontal adjusting saddles (13). The rear portions of the saddles (13) are provided with horizontal adjusting hydraulic cylinders (21). The saddles (13) are further provided with circumferential adjusting devices, tool opening and closing hydraulic cylinders (15) and circle arc tooth-shaped tools (17). Each tool (17) is formed by two semi circle arc tooth-shaped tools. The lower portion of a tool holder (18) is provided with a cutting driving hydraulic cylinder (25). The sisal hemp harvesting machine has the advantages that the mechanization of sisal hemp harvesting can be achieved, the operation is convenient and simple, the harvesting efficiency is high, the sisal hemp harvesting cost is lowered, and the upper immature leaves cannot be hurt.

Publication: [CN 104620765 A 20150520](#)

Applicant: UNIV HAINAN
Inventor: FAN CHENXI; FAN JUNQING; LIANG DONG;
 MAO ZHOU; WANG GAOPING; WANG WEN;
 ZHANG BAOZHEN; ZHANG ZHIQIANG

Prio:
Appl.No: CN201310545175
IPC: A01D 45/06

CN 104620765 A 说明书附图 1/6页

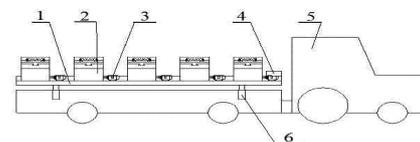


图 1

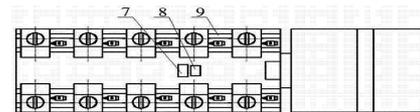


图 2

6

Cowpea picking and threshing integrated machine

The invention relates to a cowpea picking and threshing integrated machine. The machine is mainly composed of a machine frame, a traveling device, a clearing device, a conveying device and a thresher, wherein all the components are connected into a hole through the machine frame, a cowpea picking platform and a cowpea container are arranged on the upper portion of the machine frame, the traveling device comprises a power device, traveling wheels and a cab, the conveying device is connected with the cowpea container and the thresher, and the clearing device clears the road through wine separating and seedling pressing by means of a seedling pressing roller and a vine separating roller in front. The machine is self-powered and moves in highly dense cowpea vines, picking, placing, conveying and threshing of cowpeas are achieved at a time, and cowpea harvesting efficiency is improved greatly.

Publication: [CN 104620766 A 20150520](#)

Applicant: LI XIANQIANG
Inventor: LI XIANQIANG
Prio:
Appl.No: CN201510015859
IPC: A01D 46/00

CN 104620766 A 说明书附图 1/3页

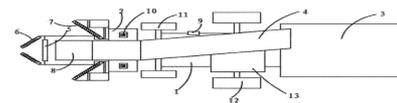


图 1

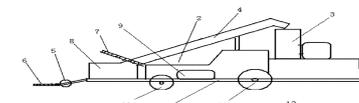


图 2

6

Mechanical fingernail

The invention provides a mechanical fingernail. The mechanical fingernail is characterized by being composed of a thumb stall, an index finger stall and a blade fixed to the thumb stall. The knife edge of the blade faces the front end of the thumb stall, in other words, the knife edge of the blade and the thumb of the human body are the same in orientation, and the index finger stall is made of anti-abrasion leather materials. The mechanical fingernail has the advantages that the thumb and the index finger of the human body are sleeved with the thumb stall and the index finger stall respectively, when tea leaves, pepper, garlic sprouts and the like are picked, the blade on the thumb stall is pressed towards the index finger stall, and the cutting-off operation can be finished. The blade on the thumb stall can also be used for removing fruits of beans and the like, and work efficiency can be improved.

Publication: [CN 104620767 A 20150520](#)

Applicant: ZHU YUXI

Inventor: ZHU YUXI

Prio:

Appl.No: CN201310542596

IPC: A01D 46/04

CN 104620767 A 说明书附图 1/1 页

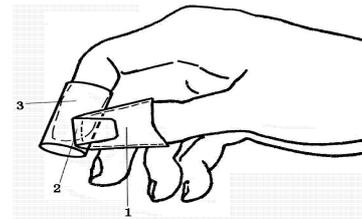


图 1

Water tank for cotton harvesting machine

The invention provides a water tank for a cotton harvesting machine. The water tank comprises a water tank body, a water inlet, a water outlet, a water tank liquid level sensor, a lubricant tank body, a lubricant charging opening, a lubricant tank sensor, an electromagnetic valve, a pipeline and a PLC control device. The upper portion of the water tank body is provided with the lubricant tank body and the water inlet. One side of the water tank body is provided with the water tank liquid level sensor. The lower portion of the water tank body is provided with the water outlet. The lubricant charging opening is formed in the upper portion of the lubricant tank body. One side of the lubricant tank body is provided with the lubricant tank sensor. The lubricant tank body is aligned to one side of the water tank body. The lubricant tank body is communicated with the water tank body through the pipeline. The electromagnetic valve is arranged on the pipeline. The PLC control device is connected with the water tank liquid level sensor, the lubricant tank sensor and the water tank body. According to the water tank for the cotton harvesting machine, a water solution can be conveniently and automatically prepared, labor force is saved, the proportion of the water solution is reasonably controlled, and the cotton harvesting picking effect is improved.

Publication: [CN 104620768 A 20150520](#)

Applicant: GUO JIAN

Inventor: GUO JIAN

Prio:

Appl.No: CN201510064251

IPC: A01D 46/08

CN 104620768 A 说明书附图 1/12 页

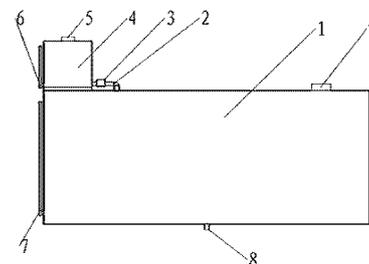


图 1

High-altitude fruit picking device

The invention provides a high-altitude fruit picking device used for picking fruits at the high altitude. A bush hook is arranged at the front end of a handle bar, and a mesh basket is arranged below the bush hook. When the high-altitude fruit picking device is used, the handle bar can be held by hand, and the fruits are hooked through the bush hook, directly fall into the mesh basket and are harvested in a unified mode.

Publication: [CN 104620769 A 20150520](#)

Applicant: YICHENG NO 3 SENIOR HIGH SCHOOL

Inventor: CHEN CHENG

Prio:

Appl.No: CN201310542771

IPC: A01D 46/247

CN 104620769 A 说明书附图 1/1 页

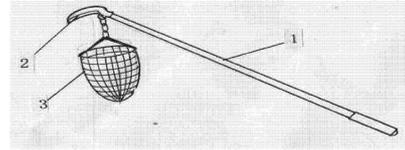


图 1

Persimmon picking device

A persimmon picking device comprises a body of a mesh-shaped bag. The persimmon picking device is characterized in that a hook cutter is arranged at the opening of the body and can cut off persimmons on a tree, the mesh-shaped bag catches the cut-off persimmons, and the persimmons cannot directly fall to the ground or get broken. The persimmon picking device is simple in structure and convenient to use.

Publication: [CN 104620770 A 20150520](#)

Applicant: XI AN DAOHENG TRANSP EQUIPMENT TECHNOLOGY CO LTD

Inventor: THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Prio:

Appl.No: CN201310546961

IPC: A01D 46/247

CN 104620770 A 说明书附图 1/1 页

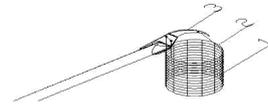


图 1

Flat-axis automatic high-branch fruit chopping and cutting harvester with resettable open-type C-shaped spring cutter holder

The invention belongs to an automatic chopping and cutting tool for harvesting of agricultural high-branch fruits (such as anise, hawthorn fruits, Chinese prickly ash, apples, apricots, longans and litchis), and relates to a flat-axis automatic high-branch fruit chopping and cutting harvester with a resettable open-type C-shaped spring cutter holder. When the 'flat-axis automatic high-branch fruit chopping and cutting harvester with the resettable open-type C-shaped spring cutter holder' is used, the high-branch fruits can be chopped and harvested easily, conveniently, rapidly and automatically in all directions by an operator on the ground after the operator aligns the harvester to the high-branch fruits and pulls the harvester back. The flat-axis automatic high-branch fruit chopping and cutting harvester is high in interchangeability of spare and accessory parts and can be subjected to standardized mass production.

Publication: [CN 104620771 A 20150520](#)

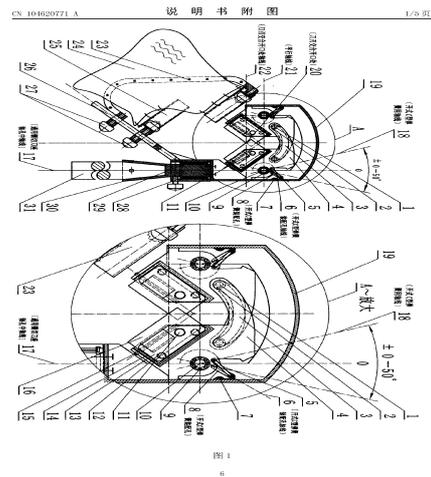
Applicant: FANG SUNDIAN

Inventor: FANG SUNDIAN

Prio:

Appl.No: CN201510086504

IPC: A01D 46/247



Flat-axis inner-spring haying-cutter seat return and high-branch fruit automatic haying and cutting harvesting device

The invention belongs to an automatic haying and cutting tool for harvesting agricultural high-branch fruits (anise, hawthorn, pepper, apple, apricot, longan, litchi etc.). When in use of a flat-axis inner-spring haying-cutter seat return and high-branch fruit automatic haying and cutting harvesting device, workers only need to pull back high fruited branches and then can easily, conveniently and quickly automatically hay, cut and harvest high-branch fruits on the ground within 360 degrees. The flat-axis inner-spring haying-cutter seat return and high-branch fruit automatic haying and cutting harvesting device has parts high in interchangeability and can product in standard and batch.

Publication: [CN 104620772 A 20150520](#)

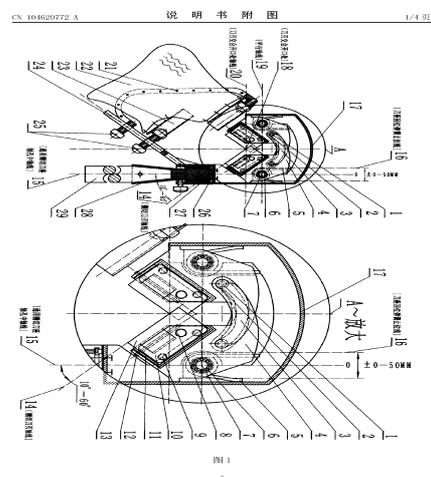
Applicant: FANG SUNDIAN

Inventor: FANG SUNDIAN

Prio:

Appl.No: CN201510086554

IPC: A01D 46/247



Fruit tree shaking device

A fruit tree shaking device comprises a main body of a vibrator, and is characterized in that a clamping sleeve is arranged on the upper portion of the main body. The clamping sleeve can be clamped with a fruit tree trunk firmly, the working vibrator continuously shakes the trunk after being powered on, and the purpose of picking fruits is achieved. The fruit tree shaking device is simple in structure and convenient to use.

