

Title:	SYSTEMS AND METHODS FOR REMOVING DEFECTIVE SEEDS AND PLANTS IN A GROW POD			
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Family:	Publication number	Publication date	Application number	Application date

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

International class (IPC 8-9): A01B41/00 A01B41/04 A01B73/00 A01C A01C15/00 A01C19/00 A01C19/04 A01C21/00 A01C23/00 A01C7/00 A01C7/04 A01C7/08 A01C7/10 A01C7/12 A01C7/16 A01C7/20 A01D41/12 A01D57/01 A01D90/00 A01D91/00 A01D93/00 A01F12/60 A01F25/16 A01G A01G13/08 A01G20/40 A01G24/00 A01G25/16 A01G27/00 A01G31/00 A01G31/02 A01G31/04 A01G31/06 A01G7/00 A01G7/02 A01G7/04 A01G9/00 A01G9/02 A01G9/029 A01G9/06 A01G9/08 A01G9/14 A01G9/18 A01G9/20 A01G9/24 A01G9/26 B08B9/20 B25J15/00 B25J9/16 B60L B60L15/40 B60L5/04 B60L50/53 B60L53/66 B60M1/30 B60M1/36 B60M7/00 B60P1/02 B60W10/08 B60W30/00 B60W40/00 B61B B61B13/00 B61B13/02 B61C11/04 B61C17/00 B61C3/00 B61D9/14 B61L B61L1/18 B61L15/00 B61L23/24 B61L23/34 B61L27/00 B61L3/08 B61L3/24 B62B3/00 B62B5/00 B65B37/16 B65B39/00 B65G B65G1/06 B65G1/133 B65G17/00 B65G21/18 B65G43/02 B65G45/10 B65G45/22 B65G47/96 B65G49/00 B65G67/22 E01B25/04 E01B25/28 F04B7/02 F16H19/04 G01F23/00 G01F23/292 G01N21/84 G01N33/00 G05B G05B13/02 G05B19/00 G05B19/04 G05B19/042 G05B19/418 G05B23/02 G05D G05D1/00 G05D1/02 G05D7/06 G06F G06F11/34 G06F11/36 G06F17/50 G06F19/24 G06F30/20 G06F8/30 G06F9/455 G06K9/00 G06K9/78 G06N3/08 G06Q G06Q10/06 G06Q50/02 G06Q50/06 G06T7/00 G06T7/90 G08B21/18 G08C17/00 G08C17/02 G16Y10/05 G16Y20/10 G16Y20/20 H04B3/54 H04L H04L12/28 H04L12/861 H04L29/08 H04N5/225 H04N5/238 H04N5/247 H04W4/38 H05B45/20 H05B47/105 (Advanced/Invention); A01C19/00 A01C19/04 A01D41/12 A01F12/60 A01F25/16 A01G31/04 A01G9/14 B65G21/18 B65G43/02 B65G47/96 G01F23/292 G05B13/02 G05B15/02 G05B19/04 G06Q50/02 (Advanced/Non-invention); A01G G06F H04L (Subclass/Invention)

International class (IPC 1-7): A01C7/04 A01G31/02 A01G31/04 A01G9/14 A01G9/24 B61B13/02 B65G43/02

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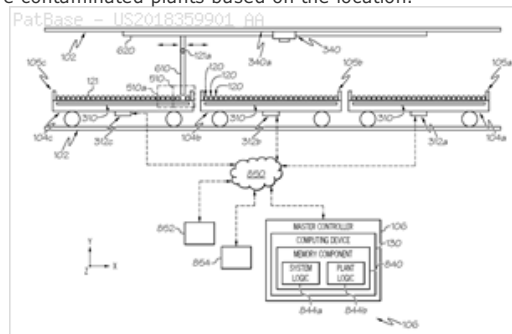
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Forward Citations:

WO20159492, WO20146944, WO20014773, US2018255709, US2018206421, US10757877, US10694681,
US10415200,

Abstract:

A system for removing **seeds** includes a track, one or more carts moveably disposed on the track, one or more sensors, a removing device, and a controller. The controller includes one or more processors, one or more memory modules, and machine readable instructions stored in the one or more memory modules that, when executed by the one or more processors, cause the controller to determine a location of one or more of one or more contaminated **seeds** and one or more contaminated plants on the one or more carts based on information received from the one or more sensors and instruct the removing device to remove one or more of the one or more contaminated **seeds** and the one or more contaminated plants based on the location.



Title: PEAR PREPARATION MACHINE**Priority:** US19310533048 19310427

Family:	Publication number	Publication date	Application number	Application date
	US2056413 A	19361006	US19310533048	19310427

Probable Assignee: FMC CORP**Assignee(s):(std):** FMC CORP**Assignee(s):** FOOD MACHINERY CORP**Inventor(s):(std):** DE BACK WILLIAM ; THOMPSON ALBERT R**Inventor(s):** BACK WILLIAM DE**International class (IPC 8-9):** A23N4/14 (Advanced/Invention);
A23N4/00 (Core/Invention)**International class (IPC 1-7):** A23N3/08**CPC:** A23N4/14**European class:** A23N4/14**US class:** 99/543 99/546 99/564 99/590 99/591[Classification Explorer](#)**Forward Citations:** US8586118, US6740347, US6237475, US5644797, US5435238, US3078889, US3055408, US3018179, US2989997, US2984274, US2901014, US2742067, US2657725, US2649878, US2526712, US2459368, US2429749, US2004025716,**Abstract:**

What We claim is: 1. A fruit impaling device for a Daring machine. including the combination of a. turret head, a. plurality of spindles slidably mounted in said turret and each spindle having a. fruit' stemming and supporting means, and means serially engaged by said spindles and operable for sliding the engaged spindle to impale and simultaneously stem the fruit. 2. A fruit impaling device for a paring machine, including the combination of _a turret head, a plurality of spindles slidably mounted in said turret and ea.ch _gt;spindle having a. fruit stemming and supporting means, a spindle sliding means serially engaged by said spindles and operable to slide the engaged spindle to impale and simultaneously stem the fruit, and 9. means slidably mounted in the machine and oppositely disposed to the said engaged spindle and also operable by said spindle sliding means to assist in impaling the fruit upon the engaged spindle. 3. A fruit impaling device fpr a, paring machine, including the combination of a. turret head, a, plurality of spindles slidably mounted in said turret head and each spindle having a. fruit stemming and supporting means, a. manually cperable means serially engaged by said spindles and operable no slide the engaged spindle td impale and simmtaneously stem the fruit, ami a. means slidably mounted in the machine and opposed to the said engaged spindle and operated by said manually operable means to assist in impaling the fruit upon the engaged spindle. 4. A fruit impaling and controlling device for a fruit paring machine, including the combination ,of a single cycle driving clutch arranged when actuated into engagement to drive the ma.- chine through one complete operating cycle and then to automatically disengage, a. turret head rotatively mounted in the machine and rotated a. predetermined amount each time said driving clutch is actuated, a. plurality of spindles slidably mounted in said turret head and each spindle having a fruit stemming and supporting means, and a. control handle positioned to engage one of said spindles each time said turret head, comes at rest and opera.ble,bo slide the said engaged spindle to impale and simultaneously stem the fruit and only thereafter operable to actuate into engagement said driving clutch. 5. A fruit impaling and controlling device for a fruit paring machine, including the combination oi' a. single cycle driving clutch arranged when actuated into engagement to drive the 1118- chline through one complete operating cycle and then to automatically disengage, a. turret head, rotatively mounted in the machine and rotated a predetermined amount each time said driving clutch is actuated, a plurality of spindles slidably mounted in said turret head and each spindle havlne a fruit stemming and supporting means, a control handle positioned to engage one of said spindles each time said turret head comes to rest and operable to slide the said engaged spindle to impale and simultaneously stem the fruit and only thereafter operable to actuate into engagement said driving clutch, and a means slidably mounted in the machine andoppositely disposed to said engaged spindle and operable by said control handle simultaneously with said engaged spindle for impalling the fruit thereupon. 6. A fruit impaling and controlling device for a fruit paring machine, including the combination of a driving clutch, means :for actuating said driving clutch into engagement to drive the machine through one complete operating cycle and then to be automatically disengaged, B1DCKing means for said clutch actuating means, 9. turret head rotetively mounted in the machine and rotated a predetermined amount each time said driving clutch is actuated, a plurality of spindles slidably mounted in said turret head and each spindle having a fruit stemming and supporting means and each spindle also having means for releasing said locking means, I. control handle positioned to engage one o! said spindles each time said turret head comes to rest and operable to slide the said engaged spindle to impale and simultaneously with the completion ot the impaling operation to cause the releasing means of said spindle to release said lookin! means and operable only after the fruit has been impaled and said locking means released to operate said clutch actuating means. '1'. A fruit impnlinz and controlling device for a. fruit paring machine including the combination of a driving clutch, a means operable to actuate said clutch into engagement to drive the me.- chine through one complete operating cycle and then to be automatically disengaged, a locking means for said clutch actuating means, a. turret head rotatively muuntedfin the machine and rotated n. predetermined amount each time said driving clutch is actuated, a plurality of spindles slidably mounted in said turret head ind each spindle having a. fruit stemming and supporting means and each spindle also having means for releasing said locking means, 9. control handle positioned to engage one of said spindles each time said turret head comes to rest and operable to slide the said engaged spindle to impele and simultaneously with the completion of the impaling operation to cause the release means of the engaged spindle to release said locking means and after the completion of the impaling operating and the releasing of said locking means to be operable to actuate said clutch actuating means, and 9. means slidably mounted in the machine and oppositely disposed to the said. engaged spindle and operable by said control handle for Impaling the fruit. 8. A plurality of spindle assemblies of a fruit perling mschine or the turret type, each spindle assembly including the combination of s spindle shalt rotatably and slidably mounted in the turret head of the machine, It Spindlerotnting means for rotating the spindle shaft a predetermined amount between dlfferent positions of the turret head, a spindle locking means for locking the spindle against rotation when the spindle shaft is out of engagement with said spindle rotating means, a fruit imlmllng and stemming means secured to one end of said spindle shaft, a. stem ejecting means associated with the spindle shaft and said fruit impaling and stemming means, a cam means mounted upon the machine for actuating said stem ejecting means, 9. coring and trimming means operatively associated with said spindle shaft, a means for locking said coring and trimming means against rotation, a means for releasing said coring and trimming locking means and for thereafter rotating said coring and trimming means, a guard means slidably mounted upon said spindle shaft and having a sliding connection therewith to permit a limited amount of motion between said guard means and said spin. dle shaft, a manually operablemeans engageable with the spindle shaft at one position of the turret head and operable to slide the spindle shaft together with said impaling and stemming means in one direction tu Impale the fruit thereon, a. cam means engageable with the spindle shaft at another position of the turret head to slide the spindle shaft and said impaling and stemming means in the other direction, a pusher means for pushing the fruit and said guard means along said impaling and stemming means, a release means for said pusher means positioned to be engaged by said Suard means to release said pusher means when the fruit has penetrated to a predetermined extent said coring and trimming means. 9. A peeling device for a. fruit Daring machine, including the combination of a fruit supporting means, a reciprocatory head slidably mounted in the machine, a. pair of a.1-ms pivtotally mounted at one end to said head, a peeling assembly pivtotally mounted upon the other end of each of said arms ssand each peeling knife assembly having a, peeling knife adjustably secured thereto and a guard roller journaled thereon and a spring means for yieldingly urging said peeling knives toward said fruit supporting means, an auxiliary head slidably mounted in the machine and having a connecting means between said auxiliary head and each of said arms arranged when said auxiliary head is moved in one direction relative to said reciprocating head to yieldingly cause the peeling knives to approach each other and when

