



New connection on: : 03-09-2020 : 14:24:01 - Last disconnection on: : 03-09-2020 : 14:21:51

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[EPODOC: SS 15] conveyor and cutter and sheller and /ic(B65G)

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[SS 16] conveyor and cutter and /ic(B65G)

Results in EPODOC 544

[SS 17] conveyor and (cutter or sheller) and /ic(B65G)

Results in EPODOC 545

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1/545 © EPODOC / EPO

PN - [CN210527054U](#) U 20200515

PR - CN201921599182U 20190924

AP - CN201921599182U 20190924

DT - I

PA - XUNLI AUTOMATION EQUIPMENT WUXI CO LTD

TI - Full-automatic drum-type layer-by-layer bale breaker

AB - The utility model relates to the technical field of bale breakers. The utility model relates to bale breakers, in particular to a full-automatic drum-type layer-by-layer bale breaker. Including a machine frame, a bag grabbing mechanism, a destacking mechanism, a bag cutting mechanism, a feeding mechanism and a dust removal mechanism are arranged on the rack. The bag grabbing mechanism comprises a claw

hook; the claw hooks are hung on the lifting sling; the hoisting sling is fixedly connected with the walking trolley; the bag cutting mechanism comprises a **cutter** assembly and a belt **conveyor**; a chute is formed below the **cutter** assembly; the feeding mechanism comprises a transversely-arranged roller. Sieve holes are formed in the side face of the roller. A discharge hopper is arranged below the roller; the automatic destacking device is high in working efficiency and good in material distribution effect, has an automatic destacking function, greatly saves manpower, improves the working efficiency, is provided with the dust remover for dust removal inside equipment, and eliminates dust overflow inside the equipment.

2/545 © EPODOC / EPO

PN - [CN210504471U](#) U 20200512
 PR - CN201921430811U 20190830
 AP - CN201921430811U 20190830
 DT - I
 PA - NEIXIANG BAOTIANMAN CEMENT CO LTD
 TI - Cement clinker **conveyor**
 AB - Cement clinker **conveyor**, **conveyor** field, including a housing, a feeding hole is formed below one side surface of the shell; a discharge port is formed above the side surface opposite to the feed port; a fixed plate is fixedly arranged in the feeding hole; **cutter** grooves are uniformly distributed in the fixed plate; a crushing roller matched with the **cutter** groove of the fixed plate is further rotationally connected into the feeding hole; a first belt wheel and a second belt wheel are rotationally connected to the upper portion in the shell in a spaced mode. The bottom of the shell is rotationally connected with a third belt wheel located under the first belt wheel, the first belt wheel, the second belt wheel and the third belt wheel are in transmission connection through a belt, a plurality of hoppers are evenly and fixedly arranged on the belt at intervals, a conveying belt for conveying materials out of the shell is arranged in the discharging port, and the hoppers dump the materials onto the conveying belt when moving to the position above the conveying belt. The innovative point of the belt structure form of an existing chain bucket **conveyor** is changed, the crushing roller and the fixed plate are additionally arranged at the feeding port of the **conveyor** and are mutually combined to crush large-particle materials, and the feeding port is effectively prevented from being blocked.

3/545 © EPODOC / EPO

PN - [CN210480002U](#) U 20200508
 PR - CN201920978655U 20190627
 AP - CN201920978655U 20190627
 DT - I
 PA - SUZHOU PULAITE ENVIRONMENTAL PROT MATERIAL CO LTD
 TI - Crushing and lifting all-in-one machine
 AB - The utility model relates to a crushing and lifting all-in-one machine. The crushing and lifting all-in-one machine comprises a supporting frame, a belt **conveyor**, a crusher and a power part, the belt conveyor abuts against the supporting frame and comprises a conveying belt, a driving roller, a driven roller, a supporting roller and a driving roller.

The conveying belts are connected end to end and provided with transverse partition plates and longitudinal partition plates. The pulverizer is arranged over the feeding end of the conveying belt and comprises a stock bin, a driving **cutter** and a driven **cutter**. The driving **cutter** and the driven **cutter** are both arranged in the stock bin and are opposite to each other. The driving **cutter** and the driving roller are both driven by the power part, so that pre-conveyed waste is conveniently cut, and the operation efficiency is improved. More importantly, the crusher and the belt **conveyor** share one set of power part, so that the manufacturing cost is not greatly improved, the occupied area is not changed, and the arrangement of a thermal insulation decorative plate production line is facilitated.

4/545 © EPODOC / EPO

- PN - [CN111112851](#) A 20200508
- PR - CN201911397537 20191230
- AP - CN201911397537 20191230
- DT - I
- CI - B23K26/38 (CN)
- B23K26/702 (CN)
- B65G15/32 (CN)
- PA - VTROBOT MACHINERY (SUZHOU) CO LTD
- TI - Large-tonnage laser processing workstation with independent charging tray
- AB - The invention discloses a large-tonnage laser processing workstation with an independent charging tray. The large-tonnage laser processing workstation comprises a plate material warehouse, a loading and unloading system, a laser **cutter**, a belt **conveyor**, a sorting table, a general monitoring console, a material warehouse console, a fence, a collection box, the independent charging tray and anti-collision protection parts; a feeding base platform is arranged at the front end of the storage-type plate material warehouse; a finished product discharging outlet is formed in the side, adjacent to the laser **cutter**, of a material tower of the plate material warehouse, one end of the obliquely-arranged belt **conveyor** directly faces the finished product discharging outlet, and the other end of the obliquely-arranged belt **conveyor** is adjacent to the sorting table; and the independent charging tray and the fence at the front end of the plate material warehouse are arranged in a spaced mode. The workstation is compact in structure and reasonable in layout, and the floor space is saved; the plate material warehouse adopts a material tower structure, so that storage points of plates are saved; the feeding base platform can convey various models of plates, so that the applicable range is wide; and the independent charging tray and a front driving beam frame are adopted to adapt to storage and transportation of the large-specification and high-load plates.

5/545 © EPODOC / EPO

- PN - [JP2020060010](#) A 20200416
- PR - JP20180190825 20181009
- AP - JP20180190825 20181009
- DT - I
- FI - B65G15/44; E01C23/088

FT - 2D053/AA03; 2D053/AB03; 2D053/BA01; 2D053/BA09; 3F024/AA12; 3F024/CA05; 3F024/DA01; 3F024/DA06

PA - HANDA KIKAI KK

TI - **CONVEYOR** BELT AND ROAD **CUTTER** USING THE SAME

AB - To provide a **conveyor** belt capable of increasing conveyance efficiency and preventing crack, and a road **cutter**. SOLUTION: There is provided a **conveyor** belt 9e used in first **conveyor** means for conveying a cutting object in a road **cutter**, comprising: first protruding parts 12a, 12b that extend obliquely toward the center of an advancing direction of the **conveyor** belt; a second protruding part 14a that extends straight toward the advancing direction at a central part of the advancing direction of the **conveyor** belt; third protruding parts 13a, 13b that extend straight toward the advancing direction on an outer edge of the **conveyor** belt in the first protruding parts; and fourth protruding parts 15a, 15b that are arranged between the first protruding parts and the third protruding parts, and the center of the advancing direction of the **conveyor** belt, and extend straight toward the advancing direction. The first protruding parts, the second protruding part, and the third protruding parts are coupled. SELECTED DRAWING: Figure 5

6/545 © EPODOC / EPO

PN - [CN110980330](#) A 20200410

PR - CN201911217604 20191203

AP - CN201911217604 20191203

DT - I

CI - B65G47/18 (CN)
- B65G65/46 (CN)

PA - GUANGXI LIUGONG MACHINERY CO

TI - Bulk material piling device and loading machine

AB - The invention relates to a bulk material piling device and a loading machine, and aims to solve the problem that the existing bulk material piling equipment is low in operation efficiency. The invention provides the bulk material piling device and the loading machine. The bulk material piling device comprises a shoveling bucket for shoveling a material and a bulk material **conveyor**; the bulk material **conveyor** is mounted on the shoveling bucket, and a material inlet of the bulk material **conveyor** is positioned in the rear part in the shoveling bucket; a spiral **cutter** for conveying the material from the shoveling bucket to the material inlet of the bulk material **conveyor** is arranged at the rear part in the shoveling bucket; a driving device for driving the spiral **cutter** to rotate is mounted outside the shoveling bucket; and the driving device is generally a hydraulic motor. The bulk material piling device provided by the invention can operate continuously to convey the material to a high place in the process that the shoveling bucket is inserted into a material pile and propels; and the material is not required to be pushed by moving the shoveling bucket back and force repeatedly in a propelling path, so that the bulk material piling device has the advantages of high bulk material piling efficiency and convenient operation.