Publication: [CN 104620773 A 20150520](#)

Applicant: XI AN DAOHENG TRANSP EQUIPMENT TECHNOLOGY CO LTD

Inventor: THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Prio:

Appl.No: CN201310546871

IPC: A01D 46/26

CN 104620773 A 说明书附图 1/1 页

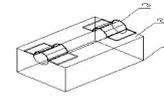


图 1

4

Anti-slip support of wheat machine

The invention discloses an anti-slip support of a wheat machine. The anti-slip support of the wheat machine comprises a support body, an anti-slip pedal, an upper beam, a lower beam and anti-step-miss rubber teeth, wherein the anti-slip pedal is welded to the upper side of the support body, the upper beam and the lower beam are sequentially welded to the right side of the support body from top to bottom, and the anti-step-miss rubber teeth are arranged on the right side of the anti-slip pedal, the right side of the upper beam and the right side of the lower beam. The anti-slip support of the wheat machine has the advantages that slipping and step miss can be prevented, and safety of a driver is not affected.

Publication: [CN 104620774 A 20150520](#)

Applicant: SHANDONG LONGYUAN HYDRAULIC TECHNOLOGY CO LTD

Inventor: GAO PEIJIANG; LIU CHANGDONG

Prio:

Appl.No: CN201510034231

IPC: A01D 75/20

CN 104620774 A 说明书附图 1/1 页

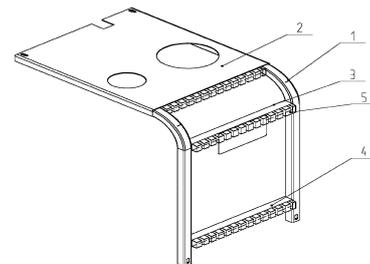


图 1

4

Method and application for sickle alfalfa seed threshing

The invention provides a method for sickle alfalfa (burclover) seed threshing. The method comprises the following steps that when burclover seeds mature, all plants on the ground are harvested and dried in shade until the water content ranges from 15% to 20%; beating threshing is performed on dried stems, leaves and bean pods by hammer slices rotating at high speed, sieve slices of which the diameters of sieve holes are 0.4 cm are used to control beating strength; one orientation fan is arranged on a discharging hole to perform primary selection on the seeds, the other orientation fan is arranged on a feeding hole to reduce harm of dust generated in a processing process to processing personnel, the threshing and processing processes are mainly controlled by manpower, and sundries need to be removed in the feeding process in order to avoid the harm to the processing personnel and machines; the orientation fans are used to clean and separate the seeds from the stems, the leaves and the bean pods; at last sundries with different sizes are removed by different types of sieves, and the diameters of the sieves are larger ($\phi=0.6$ cm) and smaller ($\phi=0.3$ cm) than the diameters of the seeds. According to the method, neatness degree of the seeds is over 90%, the damage rate of the seeds in the threshing process is less than 1.5%, and the germination rate is larger than 85%.

Publication: [CN 104620775 A 20150520](#)

Applicant: YUNNAN ACADEME OF GRASSLAND AND ANIMAL SCIENCE

Inventor: HUANG BIZHI; KUANG CHONGYI; LIAO XIANGLONG; XU CHI; XUE SHIMING; YU MEI; ZHANG MEIYAN; ZHONG SHENG

Prio:

Appl.No: CN201310564358

IPC: A01D 91/04

Anti-interference laser cultivating and harvesting integrated machine

The invention relates to the field of agricultural automation, and provides an anti-interference laser cultivating and harvesting integrated machine. The anti-interference laser cultivating and harvesting integrated machine comprises a seedling cultivating carrier, and the seedling cultivating carrier is provided with cultivating containers for containing culture compost. The anti-interference laser cultivating and harvesting integrated machine further comprises an optical scanning system. The optical scanning system comprises a laser light source located on the left side of the seedling cultivating carrier and a right photosensitive element located on the right side of the seedling cultivating carrier. The right photosensitive element is provided with a photosensitive hood. The laser light source and the right photosensitive element form a bijection layout. The height of the right photosensitive element and the height of the laser light source are equal to the set seedling growing height. The anti-interference laser cultivating and harvesting integrated machine further comprises a microprocessor system, and the right photosensitive element is connected to the microprocessor system. The anti-interference laser cultivating and harvesting integrated machine is capable of increasing the yield effectively while saving the cost and guaranteeing the seedling quality.

Publication: [CN 104620776 A 20150520](#)

Applicant: SHANGHAI JURAN INTELLIGENT TECHNOLOGY CO LTD

Inventor: LI JIAMING; SUN BINBIN

Prio:

Appl.No: CN201510028107

IPC: A01D 91/04

CN 104620776 A 说明书附图 1/1页

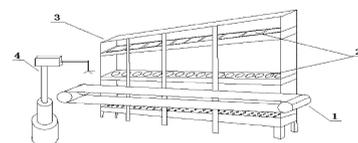


图 1



图 2

Method for determining optimum picking time of perennial energy plants special for marsh gas

The invention discloses a method for determining the optimum picking time of perennial energy plants special for marsh gas, and belongs to the field of biomass energy. By means of the method for harvesting perennial energy plants in a segmented mode, through the combination of the measurement of the dry matter yield and the analysis of the independent marsh gas fermentation effect, the optimum picking time of the perennial energy plants special for marsh gas is determined. The method is easy and convenient to operate and credible in result and has quite high actual production and popularization value.

Publication: [CN 104620777 A 20150520](#)

Applicant: UNIV FUJIAN AGRIC & FORESTRY

Inventor: LI XIN; LIU BIN; LIU XIAOYAN; LYU XUCONG;
XIAO ZHENG; ZHAO CHAO; ZHAO LI NA

Prio:

Appl.No: CN201510062069

IPC: A01D 91/04

PICKING UNIT, HARVESTING ATTACHMENT AND HARVESTER FOR CORN OR SIMILAR

The invention relates to a picking unit for corn or similar for the harvesting attachment of a harvester, said unit comprising a picking nip (10), at which two counter-rotating feed rollers (26, 27) are arranged. In order to improve a picking unit of this type, one feed roller (26) has a section (28) comprising a cutting edge (29) that runs in a spiral (Fig. 16).

Publication: [CN 104640435 A 20150520](#)

Applicant: SCHRATTENECKER FRANZ

Inventor: SCHRATTENECKER FRANZ

Prio: DE 20120716 102012014085, EP 20130703
2013001946

Appl.No: CN201380048030

IPC: A01D 45/02

CN 104640435 A 说明书附图 1/19页

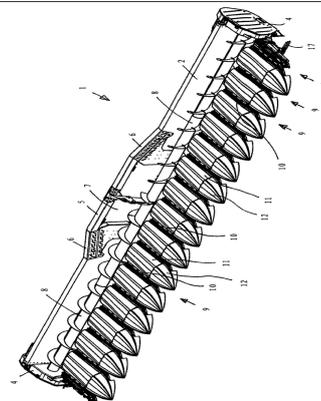


图 1

Novel simple Chinese-prickly ash picking apparatus

A novel simple Chinese-prickly-ash picking apparatus relates to Chinese-prickly-ash picking machinery. An upper box body and a lower box body are respectively provided with an inward opening; connecting plates are arranged at the rear ends of two handles; the two connecting plates are connected through a shaft; the shaft is sleeved with a spring; the spring supports the two connecting plates outwards; the lower box body/the upper box body is provided with double blades which are an outer blade and an inner blade; the upper box body/the lower box body is provided with a single blade; and when the upper box body/the lower box body is meshed with the blower box body/the upper box body, the single blade of the upper box body/the lower box body is placed between the outer blade and the inner blade of the lower box body/the upper box body. The beneficial effects of the novel simple Chinese-prickly-ash picking apparatus are that the apparatus is convenient to operate and capable of being operated by one hand of a person; the apparatus is capable of preventing thorns of Chinese prickly ash from pricking the person; the apparatus is capable of obviously improving Chinese-prickly-ash picking efficiency, and enabling the efficiency to be three to five times that of manual picking; and the apparatus is provided with the double blades and the single blade so that the shearing success rate can be increased greatly.

Publication: [CN 104641778 A 20150527](#)

Applicant: LI ZHENYONG

Inventor: LI ZHENYONG

Prio:

Appl.No: CN201310570889

IPC: A01D 11/00

CN 104641778 A 说明书附图 1/2 页

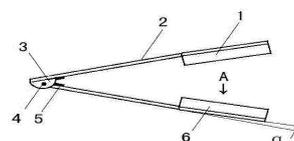


图 1

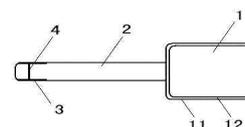


图 2

5

Novel peanut harvesting device

The invention relates to a farm tool, in particular to a novel peanut harvesting device, and aims at solving the problems that peanut vines twine around a fruit beating machine when peanuts are harvested, and then operation and work efficiency is influenced. The novel peanut harvesting device comprises a machine frame (1), a harvest shovel (2) arranged on a front arm of the machine frame (1) and a drive device (3) arranged on a middle arm of the machine frame (1), wherein a traction machine frame (10) is connected with the machine frame (1), the drive device (3) is connected with a transmission device (6), one end of the transmission device (6) is connected with a chain transmission device I (11) fixed on one side of the machine frame (1), the other end of the transmission device (6) is connected with a chain transmission device II (12) opposite to the chain transmission device I (11), a harvest cutter (2) is fixed at the front end of a conveying device I (5), a film collection device (9) is arranged right below the rear of the conveying device I (5), and a conveying device II (13) is arranged below the conveying device I (5). The novel peanut harvesting device has the advantage of solving the problem that the operation and work efficiency is influenced due to that the peanut vines twine around the fruit beating machine when the peanuts are harvested.

Publication: [CN 104641779 A 20150527](#)

Applicant: ZHANG HAITAO

Inventor: ZHANG HAITAO

Prio:

Appl.No: CN201310597714

CN 104641779 A 说明书附图 1/2 页

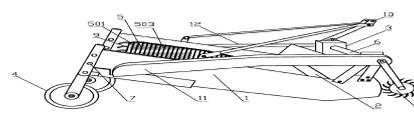


图 1

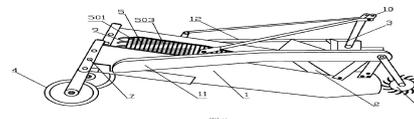


图 2

5

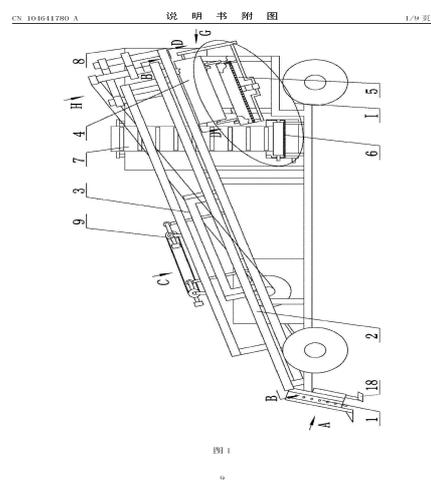
IPC: A01D 29/00

Combined fruit harvest machine for peanuts

The invention discloses a combined fruit harvest machine for peanuts. The combined fruit harvest machine comprises a travelling mechanism which is provided with a clamping device; the clamping device is formed by two first longitudinal supports and two first lateral supports through connection; a first connecting rod is vertically arranged in the middle of each first lateral support; a chain wheel support is arranged on the lower portion of each first connecting rod in an inclined mode; the lower portion of the front end of each first longitudinal support is provided with a wheel frame; each wheel frame is bent outward relative to the corresponding first longitudinal support; the chain wheel support which is arranged on the front portion is located between the two wheel frames. According to the combined fruit harvest machine for the peanuts, the operation process of the manual harvesting can be imitated, the peanuts can be rapidly and accurately harvested, and accordingly the automation of the fruit harvesting of the peanuts is implemented and the manpower and material resources can be saved; the enough clamping force of a clamping channel on the peanuts can be ensured due to a chain compression mechanism which is formed by a first chain compression piece, a first spring and a first guide rod; the structure is simple, the manufacturing cost is low, and the operation is simple and convenient.