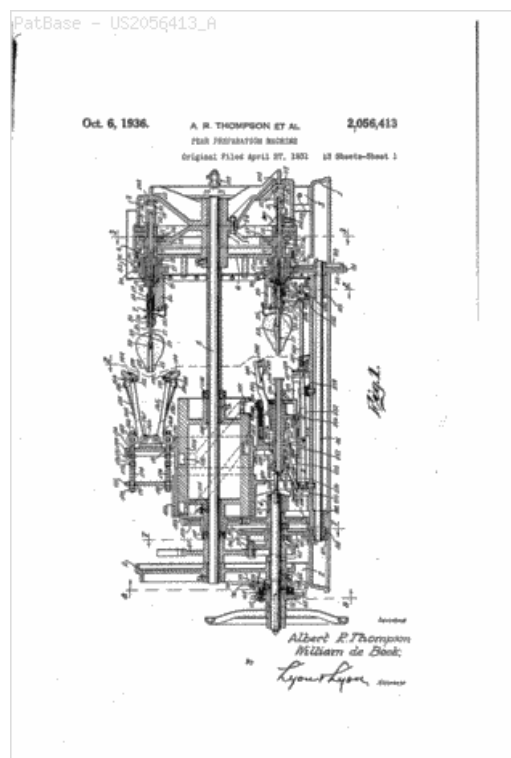
the auxiliary head is moved in the other direction relative to said reciprocating head to cause the peeling knives to move apart, and means operative to first cause relative movement in one direction between said heads to yieldingly close said peeling knives upon the fruit mounted upon said fruit holding means and thereafter for causing said heads to move in unison to draw said peeling knives over said fruit and thereafter to cause a relative movement in the opposite direction between said heads to open said peeling knives and thereafter to move both of said heads in unison back to their initial starting positions. 10. A peeling knife assembly for a fruit paring machine including the combination of a supporting frame pivotally mounted in the machine, an arcuate peeling blade extending across and adjustably secured thereto and having a cutting edge positioned below and to one side of said SUPPUIUDE frame pivotal mounting, an eccentric bushing rotatively mounted in the frame, a locking means for said eccentric bushing, a guard roller journaled upon said eccentric bushing and having its center of rotation upon the side of said supporting frame pivotal mounting whereby a cam action between said peeling blade and said guard roller is obtained and to thereby cause the peeling blade to follow the contour of the fruit being peeled, a spring means for yieldingly urging the peeling knife into cutting engagement with the fruit. 11. A peeling knife assembly for a fruit paring machine including the combination of a peeling knife, means for producing a relative substantially longitudinal movement between the knife and the fruit, a supporting frame freely pivoted in the machine upon which the peeling blade is mounted and the peeling blade having a cutting edge positioned below and to one side of said supporting frame pivotal mounting, a guard roller journaled to said frame and having its center of rotation located upon the other side of said supporting frame pivotal mounting, and a spring means for yieldingly urging the supporting frame to rotate in a direction which will cause said peeling knife to penetrate the fruit being peeled. 12. A peeling knife assembly for a fruit paring machine including the combination of a peeling blade, means for producing a relative substantially longitudinal movement between the knife and the fruit, a supporting frame freely pivoted in the machine, the peeling blade being secured to said frame and having a cutting edge positioned below and to one side of said supporting frame pivotal mounting, a fruit engaging means secured to said frame and having a fruit engaging surface located upon the other side of the supporting frame pivotal mounting. 13. A peeling knife assembly for a fruit paring machine including the combination of a peeling knife, means for producing a relative substantially longitudinal movement between the knife and the fruit, a supporting frame freely pivoted in the machine upon which the peeling blade is secured to said frame and having a cutting edge positioned below and to one side of said supporting frame pivotal mounting, a fruit engaging means secured to said frame and having a fruit engaging surface located upon the other side of the supporting frame pivotal mounting, and a spring means adapted to yieldingly urge said peeling knife toward the fruit to be peeled. 14. In a fruit paring machine, the combination of a single revolution clutch for driving the machine when actuated through one complete operating cycle and then to be automatically disengaged, a clutch actuating means, a turret head rotatively mounted in the machine and having a plurality of paring stations and rotated to advance one station each time said clutch is actuated, a fruit supporting means rotatively and slidably mounted on said turret head at each station thereof, a control means located at one of said turret stations and engageable with the fruit supporting means presented to the one station to slide said fruit supporting means to impale the fruit to be pared thereon and said control means thereafter operable to actuate said clutch actuating means, a plurality of peeling assemblies mounted in the machine and of less number than said turret paring stations and each peeling assembly opposed to one of said turret paring stations, operating means for each of said peeling assemblies actuated during the operating cycle of the machine after the turret head has been rotated, and means operable during the rotation of said turret head to rotate the fruit supporting means a predetermined amount between the different peeling stations. 15. In a fruit paring machine the combination of a driving means for the machine adapted when actuated to drive the machine through one complete operating cycle and then to automatically stop the machine, a means for actuating said driving means, a turret head rotatively mounted in the machine and having a plurality of paring stations, a means for rotating said turret head during one portion of the operating cycle of the machine to advance said turret head one station, a fruit supporting means rotatively and slidably mounted on said turret head at each station thereof, a control means mounted in the machine and located at one of said turret stations and engageable with the fruit supporting means at said one station to slide said supporting means to impale the fruit to be pared thereon and said control means thereafter operable to actuate said driving means for actuating said driving means, a plurality of peeling assemblies mounted in the machine and of less number than said turret paring stations and each peeling assembly opposed to one of said turret paring stations, an operating means for each of said peeling assemblies actuated during a second portion of the operating cycle of the machine, and means operable during the rotation of said turret head to rotate the fruit supporting means a predetermined amount between the different peeling stations. 16. A fruit clamping device for a fruit paring machine including the combination of a supporting frame, a reciprocating head slidably mounted therein, a shell secured to said reciprocating head and having a longitudinal slot, an end plate having a plurality of slots and each slot having cam surfaces, a spider slidably mounted in said shell and having an arm projecting through said longitudinal slot, a plurality of clamping arms each pivotally mounted at one end to said spider and each extending through one of the said end plate slots and engaging the cam surface thereof and each clamping arm having a spring pressed clamping block pivotally mounted upon its other end, a spring pressed plunger slidably mounted in said shell for each of said clamping arms, a means for giving said reciprocating head and shell a predetermined longitudinal movement in one direction, a stop means mounted upon said supporting frame and positioned to permit an initial movement of said spider with said shell and thereafter to arrest further movement thereof, a means for returning said reciprocating head and shell to their initial positions, a lock means for holding said spider against returning with said shell during the initial return movement thereof, a release means actuated to release said locking means after said head and shell have completed a predetermined portion of their return movement. 17. A fruit clamping device for a paring machine including the combination of a reciprocating shell having a plurality of cam surfaces, a spider slidably mounted in said shell, a plurality of clamping arms pivoted to said spider and each engageable with one of said shell cam surfaces, means for reciprocating said shell and spider, means for causing a relative movement between said shell and said spider, and an independent means for exerting a yielding pressure against each of said clamping arms to thereby independently urge each of said arms toward its respective cam surface and to firmly resist movement of the clamping arm in the opposite direction. 18. A fruit clamping device for a paring machine including the combination of a shell having a plurality of cam surfaces, a spider slidably mounted therein, a plurality of clamping arms pivoted to said spider and each engageable with one of said shell cam surfaces, means for causing a relative movement between said shell and spider, and an independent means for exerting a yielding pressure against each of said clamping arms to thereby independently urge each of said arms toward a common center and to firmly resist movement of each of said clamping arms in the opposite direction. 19. A fruit positioning, coring and trimming device for a paring machine, including a fruit supporting means, a fruit coring and trimming means associated therewith, a reciprocating means, a plunger slidably mounted therein and arranged to slide over the fruit supporting means, a means for locking said plunger to said reciprocating means, a means for releasing said locking means when the fruit has penetrated the coring and trimming means a predetermined amount, and means for actuating the said coring and trimming means for coring and trimming the fruit. 20. A fruit positioning, coring and trimming device for a paring machine, including a fruit supporting means, fruit coring and trimming knives associated therewith, a reciprocating means, a plunger slidably mounted in said reciprocating means and arranged to slide over said fruit supporting means, a means for locking said plunger to said reciprocating means whereby when the reciprocating means moves forward the plunger will likewise move forward to engage and push the fruit along the fruit supporting means, a means for releasing said locking means actuated by the fruit when the fruit has penetrated the coring and trimming knives a predetermined amount, and means for actuating said coring and trimming means for coring and trimming the fruit. 21. A fruit positioning, coring and trimming device for a paring machine, including a fruit supporting means, fruit coring and trimming knives associated therewith, a guard slidably mounted upon said fruit supporting means and arranged to be engaged and pushed along with the fruit, a reciprocating means, a plunger slidably mounted in said reciprocating means, a means for locking said plunger to said reciprocating means whereby when the reciprocating means moves forward the plunger will likewise move forward to engage and push the fruit and guard along said fruit supporting means, a means for releasing said locking means actuated by said guard when the fruit has penetrated the coring and trimming knives a predetermined amount, and means for rotating said coring and trimming means for coring and trimming the fruit. 22. In a fruit paring machine, the combination of a fruit supporting means, fruit coring and trimming knives associated therewith, a guard slidably mounted upon said fruit supporting means and arranged to be engaged and pushed along with the fruit, a reciprocating means, a plunger slidably mounted in said reciprocating means, a means for locking said plunger to said reciprocating means whereby when the reciprocating means moves forward the plunger will likewise move forward to engage and push the fruit and guard along said fruit supporting means, a means for releasing said locking means actuated by the fruit when the fruit has penetrated the coring and trimming knives a predetermined amount, means for rotating said coring and trimming means for coring and trimming the fruit and means for returning said plunger to its initial locked position with said reciprocating means. 23. A fruit positioning, coring and trimming device for a paring machine, including a fruit supporting means, fruit coring and trimming knives associated therewith, a reciprocating means, a plunger slidably mounted in said reciprocating means, a means for locking said plunger to said reciprocating means whereby when the reciprocating means moves forward the plunger will likewise move forward to engage and push the fruit along the fruit supporting means, a means for releasing said locking means actuated by the fruit when the fruit has penetrated the coring and trimming knives a predetermined amount, means for rotating said coring and trimming means for coring and trimming the fruit and means for returning said plunger to its initial locked position with said reciprocating means. 24. In a fruit paring machine, the combination of a supporting frame, a turret head rotatively mounted in said frame and having a plurality of paring stations, a fruit supporting means mounted in the turret head