7/545 © EPODOC / EPO

PN - [CN210286034U](#) U 20200410

PR - CN201921289320U 20190809

AP - CN201921289320U 20190809

DT - I

PA - DAYANG POWER TECH GROUP CO LTD

TI - Feeding and discharging device for fireproof brick production

AB - The utility model discloses a feeding and discharging device for fireproof brick production. The device comprises a spiral **conveyor** and a feeding hopper, the top of the feeding hopper is fixedly connected with a first oil cylinder; the end part of the first oil cylinder is fixedly connected with a first pressing block; an outlet of the spiral **conveyor** is connected with a discharging inlet of the discharging pipe; the discharge pipe is provided with an open end and a closed end; a second oil cylinder is fixedly connected into the closed end of the discharging pipe; the end part of the second oil cylinder is fixedly connected with a second pressing block; a cutting assembly is arranged on the outer side of the open end of the discharging pipe and comprises a **cutter**, a storage table and a supporting rod, the storage table is fixedly connected to the open end of the discharging pipe, a supporting plate is fixedly connected to the upper end of the supporting rod, a third oil cylinder is fixedly connected to the bottom end of the supporting plate, and the **cutter** is fixedly connected to the end of a piston rod of the third oil cylinder; according to the utility model, simple stirring and extrusion forming can be carried out on fireproof mud, so that the labor intensity is reduced, the production time of fireproof bricks is shortened, and the production efficiency is improved.

8/545 © EPODOC / EPO

PN - [CN210260173U](#) U 20200407

PR - CN201920609889U 20190429

AP - CN201920609889U 20190429

DT - I

PA - KUNSHAN XIANGRUN CUTTER EQUIPMENT CO LTD

TI - Automatic ball-end milling **cutter** conveying device

AB - The utility model discloses an automatic conveying device for a ball-end milling **cutter**. The device comprises a first **conveyor** belt and a second **conveyor** belt, a sequencing box is arranged above the second conveying belt; a ball-end milling **cutter** outlet is formed in the right end of the sequencing box; a ball-end milling **cutter** groove is formed in the surface of the second conveying belt; and a first telescopic cylinder is fixedly connected to the right end of the sorting box, a first telescopic rod is slidably connected to the inner surface of the first telescopic cylinder, a first spring is arranged between the inner surface of the first telescopic cylinder and the right end of the first telescopic rod, and a first limiting plate is fixedly connected to the left end of the first telescopic rod. Through the arrangement, the ball-end milling **cutter** groove is formed in the second conveying belt, in the moving process of the second conveying belt, under the guidance of the first limiting plate and the second limiting plate, the ball-end milling **cutter** enters the ball-end milling **cutter** groove, and conveying and sorting of the ball-end milling **cutter** are completed.

9/545 © EPODOC / EPO

PN - [CN210116949U](#) U 20200228

PR - CN201921102915U 20190715

AP - CN201921102915U 20190715

DT - I

PA - PAN YUNJIE

TI - Coal mine belt **conveyor** bottom belt water coal cleaning device

AB - The utility model discloses a coal water cleaning device for a belt at the bottom of a coal mine belt **conveyor**, and belongs to the technical field of coal mine belt conveyors. **Conveyor** belt, cleaning equipment is arranged at the bottom of the **conveyor** belt. The cleaning equipment comprises a cleaning frame; a V-shaped knife rest is mounted in the cleaning frame; a **cutter** groove is formed in the V-shaped **cutter** rest; a scraper is fixedly mounted in the scraper groove through a bolt; a connecting rod is welded at the middle part of the V-shaped knife rest; according to the utility model, the scraper can be fixedly mounted conveniently through the V-shaped knife rest; coal slime scraping is conducted on the bottom of a **conveyor** belt, then flushing is conducted through a flushing nozzle, the bottom of the **conveyor** belt is brushed through a brush, cleaning of coal mine belt **conveyor** bottom belt water coal is conducted in three cleaning modes, more efficiency and quickness are achieved, anda scraper and a supporting plate can abut against the bottom of the **conveyor** belt tightly and conveniently through a spring.

10/545 © EPODOC / EPO

PN - [CN210100128U](#) U 20200221

PR - CN201920687499U 20190514

AP - CN201920687499U 20190514

DT - I

PA - LIAONING YU FENG FOOD TECH CO LTD

TI - Dicing device capable of collecting crushed materials for food processing

AB - The utility model relates to the technical field of food processing, in particular to a dicing device capable of collecting crushed materials for food processing, which is convenient for cleaning thecrushed materials generated in the dicing process and improves the usability. The device comprises a base, a rack, a containing box, a **conveyor** and a cutting machine, a conveying belt is arranged at the output end of the **conveyor**, a **cutter** is arranged at the output end of the cutting machine, and the **cutter** is located over the conveying belt; the device further comprises a containing box, a screenplate, a screen plate, an output pipe, a containing box, an adjusting frame and a brush plate. The bottom of the placing box contacts with the top of the screen; a box door is arranged on the pick-and-place opening; the output pipe is arranged below the right end of the placement box; a control valve is arranged on the output pipe, the containing box is placed on the right area of the top end ofthe base, a containing groove is formed in the top end of the containing box, the adjusting frame is arranged on the rack, the brush plate is arranged at the output end of the adjusting frame, the brush plate is located above the containing groove, and bristles are arranged on the upper side face of the brush plate and make contact with the lower side face of the conveying belt.

11/545 © EPODOC / EPO

PN - [CN210084476U](#) U 20200218
PR - CN201920385549U 20190325
AP - CN201920385549U 20190325
DT - I
PA - TIANJIN CITY ZHIDAN PLASTIC PRODUCT CO LTD
TI - Batching machine capable of preventing raw materials from scattering outwards
AB - The utility model relates to a batching machine capable of preventing raw materials from scattering outwards. The utility model belongs to the technical field of batching machines. According to the technical scheme, the batching machine capable of preventing the raw materials from scattering outwards is characterized by comprising a material box and a discharging device, the bottom end of the material box is communicated with the discharging device, the top end of the material box is rotationally connected with a rotating lever, the rotating lever is fixedly connected with a material plate, and a motor is arranged at one end of the rotating lever and fixedly connected with an output shaft of the motor; an air cylinder is fixedly connected to the outer side of the material box and communicates with the inner side of the material box, and a **cutter** is arranged at the end, away from the air cylinder, of a piston rod of the air cylinder and fixedly connected with the piston rod with an upward **cutter** edge. The discharging device comprises an auger **conveyor** and a discharging port, and the effect of preventing raw materials from scattering outwards is achieved.