Publication: [CN 104641780 A 20150527](#)

Applicant: SUN KEQING
Inventor: SUN KEQING
Prio:
Appl.No: CN201310600857
IPC: A01D 29/00

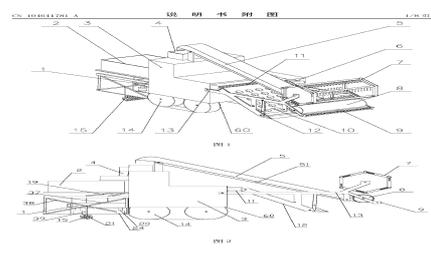


Fresh ginger cleaning and quantitative packing and straw chopping and pressing combine harvester

The invention relates to a fresh ginger cleaning and quantitative packing and straw chopping and pressing combine harvester. The combine harvester comprises a bracket, a straw cutting device, a straw conveying device, a ginger block digging device, a ginger block cleaning device, a system operation cabin, a ginger block collecting device, a straw pressing device, a soil rotary tillage device and a harvester advancing device; the invention provides the combine harvester which integrates the functions of fresh ginger digging, multi-level cleaning, quantitative packing and storage, fresh ginger straw collecting, pressing and packing, and ginger field turnover together. The removal rate of the fresh ginger straw is equal to or more than 98%; the breakage rate of ginger blocks is less than or equal to 2%; the digging thoroughness is equal to or more than 98%; the soil-turning depth can reach 400-500 mm. When the combine harvester is applied to a ginger field, the packed ginger blocks and the pressed fresh ginger straw can be directly transported back home, the soil-turning work for the ginger field is also finished, no labor work is required during the whole harvesting process, and the combine harvester can do the work instead. as the fresh ginger straws are pressed into blocks, the size is greatly reduced, and the transportation is facilitated.

Publication: [CN 104641781 A 20150527](#)

Applicant: UNIV QINGDAO TECHNOLOGICAL
Inventor: LI CHANGHE; QI DEMIN; SUN BAOZHU; WANG QIANYU; ZHANG YUNLONG; ZHANG ZENGBAO
Prio:
Appl.No: CN201510079000



IPC: A01D 31/02

Potato block bagging device of potato harvester

The invention discloses a potato block bagging device of a potato harvester. The device comprises an operation chamber chassis, a shell, a slide door, a feeding hopper, a pedal, a connecting rod mechanism, a feeding baffle plate, a bag clamping device, feeding hopper brackets, a tray, a seat and springs, wherein the feeding hopper is arranged on the operation chamber chassis through a plurality of feeding hopper brackets; the pedal is arranged on one side of the feeding hopper brackets through the connecting rod mechanism; the tray is arranged among the feeding hopper brackets; the feeding baffle plate is arranged at an outlet in the lower end of the feeding hopper; the bag clamping device is arranged on the outer wall of an outlet below the feeding hopper; the springs are arranged on the inner walls of the feeding hopper brackets; the tray is arranged on the springs; the pedestal is connected with the feeding baffle plate through the connecting rod mechanism; the slide door is arranged on the shell. Mechanical bagging of potato blocks by the potato harvester after harvesting is fully realized, and the set level of the potato harvester is improved; the labor consumption is reduced, and the labor intensity is reduced.

Publication: **CN 104641782 A 20150527**

Applicant: UNIV INNER MONGOLIA TECHNOLOGY
Inventor: CEN HAITANG; HUANG JINLEI; NA RISU; QIN JIANGUO; ZHANG HAO

Prio:
Appl.No: CN201510071040
IPC: A01D 33/00

CN 104641782 A 说明书附图 1/10页

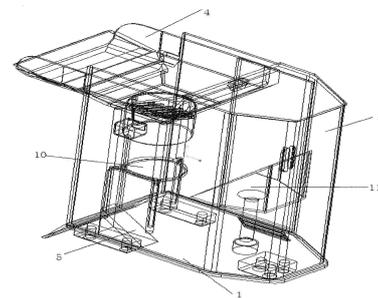


图 1

6

Lawnmower electronics housing

A lawnmower 10 is disclosed comprising a chassis 20 including a cutting chamber 21, a cutting blade rotatably mounted within the cutting chamber, and an electric motor 30 mounted to the chassis above the cutting chamber which in use drives the cutting blade. Apertures 31 are provided between the chassis 20 and the motor 30 to allow air to be drawn into the cutting chamber 21. The lawnmower further comprises an electronics housing 50 mounted above the motor, the base of the housing 52 forming a heat sink for the electronic components in the housing which is cooled by air drawn into the cutting chamber through the apertures 31. The top surface of the electronics housing 50 is uncovered in use and open to air. The housing 50 is mounted to the motor casing by means of a plurality of mounting posts 54 which space the base of the housing from the motor casing. An aperture in the housing base 51 is provided for one or more wires to pass out of the housing, and a resilient seal is provided in the aperture between the wire and the housing base to maintain the protection of the interior space of the housing.

Publication: **CN 104641783 A 20150527**

Applicant: BOSCH GMBH ROBERT
Inventor: CHRISTIAN KOEPF; MATTHEW LING
Prio: EP 20131121 13193817
Appl.No: CN201410666193
IPC: A01D 34/00

CN 104641783 A 说明书附图 1/10页

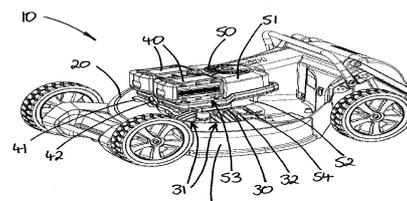


图 1

6

Lawnmower battery arrangement

The invention relates to a lawnmower battery arrangement. A lawnmower 10 is disclosed, comprising a chassis 20 including a cutting chamber 21, a cutting blade rotatably mounted within the cutting chamber, and an electric motor 30 mounted to the chassis above the cutting chamber which in use drives the cutting blade. The electric motor 30 is powered by at least two batteries 60 which are spaced from one another to provide an air gap in between. The lawnmower 10 does not have a cover over the major components, and therefore at least the top surface each battery 60 is substantially uncovered in use and open to air. The batteries 60 are mounted on a platform 40 above the motor, a substantial proportion of the underside of which is open to air. Each battery is retained in a docked position on the lawnmower by means of a latch mechanism 70. One or more drainage apertures are provided on the platform 40 adjacent the battery electrical terminals to prevent water forming a continuous bridge between the terminals.

Publication: [CN 104641784 A 20150527](#)

Applicant: BOSCH GMBH ROBERT
Inventor: KOEPF CHRISTIAN; LING MATTHEW
Prio: EP 20131121 13193819
Appl.No: CN201410858214
IPC: A01D 34/00

CN 104641784 A 说明书附图 1/6页

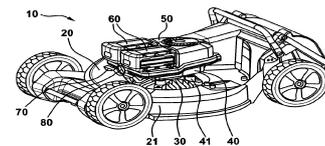


图 1

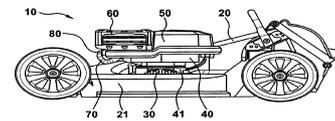


图 2

6

Grass trimmer driven by LPG engine

The invention discloses a grass trimmer driven by an LPG (Liquefied Petroleum Gas) engine. The grass trimmer is characterized in that a low-emission gasoline engine combined with double auxiliary ventilation openings of left and right improved narrowing box bases, tapered-wedge turbulence channeling sheets at scavenging air duct openings and double auxiliary piston skirts is adopted, the carburetor of the grass trimmer is provided with a four-fork nozzle (70a) which is beneficial to be atomized; the grass trimmer is unexpected in emission-reducing and standard-reaching effect; a cutter includes a grass trimming head (54) with a cutting and grass-trimming steel wire (54b) and a steel wire nylon string both which are beneficial to cut for a long term, and the cutter is provided with an external protecting cover (73) arranged on an internal protecting cover (60) and a long-time grass pressing wheel (74) arranged on the external protecting cover, and the roller length of the long-time grass pressing wheel (74) is equal to the grass trimming diameter, thus the cutter is convenient to press grasses, preserve soil moisture and decorate grasslands. Propane in a micro propane fuel tank reaches 99% and has few impurities. The micro propane fuel tank is made of a high-pressure extrusion die. The grass trimmer is safe, environmentally friendly, easy to exchange and universally applied to multiple countries, thus the grass trimmer is very popular for international markets.

Publication: [CN 104641785 A 20150527](#)

Applicant: NINGBO DAYE GARDEN EQUIPMENT CO LTD
Inventor: LU WEIJUN; SU KE; YE XIAOBO; ZHOU XIANG;
 ZHOU YONGPING; ZHOU YUANHUI
Prio:
Appl.No: CN201410773516

CN 104641785 A 说明书附图 1/21页

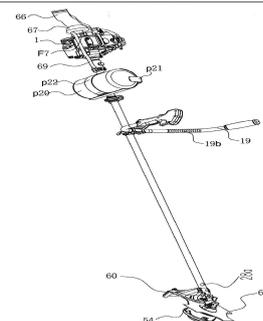


图 1

26

IPC: A01D 34/416

Lawnmower

A lawnmower 10 is disclosed, comprising a chassis 20 including a cutting chamber 21, a cutting blade rotatably mounted within the cutting chamber, and a motor 30 mounted to the chassis above the cutting chamber which in use drives the cutting blade. Air-inlet apertures 26 are provided between the chassis and the motor to allow air to be drawn into the cutting chamber. A plurality of spaced-apart projections 40 are provided which extend into each aperture in order to partially obstruct the aperture and prevent the ingress of objects of a predetermined size into the cutting chamber. The projections 40 are formed integrally with the motor casing and extend outwards towards the chassis. They can also function as cooling fins for the motor 30. The upper surface of each projection slopes away from the motor so that debris falls towards the end of each projection and is drawn into the cutting chamber through the aperture at the ends of the projections.

Publication: **CN 104641786 A 20150527**

Applicant: BOSCH GMBH ROBERT
Inventor: CHRISTIAN KOEPF; MATTHEW LING
Prio: EP 20131121 13193820
Appl.No: CN201410668783
IPC: A01D 34/63

CN 104641786 A 说明书附图 1/3页

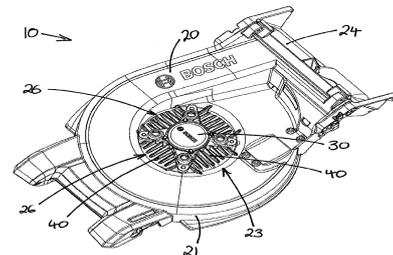


图 1

6

Operating device of a gardening machine

The present invention relates to an operating device of a garden machine, in particular an electrically operated garden machine. The operating device is provided with at least one switching unit (14a; 14b) including at least one electrical switch (16a; 16b), and at least one operating unit (18a; 18b) including movably supported actuating elements (20a; 20b) to generate a force to operate the operating force of the switch (16a; 16b). It is proposed that the at least one operating unit (18a; 18b) includes at least one cam drive unit (22a; 22b), by means of which a movement of the actuating elements (20a; 20b) to operate the switch (16a; 16b).