for each station thereof, a coring and trimming means associated therewith, a guard means slidably mounted upon said fruit supporting means, a reciprocating head slidably mounted in the supporting frame, a fruit clamping means mounted upon said reciprocating head and positioned opposite to one of said turret stations, a plunger slidably mounted in said reciprocating head/d and passing centrally through said fruit clamping means, means for locking said plunger to said reciprocating head, a means for releasing said locking means, means for moving said reciprocating head in one direction to cause said plunger to engage and slide the fruit together with said guard along said fruit supporting means until the fruit has penetrated the coring and peeling knives a predetermined amount at which point, the guard actuates the means for releasing said locking means to stop further movement of the fruit with relation to the coring and trimming knives and to cause upon further movement said fruit clamping means to be actuated into Clamping engagement with the fruit, means for rotating said coring and trimming knives to core and trim the fruit, and means for returning the reciprocating head to its initial position and to thereby cause the fruit clamping means to release the fruit and to return the plunger to its initial locked position with the reciprocating head. 25. In a fruit paring machine, the combination of a clutch driving means for the machine, a clutch actuating means for actuating said clutch into driving engagement with said machine, means for actuating said clutch out of driving engagement with said machine after the machine has been driven through one complete operating cycle, a turret head rotatively mounted in the machine and having a plurality of paring stations, a means operatively connected with said clutch means for rotating said turret head during one portion of the operating cycle of the machine to advance said turret head one station, a fruit supporting means slidably mounted upon said turret head at each station thereof, a fruit coring and trimming means rotatively associated with each fruit supporting means, a control means mounted in the machine and located at one of said turret stations and engageable with the GO 55 TU FEL ww a,oso,a1s A =~5 fruit supporting means to impale the fruit to be pared thereon and operable to actuate said clutch actuating means to place the machine in operation, a reciprocating head slidably mounted in the machine, a fruit clamping means mounted upon said reciprocating head and positioned opposite to another of said turret stations, a plunger slidably mounted in said reciprocating head, means for locking said plunger to said reciprocating head, a means for releasing said locking means, an operating means for moving in one direction said reciprocating head during a second portion of the operating cycle to cause said plunger to engage the impaled fruit and slide the fruit into a predetermined paring relation with said coring and trimming means at which point said lock; releasing means is actuated to release said plunger from the reciprocating head and upon further movement to cause said fruit clamping means to be actuated into clamping engagement with the fruit, means for actuating said coring; and trimming means while the fruit is engaged by said clamping means, and means for returning the reciprocating head to its initial position and to thereby cause the release of the fruit by said fruit clamping means and to return the plunger to its initial locked position with said reciprocating head. 26. In a fruit paring machine having a plurality of fruit paring stations at one station of which there is included the combination of a fruit supporting means, EZ coring and trimming means associated therewith, a fruit positioning means for pushing the fruit along the fruit supporting means, means for stopping the action of the fruit positioning means when the fruit has penetrated the coring and trimming means a predetermined amount. means for clamping the fruit in such predetermined paring position, and means operable thereafter to actuate said coring and trimming means, for coring and trimming the fruit. 27. A fruit slicing device for a fruit paring machine including the combination of a fruit supporting means, a reciprocating frame operatively mounted in the machine and opposed to said fruit supporting means, a pair of oppositely disposed fruit holding knives mounted upon said frame, a pair of oppositely disposed fruit holding rollers mounted upon said frame and yieldingly urged toward said holding knives, and means for reciprocating said frame to cause said knives to halve the fruit impaled upon said holding means and to cause said fruit holding rollers to engage and hold the fruit from splitting during the halving operation. 22. A fruit slicing device for a fruit paring machine including the combination of a fruit supporting means, a reciprocating frame operatively mounted in the machine and opposed to said fruit supporting means. a sliding assembly of slicing knives mounted upon said frame, a fruit holding means for each of said slicing knives having spring means for yieldingly urging each of said holding means into holding engagement with the fruit, and means for reciprocating; said frame to cause said knives to slice the fruit impaled upon the supporting means into sections and to cause each of said fruit holding means to engage and hold the fruit from splitting during the slicing operation. 29. A fruit slicing device for a fruit paring machine including the combination of a fruit supporting means having a fruit impelling blade, a reciprocating frame operatively mounted in the machine and opposed to said fruit supporting means, a double slicing knife mounted upon said frame and positioned to closely straddle said impelling blade during the slicing operation, a single slicing knife mounted upon said frame and opposite to said double knife, and means for reciprocating said frame to cause said knives to halve the fruit impaled upon said fruit supporting means. 30. A fruit slicing device for a fruit paring machine including the combination of a fruit supporting means having a fruit impelling blade, a reciprocating frame operatively mounted in the machine and opposed to said fruit supporting means, a double slicing knife mounted upon said frame and positioned to closely straddle said impelling blade during the slicing operation, a single slicing knife mounted upon said frame and opposite to said double knife, means for reciprocating said frame to cause said knives to halve the fruit impaled upon said fruit supporting means, and means for holding the fruit against splitting during the halving operation. 31. In a fruit paring machine, the combination of a driving means for the machine, means manually operable for engaging said driving means to start the machine upon an operating cycle, automatic means for disengaging said driving means after the machine has completed a single operating cycle, a turret head relatively mounted in the machine having a plurality of paring stations and rotated during one portion of the operating cycle of the machine to advance one station, a fruit supporting and stemming means slidably mounted on said turret head at each station thereof, a fruit impaling means located at one of said turret stations and engageable with the fruit supporting means presented to the one station by the rotation of the turret head to slide said fruit supporting and stemming means to impale the fruit thereon and simultaneously stem the fruit, a reciprocating head slidably mounted in the machine; 2 slicing assembly frame mounted upon said reciprocating head and opposed to the said fruit supporting means at another station of the machine, a plurality of slicing knives mounted upon said frame, a fruit holding means for each of said slicing knives pivotally mounted upon said frame and having spring means for yieldingly urging said holding means toward a common center, an impaling head slidably mounted in the machine and operatively connected with said holding means to hold said means in an open position, and means driven by said driving means and operable during another portion of the operating cycle of the machine to first move said impaling head relative to said reciprocating head to permit said fruit holding means to swing toward a common center and second to move both of said heads in unison to drive the fruit slicing knives through the fruit and upon completion of the slicing operation to move both of said heads back to their initial position. 32. In a fruit paring machine, the combination of a driving means for the machine, a means manually operable for engaging said driving means to start the machine upon an operating cycle, automatic means operable after the machine has completed a single operating cycle to disengage said driving means, a turret head rotatively mounted in the machine and having a plurality of paring stations and rotated by said driving means during one portion of the operating cycle thereof to advance the turret head one station, a fruit supporting and stemming means rotatably and slidably mounted on said turret head at each station thereof, a control means located at one of said turret stations and engageable with the fruit supporting and stemming means presented to the one station by the rotation of the turret head to slide said fruit supporting and stemming means to impale the fruit thereon and simultaneously stem the fruit, a means for rotating the fruit supporting and stemming means and the fruit impaled thereon during the rotation of the turret head from one station to the next, a stemming knife positioned in the machine to engage and sever the stem end of the rotating fruit as the turret head carries said rotating fruit, past said stemming knife when rotating from one position to the next, a plurality of peeling assemblies mounted in the machine and each peeling assembly opposed to other of said turret stations, operating means for each of said peeling assemblies operable by said driving means during another portion of the operating cycle of the machine, a means for rotating said fruit supporting means a predetermined amount during the rotation of the turret head between the different peeling stations, a coring and trimming means associated with each of said fruit supporting means, means for predetermining the position of the fruit with relation to said coring and trimming means located at another of said turret head stations, means for clamping the fruit in said predetermined position, means operable thereafter by said driving means for actuating said coring and trimming means, a plurality of fruit slicing knives located at another of said turret head stations, a fruit holding means for each of said slicing knives, and means operable by said driving means to drive said slicing knives through the fruit to slice said fruit into sections. 33. A fruit slicing device for a paring machine, including a fruit supporting spindle, a cutter means mounted upon said spindle and operative for cutting the seed pod free from the meat of the fruit, a reciprocating frame operatively mounted in the machine and opposed to said spindle, a pair of opposed slicing knives mounted upon said frame and arranged whereby the inner ends of said knives are spaced apart to permit said spindle to enter therebetween, and one of said knives having a relieved portion for leaving a substantial section of the fruit seed pod unsliced, whereby the sliced halves of the fruit will fall from the fruit supporting spindle upon completion of the halving operation while the seed pod thereof will remain thereon. 34. A fruit slicing device for a paring machine, including a fruit supporting spindle, a cutter means mounted upon said spindle and operative for cutting the seed pod free from the meat of the fruit, a reciprocating frame operatively mounted in the machine and opposed to said spindle, a pair of opposed slicing knives mounted upon said frame and arranged to receive said spindle therebetween, one of said knives having a relieved portion for leaving a substantial section of the seed pod unsliced, whereby the sliced halves of the fruit will fall from the fruit supporting spindle upon completion of the halving operation while the seed pod thereof will remain upon said spindle until later removed, a fruit holding means for holding the fruit against splitting during the halving operation. 35. A fruit slicing device for a paring machine, including a fruit supporting spindle, a cutter means