12/545 © EPODOC / EPO

PN - [CN210064162U](#) U 20200214
PR - CN201920806226U 20190530
AP - CN201920806226U 20190530
DT - I
PA - JURONG WANSHUN LIGHT IND MACHINERY CO LTD
TI - Conveying device for line bank machining
AB - The utility model relates to the technical field of auxiliary equipment for motor punching sheet processing, in particular to a conveying device for connector bar processing, which comprises a base, moving plates, a connecting plate, a driving motor, a chamfering **cutter**, a conveying belt and a driving device, and the driving device is used for driving the two moving plates to move relatively and comprises a cylinder, a floating plate and a hinge rod. The beneficial effects of the utility model are that: the utility model discloses a beneficial effect is: the line bank is horizontally placed in the positioning groove of the **conveyor** belt; the movable plate moves on the vertical plate; rotation through a drive motor, the chamfering knife is used for removing burrs of punched holes in the wiring row; due to the fact that the two chamfering cutters are arranged, deburring operation can be synchronously conducted on orifices in the two ends of a punched hole in a busbar, the labor intensity is reduced, the efficiency is improved, the driving device is arranged, the air cylinder acts to drive the floating plate to move, the hinge rod pulls the two movable plates to move relatively, the structure is simple, the manufacturing cost is low, and the fault rate is low.

13/545 © EPODOC / EPO

PN - [CN210029107U](#) U 20200207
 PR - CN201920574537U 20190424
 AP - CN201920574537U 20190424
 DT - I
 PA - BEIJING HUILIN GOVERNMENT PRINTING CO LTD
 TI - Single book cutting equipment capable of stably feeding
 AB - The utility model discloses stable feeding single book cutting equipment, which belongs to the technical field of paper cutting equipment, and comprises a paper cutting machine body, the paper cutting machine body is provided with a cutting **conveyor** belt, the paper cutting machine body is fixedly connected with a connecting seat, the connecting seat is connected with a feeding **conveyor** belt, one side of the connecting seat is fixedly connected with a base, and the base is connected with a feeding **conveyor** belt; the connecting base is fixedly connected with a rectangular frame body, a left baffle and a right baffle are connected to the two ends in the length direction of the feeding conveying belt in the rectangular frame body, and a rear baffle is connected to the side, away from the feeding conveying belt, of the rectangular frame body; the base is fixedly connected with a U-shaped frame, the U-shaped frame is connected with a rotating block, the rotating block is fixedly connected with a supporting rod, and the end, close to the connecting base, of the supporting rod is rotationally connected with a pulley. The book conveying device has the advantages that books can be automatically conveyed into the paper **cutter**, and it is guaranteed that all the books are placed in order and are not stacked.

14/545 © EPODOC / EPO

PN - [CN209796570U](#) U 20191217
 PR - CN201920330198U 20190315
 AP - CN201920330198U 20190315
 DT - I
 PA - SUZHOU BAOYUN PREC MECHANICAL ELECTRICAL CO LTD
 TI - Discharging device of slot milling machine
 AB - The utility model discloses a discharging device of a slot milling machine. The device comprises a conveying belt, a milling **cutter**, an electric cabinet, a material guider, a material discharger, a material box and a driving motor, the conveying belt is fixedly installed on the ground through a support. An electric control box is mounted on the side edge of the middle of the conveying belt; a milling **cutter** is mounted at the top of the electric control box; a conveying wheel at one end of the conveying belt is connected with a driving motor; a guider is fixedly mounted at one end, away from the driving motor, of the **conveyor** belt; a discharger is mounted at the bottom end of the conveying belt and located under the material guide device; according to the discharging device of the slot milling machine, materials are stably discharged through the material guide wheel in the hopper, the infrared sensor is matched with the rotating motor to stably push the material box, the materials are arranged in order, the materials are reasonably and tidily stored, the machining efficiency is improved, and manpower and material resources are saved.

15/545 © EPODOC / EPO

PN - [CN209677332U](#) U 20191126
 PR - CN201920278288U 20190305
 AP - CN201920278288U 20190305
 DT - I
 PA - CHINA TOBACCO SHANDONG IND CO
 TI - Shredding, feeding and homogenizing system
 AB - The utility model discloses a shredding incoming material homogenizing system which is composed of an incoming material belt **conveyor**, a homogenizing vibration **conveyor**, a homogenizing belt **conveyor**, a discharging belt **conveyor**, a photoelectric tube, a control system and the like. The material homogenizing belt **conveyor** adopts variable-frequency speed regulation and is provided with incoming materials and a low-material-level photoelectric tube; a middle-material-level photoelectric tube and a high-material-level photoelectric tube are arranged on the discharging belt **conveyor**, the control system controls the rotating speed of the homogenizing belt **conveyor** and the rotating speed of a bottom belt of the tobacco leaf storage cabinet according to signals of the photoelectric tubes, it is guaranteed that supplied materials of the tobacco **cutter** meet the tobacco cutting requirement, and shutdown is avoided in the tobacco cutting process. According to the shredding, feeding and homogenizing system, the phenomenon that the shredding machine is shut down due to the fact that feeding is reduced in the production process is avoided, and the shredding quality problems such as large pieces caused by restarting of the shredding machine are reduced.

16/545 © EPODOC / EPO

PN - [CN209618198U](#) U 20191112
 PR - CN201821531048U 20180919
 AP - CN201821531048U 20180919
 DT - I
 PA - SICHUAN BAIJIA FOOD IND CO LTD
 TI - Intelligent vortex powder opening system
 AB - The utility model discloses an intelligent vortex powder opening system which comprises a feeding **conveyor** belt, a feeding **conveyor** belt, a receiving hopper, a stirring barrel, a feeding **conveyor** belt and a receiving trolley, the feeding **conveyor** belt is located at the front end of the feeding **conveyor** belt, and a controllable **cutter** is installed at the tail end of the feeding **conveyor** belt; the receiving hopper can be turned over and is located below the tail end of the feeding conveying belt; the stirring barrel can be turned over and is positioned in front of the discharge hole of the receiving hopper; the feeding **conveyor** belt is positioned at the front end of a discharge hole of the stirring barrel and is used for conveying vermicelli poured out of the stirring barrel into the movable material receiving vehicle; the bean vermicelli opening device is reasonable in design, simple in structure and convenient to use, is used for opening bean vermicelli in the bean vermicelli production process, and overcomes the defects that in the traditional production process, after bean vermicelli comes out of a freezer, personnel cannot work continuously, the bean vermicelli opening effect is unstable, potential safety hazards are large, time distribution is unreasonable, and production efficiency is insufficient.

17/545 © EPODOC / EPO

PN - [WO2019202810](#) A1 20191024

PR - JP20180079725
20180418; JP20180079726
20180418

AP - WO2019JP03293 20190131

DT - *; Rep

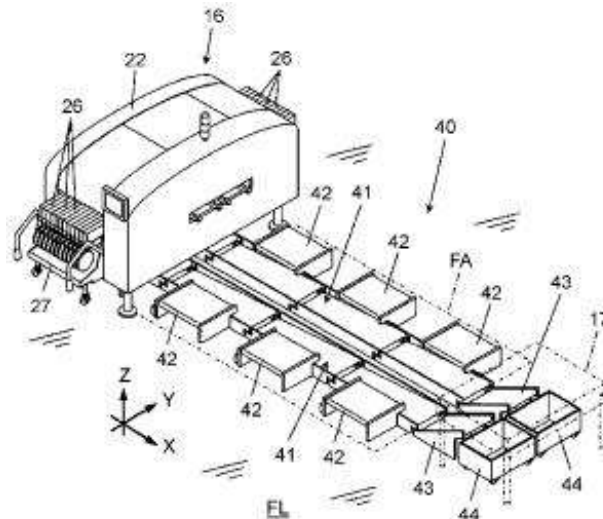
CT - [JP] ISR (A1)
[WO2015045018](#) A1 20150402
[XYA] (FUJI MACHINE MFG [JP])
[X] 1-2, 4, 7-8, 10
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7], [*
[Y] 3, 9
[A] 5-6;
[JP2000013095](#) A 20000114
[Y] (MATSUSHITA ELECTRIC IND
CO LTD)
[Y] 3, 9
*, *;
[JP2013175618](#) A 20130905
[Y] (PANASONIC CORP)
[Y] 3, 9
*, 0 1 3], [0020] - [0021], [1], [4]
&CN U *;
[JP2011071257](#) A 20110407
[Y] (YAMAHA MOTOR CO LTD)
[Y] 3, 9
*, 060] - [0063], [7] - [9] *;
[WO2015198437](#) A1 20151230
[A] (FUJI MACHINE MFG [JP])
[A] 1-10
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CI - B65B15/04 (EP)
- B65G47/68 (EP)
- H05K13/02 (EP)