Publication: **CN 104641787 A 20150527**

Applicant: BOSCH GMBH ROBERT
Inventor: ANDREW QUIGLEY; CHRISTIAN KOEPF;
MATTHEW LING
Prio: DE 20131121 102013223800
Appl.No: CN201410658853
IPC: A01D 34/82

CN 104641787 A 说明书附图 1/3页

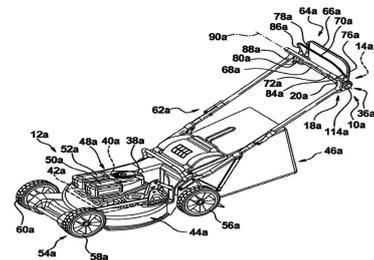


图 1

12

Straw harvest bundling machine

The invention relates to a straw harvest bundling machine. The machine comprises a traveling frame, a suppressing cabin and a forage collection mechanism, wherein the suppressing cabin is arranged on the traveling frame; the forage collection mechanism is connected to a side edge of the traveling frame and is also connected with a forage harvesting mechanism; the forage harvesting mechanism comprises a cutting mechanism, an orientation roller and a feeding mechanism; the cutting mechanism is of a structure of which the front end is straight and the rear end is tilted; the front end of the cutting mechanism is provided with a composite zigzag blade; the orientation roller is arranged on the upper side of the front end of the cutting mechanism; the feeding mechanism is arranged on the upper side of the rear end of the cutting mechanism and comprises two feeding rollers; the two feeding rollers are connected through a chain and are in transmission through a chain; the chain is provided with a clamping strip for conveying straws; the rear end of the feeding mechanism is connected with the forage collection mechanism. Mature grass and various straws are cut, picked and bundled integrally to finish fully mechanical harvesting of the grass and the straws.

Publication: [CN 104641788 A 20150527](#)

Applicant: YUHUAN ANWU MACHINERY MFG CO LTD

Inventor: WANG SHENG

Prio:

Appl.No: CN201310592225

IPC: A01D 37/00

CN 104641788 A 说明书附图 1/4页

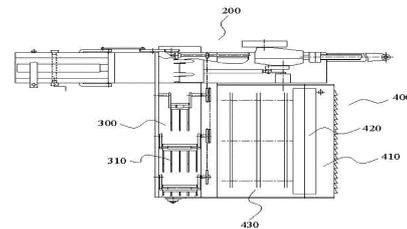


图 1

7

Sugarcane overturn device

The invention discloses a sugarcane overturn device which comprises a frame body and two vertical posts respectively arranged at the two ends of the frame body. Each vertical post is hinged with a lower supporting rod, a weight-bearing spring is connected between one lower supporting rod and one vertical post, and the two lower supporting rods at the same end of the frame body are in an intersection state under the normal state. A rotary shaft is connected with the upper portions of the two vertical posts of the other side of the frame body, and multiple rotary arms which extend outward in the radial direction are respectively installed at the two ends of the rotary shaft. An upper supporting rod is hinged on each of two vertical posts of the other side of the frame body and located below one lower supporting rod, a weight-bearing spring is connected between each upper supporting rod and the vertical post which is hinged with the upper supporting rod, and the upper supporting rods at the same end of the frame body are located in a motion trail of the rotary arms. The sugarcane overturn device solves the problem that the existing harvester cannot put together or buddle the processed sugarcanes conveniently.

Publication: [CN 104641789 A 20150527](#)

Applicant: LI QINGREN

Inventor: LI MINYU; LI QINGREN

Prio:

Appl.No: CN201410278830

IPC: A01D 37/00

CN 104641789 A 说明书附图 1/2页

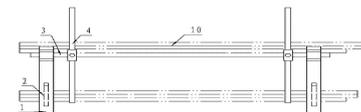


图 1

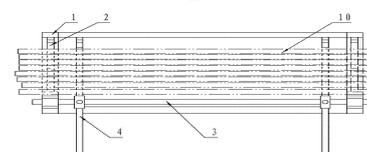


图 2

5

A multifunctional agricultural machine

The present invention relates to a multifunctional agricultural machine suitable for working in hilly mountainous areas. The existing micro tiller or harvester can only independently complete cultivation or harvest, and has defects in causing a waste of resources and increasing the economic burden of purchasers. To solve these defects, the multifunctional agricultural machine is arranged with a hanging table at a mounting frame of an engine, a universal wheel is arranged at the lower part of the hanging table, the upper part of the hanging table is connected with a harvesting table through a fixing device, and a set of conveying device is added. The multifunctional agricultural machine is small and exquisite and flexible, and is simple in structure, easy to operate, and convenient and quick to dismantle and install. The multifunctional agricultural machine can serve several purposes, such as cultivation and harvest along, save resources and reduce burdens of farmer friends.

Publication: [CN 104641790 A 20150527](#)

Applicant: ZHANG JIAHUA
Inventor: ZHANG JIAHUA
Prio:
Appl.No: CN201310583222
IPC: A01D 42/04

CN 104641790 A 说明书附图 1/3 页

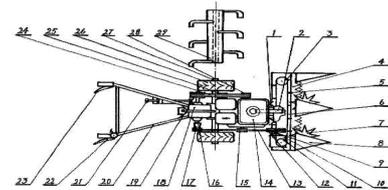


图 1

5

Sugarcane harvesting device

The invention discloses a sugarcane harvesting device. The sugarcane harvesting device comprises a left vertical lifting device and a right vertical lifting device which are arranged at the front end of a rack of a power car. Each vertical lifting device comprises a support which is hinged on the upper portion of the rack and a main lift cylinder which is hinged on the lower portion of the rack. A power output end of each main lift cylinder is connected with the bending portion of one support. A set of scrubbling roller frames is hinged with the top of each support of the two lifting device, and the lower end of each scrubbling roller frame is hinged with a scrubbling roller which comprises at least two scrubbling arm frames which are hinged with each other and provided with teeth. The front of the rack is further provided with a cutting device which comprises an upper cutter and a lower cutter matched with each other, the cutting edge of the front end of each cutter is in a tooth-row shape which are transversely arranged, and one side of each cutter is connected with a power transmission device driven by a power machine. Comparing with the prior art, the sugarcane harvesting device can solve the problems that the existing sugarcane harvesting device damages sugar canes and the sugarcane roots during cutting.

Publication: [CN 104641791 A 20150527](#)

Applicant: WEI JIALIANG
Inventor: WEI JIALIANG
Prio:
Appl.No: CN201410142053
IPC: A01D 45/10

CN 104641791 A 说明书附图 1/2 页

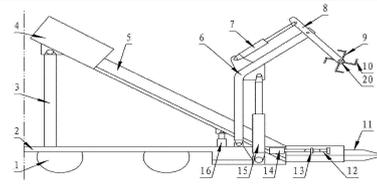


图 1

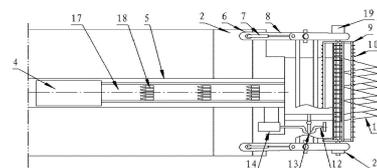


图 2

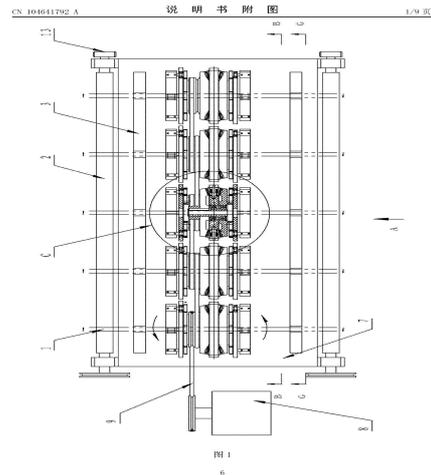
6

Sugarcane peeling device

The invention discloses a sugarcane peeling device which comprises a base and multiple sugarcane stem conveying channels installed on the base. Each sugarcane stem conveying channel is provided with at least one peeling unit, at least one transporting guide tube and at least one pair of conveying wheels which directly face to each other and respectively arranged on the two sides of each sugarcane stem conveying channel. Each sugarcane stem conveying channel is driven through a power transmission mechanism. Each peeling unit comprises two flexible peeling components whose rotating directions are opposite. Two peeling component rotary spaces pass through each sugarcane conveying channel. A rotary shaft of each peeling component is arranged parallel to one conveying channel. Comparing with the prior art, the sugarcane peeling device solves the problem that the existing whole-stem type sugarcane harvester cannot peel the cut sugarcanes one by one.

Publication: [CN 104641792 A 20150527](#)

Applicant: LI QINGREN
Inventor: LI MINYU; LI QINGREN
Prio:
Appl.No: CN201410278829
IPC: A01D 45/10

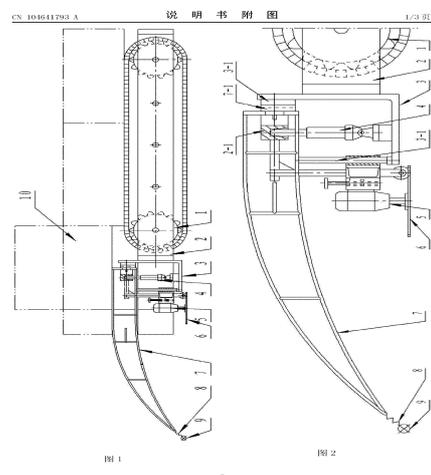


Sugarcane harvesting device

The invention discloses a sugarcane harvesting device which comprises a car frame with walking wheels, a cutting machine frame and a cutter head. The front end of the cutting machine frame is vertically provided with a left guide frame and a right guide frame which are bent to form a curved face and form a guide channel which is large in the front end opening and small in the rear end opening. The exit of the guide channel leads to a subsequent peeling conveying channel. The front ends of the left guide frame and the right guide frame are connected with a steel ball through a spring. The cutter head is installed below the exit of the guide channel. A driving motor arranged on the cutter head is installed on a longitudinal rod of the cutting machine frame in a sliding mode. The cutting machine frame is connected with the car frame through a vertical oil cylinder. Comparing with the prior art, the sugarcane harvesting device can solve the problems that the existing sugarcane harvesting device is prone to cause that the cut sugarcanes are disordered, cluttering and hard to arrange, the harvesting device is blocked and the cutting efficiency is low.

Publication: [CN 104641793 A 20150527](#)

Applicant: LI QINGREN
Inventor: LI MINYU; LI QINGREN
Prio:
Appl.No: CN201410278831
IPC: A01D 45/10

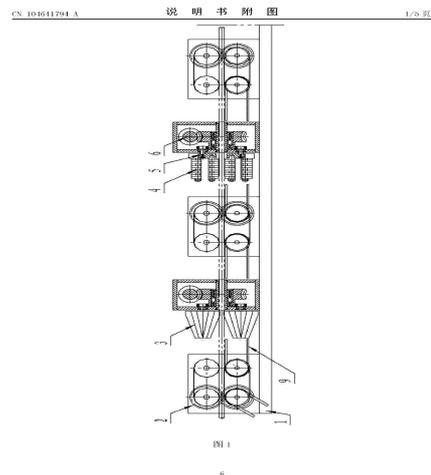


Sugarcane peeling device

The invention discloses a sugarcane peeling device which comprises a base and multiple sugarcane stem conveying channels installed on the base. Each sugarcane stem conveying channel is provided with at least one peeling unit and at least one pair of conveying wheels which directly face to each other and respectively arranged on the two sides of each sugarcane stem conveying channel. Each peeling unit comprises two flexible peeling components whose rotating directions are opposite. Two peeling component rotary spaces pass through each sugarcane conveying channel. A rotary shaft of each peeling component is arranged parallel to one conveying channel. Comparing with the prior art, the sugarcane peeling device solves the problem that the existing whole-stem type sugarcane harvester cannot peel the cut sugarcanes one by one.