mounted upon said spindle and operative for cutting the **seed** pod free from the meat of the fruit, a reciprocating frame operatively mounted in the machine and opposed to said spindle, a plurality of slicing knives mounted upon said frame and arranged to receive said spindle therebetween, one of said knives having a full blade to slice substantially through the meat and **seed** pod of the fruit, and the other of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, whereby the fruit impaled upon said supporting spindle will be sliced into sections and will leave said spindle upon completion of the slicing operation while the **seed** pod thereof, being only partially sliced, will remain thereon. 36. A fruit slicing device for a paring machine, including a fruit supporting spindle, a cutter means mounted upon said spindle and operative for cutting the **seed** pod free from the meat of the fruit, a reciprocating frame operatively mounted in the machine and opposed to said spindle, a plurality of slicing knives mounted upon said frame and arranged to receive said spindle therebetween, one of said knives having a full blade for slicing substantially through the meat and **seed** pod of the fruit, the other of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, and a fruit holding means for holding each slice of the fruit from splitting during the slicing operation. 37. A fruit slicing device for a paring machine, including a fruit supporting spindle having a fruit impelling blade, a cutter means mounted upon said spindle and operative for cutting the **seed** pod free from the meat of the fruit, a knife frame, a plurality of slicing knives mounted upon said frame and arranged to receive said spindle therebetween, two of said knives forming a double blade arranged to closely straddle said impelling blade and having full blades for slicing substantially through the meat and **seed** pod of the fruit, the other of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, and means for causing a relative movement between said supporting spindle and said knives, whereby the fruit impaled upon said spindle will be sliced into sections and will leave said spindle while the **seed** pod, being only partially sliced, will remain thereon. 38. A fruit slicing device for a paring machine, including a fruit supporting spindle having a fruit impelling blade, a cutter means mounted upon said spindle and operative for cutting the **seed** pod free from the meat of the fruit, a knife frame, a plurality of slicing knives mounted upon said frame and arranged to receive said spindle therebetween, two of said knives forming a double blade arranged to closely straddle said impelling blade and having full blades for slicing substantially through the meat and **seed** pod of the fruit, the remaining number of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, means for causing a relative movement between said supporting spindle and said knives, whereby the fruit impaled upon said spindle will be sliced into sections and will leave said spindle while the **seed** pod being only partially sliced will remain thereon, and a fruit holding means for holding each slice of the fruit from splitting during the slicing operation. 38. In a paring machine, means for separating the meat of the sliced part from the **seed** pod thereof, including a pear supporting spindle, a **seed** pod degrees of cutting means mounted upon said pear supporting spindle, means for operating said cutting means for severing the **seed** pod free from the meat of the fruit, a plurality of slicing knives, one of which is provided with a full blade for slicing through the meat and **seed** pod of the pear, and the other of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, whereby upon the completion of the slicing operation the sliced portion of the peas will leave said spindle while the **seed** pod will remain thereon. 40. In a fruit peeling machine, a spindle for stemming and therefor supporting the fruit, an impelling blade mounted thereon, a sleeve rotatably mounted on said spindle, an **seed** pod coring knife mounted upon said sleeve, a pusher for sliding the fruit along said spindle until the predetermined portion thereof is impaled upon said sleeve and said impelling blade acting to cut an opening in the fruit into which said coring knife enters during the sliding movement of the fruit, and a driving means for imparting a relative rotation between said spindle and sleeve. 41. In a fruit peeling machine, a spindle for stemming and therefor supporting the fruit, an impelling blade mounted thereon, a sleeve rotatably mounted on said spindle, a **seed** pod coring and butt end trimming knife mounted upon said sleeve, a pusher for sliding the fruit along said spindle until said **seed** pod coring and butt end trimming knife has penetrated the fruit a predetermined distance, and said impelling blade acting to cut an opening in the fruit into which said acting knife enters, and a driving means for imparting a relative rotation between said spindle and sleeve. 42. In a fruit glazing machine, the combination of a frills; supporting spindle, as **seed** pod coring knife means associated therewith, a plurality of slicing knives arranged to receive the fruit supporting spindle therebetween, one of which is provided with a full blade for slicing through the meat and **seed** pod of the fruit, and the other of said knives having a relieved portion for leaving a substantial section of the **seed** pod unsliced, whereby upon completion of the slicing operation the sliced portions of the fruit will leave the spindle while the **seed** pod, being only partially sliced, will remain thereon. 43. In a fruit peeling machine, the combination of a fruit supporting spindle, a **seed** pod coring knife means associated therewith, a reciprocating frame operatively mounted in the machine and opposed to said spindle, a plurality of slicing knives mounted upon said frame and arranged to receive said spindle therebetween, one of said knives having a full blade for slicing substantially through the meat and **seed** pod of the fruit, the other of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, and a fruit holding means for holding each slice of the fruit from splitting during the slicing operation. 44. In a fruit peeling machine, the combination of a fruit supporting spindle having a fruit impelling blade, a sleeve journaled upon said spindle, a **seed** pod coring knife mounted upon said sleeve, means for rotating said sleeve with relation to said spindle to cut the **seed** pod free from the meat of the fruit, a slicing knife frame, a plurality of slicing knives mounted upon said frame and arranged to receive said spindle therebetween, two of said knives forming a double blade arranged to closely straddle said impelling blade, and having full blades for slicing substantially through the meat, and **seed** pod of the fruit, the other of said knives each having a relieved portion for leaving a substantial section of the **seed** pod unsliced, and means for causing a relative movement between said supporting spindle and said knives, whereby the fruit impaled upon said spindle will be sliced into sections and will leave the machine while the **seed** pod, being only partially sliced, will remain thereon. 45. A coring station for a paring machine including a fruit supporting means, B. fruit coring means associated therewith, a fruit positioning means for pushing the fruit along the fruit support; porting means, means for stopping the action of the fruit positioning means when the fruit has penetrated the coring means a predetermined amount, and means for operating said coring means for coring the fruit. 46. A fruit slicing device for a paring machine including a fruit supporting spindle, 2. **seed** pod coring means associated with said spindle and operative for severing the **seed** pod from the meat of the fruit, a plurality of knives arranged to receive the fruit supporting spindle therebetween and each of said knives having a relieved portion for leaving the **seed** pod unsliced while slicing the meat of the fruit, and means for operating said knives. 47. A paring machine including a fruit supporting means, a reciprocating head operatively mounted in the machine in opposed relation to said fruit supporting means, a pair of opposed yokes pivotally mounted upon said head, a fruit pairing means cooperatively mounted upon the free end of each yoke, an auxiliary head operatively mounted in the machine and operatively connected with each of said yokes, and a driving means operative for firstly actuating the auxiliary head for swinging the yokes to bring the fruit pairing means into paring engagement with the fruit impaled upon said supporting means, secondly to simultaneously actuate both of said heads to draw the fruit pairing means across the surface of the fruit, thirdly for actuating the auxiliary head for swinging the yokes to their open position, and finally for returning both of said heads to their initial positions. 48. A paring machine including a fruit supporting means, a reciprocating head operatively mounted in the machine in opposed relation to the fruit supporting means, a pair of opposed yokes pivotally mounted upon said head, a fruit pairing means operatively mounted upon the free end of each yoke, an auxiliary head operatively mounted in the machine, a means for connecting the auxiliary head with each of said yokes and arranged to swing and yieldingly urge the fruit pairing means carried by said yokes into paring engagement with the fruit impaled upon the supporting means when the auxiliary head is moved toward the reciprocating head and to swing the yokes to move the fruit pairing means out of engagement with the fruit when the auxiliary head is moved away from the reciprocating head, and a driving means operative for firstly actuating the auxiliary head to swing the yokes and thereby to yieldingly urge the fruit pairing means into paring engagement with the fruit impaled upon the supporting means, secondly to simultaneously actuate both of the heads for drawing the pairing means across the surface of the fruit, thirdly for actuating the auxiliary head for moving the pairing means, out of engagement with the fruit and finally for returning both of said heads to their initial positions. 49. In a fruit paring machine, means for separating the meat portion of the fruit from the **seed** pod, including a holder adapted to receive the fruit to be operated upon, a coring knife mounted upon said holder, means for operating said coring knife for severing the **seed** pod from the meat of the fruit, a slicing means having a plurality of slicing knives arranged to permit the holder to enter between the ends thereof and relieved so as to leave a substantial portion of the **seed** pod unsliced, and means for causing a relative movement between said holder and said slicing means for slicing the meat of the fruit into a plurality of sections and operative for making a single cut substantially through the **seed** pod whereby the sliced sections of the fruit meat will leave the holder while the **seed** pod remains thereon. 50. In a fruit paring machine, means for separating the meat portion of the fruit from the **seed** pod, including a holder adapted to receive the fruit to be operated upon, a coring knife mounted upon said holder, means for operating said coring knife for severing the **seed** pod from the meat of the fruit, a slicing means having a plurality of slicing knives arranged to permit the holder to enter between the ends thereof, and all but one of said knives being relieved so as to leave a substantial portion of the **seed** pod unsliced while the unrelieved knives arranged to slice substantially through the **seed** pod, and means for causing a relative movement between said holder and said slicing means for slicing the meat of the fruit into a plurality of sections and operative for making a single cut substantially through the **seed** pod whereby the sliced sections of the fruit meat will leave the holder while the **seed** pod remains thereon, and whereby the **seed** pod may be easily removed from the holder due to the cut made therethrough by the slicing means. 51. In a fruit treating machine, the combination of a fruit support upon which the fruit is to be impaled, a relatively fixed grooving device arranged in advance of the support to chisel a channel in the fruit as the latter is presented to the support, a rotary cutting knife intermediate said holder and grooving device, and means for intermittently driving the cutting knife and