PA - PANASONIC IP MAN CO LTD [JP]

TI - COMPONENT MOUNTING SYSTEM
AND TAPE SCRAPS COLLECTING
DEVICE

AB - A component mounting system
provided with: a component
mounting device group in which
a plurality of component
mounting devices are arrayed in
a substrate transfer direction on



a floor surface, wherein the plurality of component mounting devices mount a component being supplied by means of a tape feeder onto a substrate being loaded from an upstream side, unload the substrate on a downstream side, cut a carrier tape, from which the component has been supplied, using a **cutter** device, and eject scraps of the carrier tape; a main **conveyor** which is installed in a region on the floor surface under the component mounting device group and along the direction in which the plurality of component mounting devices are arrayed, and which transfers the scraps of the carrier tape ejected from each of the plurality of component mounting devices; and a scraps container unit which is installed outside the region and in which the scraps of the carrier tape transferred by the main **conveyor** are contained.

18/545 © EPODOC / EPO

PN - [CN209480167U](#) U 20191011

PR - CN20192099937U 20190122

AP - CN20192099937U 20190122

DT - I

PA - XIANGYANG ZHENGDA CO LTD

TI - Automatic raw material bag breaking and feeding machine

AB - An automatic raw material bag breaking and feeding machine is used for separating and feeding of automatic bag breaking material bags. The bag breaking machine mainly comprises a material blocking device, a hydraulic lifting and clamping device, a bag breaking **cutter** head, a belt **conveyor**, a dust removal device, a rotary screen, a bottom conveying auger and a rack. The cargo platform throws raw materials to be thrown into the bag breaking **cutter** head from the bag breaking opening to cut off packages of the raw materials; the scraped packaging bags and raw materials are conveyed into the rotaryscreen through the belt **conveyor**, the raw materials and the packaging bags are separated, the raw materials are conveyed to the bin inlet scraper through the bottom conveying auger and the raw material collecting hopper, and the packaging bags are separated by the conveying scraper spirally arranged in the rotary screen to the bag collecting hopper at the tail portion of the system to be collected in a unified mode.

According to the utility model, all automation from feeding to material bag separation is realized, and only one person is needed for operation, so that the feeding efficiency is greatly improved; the investment cost is low, and about 300,000 yuan can be saved; no dust exists on a bag breaking site, so that the working environment is greatly improved, and dust-free operation is realized; no scratching knife is needed for scratching bags, so that the safety of operators is effectively guaranteed.

19/545 © EPODOC / EPO

PN - [CN110304407](#) A 20191008
 PR - CN201810626262 20180619
 AP - CN201810626262 20180619
 DT - I
 CI - B65G19/20 (CN)
 - B65G19/28 (CN)
 PA - CHINA COAL ZHANGJIAKOU COAL MINING MACHINERY CO LTD
 TI - Working face scraper **conveyor** of thin coal seam chain type outer traction coal **cutter**
 AB - The invention relates to the field of coal mining fully-mechanized coal mining scraper conveyors, in particular to a working face scraper **conveyor** of a thin coal seam chain type outer traction coal **cutter**. In an existing coal mine underground thin coal seam working face, the height of the traction coal **cutter** cannot be further reduced, so that the coal cutting effect is not ideal, the working face scraper **conveyor** of the thin coal seam chain type outer traction coal **cutter** comprises a machine head driving device, a machine head transition groove, a middle groove area, a machine tail transition groove and a tail driving device, wherein a closed rail for allowing a traction chain to circularly run is arranged on the working face scraper **conveyor**, the traction chain in the rail drives the coal **cutter** to do reciprocating operation on the scraper **conveyor** under the action of a traction system. The working face scraper **conveyor** has the advantages that the structure is compact, the strength is reliable, the matching height of the coal **cutter** and the **conveyor** can be effectively reduced, automatic exploitation can be realized, the working face scraper **conveyor** can be widely applied to underground coal mine working surfaces, and is particularly applicable to thin coal mining production.

20/545 © EPODOC / EPO

PN - [CN110282344](#) A 20190927
 PR - CN201910163487 20190305
 AP - CN201910163487 20190305
 DT - I
 CI - B65G19/18 (CN)
 - B65G19/20 (CN)
 - B65G23/44 (CN)
 PA - CHINA COAL ZHANGJIAKOU COAL MINING MACHINERY CO LTD
 TI - Telescopic simple tail of scraper conveyor and scraper conveyor
 AB - The invention relates to the field of scraper conveyors for a fully mechanized mining face underground a coal mine, in particular to a telescopic simple tail of a scraper

conveyer and the scraper conveyer. Drive devices are arranged on a head and a tail of a conventional scraper **conveyor**, however, some coal mines have short working faces or large slopes, only one drive unit needs to be arranged on the head under the condition, and then the transport requirements can be met. Meanwhile, in order to adjust the chain tension at any time, the retractable simple tail needs to be arranged at the time, while a conventional telescopic tail widely adopts the form of being composed of a fixed frame and a movable frame, and the structure of the telescopic tail is bulky and heavy. According to the telescopic simple tail in the embodiment, a sliding frame is arranged in a tailstock, and a telescopic overlapping portion is located at a slope section of the tailstock, so that the space is saved to the greatest extent, the climbing angle of a middle plate is reduced, the dinting amount of a coal **cutter** is increased, the equipment cost is saved, pushing and maintenance are facilitated, and the service life of equipment is prolonged.

21/545 © EPODOC / EPO

- PN - [CN110239790](#) A 20190917
- PR - CN201910533878 20190619
- AP - CN201910533878 20190619
- DT - I
- CI - B65B51/14 (CN)
- B65B61/10 (CN)
- B65B65/00 (CN)
- B65G53/24 (CN)
- PA - XIAMEN LANGUAN AUTOMATION TECH CO LTD
- TI - Plastic film sealing machine
- AB - The invention relates to a plastic film sealing machine, which comprises a machine frame, a conveying platform, a cutting and sealing device and a waste recycling box, wherein the cutting and sealing device comprises a main installation plate, a transmission mechanism, a heating and cutting mechanism and a pressing mechanism; the transmission mechanism comprises two symmetrically arranged product clamping conveying units and two symmetrically arranged waste clamping conveying units; each product clamping and conveying unit comprises a first clamping **conveyor** belt, and each waste clamping and conveying unit comprises a second clamping **conveyor** belt; the pressing mechanism comprises a fixing pressure plate and a movable pressure plate; the heating and cutting mechanism comprises a heating **cutter** and a heating rod; a waste hose is connected between the cutting and sealing device and the waste recycling box; The plastic film sealing machine provided by the invention can realize one-time completion of sealing and cutting without the situation of waste tearing, and the waste can be collected after being squeezed, the equipment is automatically operated, the working efficiency can be improved, and the labor cost can be reduced.