Publication: [CN 104641794 A 20150527](#)

Applicant: LI QINGREN
Inventor: LI MINYU; LI QINGREN
Prio:
Appl.No: CN201410278832
IPC: A01D 45/10

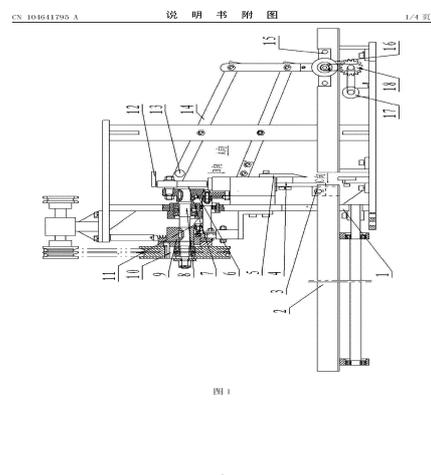


Sugarcane tail-cutting machine

The invention discloses a sugarcane tail-cutting machine which comprises a rack. The rack is provided with a sugarcane conveying channel which is provided with a conveying drive wheel. A blade stroke of a cutter blade passes by the sugarcane conveying channel, and a blade carrier of the cutter blade is installed on a blade carrier guide rail of the rack and connected on a crank which is connected with a rotary shaft through a connecting rod. The rotary shaft is connected with an output shaft of a power machine through a clutch. On the sugarcane conveying channel, a pressure roller which is installed on a connecting rod mechanism is arranged in the front of the cutter blade. The connection position between the connecting rod mechanism and the pressure roller is connected with a reset spring. The connecting rod mechanism is connected with a clutch control component of the clutch. The rotary shaft is connected with a pressure plate which drives the connecting rod mechanism to drive the pressure roller to detach from the sugarcane conveying channel. Comparing with the prior art, the sugarcane tail-cutting machine solves the problem that the existing harvester cannot cut the tails of cut sugarcane stems one by one.

Publication: [CN 104641795 A 20150527](#)

Applicant: LI QINGREN
Inventor: LI MINYU; LI QINGREN
Prio:
Appl.No: CN201410278835
IPC: A01D 45/10

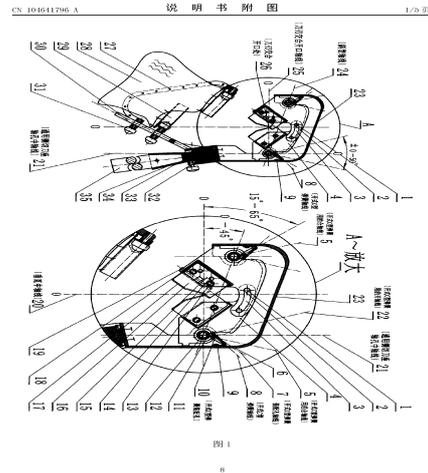


Inclined-axis automatic cutting and mowing tool with return open type C-shaped spring cutting tool apron for harvesting high-branch fruits

The invention relates to an automatic cutting and mowing tool for harvesting agricultural high-branch fruits (anises, hawthorns, peppers, apples, apricots, longan, litchi and the like). In use of an inclined-axis automatic cutting and mowing tool with a return open type C-shaped spring cutting tool apron for harvesting high-branch fruits, a worker only needs to approximately align to and pull back the high-branch fruits for easily, conveniently, quickly and automatically cutting and harvesting the high-branch fruits by 360 degrees on the ground. The component interchangeability is strong, and the standard volume production can be realized.

Publication: [CN 104641796 A 20150527](#)

Applicant: FANG SUNDIAN
Inventor: FANG SUNDIAN
Prio:
Appl.No: CN201510125194
IPC: A01D 46/00

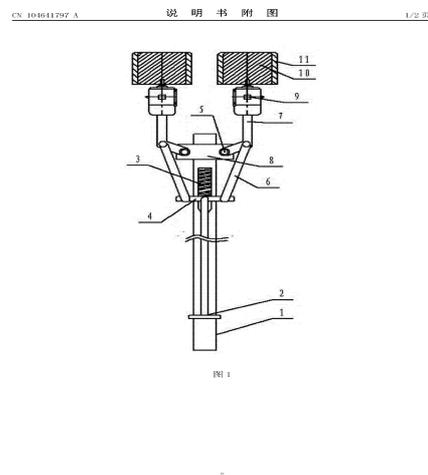


Fruit picker

The invention relates to an agriculture and forest tool, and particularly relates to a fruit picking device. The fruit picker comprises straight rods, wherein the upper end of each straight rod is provided with a supporting ring, two rotating shafts are symmetrically arranged on each supporting ring, two ends of each rotating shaft are respectively provided with the straight rod, each straight rod is provided with a motor, the rotating end of the motor is provided with a rotating wheel, the straight rod below the supporting ring is hollow, a spring and a slide block are arranged in a hollow position of the straight rod, the upper end of the spring is fixed on the straight rod, the lower end of the spring is connected with the slide block, two ends of the slide block are connected with a supporting rod through a pull rod, the slide block, the pull rod and the supporting rod form a crank slide block mechanism, and the slide block is also connected with a hand pull rod. The fruit picker imitates hands of people to pick fruits, the fruits can be prevented from falling high, the picked fruits can be arranged into a fruit basket, and the damage of the fruits can be avoided.

Publication: [CN 104641797 A 20150527](#)

Applicant: HENAN WANXIANG AGRICULTURE AND FORESTRY INDUSTRY CO LTD
Inventor: GUO YINGRUI; LI XIAOMIN; LIU AIYING; REN ZONGTAO; WANG CHUANMING; YAN XIANGWEN; ZHANG ZHAOXIN
Prio:
Appl.No: CN201510066057
IPC: A01D 46/24

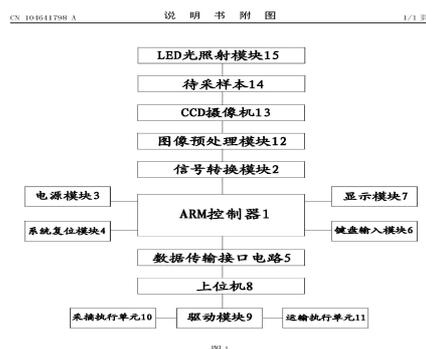


Machine vision based online automatic citrus picking and sorting system

The invention discloses a machine vision based online automatic citrus picking and sorting system and belongs to the technical field of automatic control. The machine vision based online automatic citrus picking and sorting system is characterized by comprising an ARM controller (1), a signal acquisition card (2), a power supply module (3), a system reset module (4), a data transmission interface circuit (5), a keyboard input module (6), a display module (7), an upper computer (8), a drive module (9), a picking execution unit (10), a transportation execution unit (11), an image pre-processing module (12), a CCD video camera (13), a sample to be sampled (14) and an LED light irradiation module (15). Compared with the prior art, the machine vision based online automatic citrus picking and sorting system has the advantages of being simple in structure, convenient to install and debug, high in reliability and measuring accuracy, low in power consumption, easy to popularize and promote, convenient to maintain and the like.

Publication: [CN 104641798 A 20150527](#)

Applicant: WANG JIAN
Inventor: WANG JIAN
Prio:
Appl.No: CN201310607237
IPC: A01D 46/30



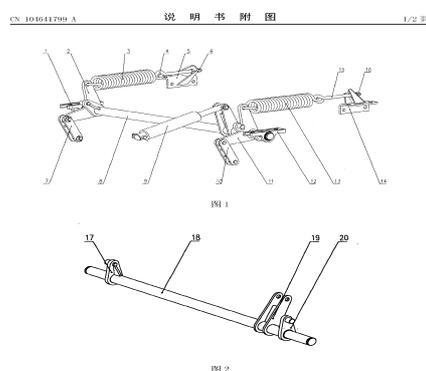
5

Header profiling and lifting integrated device

The invention belongs to the field of agricultural and pastoral mechanical application and particularly relates to an integrated device for lifting and profiling a straw cutting-triturating square bundle press baler. The integrated device consists of a left floating pull rod seat, a left floating pull plate, a left floating spring, a left spring pull rod, a left spring pull rod fixing plate, a left nut, a left connecting rod, a floating pull rod welding part, a hydraulic oil cylinder, a right connecting rod, a right floating pull rod, a right floating pull rod seat, a right floating spring, a right spring pull rod fixing plate, a right spring pull rod and a right nut. Before transportation and field operation, the power provided by the hydraulic oil cylinder is utilized to rapidly lift a header, the floating springs are utilized to pull the header to float during field operation, header profiling is achieved, a lifting device and a profiling device which are mutually independent originally are integrated, a device structure is simplified, working space is saved, and the integrated device is easy to install and adjust.

Publication: [CN 104641799 A 20150527](#)

Applicant: HUHHOT BRANCH OF CHINESE ACADEMY
 AGRICULTURAL MECH
Inventor: AOENCHA; ASIGA; LICHUANG; XINGJIHUI;
 ZHANGLI; ZHANGQIAN
Prio:
Appl.No: CN201310648317
IPC: A01D 47/00



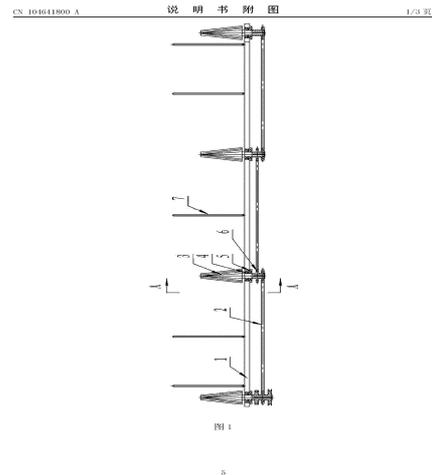
5

Sugarcane conveying device

The invention discloses a sugarcane conveying device which comprises sugarcane conveying channels and a power transmission device. The sugar conveying channels are installed on a bottom plate, the two sides of each sugarcane conveying channel is provided with at least one pair of conveying wheels which are vertically arranged on the bottom plate and connected with the power transmission device, and each conveying wheel is a bevel gear wheel which is large on the top and small at the bottom. One side of each sugarcane conveying channel is provided with at least one guide rod whose top is higher than the conveying wheels, the upper portion of each guide rod bends outward the sugarcane conveying channels, and the guide rods are elastic. Comparing with the prior art, the sugarcane conveying device can solve the problem that the existing whole-stem harvester cannot convey the sugarcane stems one by one.

Publication: [CN 104641800 A 20150527](#)

Applicant: LI QINGREN
Inventor: LI MINYU; LI QINGREN
Prio:
Appl.No: CN201410278833
IPC: A01D 57/26

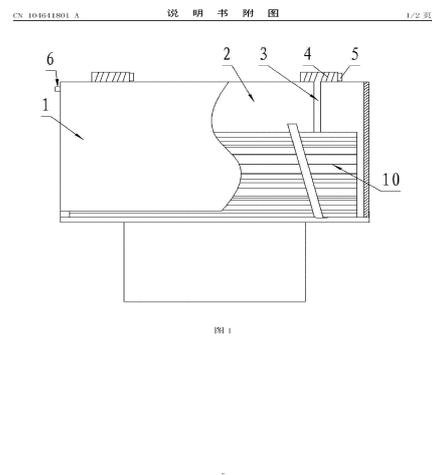


Sugarcane packing device

The invention discloses a sugarcane packing device and relates to the technical field of agricultural machining. The sugarcane packing device comprises a box body with an opening at the upper end, wherein the upper portion of the front side wall of the box body is hinged with the box body, the rear side wall of the box body inclines to the lower end of the front side wall, and both the upper end of the front side wall and that of the rear side wall are provided with a rope roller connected with a tying rope which ties with sugarcanes. Comparing with the prior art, the sugarcane packing device can solve the problems that the existing bundling and packing of the sugarcanes by manpower is low in efficiency and large in labor intensity.