automatically stopping it in alignment with the grooving device. 52. In a fruit treating machine, a spindle for supporting the fruit, an impelling blade mounted on the spindle, a sleeve rotatably mounted on said spindle, a seed pod coring knife mounted on the sleeve, a pusher for sliding fruit along the spindle, said impelling blade acting to cut an opening in the fruit into which said coring knife enters during the sliding movement of the fruit, and a driving means for imparting a relative rotation between said spindle and sleeve. 53. A peeling device for fruit peeling machines, a peeling knife, means for producing a relative substantially longitudinal movement between the knife and the fruit, a pivotally mounted supporting means upon which the peeling knife is carried, and a single fruit engaging guard mounted on said supporting means adjacent said knife for gauging the depth of cut, said guard being mounted to one side of the pivotal axis of said supporting means whereby engagement of the guard with the fruit will urge the peeling knife into peeling engagement with the fruit. 54. A peeling device for fruit peeling machines, including a peeling knife, means for producing a relative substantially longitudinal movement between the knife and the fruit, a pivotally mounted supporting means, upon which the peeling knife is carried, and a single guard roller journaled on said supporting means adjacent said guard for rotation about an axis eccentric to the pivotal axis of said supporting means whereby engagement of the guard roller with the fruit urges the peeling knife into peeling engagement with said fruit. 55. In a fruit preparation machine, a fruit clamping device including a plurality of clamp arms, a guide means for said clamp arms, and means for relatively shifting said clamp arms and guide means to draw together or to separate said clamp arms, said guide means including means individually associated with each of said clamp arms to contact the arms individually with the fruit periphery and to independently lock the arms against separation except under said relative shifting movement. 56. In a fruit preparation machine, a fruit clamping device including a plurality of clamp arms mounted for swinging movement toward a common center, guide means for said clamp arms, and means for relatively shifting said clamp arms and said guide means to draw together or separate said clamp arms, said guide means including a plurality of yieldable plungers individually associated with said clamp arms and mounted to bear angularly against said arms to yieldably press each arm against the periphery of the fruit and to independently lock them against separation except under said relative shifting movement. 57. In a fruit preparation machine, a stemming tube upon which fruit may be impaled for severing the stem portion thereof, a coring knife rotating relative to said stemming tube for coring fruit impaled on the stemming tube, a splitting blade, and means for imparting relative reciprocation between said splitting blade and stemming tube to split a fruit impaled upon the stemming tube to release the fruit sections from the core. 58. In a fruit preparation machine, a fruit clamping device including a plurality of clamping arms, and yieldable means individually contacting with each of said arms to individually urge the arms toward the periphery of the fruit, and then immediately locking them against separation after each arm has contacted the periphery of the fruit. 59. In a fruit paring machine, a non-rotatable stemming tube adapted to embrace the stem of a fruit upon its being impaled thereon, means adapted to remove the stem of the fruit from the stemming tube, and a coring knife rotating relative to said stemming tube for coring fruit while impaled upon said stemming tube, and means for halving the fruit to release the sections from the core. 60. In a pear preparation machine, a centering device comprising means for receiving the stem, of a pear while held by an operator, a reciprocating tube upon which a pear is impaled from the calyx end while so held, means on said tube for preventing relative rotation therebetween, means for moving the pear at right angles to its longitudinal axis, a knife in the path of movement of said pear for cutting off the stem end of the pear to leave a flat end, means for removing the peel from the pear while impaled, and a reciprocating plunger in said tube for pushing the severed stem from the tube in a direction opposed to its impaling movement. 61. In a pear preparation machine, a reciprocating tube upon which a pear is impaled from the calyx end to completely sever the stem from the pear, a fin on the tube to prevent relative rotation between the tube and the pear, a plunger housed within the tube adapted for reciprocation therein for pushing the severed stem therefrom in a direction opposed to its entry, peeling means for peeling the pear while so impaled, a clamp for clamping the pear after the peeling is completed, a coring knife rotatably mounted in axial alignment with said clamp, means for imparting relative reciprocation between said clamp and knife while the pear is so clamped for entering said coring knife into the zone of the core area, and means for rotating the knife to cut the core from the pear. ' _gt;

ALBERT R. THOLESON



Title:

BIOCOMPOSITE AND/OR BIOMATERIAL WITH SUNFLOWER SEED SHELLS/HUSKS

Priority:

DE201110086319 20111114 DE201210209482 20120605 WO2012EP70348 20121012
EP20120778078 20121012 US20140356980 20140508 US20180896529 20180214