22/545 © EPODOC / EPO

- PN - [KR102008306B](#) B1 20190807
- PR - KR20180025768 20180305
- AP - KR20180025768 20180305
- DT - I

CT	- STSE (B1) JPH0581138U U 19931102 []; JPH1094988 A 19980414 [] (MAZDA MOTOR); JP2001122437 A 20010508 [] (SANKYU KK, et al)
CI	- B26D1/0006 (KR) - B26D5/086 (KR) - B26D7/18 (KR) - B65B69/0025 (KR) - B65G47/918 (KR)
CA	- B26D2001/0066 (KR) - B65G2201/022 (KR)
PA	- PARK JUN HEE [KR]
TI	- Automatic system for supplying flat board
AB	- The present invention relates to a system for automatically supplying a flat board, which cuts a band to sequentially transfer the same to a transfer conveyor after gripping and aligning one set of a loaded flat board. The present invention includes: a grip device unit including a plurality of absorbing pads provided on a lower portion of a support block and absorbing a flat board set, a rotating gripper hinge-connected to both sides of the support block, rotationally installed thereon, and gripping both sides of the flat board set, and a gripper actuator operating or releasing the rotating gripper; and a cutting device unit including a rotating cutter rotationally supported on a fixed board and cutting the band of the flat board set and a cutter actuator operating or releasing the rotating cutter .

23/545 © EPODOC / EPO

PN	- CN209242019U U 20190813
PR	- CN201820882714U 20180601
AP	- CN201820882714U 20180601
DT	- I
PA	- XIANG YIHAI
TI	- Automatic device for polyurethane belt conveyor scraper to avoid belt buckle
AB	- An automatic device for a polyurethane belt conveyor scraper to avoid a belt fastener comprises a polyurethane scraper body, two ends of the scraper body are mounted on two sides of a belt conveyor head through shafts, and the automatic device is characterized in that two ends of a scraper holder of the scraper respectively extend to form push rods with a certain length towards the direction of a scraper back; push rods are arranged below two end shafts of the scraper; the device further comprises an automatic cutter lifting device. According to the automatic cutter lifting device, rooting shafts are arranged on coal falling chute plates on the two sides of a machine head of the belt conveyor respectively, a lever type crank arm is installed on each rooting shaft, a rotating wheel is installed at the force end of each crank arm, and the rotating wheels should be attached to the belt face of the edge of a belt and located at the position of a blade of a scraper. The acting end of each crank arm is movably connected with the corresponding scraper push rod through a push-pull rod; when the belt buckle runs to the rotating wheel, the belt buckle enables the rotating wheel to be lifted and drives the

scraper to be lifted at the same time, and therefore the belt buckle is avoided.

24/545 © EPODOC / EPO

- PN - [KR102000739B](#) B1 20190716
- PR - KR20190033091 20190322
- AP - KR20190033091 20190322
- DT - I
- CT - || STSE (B1)
[JPH05338803](#) A 19931221 [] (TOHOKU SHIZAI KOGYO KK, et al);
[KR101837138B](#) B1 20180312 []
- CI - B26D7/0625 (KR)
- B26F3/12 (KR)
- B65G13/07 (KR)
- B65G13/12 (KR)
- B65G17/26 (KR)
- B65G37/00 (KR)
- B65G47/24 (KR)
- B65G47/52 (KR)
- CA - B65G2201/02 (KR)
- B65G2207/14 (KR)
- PA - SITECH CO LTD [KR]
- TI - apparatus for feeding rectangular parallelepiped styrofoam product discharged from styrofoam molding apparatus to hot-wire **cutter**
- AB - The present invention relates to a device capable of: temporarily storing a large amount of a space-efficient cuboid Styrofoam molded product in a first posture in which a long side is oriented vertically in a plurality of horizontal waiting two-line chain conveyors; and converting the first posture of the Styrofoam molded product into a second posture and supplying the Styrofoam molded product to a hot wire **cutter** by optionally transferring the Styrofoam molded product stored in the plurality of horizontal waiting two-chain conveyors arranged in a plurality of rows to one horizontally fed two-chain **conveyor**. Even if the bottleneck occurs because the cutting speed in the hot wire **cutter** for the Styrofoam molded product is slow, and a foam molding process in a molding machine is much faster than a cutting process, the device automatically stores the Styrofoam molded product and automatically supplies the Styrofoam molded product to the hot wire **cutter** to significantly increase the product yield of the Styrofoam molded product made of a sheet material compared to the prior art.

25/545 © EPODOC / EPO

- PN - [CN209192360U](#) U 20190802
- PR - CN20182258458U 20181208
- AP - CN20182258458U 20181208
- DT - I
- PA - WENZHOU HAIHANG MACHINERY CO LTD
- TI - Disposable plastic **cutter conveyor**

AB - The utility model relates to a disposable plastic **cutter conveyor**. The cutting machine comprises a rack, a conveying channel, a storage hopper used for storing the disposable plastic cutters and a conveying device used for conveying the disposable plastic cutters. The conveying channel is arranged on the rack. The conveying channel comprises a horizontal section and a climbing section. The storagehopper is arranged on the rack, one side of the storage hopper abuts against the climbing section, the conveying device comprises a conveying belt and a driving mechanism used for driving the conveying belt to conduct conveying, the conveying belt is arranged along the conveying channel and matched with the storage hopper, and the conveying direction of the conveying belt is from the climbing section to the horizontal section. The utility model provides a disposable plastic **cutter conveyor** in order to solve the problems that in the prior art, the labor intensity of workers is high, the working efficiency is low, and sanitation is difficult to guarantee.

26/545 © EPODOC / EPO

PN - [CN109941674](#) A 20190628

PR - CN201910315370 20190418

AP - CN201910315370 20190418

DT - I

PA - SHANDONG KUANGJI HUANENG EQUIPMENT MFG CO LTD

TI - Machine head of scraper **conveyor**

AB - The invention discloses a machine head of a scraper **conveyor**. The machine head of the scraper **conveyor** comprises a machine head frame, a power device, a heightening cushion frame and a chain wheel. The machine head frame is installed at the upper end of the heightening cushion frame and comprises two opposite side plates. A base plate and a middle plate assembly are fixedly arranged between the two side plates. The chain wheel is arranged between the two side plates and driven by the power device. The upper end edges of the two side plates are horizontal, and the lower end edges of the ends, far away from the chain wheel, of the two side plates are downwards bent. The base plate is downwards bent. The middle plate assembly comprises an upper middle plate and a lower middle plate. The uppermiddle plate is horizontally arranged, and the lower middle plate is fixedly connected with the lower surface of the upper middle plate. By the adoption of the machine head of the scraper **conveyor**, the problems that triangular coal cannot be thoroughly cut by a machine head of a coal **cutter** on an extremely-thin coal seam working face, and an ordinary scraper **conveyor** is difficult to adapt to the working face inclination angle change and the roadway height change are effectively solved on the premise that the production cost is not increased, the production efficiency is improved, the safety guarantee is enhanced, and the more favorable conditions are provided for the service of the extremely-thin coal seam fully-mechanized working face.

27/545 © EPODOC / EPO

PN - [CN208916063U](#) U 20190531

PR - CN201820665304U 20180507

AP - CN201820665304U 20180507

DT - I

PA - FUJIAN CALLETON FOOD CO LTD

TI - Rice cake machine conveying mechanism

AB - The utility model discloses a conveying mechanism of a rice cake machine, which is characterized in that the conveying mechanism of the rice cake machine comprises a tension adjusting device and a conveying device, and the tension adjusting device is arranged on the conveying device. The utility model discloses a conveying mechanism of a rice cake machine. when the tension of the **conveyor** belt istoo large or too small; the tension adjusting device is used for adjusting; the tension consistency on the conveying belt is ensured; according to the rice cake cutting device, labor and replacement cost are saved, production efficiency is improved, the phenomenon that when tension of the conveying belt is insufficient, the **cutter** is pressed downwards, the conveying belt cannot play a good supporting role, the **cutter** cannot be pressed downwards to tightly abut against the surface of the conveying belt, and consequently rice cake blanks are not completely cut off is effectively avoided, and therefore the appearance of finished rice cake products is guaranteed.