Publication: [CN 104641801 A 20150527](#)

Applicant: WEI JIALIANG
Inventor: WEI JIALIANG
Prio:
Appl.No: CN201410142044
IPC: A01D 59/02



Factory collecting method of bamboo fungus spore powder

The invention discloses a factory collecting method of bamboo fungus spore powder. The current collecting process of the bamboo fungus spore powder mainly comprises the steps of after collecting spores by a centrifugal method, drying the spores, and crushing the spores to obtain the spore powder. The process is relatively trivial, the efficiency is low and certain waste is caused. But the factory collecting method of bamboo fungus spore powder provided by the invention comprises the following steps of cleaning fresh bamboo fungus caps in a vibrating manner to obtain the bamboo fungus spores, obtaining bamboo fungus spore liquid, after filtering and standing the bamboo fungus spore liquid, performing rotary spraying drying or pressure type spraying drying on the bamboo fungus spore liquid to obtain the bamboo fungus spore powder. A drying function and a milling function are integrated, a large amount of bamboo fungus spore powder can be quickly and effectively prepared, and the nutrition component and the active function of the bamboo fungus spore powder are kept.

Publication: [CN 104641804 A 20150527](#)

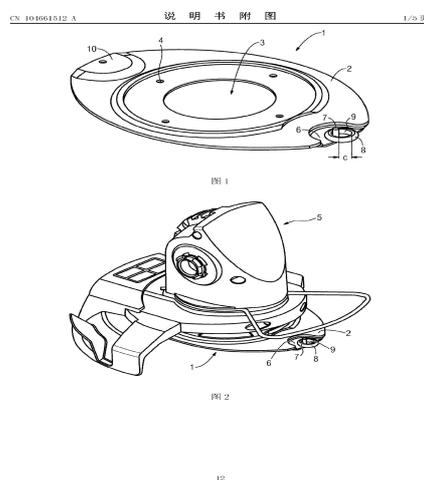
Applicant: INST SOIL & FERTILIZER FUJIAN
Inventor: CHEN JICHEN; LIN CHENQIANG; LIN RONGBIN;
LIN XINJIAN
Prio:
Appl.No: CN201510097072
IPC: A01D 91/00

Cutting head for a rotary-type mower, cutting element adapted to be fitted to such a cutting head and a rotary-type mower comprising such a cutting head

The invention in particular is directed to a cutting head (1) for a rotary -type mower, the cutting head (1) comprising a rotatable mounting base (2) and at least one removable cutting element (8), wherein the at least one cutting element (8) is mounted rotatably and with a predefined radial clearance (C) to the mounting base (2). The application also concerns a rotary-type mower comprising such a cutting head.

Publication: [CN 104661512 A 20150527](#)

Applicant: HUSQVARNA AB
Inventor: CHRISTENSSON PAER; CLASSENS NIELS;
HALLENDORFF JOHAN; KOPP SIEGFRIED;
MITZLAFF LOTHAR; NYBACKA MATIAS
Prio: SE 20120702 2012050755
Appl.No: CN201280074480
IPC: A01D 34/73

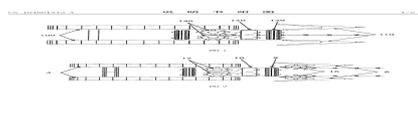


Cutting system for harvesters, and harvester

The present invention relates to harvesters and, more particularly, to harvesters for more than one plant row. In this context, the present invention aims at providing a system for harvesters that allows cutting more than one plant row simultaneously. For this purpose, a cutting system for harvesters is proposed, comprising at least two row separators (6) and at least two cutting elements (16), each of the at least two cutting elements (16) being located on the structure of each of the at least two line separators (6). The present invention further provides a harvester comprising this system.

Publication: [CN 104661513 A 20150527](#)

Applicant: CNH LATIN AMERICA LTDA

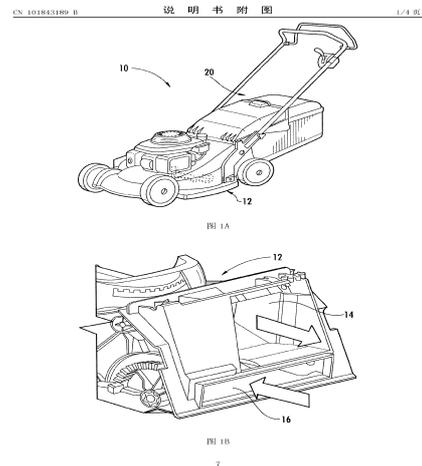


Inventor: MELLO MAURILIO DE OLIVEIRA
Prio: BR 20120409 2012000097
Appl.No: CN201280073408
IPC: A01D 45/10

Recirculating grass bagging apparatuses and methods

Publication: **CN 101843189 B 20150506**

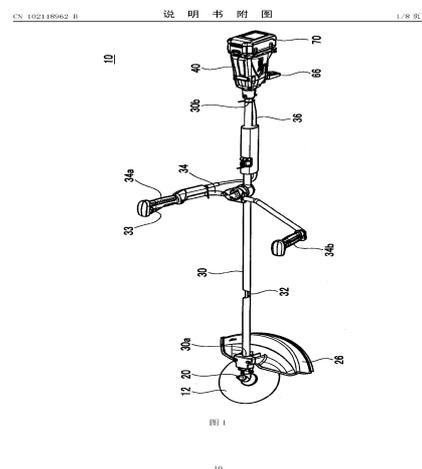
Applicant: HONDA MOTOR CO LTD
Inventor: KASKAWITZ SCOTT; PRINZO VINCENT A
Prio: US 20090323 40904209
Appl.No: CN201010125308
IPC: A01D 43/063



Mower with versatile operating rod

Publication: **CN 102118962 B 20150527**

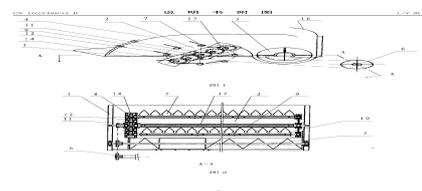
Applicant: MAKITA CORP
Inventor: ITO RYOSUKE
Prio: JP 20080811 2008206927, JP 20090706 2009062281
Appl.No: CN200980131337
IPC: A01D 34/68



Pre-harvest stripping method and rice-wheat stripping table

Publication: **CN 102246634 B 20150527**

Applicant: KONG LINGYOU
Inventor: KONG LINGYOU; LIU JIE
Prio:
Appl.No: CN201010175003



IPC: A01D 41/06

A harvester and a method for storing a support wheel of a harvester

Publication: [CN 102395260 B 20150506](#)

Applicant: CNH BELGIUM NV
Inventor: LAMMERANT EDDY; RYCKAERT BART; VANDE RYSE JOHAN A E
Prio: BE 20090515 200900309, EP 20100511 2010056473
Appl.No: CN201080016282
IPC: A01D 89/00

CN 102395260 B 说明书附图 1/3页

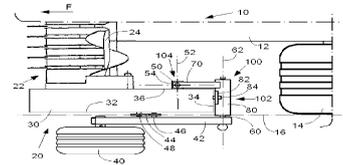


图1

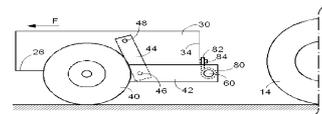


图2

7

Handgrip for portable working tool and portable working tool equipped with the same

Publication: [CN 102577737 B 20150520](#)

Applicant: HITACHI KOKI KK
Inventor: ITO TAKAFUMI; KAWADA HIROHIDE; KOSUGI SHINGO
Prio: JP 20101229 2010294443
Appl.No: CN201110441217
IPC: A01D 34/835

CN 102577737 B 说明书附图 1/5页

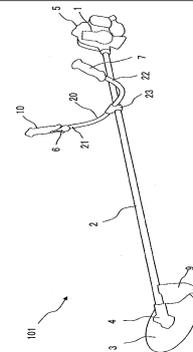


图1

8

Safety cover for an agricultural weeder

Publication: [CN 102625651 B 20150506](#)

Applicant: SEONGJINTEC CO LTD
Inventor: PARK SUNG-JOON
Prio: KR 20090730 20090069861, KR 20100728 2010004960
Appl.No: CN201080043134

CN 102625651 B 说明书附图 1/5页

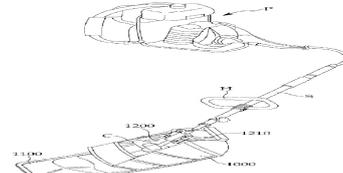


图1

9

IPC: A01D 34/22

Small-size two-line garlic combine harvester

Publication: [CN 102714966 B 20150513](#)

Applicant: UNIV HENAN SCIENCE & TECH
Inventor: GUO GUANGLI; GUO RUOXUAN; MAO LI; PAN WEIMIN; SU JIANXIN

Prio:
Appl.No: CN201210228347
IPC: A01D 27/04

CN 102714966 B 说明书附图 1/3页

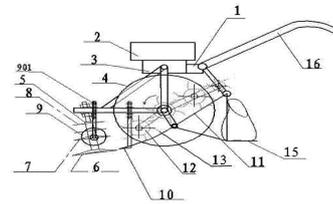


图1

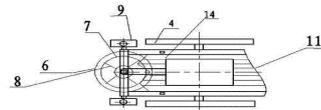


图2

5

Safflower harvester

Publication: [CN 102714975 B 20150520](#)

Applicant: UNIV SHIHEZI
Inventor: FANG JUE; GE YUN; HAN DANDAN; HU RONG; JIN JUNMIN; LI SHUFENG; LI XIA; LI YUAN; LIU QIAO; WANG LEI; WEI MIN; WEN BAOQIN; ZHANG LIXIN

Prio:
Appl.No: CN201210219394
IPC: A01D 46/00

CN 102714975 B 说明书附图 1/3页

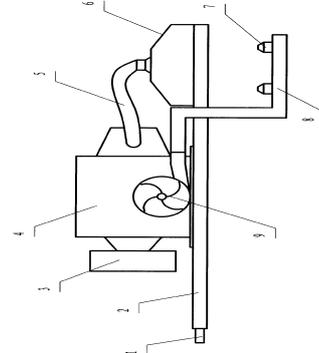


图1

5

Mower

Publication: [CN 102742415 B 20150520](#)

Applicant: STANLEY BLACK & DECKER INC
Inventor: GREY CAVAN; MADDISON IAN; STRATFORD MARK

Prio: EP 20110421 11163526
Appl.No: CN201210120618

CN 102742415 B 说明书附图 1/3页

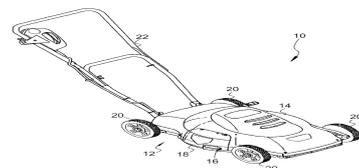


图1

5

IPC: A01D 34/835

Cutterbar support for a crop harvesting header

Publication: [CN 102770012 B 20150527](#)

Applicant: CNH BELGIUM NV

Inventor: FIGGINS RYAN

Prio: EP 20110314 2011053787, US 20100329
74855010

Appl.No: CN201180010878

IPC: A01D 34/28

CN 102770012 B 说明书附图 1/2页

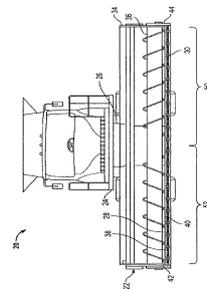


图 1

9

Header of cane harvester

Publication: [CN 102783308 B 20150513](#)