Family:	Publication number	Publication date	Application number	Application date
	BR112014011438 A2	20170516	BR20141111438	20121012
	BR112014011438 A8	20181226	BR20141111438	20121012
	CA2854396 AA	20140502	CA20122854396	20121012
	CA2854396 C	20200324	CA20122854396	20121012
	CN103958368 A	20140730	CN201280055687	20121012
	CN103958368 B	20171124	CN201280055687	20121012
	DE102011086319 A1	20130516	DE201110086319	20111114
	DE502012009807 D1	20170427	DE201250009807T	20121012
	DK2780256 T3	20170515	DK20120778078T	20121012
	EA033684 B1	20191115	EA20140090973	20121012
	EA201490973 A1	20140829	EA20140090973	20121012
	EP2780256 A1	20140924	EP20120778078	20121012
	EP2780256 B1	20170315	EP20120778078	20121012
	EP3176110 A1	20170607	EP20160205995	20121012
	ES2627510 T3	20170728	ES20120778078T	20121012
	HK1198982 A1	20150619	HK20140112500	20141212
	HK1198982 B	20180907	HK20140112500	20141212
	HU033278 T2	20171128	HU20120778078T	20121012
	IN03450DN2014 A	20150605	IN2014DN03450	20140430
	JP2014533311 T2	20141211	JP20140540376T	20121012
	JP6134325 B2	20170524	JP20140540376T	20121012
	KR102068854 B1	20200121	KR20147015800	20121012
	KR20140095552 A	20140801	KR20147015800	20121012
	PL2780256 T3	20170831	PL20120778078T	20121012
	UA117339 C2	20180725	UA20140006601	20121012
	US2014325715 AA	20141030	US20120356980	20121012
	US2018169908 AA	20180621	US20180896529	20180214
	US10173353 BB	20190108	US20120356980	20121012
	WO13072146 A1	20130523	WO2012EP70348	20121012

Probable Assignee:

SPC SUNFLOWER PLASTIC COMPOUND GMBH

Assignee(s):(std):

MEYER ULRICH ; SPC SUNFLOWER PLASTIC COMPOUND ; SPC SUNFLOWER PLASTIC COMPOUND GMBH ; WENDELN ULRICH

Assignee(s):

SPC SUNFLOWER PLASTIC COMPOUND GMBHAUF'M HALSKAMP 1249681GARRELDE

Inventor(s):(std):

ULRICH MEYER ; ULRICH WENELN ; WENDELN ULRICH ; MEYER ULRICH ; ULRICH WENDELN

Inventor(s):

MEYER ULRICHDE ; WENDELN ULRICHDE

Agent(s):

OYEN WIGGS GREEN AND MUTALA LLP; BORDEN LADNER GERVAIS LLP; EISENFUEHR SPEISER PATENTANWALTE RECHTSANWALTE PARTGMBB; EISENFUEHR SPEISER; ROEB MARIA; KATO ASAMICHI; UCHIDA KIYOHITO; HAUG PARTNERS LLP; EISENFUEHR SPEISER AND PARTNER ET AL

Designated states:

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

International class (IPC 8-9):

B27N1/02 B27N3/08 B29C41/04 B29C45/00 B29C47/00 B29C51/00 B65D B65D1/48 B65D81/02 B65D85/72 C08J C08J3/00 C08J3/20 C08J5/04 C08K5/00 C08L C08L1/00 C08L1/02 C08L101/00 C08L23/12 C08L97/02 C08L99/00 C8L99/00 (Advanced/Invention); B29K105/00 B29K23/00 B65D85/00 (Advanced/Non-invention); B27N5/00 C08L99/00 (Core/Invention); B65D C08J C08L (Subclass/Invention)

International class (IPC 1-7):

B65D81/02 C08J3/20 C08J5/04 C08L97/02 C08L99/00

CPC:

B29C45/0001 B29C48/022 B29C51/002 B29K2023/12 B29K2093/00 B29K2105/25 B65D1/48 B65D85/72 C08J2399/00 C08J2423/00 B29C41/04 C08J3/005 C08J3/203 C08K5/005 C08L23/12 C08L99/00 C08L2205/08 Y10T428/1348 Y10T428/2982

US class:

1/1 106/406 264/311 264/328.18 428/35.6 428/402 524/15 800/298 800/320 800/322

[Classification Explorer](#)

Cited documents:

WO09129051 A2, WO09120311 A2, US5663221 A, US5663221 A, US5320669 A, US3927235 A, US3927235 A, US2009260918 AA, US2009110654 AA, US2009110654 AA, US2002028857 AA, UA29511 U, JP2012522156 T2, JP2012522156, JP2011518266 T2, JP2011518266 T2, JP2011518266, JP2011515605 T2, JP2011515605, EP2976790 A1, EP0976790 A1, EP0976790 A1, CN1718915 A, CN101665627 A,

Forward Citations:

WO20002304, WO19193186, WO18050698, WO17186743, WO16120285, WO14184273, US2016108187, JP2016517911, FR3079751, EP3250356, EA033915, DE102018201187, DE102018115236, DE102018115107, DE102016117168, DE102016117168, DE102016107654, DE102015201386, DE102013216309, DE102013208876, CN104845396, CN103897415, CN103897415,

Abstract:

The invention relates to a biomaterial and/or a biocomposite based on sunflower seed shells/husks. According to the invention, it is proposed that sunflower seed shells/husks are used instead of wood, bamboo or other wood-like fibre products as the original material for the biocomposite products and are used for the production of such products in order to improve the previous biomaterials, and in particular also to design said materials for improved cost efficiency and to improve their material properties.

Title:

METHOD FOR CULTIVATING ERIMOSHOUZU, AND METHODS FOR HARVESTING AND STORING ITS SEED
PROCEDE DE CULTURE D'ERIMOSHOUZU ET PROCEDES DE RECOLTE ET DE STOCKAGE DE SES GR

Priority:

JP19990124769 19990430 JP19990476919 19990430 WO2000JP02709 20000425

Family:

Publication number	Publication date	Application number	Application date
AR023786 AA	20020904	AR2000P102016	20000428
AU200038434 A1	20001117	AU20000038434	20000425
AU200038434 A5	20001117	AU20000038434D	20000425
AU756430 B2	20030116	AU20000038434	20000425
BRPI0010188 A	20020213	BR2000PI10188	20000425
CA2372008 AA	20011029	CA20002372008	20000425
CN1177521 C	20041201	CN20008006911	20000425
CN1349379 A	20020515	CN20008006911	20000425
EP1192851 A1	20020403	EP20000917468	20000425
EP1192851 A4	20050824	EP20000917468	20000425
JP2000065898 A1	20021203	JP20000614796T	20000425
KR20020011980 A	20020209	KR20017013888	20000425
TH46962 A	20010906	TH20001001505	20000428
TW462866 B	20011111	TW20000107752	20000425
VN4172 A1	20040426	VN20010001131	20000425
WO0065898 A1	20001109	WO2000JP02709	20000425

Probable Assignee:

UENO SEIYAKU KABUSHIKI KAISHA

Assignee(s):(std):

CHIKAMORI MASAHIRO ; TABATA AKIHIKO ; UENO FINE CHEMICALS IND LTD ; UENO RYUZO ; UENO SEIYAKU KK ; UENO SEIYAKU KABUSHIKI KAISHA

Assignee(s):

UENO SEIYAKU K K

Inventor(s):(std):

UENO RYUZO ; TABATA AKIHIKO ; CHIKAMORI MASAHIRO ; MASAHIRO CHILKAMORI ; MASAHIRO CHIKAMORI ; AKIHIKO TABATA ; RYUZO UENO

Inventor(s):

CHILKAMORI MASAHIRO

Agent(s):

FB RICE PTY LTD; FB RICE; SMART AND BIGGAR; ISHII SADAJI; NOMURA KENICHI; HIRAKI YUSUKE

Designated states:

AT AU BE BR CA CH CN CY DE DK ES FI FR GB GR IE IT JP KR LU MC NL PT SE US VN

International class (IPC 8-9):

A01G1/00 A01G22/40 (Advanced/Invention);
A01G1/00 (Advanced/Non-invention);
A01G1/00 (Core/Invention)

International class (IPC 1-7):

A01G1/00

CPC:

A01G2/00 A01G22/00

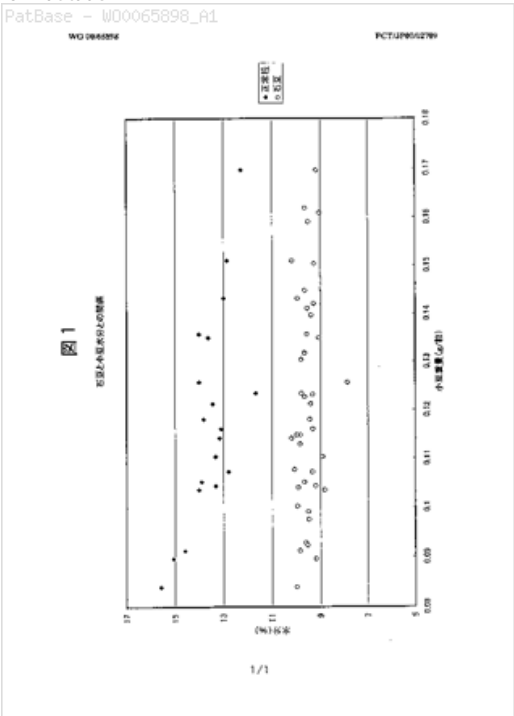
European class:

A01G1/00

[Classification Explorer](#)

Abstract:

A method for cultivating Erimoshozu characterized by effecting the cultivation under such conditions that the average minimum temperature is 18.5 degrees centigrade or below and the average maximum temperature is 29.0 degrees centigrade or below in 30 days before harvesting **seeds**; a method for harvesting Erimoshozu **seeds** characterized by harvesting the **seeds** at the point that the lowermost **seed** in a **shell** has a moisture content of 10 percent or more; and a method for storing Erimoshozu **seeds** characterized by storing the **seeds** while maintaining the moisture content thereof at 10 percent or more by preventing a decrease in the moisture content of Erimoshozu **seeds**. By using these methods, Erimoshozu **seeds** being comparable in qualities to those grown in Hokkaido can be obtained even in an area of a low latitude.