28/545 © EPODOC / EPO

PN - [KR20190046044](#) A 20190507

PR - KR20170139141 20171025

AP - KR20170139141 20171025

DT - I

PA - UNIV NAT MOKPO IND ACAD COOP GROUP [KR]

TI - Apparatus and method for automatic model cutting using the steel plate

AB - The present invention relates to an automatic cutting system for a steel sheet model and an automatic cutting method, wherein a steel sheet model is automatically cut and produced in a single line from supplying a steel sheet to cutting, conveying, etching and model cutting. According to the present invention, the automatic cutting system for a steel sheet model comprises: a first **conveyor** for receiving and conveying a steel sheet raw material; a traverser installed in a width direction of the first **conveyor** and supplying a plurality of steel sheet raw materials one by one to the first **conveyor**; a preliminary cutting device installed in the first **conveyor** and primarily cutting the steel sheet raw material to form a preliminary **cutter** product; an edging device for performing an edge processing of the preliminary **cutter** product; a model cutting device for cutting the edge-processed preliminary **cutter** product into a model to form a model **cutter** product; a second **conveyor** for conveying the model **cutter** product; and a control unit for controlling conveying, edging and cutting for the steel sheet raw material and the model **cutter** product. According to the present invention, a reliability of a piece **cutter** product is enhanced and a manpower consumption and a process time are reduced, thereby producing effects of improving a quality of the steel sheet model, and maximizing a production capacity.

29/545 © EPODOC / EPO

PN - [CN208897520U](#) U 20190524

PR - CN201821545479U 20180921

AP - CN201821545479U 20180921

DT - I

- PA - ZHEJIANG HUANLI ENVIRONMENTAL PROTECTION TECH CO LTD
- TI - The invention discloses an automatic package cutting device and a cement kiln co-processing dangerous waste system
- AB - The utility model discloses an automatic bag cutting device which comprises a rack, a track mechanism, a containing cavity and a **cutter** assembly. The track mechanism comprises a first track, a second track capable of moving along the first track in a reciprocating mode and a telescopic piece capable of moving along the second track, and the **cutter** assembly is arranged at the end of the telescopic piece. An open groove is formed in the side wall of the containing cavity, a feeding port is formed in the top of the containing cavity, and a discharging port is formed in the bottom of the containing cavity. The utility model further discloses a cement kiln dangerous waste co-processing system. wherein the stock bin is located below a discharging port of the automatic bag cutting device, the power feeding mechanism is located below the stock bin, the metering mechanism is arranged at the end of the power feeding mechanism, and the conveying belt **conveyor** is connected with the metering mechanism and used for conveying materials to a cement kiln. The automatic bale cutting device achieves automatic bale cutting, reduces the probability that workers make contact with hazardous waste during bale cutting treatment, reduces potential safety hazards, is higher in safety performance and high in bale cutting speed, and reduces the labor cost.

30/545 © EPODOC / EPO

- PN - [CN208814065U](#) U 20190503
- PR - CN201821316538U 20180815
- AP - CN201821316538U 20180815
- DT - I
- PA - XUNDIAN ZHONGSHENG BIO TECH CO LTD
- TI - Aggregate conveying and distributing device of gelatin bone grain extraction system
- AB - The utility model discloses an aggregate conveying and distributing device of a gelatin bone grain extraction system, and aims to provide the aggregate conveying and distributing device of the gelatin bone grain extraction system, which is reliable in conveying. The feeding device comprises a support, a spiral **conveyor**, an air cylinder and a stock bin. The spiral **conveyor** is obliquely arranged on the support, and the feeding end of the spiral **conveyor** is lower than the discharging end of the spiral **conveyor**. Wherein the stock bin is arranged at the upper part of the spiral **conveyor** and is communicated with a feeding hole of the spiral **conveyor**; the air cylinder is installed on the inner wall of the stock bin through a support, and a piston rod of the air cylinder points to a feeding port of the spiral **conveyor**. A pressing plate is arranged at the end of a piston rod of the air cylinder, and a plurality of parallel cutters are arranged on the pressing plate. And when the piston rod of the air cylinder extends out to the maximum stroke, the **cutter** is close to a spiral blade of the spiral **conveyor**. According to the utility model, the conveying continuity can be ensured, and the aggregate crushing can be efficiently carried out.

31/545 © EPODOC / EPO

- PN - [CN208775673U](#) U 20190423
- PR - CN20182130504U 20180629

AP - CN20182130504U 20180629

DT - I

PA - YANCHENG YINGBEIJI ENVIRONMENTAL PROTECTION TECH CO LTD

TI - Spiral **conveyor**

AB - The utility model discloses a spiral **conveyor** relates to living beings transportation equipment field, which comprises a housin, be equipped with the hob in the casing, the casing top is equipped withand is used for driving hob pivoted driving motor, the casing top of driving motor one side is equipped with the feed inlet, the casing below of keeping away from driving motor one end is equipped with the discharge gate, still be equipped with a plurality of cutting device on the casing, cutting device is including being located the rotation motor that casing one side was equipped with, be located and rotate motor export and casing vertically worm, be located the clearance that is equipped with on the casing, be located the worm wheel of clearance and worm matching and be located the cusp **cutter** that is equipped with on the worm wheel inner circle wall, can effectively reduce the card material condition that appears.

32/545 © EPODOC / EPO

PN - [CN208761570U](#) U 20190419

PR - CN201821351353U 20180820

AP - CN201821351353U 20180820

DT - I

PA - JINAN BODOR LASER CO LTD

TI - Tube material loading device

AB - The utility model provides a tube material loading device relates to tubular product pay-off technical field, include: storage device, **conveyor**, limit for height device, sorting device and material feeding unit. Through placing tubular product on storage device, storage device falls into tubular product in the **conveyor**, **conveyor** drives tubular product and removes, setting up of limit for height device is tiled tubular product on **conveyor**, the tubular product of sorting device on with **conveyor** sieves and fixes a position, guarantee material feeding unit can with tubular product carry treat machining region in, it is little to have alleviated the traditional loading attachment suitability that exists among the prior art, and success rate of material loading is lower, need the multi-pass operation, cause tubular product material loading inefficiency, can't satisfy the technical problem of laser pipe **cutter**'s user demand, realized making loading attachment's suitability wider, the technological effect that material loading efficiency is higher.

33/545 © EPODOC / EPO

PN - [CN208761509U](#) U 20190419

PR - [CN20182118914U 20180629](#)

AP - CN20182118914U 20180629

DT - I

PA - YANCHENG YINGBEIJI ENVIRONMENTAL PROTECTION TECH CO LTD

TI - Screw **conveyor**

AB - The utility model discloses a screw **conveyor** relates to the living beings field, which

comprises a housing, be equipped with the hob in the casing, the casing top is equipped with and is used for driving hob pivoted driving motor, the casing top of driving motor one side is equipped with the feed inlet, the casing below of keeping away from driving motor one end is equipped with the discharge gate, still be equipped with clamping - prevention device in the casing, clamping -prevention device is including being located the live -rollers that the hob was equipped with all around, be located the rotating electrical machines that driving motor is connected with the live -rollers all around, be located the spiral **cutter** who is equipped with on the live -rollers, a plurality of prominent spines and be located the live -rollers and keep away from rotating electrical machines one end and be used for rotating the bearing of being connected with the casing of making progress that are located that the live -rollers surface is equipped with. The in -process of carrying biomass can cut off the material being effectual to the condition such as the card material appear that reduces.