Applicant: ZHU JIHUA

Inventor: ZHU JIHUA

Prio:

Appl.No: CN201210262278

IPC: A01D 45/10

CN 102783308 B 说明书附图 1/2页

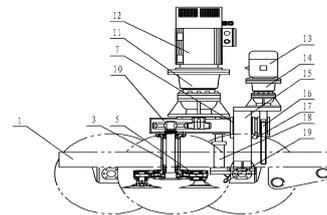


图 1

5

Sugarcane harvester

Publication: [CN 102812817 B 20150527](#)

Applicant: LINHAI HENGFENG MACHINERY CO LTD

Inventor: YING MINGSHUN

Prio:

Appl.No: CN201210317548

CN 102812817 B 说明书附图 1/2页

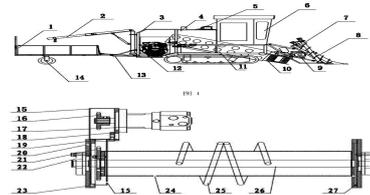


图 1

图 2

11

IPC: A01D 45/10

Automatic aligning device

Publication: [CN 102907205 B 20150527](#)

Applicant: UNIV QINGDAO AGRICULTURAL
Inventor: LI XINCHENG; SHANG SHUQI; WANG JIWEI;
YANG RANBING

Prio:
Appl.No: CN201210423889
IPC: A01D 13/00

CN 102907205 B 说明书附图 1/2页

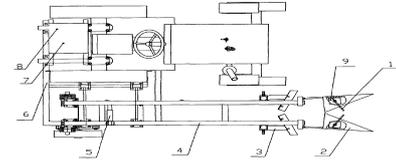


图1

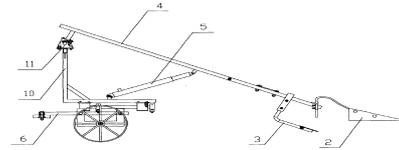


图2

5

Non-contact intelligent detector

Publication: [CN 102907207 B 20150520](#)

Applicant: UNIV QINGDAO AGRICULTURAL
Inventor: DU HONGWEI; LI XINCHENG; SHANG SHUQI;
YANG RANBING; ZHANG HUAN

Prio:
Appl.No: CN201210417177
IPC: A01D 33/00

CN 102907207 B 说明书附图 1/1页

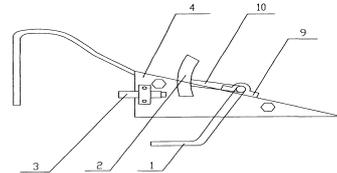


图1

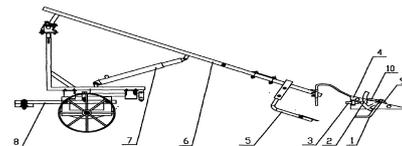


图2

5

Machine with main pole

Publication: [CN 102933069 B 20150527](#)

Applicant: MAKITA CORP
Inventor: KOJIMA SHINYA; NOMURA AKIHIRO; YAMADA
YUKIHIKO

Prio: JP 20100610 2010132694, JP 20110526
2011062098

Appl.No: CN201180028660

CN 102933069 B 说明书附图 1/2页

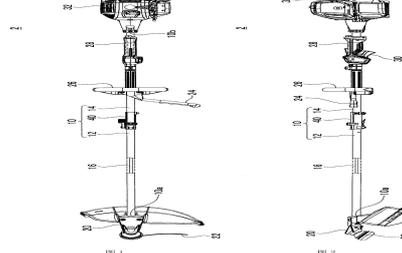


图1

图2

55

IPC: A01D 34/68

Disc type cutting device of forage grass harvesting flatting machine

Publication: [CN 102960114 B 20150520](#)

Applicant: HEILONGJIANG INST PASTURAGE
MECHANISATION

Inventor: DONG DEJUN; FENG JIQIANG; LI KE; QI
WENBO; WU JIANHUA; ZHANG HAILONG;
ZHAO LINA

Prio:

Appl.No: CN201210310347

IPC: A01D 34/63

CN 102960114 B 说明书附图 1/4页

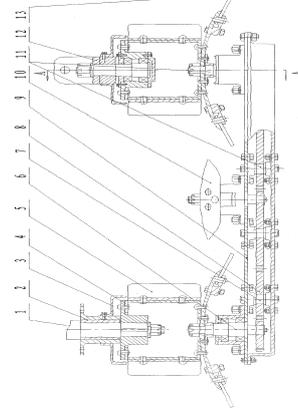


图 1
6

Backsack peanut picking combine

Publication: [CN 103039179 B 20150527](#)

Applicant: UNIV QINGDAO AGRICULTURAL

Inventor: HAN KUN; LIAN ZHENGGUO; SHANG SHUQI;
WANG DONGWEI; WANG JIANGANG; WANG
JIASHENG; WANG YANYAO; WANG ZHIQIU;
YIN YUANYUAN

Prio:

Appl.No: CN201210517026

IPC: A01D 29/00

CN 103039179 B 说明书附图 1/4页

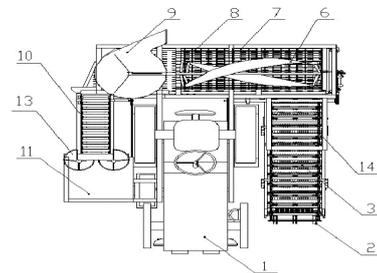


图 1
9

Sugarcane combine-harvester with novel conveying manner

Publication: [CN 103098615 B 20150520](#)

Applicant: UNIV SOUTH CHINA AGRICULT

Inventor: FENG JIAMU; HE ZHI; LI YUEJIN; LIU
QINGTING; OU YINGGANG; YANG DANTONG;
ZOU XIAOPING

Prio:

Appl.No: CN201310032322

CN 103098615 B 说明书附图 1/7页

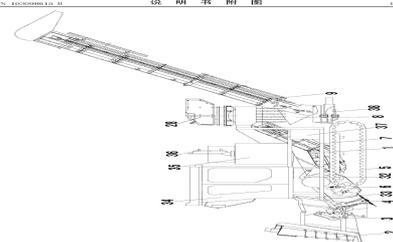


图 1
10

IPC: A01D 45/00

Planetary gear type cotton picker head

Publication: [CN 103168563 B 20150527](#)

Applicant: UNIV ZHEJIANG
Inventor: CHEN JIANGCHUN; CHEN ZHENGBEI; LI JIANPING

Prio:
Appl.No: CN201310079621
IPC: A01D 46/14

CN 103168563 B 说明书附图 1/4页

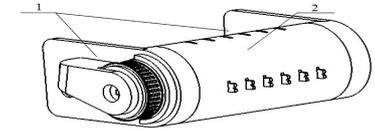


图 1

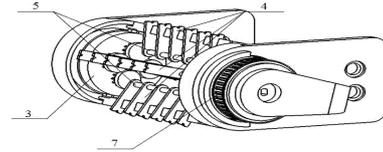


图 2

5

Stubble-cleaning, weeding and straw-returning machine

Publication: [CN 103181266 B 20150527](#)

Applicant: XUE JIANGTAO; ZHENG YUHU
Inventor: XUE JIANGTAO; ZHENG YUHU

Prio:
Appl.No: CN201310054890
IPC: A01D 82/00

CN 103181266 B 说明书附图 1/3页

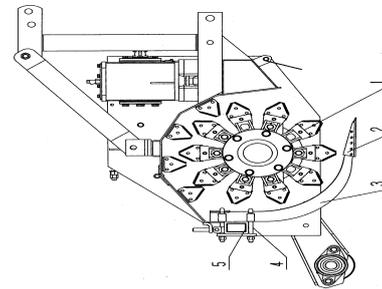


图 1

5

Forest seed rain off-ground collector

Publication: [CN 103202145 B 20150513](#)

Applicant: NORTHEAST INST GEO & AGROECOLO
Inventor: LIANG ZHENGWEI; MA HONGYUAN; WU HAITAO; YANG HAOYU

Prio:
Appl.No: CN201310106317

CN 103202145 B 说明书附图 1/2页

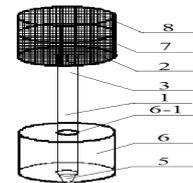


图 1

5

IPC: A01D 93/00

Near-fruit vibrating harvester for litchis

Publication: [CN 103229632 B 20150520](#)

Applicant: UNIV SOUTH CHINA AGRICULT
Inventor: CHEN ZHONGYU; HE WEIFENG; LI JUN; LU
HUAZHONG; WANG WEIZU; YANG ZHOU

Prio:
Appl.No: CN201310139351
IPC: A01D 46/26

CN 103229632 B 说明书附图 1/4页

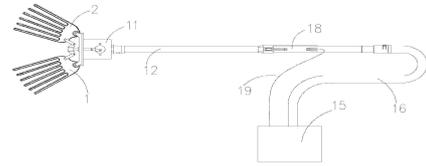


图1

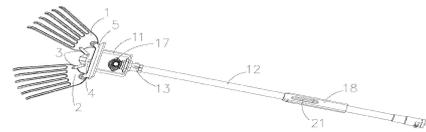


图2

7

Ear-picking and straw-cutting unit body

Publication: [CN 103238415 B 20150506](#)

Applicant: UNIV SHANDONG TECHNOLOGY
Inventor: CUI QIANG; DIAO PEISONG; LI FUHUI; LI
SHUBING; LI TENG; ZHANG YINPING

Prio:
Appl.No: CN201310206947
IPC: A01D 43/08

CN 103238415 B 说明书附图 1/2页

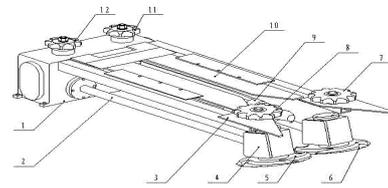


图1

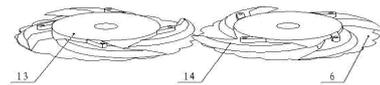


图2

6

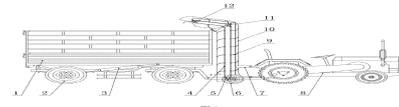
Straw collecting truck

Publication: [CN 103238419 B 20150506](#)

Applicant: ZHANG CHANGJUN
Inventor: ZHANG CHANGJUN

Prio:
Appl.No: CN201310158077

CN 103238419 B 说明书附图 1/4页



IPC: A01D 89/00

Guide soil-brushing device of head vegetable harvesting machine

Publication: [CN 103250500 B 20150520](#)

Applicant: UNIV ZHEJIANG
Inventor: HU JINBING; WANG JUN
Prio:
Appl.No: CN201310188971
IPC: A01D 33/08

CN 103250500 B 说明书附图 1/2页

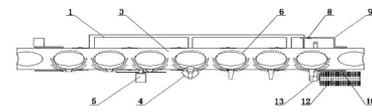


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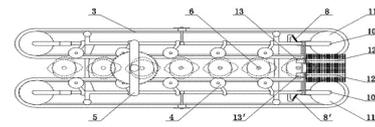


图 2

6

Multi-azimuth whole-stalk type sugarcane leaf-peeling device

Publication: [CN 103270846 B 20150520](#)

Applicant: UNIV ZHEJIANG
Inventor: WANG JUN; WU JIANFENG
Prio:
Appl.No: CN201310223730
IPC: A01D 45/10