Title: LOTUS **SEED** THRESHER
Priority: CN201810059399 20180122
Family:

Publication number	Publication date	Application number	Application date
 CN108064564 A	20180525	CN201810059399	20180122

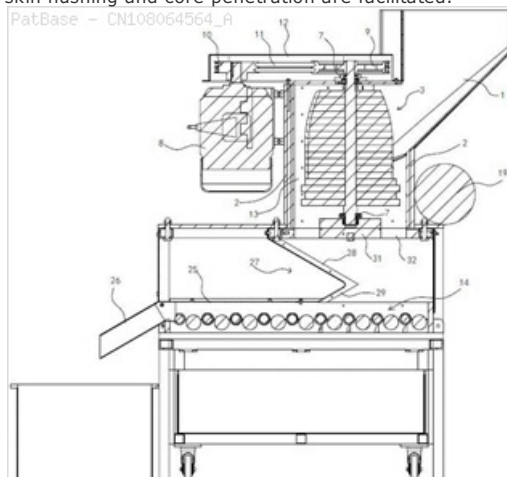
Probable Assignee: GUANGCHANG COUNTY XING LIAN CO LTD
Assignee(s):(std): GUANGCHANG COUNTY XING LIAN CO LTD
Assignee(s): GUANGCHANG LOTUS COUNTY OF MACHINERY MFG CO LTD ; GUANGCHANG COUNTY XING LIAN CO
Inventor(s):(std): CAO ZHIJUN ; CAO ZHIQIANG
International class A01F11/00 A01F12/44 (Advanced/Invention)
(IPC 8-9):
CPC: A01F11/00 A01F12/44

[Classification Explorer](#)

Forward Citations: CN110521397,

Abstract:

The invention discloses a lotus **seed** thresher which comprises a feeding port, a feed bin and a lotus **seed** crushing unit. The feeding port is communicated with the feed bin and is for lotus **seeds** to enter the feed bin. The lotus **seed** crushing unit includes a rotating shaft and a crushing portion located on the rotating shaft. The crushing portion includes a plurality of bristles, the rotating shaft is driven by a first motor to rotate, and the rotating shaft drives the plurality of bristles to rotate. The lotus **seed** thresher has the advantages that when lotus **seeds** enter the feed bin, the lotus seeds are in contact with the crushing portion on the rotating shaft; because the bristles are constantly rotating, the bristles can crush whole lotus **seed** pods; because the lotus **seeds** themselves are harder than cellular structures of the lotus **seed** pods, the cellular structures of the lotus **seed** pods can be crushed, while the lotus **seeds** themselves are not damaged, and thus the effect of lotus seed threshing is achieved. An outlet of the feed bin corresponds to a lotus **seed** fragment removing mechanism. The lotus **seed** thresher has the advantages that after the lotus **seed** pods are crushed, the lotus **seeds** and lotus **seed** pod fragments are still mixed together; after the lotus **seed** fragment removing mechanism is arranged, the lotus **seed** pod fragments can be removed, so that the lotus seeds are separated, and automatic operations of subsequent lotus **seed shelling**, skin flushing and core penetration are facilitated.



Title: MODIFIED TREE PEONY **SEED** TAKES OFF POD **SHELLER**

Priority: CN201620333080U 20160420

Family:	Publication number	Publication date	Application number	Application date
	■ CN206043359 U	20170329	CN201620333080U	20160420

Probable Assignee: JIANGSU MUDANTING AGRICULTURE TECH DEV CO LTD

Assignee(s):(std): JIANGSU MUDANTING AGRICULTURE TECH DEV CO LTD

Assignee(s): JIANGSU MUDANTING AGRICULTURE TECHNOLOGY DEVELOPMENT CO ; JIANGSU PEONY PAVILION AGRICULTURAL SCIENCE AND TECHNOLOGY DEVELOPMENT CO LTD

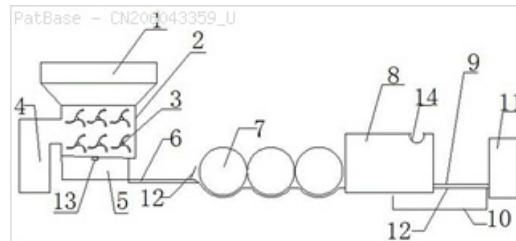
Inventor(s):(std): SHEN BOHUA

International class A23N5/00 C11B1/04 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

The utility model discloses a modified tree peony **seed** takes off pod **sheller**, including pod **shell** entry, take off pod mechanism, the compression roller of peeling, the mechanism of extracting oil, what pod **shell** entry below set up that inside area takes off the pod piece takes off pod mechanism, the side is connected and is received the pod storehouse, the below is connected and is received the **seed** storehouse, receives the **seed** storehouse and passes through conveyer belt I and is connected with the desquamation compression roller, the desquamation compression roller is connected with the **shelling** bucket, establishes the gap above **shelling** barrel, the below is connected with conveyer belt II, filtering baffle is established to II belows of conveyer belt, II belows of gap and conveyer belt are equipped with the basin, conveyer belt II is connected with the mechanism of extracting oil, the utility model has the advantages of simple and reasonable structure, tree peony **seed** that the vibrator that takes off the bottom installation of pod mechanism enabled to take off the pod gets into next production processes sooner, and filtering baffle's design can be filtered again and taken place to stop up when debris can avoid the tree peony **seed** to get into the desquamation compression roller again, and the desquamation compression roller makes the **shell** of tree peony **seed** come off through the extrusion, drags the **shell** bucket to enable the tree peony **seed** and separates rapidly with the **shell**, saves the cost of labor, improves work efficiency.



Title:

Electric lotus seed pod sheller

Priority:

CN201120426733U 20111102

Family:

Publication number	Publication date	Application number	Application date
 CN202276810 U	20120620	CN201120426733U	20111102

Probable Assignee:

XIAOCONG HUANG

Assignee(s):(std):

XIAOCONG HUANG

Assignee(s):

HUANG XIAOCONG

Inventor(s):(std):

XIAOCONG HUANG

Inventor(s):

HUANG XIAOCONG

International class (IPC 8-9):

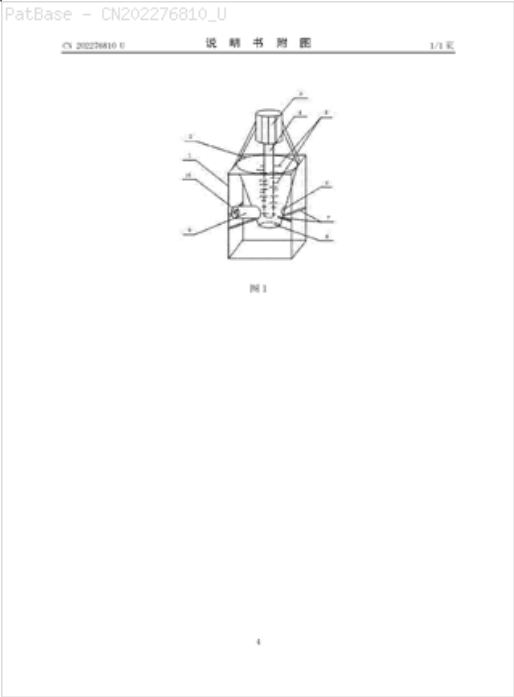
A23N15/00 (Advanced/Invention)

[Classification Explorer](#)

Forward Citations:

CN106068950,

Abstract:
The utility model discloses an electric lotus seed pod sheller, which comprises a frame, a motor and an output shaft. The motor is mounted at the upper end of the frame, a feed hopper is fixed inside the frame, the output shaft of the motor is inserted into the feed hopper and provided with spikes, an air duct is arranged on the lower lateral side of the feed hopper, a fan is mounted on the air duct which is communicated with the feed hopper, and a fragment outlet is reserved on the lateral side, opposite to the air duct, of the feed hopper. When the electric lotus seed pod sheller is used, shells of picked lotus seed pods placed in the feed hopper can be shredded under the action of the motor output shaft and the spikes after the motor and fan are started, and the shell fragments are discharged from the lateral fragment outlet, while lotus seeds are discharged from an outlet at the bottom of the feed hopper. The electric lotus seed pod sheller has the advantages that lotus seeds can be acquired quickly while completeness of the lotus seeds is guaranteed, lotus seed damage rate is low, no fragment or coating remains on the lotus seeds, operating efficiency is improved greatly, time and labor are economized, labor intensity is reduced for farmers, production cost is reduced, and the electric lotus seed pod sheller is simple in structure.