34/545 © EPODOC / EPO

- PN - [CN109533875](#) A 20190329
- PR - CN201811639177 20181229
- AP - CN201811639177 20181229
- DT - I
- CI - B65G45/12 (CN)
- PA - HUBEI CREATING ZHIXING INTELLIGENT EQUIPMENT CO LTD
- TI - Sweeper with rubber torsion spring alloy for **conveyor** belt
- AB - The invention discloses a sweeper with rubber torsion spring alloy for a **conveyor** belt. The sweeper comprises a fixing and adjusting assembly, a scraper frame and scraper units, wherein the fixing and adjusting assembly is mounted on **conveyor** belt intermediate frame channel steel; the two ends of the scraper frame are mounted on the fixing and adjusting assembly; the scraper frame comprises a scraper rod, a long shaft sleeve and a short shaft sleeve; the long shaft sleeve and the short shaft sleeve are perpendicular to the direction of an axial line of the scraper rod and are alternately arranged on the same plane of the same side of the scraper rod; and the scraper units are arranged on one side of the scraper rod in a staggering and overlapping manner. According to the sweeper with the rubber torsion spring alloy for the **conveyor** belt disclosed by the invention, the scraper driven by adopting rubber torsion spring elastic elements has excellent dynamic compensation performance, the scraper has better tracking performance on a **conveyor** belt, and materials are difficultly squeezed into the scraper and an adhesive belt so that materials are difficultly accumulated on a **cutter** head; the top surface of the scraper contact the belt, so that equal contact force of the scraper and the belt is realized, material scraping from all scraper surfaces can be realized, and the service life is longer; the scraper units are arranged through adoption of vertical scraper rods and the parallel surface of the adhesive belt, and therefore, the sweeper can be used in narrow and small mounting positions, and the application range is wider.

35/545 © EPODOC / EPO

- PN - [CN208666205U](#) U 20190329
- PR - CN201820851995U 20180604

AP - CN201820851995U 20180604

DT - I

PA - SUQIAN SUHUAN GLASS CRAFTS CO LTD

TI - Lath **cutter** feeding **conveyor**

AB - The utility model discloses a lath **cutter** feeding **conveyor** relates to lath **cutter** technical field, including the delivery sheet, symmetrical arrangement's regulation post is from top to bottom all installed to the both sides of delivery sheet, adjust the post between fixedly connected with bear the pivot, the shown bottom fixed mounting who adjusts the post has a cylinder, the delivery sheet is close to the equal fixedly connected with auxiliary barrel seat in both sides of cylinder, the equal fixed mounting in upper and lower both sides middle part of auxiliary barrel seat has the driven shaft, the front of delivery sheet is provided with the pay -off beam barrel that the equidistance was arranged. This lath **cutter** feeding **conveyor** can be favorable to highly the adjusting of blowing and feeding, and the effectual stationarity that has improved blowing and feeding is avoided appearing direct bump contact pay -off beam barrel and is caused wearing and tearing, has improved life, and the effectual transport efficiency that has improved can increase coefficient of friction, has improved the security that the feeding was carried, can be favorable to improving **conveyor's** damping performance.

[SS 18] ..ST

Interruption by user...

[SS 18]

Disconnection from EPOQUE on: 03-09-2020 14:33:51 *DISCONNECT(1005)*

Session saved. *INFO(1006)*



New connection on: : 03-09-2020 : 14:34:15 - Last disconnection on: : 03-09-2020 : 14:33:51

V 4.0.0.44803(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201820)) (RPM D201820)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 18] ..v

[EPODOC: SS 18] conveyor and cutter and grain and /ic(B65G)

Results in EPODOC 7

[SS 19] ..v



1/7 © EPODOC / EPO

PN - [CN208814065U](#) U 20190503
PR - [CN201821316538U 20180815](#)
AP - CN201821316538U 20180815
DT - I
PA - XUNDIAN ZHONGSHENG BIO TECH CO LTD
TI - Aggregate conveying and distributing device of gelatin bone **grain** extraction system
AB - The utility model discloses an aggregate conveying and distributing device of a gelatin bone **grain** extraction system, and aims to provide the aggregate conveying and distributing device of the gelatinbone **grain** extraction system, which is reliable in conveying. The feeding device comprises a support, a spiral **conveyor**, an air cylinder and a stock bin. The spiral **conveyor** is obliquely arranged onthe support, and the feeding end of the spiral **conveyor** is lower than the discharging end of the spiral **conveyor**. Wherein the stock bin is arranged at the upper part of the spiral **conveyor** and is communicated with a feeding hole of the spiral **conveyor**; the air cylinder is installed on the inner wall of the stock bin through a support, and a piston rod of the air cylinder points to a feeding port of the spiral **conveyor**. A pressing plate is arranged at the end of a piston rod of the air cylinder, and a plurality of parallel cutters are arranged on the pressing plate. And when the piston rod of the air cylinder extends out to the maximum stroke, the **cutter** is close to a spiral blade of the spiral **conveyor**. According to the utility model, the conveying continuity can be ensured, and the aggregate crushing can be efficiently carried out.

2/7 © EPODOC / EPO

PN - [US2018054964](#) A1 20180301
PNFP - US10412887 B2 20190917
PR - DE201610115589 20160823
AP - US201715678445 20170816
DT - **
CT - || STSE (B2)
[US5921070](#) A 19990713 [] (CHAMBERLAIN NEAL C [US]);
[US5927054](#) A 19990727 [] (CHAMBERLAIN NEAL C [US]);
[US8833044](#) B2 20140916 [] (HOFFMAN DANIEL [US], et al);
[US9265199](#) B2 20160223 [] (RITTER AARON S [US], et al);
[US9668406](#) B2 20170606 [] (DYBRO NIELS [US]);
[US2007012014](#) A1 20070118 [] (STROSSER RICHARD P [US], et al);
[US2010223896](#) A1 20100909 [] (EICK BRONSON C [US], et al);
[US2011270494](#) A1 20111103 [] (IMHOF CRYSTAL [DE], et al);
[US2018199508](#) A1 20180719 [] (MUELLER MATTHIAS [DE], et al)
CCI - [A01D41/141](#) ; [A01D57/20](#) ; [A01D75/287](#)
CI - A01D41/127 (US)
- A01D41/141 (EP, US)

	- A01D57/20 (EP, US)
	- A01D61/002 (US)
	- A01D61/008 (US)
	- A01D61/02 (US)
	- A01D75/287 (EP, US)
	- B65G43/00 (US)
CA	- A01D41/02 (US)
	- B65G2203/0291 (US)
PA	- (A1 B2)
	CLAASSELBSTFAHRENDE ERNTE MASCHINEN GMBH [DE]
TI	- (A1)
	BELT CUTTING UNIT
	- (B2)
	Combine harvester including belt cutting unit and control unit
AB	- (A1 B2)
	A combine harvester includes a belt cutting unit comprising a center belt for conveying harvest to an intake roller and/or to an intake channel of a grain conveyor , and a transverse conveyor belt disposed each on the left-hand side and the right-hand side of the center belt, to convey harvest to the center belt. The center belt, left-hand and right-hand transverse conveyor belts are behind a cutter bar, seen in the direction of travel, with each being operated with an individual belt speed. The combine harvester and/or belt cutting unit has a control unit configured to automatically control the belt speeds of the left-hand and right-hand transverse conveyor belts as a function of a forward travel speed, and the belt speeds of the center belt as a function of the forward travel speed or as a function of the belt speeds of the left-hand and right-hand transverse conveyor belts.