CN 103270846 B 说明书附图 1/2页

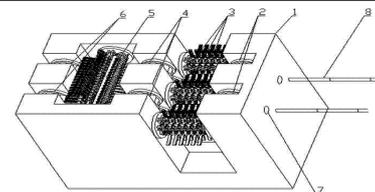


图 1

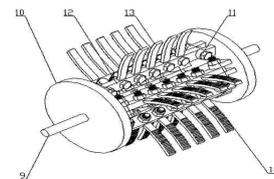


图 2

6

Portable multipurpose sickle

Publication: [CN 103283371 B 20150520](#)

Applicant: HEBEI ELECTRIC POWER CO; JINGXING COUNTY POWER SUPPLY COMPANY; STATE GRID CORP CHINA
Inventor: DU LINQING; LIU GUOTING; LIU YONGXIN; SHI JIANJUN; WANG JUNWEI; WANG SHUANGYU; ZHANG BAOYONG; ZHANG XIAOLEI; ZHANG YAN; ZHANG ZIFENG

CN 103283371 B 说明书附图 1/2页

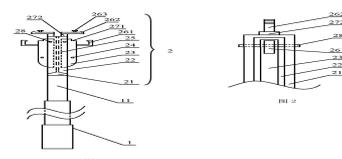


图 1

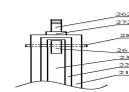


图 2

6

Prio:
Appl.No: CN201310218215
IPC: A01D 1/04

Folding push rod mechanism of garden tool

Publication: **CN 103283374 B 20150506**

Applicant: SKYBEST ELECTRIC APPLIANCE SUZHOU CO LTD

Inventor: BIAN XIAOXIAN; GU JUAN

Prio:
Appl.No: CN201310216020
IPC: A01D 34/00

CN 103283374 B 说明书附图 1/3页

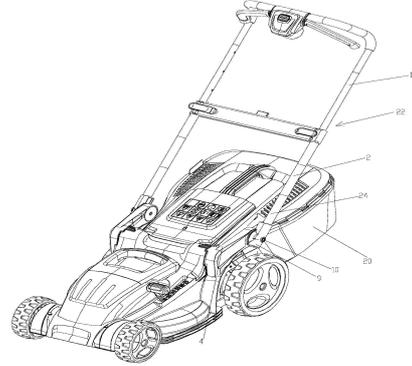


图 1

6

Hand-propelled lawn trimmer

Publication: **CN 103283377 B 20150520**

Applicant: UNIV NORTHEASTERN
Inventor: LIANG RUQUAN; ZHOU RUIRUI

Prio:
Appl.No: CN201310210439
IPC: A01D 34/10

CN 103283377 B 说明书附图 1/3页

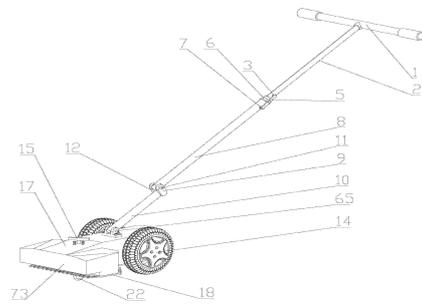


图 1

10

Cotton picker

Publication: **CN 103283399 B 20150527**

Applicant: ZHOU FEN
Inventor: ZHOU FEN

Prio:
Appl.No: CN201310192539

CN 103283399 B 说明书附图 1/3页

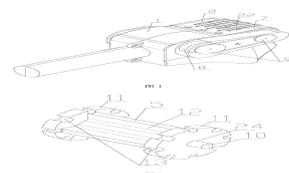


图 1

...

IPC: A01D 46/16

Pasture suspension collecting machine

Publication: [CN 103283410 B 20150520](#)

Applicant: ZHAO JINGYU

Inventor: ZHAO JINGYU

Prio:

Appl.No: CN201310218733

IPC: A01D 89/00

CN 103283410 B 说明书附图 1/2页

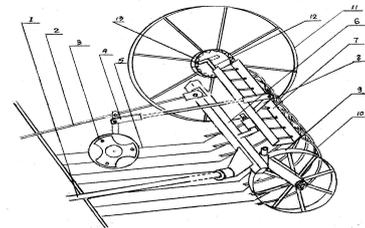


图 1

5

Maize harvester capable of bundling stalks continuously

Publication: [CN 103314711 B 20150506](#)

Applicant: YANG YE

Inventor: YANG HONG; YANG YE; YANG YINGQI; ZHAO TIANYI; ZONG XIUGUO

Prio:

Appl.No: CN201310227722

IPC: A01D 45/02

CN 103314711 B 说明书附图 1/3页

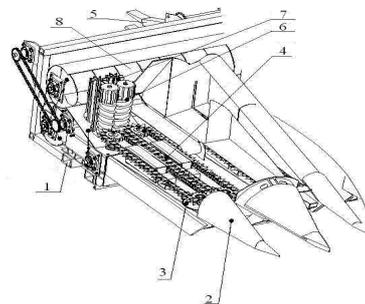


图 1

5

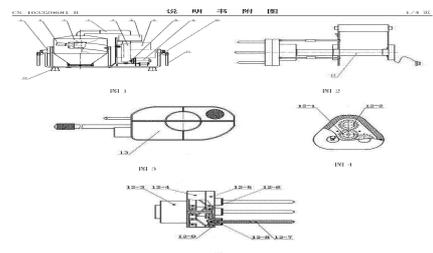
Holt fruit harvest device

Publication: [CN 103329681 B 20150513](#)

Applicant: HUNAN ACADEMY FORESTRY; INNER MONGOLIA AUTONOMOUS REGION ACADEMY OF FORESTRY SCIENCES

Inventor: HAN YIBO; LI CHANGZHU; LIANG JIANPING; LIU YU; XIAO ZHIHONG; YANG HAOSHENG; ZHANG WENJUN

Prio:



5

Appl.No: CN201310294959
IPC: A01D 46/26

Straw tedder

Publication: **CN 103340061 B 20150513**

Applicant: YU HONGYANG
Inventor: YU HONGYANG
Prio:
Appl.No: CN201310293091
IPC: A01D 78/00

CN 103340061 B 说明书附图 1/2页

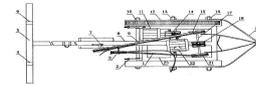


图 1

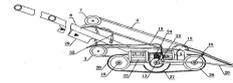


图 2

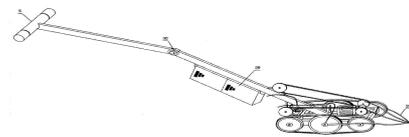


图 3

5

Anti-winding shaft and fastening device for cutting disk of cutting machine

Publication: **CN 103355054 B 20150513**

Applicant: SICHUAN ACADEMY OF AGRICULTURAL SCIENCE SERICULTURE INST; SICHUAN NANCHONG SILKWORM TOOL RES CO LTD; SICHUAN SERICULTURE TECHNOLOGY DEV CO LTD
Inventor: HU ZUOZHONG; HUANG GAIQUN; LIU BINBIN; MA YONG; PAN JIE; WANG XIAOFEN; WU JIANMEI; XIAO WENFU; YE JINGJING; ZHANG JIANFEI
Prio:
Appl.No: CN201310311748
IPC: A01D 34/82

CN 103355054 B 说明书附图 1/2页

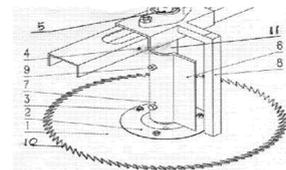


图 1

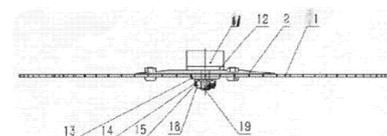


图 2

6

Harvest platform of peanut combine

Publication: **CN 103371017 B 20150513**

Applicant: NANJING RES INST AGRICULTURAL MECHANIZATION MINISTRY AGRICULTURE
Inventor: CAO MINGZHU; GAO XUEMEI; HU ZHICHAO; PENG BAOLIANG; WANG BOKAI; WU FENG; WU HUICHANG; YU ZHAOYANG; ZHANG YANHUA

CN 103371017 B 说明书附图 1/2页

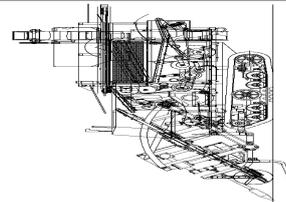


图 1

7

Prio:
Appl.No: CN201310279823
IPC: A01D 29/00

Automatic paying-off device of mowing machine

Publication: **CN 103416148 B 20150520**

Applicant: SUZHOU CONYOUNG MACHINERY & ELECTRONICS CO LTD

Inventor: HE ZHENHUA

Prio:
Appl.No: CN201310363427
IPC: A01D 34/416

CN 103416148 B 说明书附图 1/8页

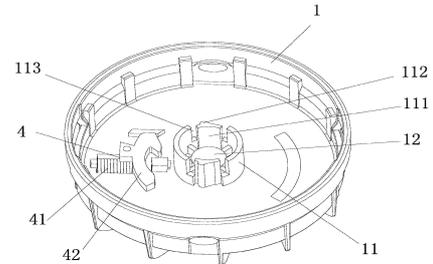


图 1

6

Poria cocos digger

Publication: **CN 103518484 B 20150506**

Applicant: UNIV ANHUI SCI & TECHNOLOGY
Inventor: CHU DEJIANG; SHENG SHIYONG; WANG CHENGJUN; WEI MINGDIAN

Prio:
Appl.No: CN201310500576
IPC: A01D 45/00

CN 103518484 B 说明书附图 1/8页

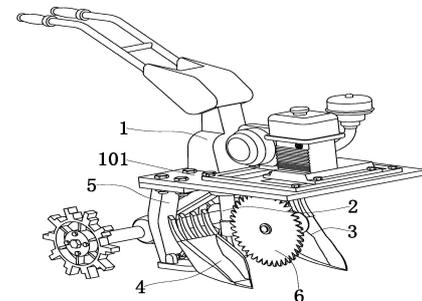


图 1

7

Secondary harvest device for peanut harvester

Publication: **CN 103609247 B 20150527**

Applicant: UNIV QINGDAO AGRICULTURAL
Inventor: FAN YUBIN; LIN YUEXIANG; LU GUANGYAO; SHANG SHUQI; SHI CHAO; YANG RANBING; YU YAN

Prio:

CN 103609247 B 说明书附图 1/8页

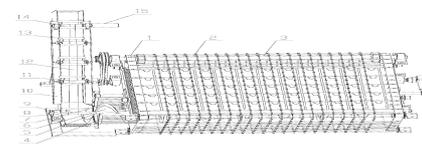


图 1

8

Appl.No: CN201310633475

IPC: A01D 33/08

Electric palm picking machine

Publication: **CN 103636360 B 20150520**

Applicant: JIANGMEN CHAOYANG PREC MFG CO LTD

Inventor: LIN CHONGCHUAN

Prio:

Appl.No: CN201310632869

IPC: A01D 46/00

CN 103636360 B 说明书附图 1/3页

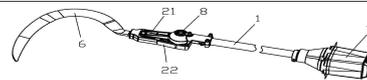


图 1

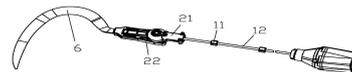


图 2

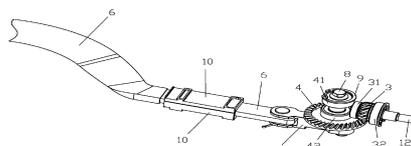


图 3