3/7 © EPODOC / EPO

PN	- US2017094899 A1 20170406
PR	- DE201510116951 20151006; DE201510117787 20151019
AP	- US201615286579 20161006
DT	- **
CCI	- A01D57/20 ; B65G15/42
CI	- A01D57/20 (EP, US)
	- B65G15/42 (EP)
PA	- GERINGHOFF CARL GMBH CO KG [DE]
TI	- Header with Middle Belt and Additional Grain Loss Prevention Means
AB	- A header for harvesting agricultural crop is designed to be mounted on a harvesting machine and has a support frame with a cutter bar arranged on the front side and blades fastened thereto. Conveying elements for transporting away the cut stalk material include at least two belt conveyors conveying the crop transversely relative to the travel direction and a central belt conveyor as a middle belt that conveys counter to the travel direction. A drive drives the cutter bar and the conveying elements. In order to better protect the middle belt against grain losses over the lateral edge of the revolving belt, the middle belt has, at lateral edges on its outwardly pointing surface,

a **grain**-blocking elevation, respectively.

4/7 © EPODOC / EPO

PN - [CN201296537Y](#) Y 20090826
PR - CN200820221221U 20081115
AP - CN200820221221U 20081115
DT - I
PA - ZHONGQIANG ZHOU [CN]
TI - Ceramic cleaner of belt **conveyor**
AB - The utility model discloses a ceramic cleaner of belt **conveyor**, comprising a **cutter** body and a **cutter** blade, wherein the **cutter** body is provided with a fixed bolt hole, the upper part of the **cutter** body is provided with inclined fixed tank which is fixedly provided with ceramic **cutter** blade, the lower part of the **cutter** body is provided with a standby fixed tank, and the **cutter** body uses the structure of aluminum alloy material, thereby being capable of resisting erosiveness abrasion and **grain** abrasion. The utility model has simple processing technique and low cost, and can prevent corrosion damage and prolong the service life efficiently.

5/7 © EPODOC / EPO

PN - [JPH0323102](#) A 19910131
PNFP - JP2681152B B2 19971126
PR - JP19890158877 19890621
AP - JP19890158877 19890621
DT - I
CT - || STSE (A)
[JPS6487401](#) A 00000000 [];
[JPS6189195](#) A 00000000 [];
[JPS5784478U](#) U 00000000 [];
[JPS5829598U](#) U 00000000 []
FI - B60F3/00&B; B65F3/00; B65F3/00&H; B65F3/14; B65G47/58; C02F1/40&J; E02B15/00&A
FT - 2D025/AA01; 2D025/BA00; 2D025/BA21; 2D025/BA22; 2D025/BA24; 3E024/AA01; 3E024/AA02; 3E024/AA03; 3E024/BA01; 3E024/BA06; 3E024/BA10; 3E024/CA11; 3E024/CA12; 3E024/CA16; 3E024/CB03; 3E024/CB10; 3E024/EA10; 3E024/GA01; 3E024/HB03; 3E024/HB04; 3E024/HC01; 3E024/HD05; 3E024/HE01; 3E024/HE04; 3F044/AA01; 3F044/AA18; 3F044/CC02; 3F044/CC04; 3F044/CD08; 3F044/CD10; 4D051/AA06; 4D051/AB07; 4D051/CA02; 4D051/CA04; 4D051/CA08; 4D051/CA19; 4D051/DD01; 4D051/DD09; 4D051/DD23; 4D051/DD25; 4D051/DD30
PA - (A)
IWA DENKI KOJI KK
TI - (A)
RECOVERY/DISPOSAL DEVICE OF BOTH LAND AND WATER OBJECTS TO BE PROCESSED
AB - (A)
PURPOSE:To attempt to enhance efficiency by providing a laser beam **cutter** and an ultrasonic detector in the title device for floating matters, etc., in a dam, etc., and distinguishing the processing object picked up by a pickup body into ferrous and

nonferrous classes for classified recovering while conveying with a **conveyor**.
 CONSTITUTION:In case of recovery of water surface floating matters, for example, they are taken in by a pickup body 8, sent to a primary crusher 22 by a transfer roller 10 and crushed. Crushed matters are sent to a second **conveyor** device 33 from a first **conveyor** device 27 and transferred to the rear, and pass through a magnet roller built-in ferrous class recovery means 38 and distinguished to ferrous and nonferrous classes. The ferrous class is recovered to a ferrous class recovery room not shown in the drawing by a ferrous class transfer **conveyor** 42. Nonferrous class is sent to a bagging machine 76 through a third **conveyor** 54, a crusher 58, a selector 63, and a powder/**grain** sorting machine 70. Also, cutting at the time of demolishing work of a building, etc., is performed by a laser **cutter** A, and searching of the victims, etc., at the time of disaster rescue is performed by an ultrasonic detector B. Thus, recovery is efficiently performed, and can be utilized for disaster rescue too.

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PN - [JPH01290896](#) A 19891122

PNFP - JPH06100075B B2 19941212

PR - JP19880120108 19880516

AP - JP19880120108 19880516

DT - I

CT - || STSE (A)
[JPS61126297](#) A 00000000 [];
[JPS61155598](#) A 00000000 [];
[JPS61182492U](#) U 00000000 []

CCI - [E21D9/13](#)

CI - E21D9/13 (EP)

FI - B65G53/04&Z; E21D9/12&G; E21D9/12&M; E21D9/13&D

FT - 2D054/AA10; 2D054/AC18; 2D054/BA03; 2D054/DA03; 2D054/DA13; 2D054/DA24;
 3F047/AA01; 3F047/AA03; 3F047/AA15; 3F047/BA01; 3F047/BA07; 3F047/BA08;
 3F047/BA10; 3F047/CA02; 3F047/CA03; 3F047/CA06; 3F047/CA10; 3F047/CC06;
 3F047/DB00; 3F047/DB01

PA - (A)
 HASHIMOTO SETSUBI KOGYOSHO KK

TI - (A)
 DISCHARGING METHOD FOR DRILLED SEDIMENT IN PROPULSION CONSTRUCTION

AB - (A)
 PURPOSE:To facilitate the discharging by forming an air stream in a suction hose provided in a propelling tube and putting the sediment with the preset **grain** size on the air stream in the solid state and moving it to the vertical shaft side. CONSTITUTION:The ground is drilled by a **cutter** bit 1 provided at the tip of a guide tube (a), the drilled sediment 2 is accumulated in a box 4 by a screw **conveyor** 3. A suction hose (x) is installed in a propelling pipe (b), the tip of the hose (x) is put in the box 4, the rear end side of the hose (x) is connected to a blower (e) via a receiver tank (d). The blower (e) is driven, the sediment having passed a net 5 is put on the air stream and moved to the departure vertical shaft side, the drilled sediment 2 is discharged from the tank (d). The sediment 2 can be easily discharged without staining the inside of the propelling pipe

(b) and clogging the hose (x).

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PN - [DE3243766](#) A1 19840530

PNFP - DE3243766 C2 19850725

PR - DE19823243766 19821126

AP - DE19823243766 19821126

DT - *; Rep

CT - || STSE (A1)
[DE1084197](#) B 00000000 [];
[DD159418](#) A1 00000000 [];
[AT84626B](#) B 00000000 []

CCI - [B65G47/44](#)

CI - B65G47/44 (EP)

PA - (A1)
BUNAWERKE HUELS GMBH [DE]

TI - (A1)
Device for distributing granular material on a **conveyor** belt

AB - (A1)
The device comprises a rigid deflector plate which is mounted opposite the input aperture of a pneumatic **conveyor** line on the panel of a box **cutter** in the middle of an elastic plate, which panel is at right angles to the running direction of a **conveyor** belt. The surface normal of the deflector plate can be adjusted at will within a solid-angle range. By means of the device, a layer of constant thickness is achieved on a **conveyor** belt which is several metres wide, even when sticky and moist material with a wide range of **grain** sizes is being transported.