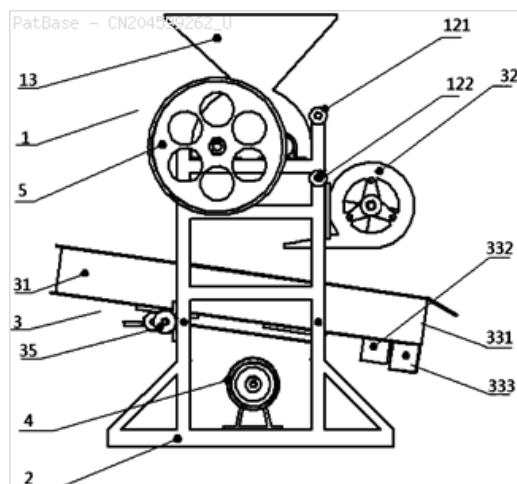


Title: TAKE OFF POD SORTING UNIT TO ROLL-TYPE OIL WITH TREE PEONY FRUIT**Priority:** CN201510153219 20150401 CN201520194403U 20150401

Family:	Publication number	Publication date	Application number	Application date
	 CN104705767 A	20150617	CN201510153219	20150401
	 CN104705767 B	20170412	CN201510153219	20150401
	 CN204599262 U	20150902	CN201520194403U	20150401

Probable Assignee: UNIV BEIJING FORESTRY**Assignee(s):(std):** BEIJING FORESTRY UNIV ; UNIV BEIJING FORESTRY**Inventor(s):(std):** REN DONG ; ZHANG JIANZHONG ; ZHAO DONG ; ZHAO JIAN ; LI SA ; ZHANG DONG**International class**
(IPC 8-9): A23N5/00 (Advanced/Invention)[Classification Explorer](#)**Cited documents:** GB311785 A, GB2186179 A1, CN2080751 U, CN204599262 U, CN202286197 U, CN201700371 U, CN103480563 A,**Forward Citations:** CN105614903, CN105614903, CN104705767,**Abstract:**

The utility model provides a take off pod sorting unit to roll-type oil with tree peony fruit should take off pod sorting unit and set up in the frame and take off pod mechanism and set up in the sorting mechanism that takes off pod mechanism below, wherein, took off pod mechanism including the first roller and the second roller of mutually supporting, be provided with the arch on first roller and the second roller respectively, it is when rotating relatively, and protruding terminal linear velocity is different to parcel oil with two pod walls of tree peony **seed** grain in taking off pod mechanism can the effect of the different linear velocities of two rollers down and by separately, and then oil is peeled off out from its fruit pod with tree peony **seed** grain, pod wall and the **seed** grain separated all fall into the sorting mechanisms that take off below the pod mechanism, the sorting mechanism can separate the **seed** grain and the impurity of different particle diameter grades, thereby obtains complete oilyly with tree peony **seed** grain high-efficiently.



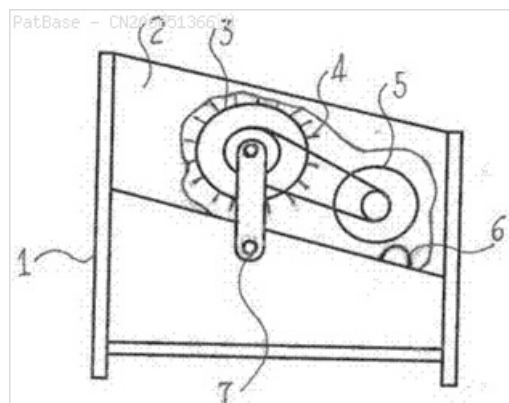
Title: HIGH -EFFICIENT ENVIRONMENTAL PROTECTION SEPARATOR OF MUNG BEAN **SEED SHELL**
Priority: CN201720146656U 20170219
Family:

Publication number	Publication date	Application number	Application date
 CN206651366 U	20171121	CN201720146656U	20170219

Probable Assignee: MAYANG MIAO AUTONOMOUS COUNTY NO 1 MIDDLE SCHOOL
Assignee(s):(std): MAYANG MIAO AUTONOMOUS COUNTY NO 1 MIDDLE SCHOOL
Assignee(s): MAYANG MIAO AUTONOMOUS COUNTY FIRST SCHOOL ; MAYANG MIAO AUTONOMOUS COUNTY MIDDLE SCHOOL
Inventor(s):(std): HUANG RONG ; FU JIACHANG ; CHEN LIHAO ; ZHOU FANGYU
International class (IPC 8-9): A23N15/10 (Advanced/Invention)

[Classification Explorer](#)**Abstract:**

The utility model discloses a high -efficient environmental protection separator of mung bean **seed shell**. Big in order to overcome current mung bean pod **seed** and **shell** separating intensity of labour, the inefficiency, the dirt bits fly upward, not environmental protection, influence healthy wait less than, the utility model discloses the support is equipped with the pod groove, and installed defeated pod roller at this pod groove interval, broken the **shell** roller defeated pod roller interval is equipped with the gin pole, the pod interval had between defeated pod roller and the bottom plate, a **shell** interval has between broken **shell** roller and the bottom plate the bottom plate is equipped with lou beans mouth defeated pod roller is equipped with incorporated hand -operated device 7, defeated pod roller becomes the linkage with broken **shell** roll forming and is connected. The utility model discloses the **seed** and **shell** separating of mainly used mung bean pod, its process is simple, and is efficient, effectual, can prevent that the dirt bits from flying upward, environmental protection safety, it has broken traditional way, the simple structure, convenient to use easily promotes.



Title:

PEANUT **SHELLING** DEVICE FOR PEANUT **SEED SHELLING** MACHINE

Priority:

CN202010123313 20200227

Family:

Publication number	Publication date	Application number	Application date
 CN111183798 A	20200522	CN202010123313	20200227

Probable Assignee:

AGRICULTURAL UNIV OF HEBEI

Assignee(s):(std):

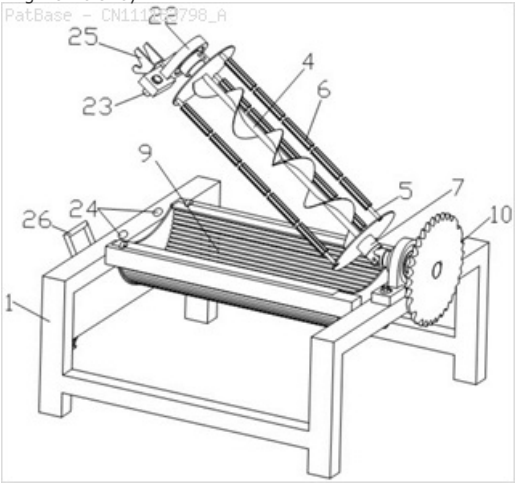
AGRICULTURAL UNIV OF HEBEI

International class (IPC 8-9):

A01C1/00 A01F11/00 A01F12/18 A01F12/24 A01F12/44 A01F12/56 B07B4/02 B07B9/00 (Advanced/Invention)

[Classification Explorer](#)

Abstract:
The invention discloses a peanut **shelling** device for a peanut **seed shelling** machine, and belongs to the technical field of peanut **shelling** machines. The peanut **shelling** device includes a **shelling** structure and an uniform distribution structure of peanut pods. The **shelling** structure includes a roller and an arc-shaped sieve body. The roller includes a roller shaft and a plurality of rubbing columns, each rubbing column includes a column core and a nylon sleeve. The inner hole of the nylon sleeve is slidably connected with the column core, and a plurality of grooves are provided radially on the cylindrical surface of the nylon sleeve, and each groove is evenly distributed along the circumferential direction of the cylindrical surface of the nylon sleeve. The turning structure includes a cross shaft universal coupling and a short shaft connected from end to end. The uniform distribution structure of peanut pods includes two spiral blades symmetrically arranged on the roller shaft. The rotation direction of the two spiral blades causes the peanut pods to be pushed from the middle to both ends, and the pitch of the two spiral blades gradually increases from the inner end to the outer end. The device has the advantages of being convenient for cleaning the debris of the arc-sieve, thereby causing less damage to the peanut **seed** kernel and the peanut **seed** red coat during the **shelling** process and obtaining high-quality peanut **seeds** with high efficiency.



Title: A biomimetic formula agricultural research use of **seed** threshing machine (Machine translation)

Priority: CN201921508821U 20190911

Family:	Publication number	Publication date	Application number	Application date
	 CN210492554 U	20200512	CN201921508821U	20190911

Probable Assignee: WU QI

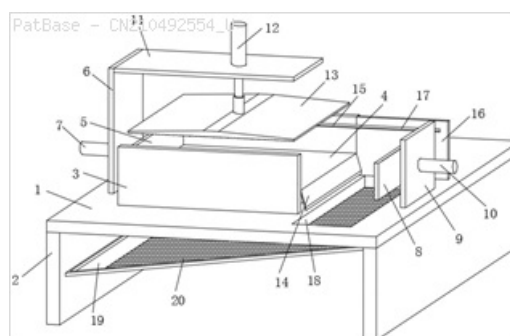
Assignee(s): WU QI

International class A23N12/10 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN210492554U **Machine translation:** The utility model discloses a bionic agricultural research use of **seed** threshing machine, belonging to the field of agricultural machinery and equipment, a bionic agricultural research use of **seed** threshing machine, including both sides of the lower end of the support plate are fixedly connected with the upper end of the console, the console front and rear sides are fixedly connected with a vertical plate, the vertical reciprocating movement of the pressure plate, to achieve the pods threshing chamber were beat, and slidably disposed in the threshing chamber left and right sides of the left and right bezel, you can achieve the threshing chamber was right and left end seal, to avoid **seeds** under beating in the process of splashing, while by constantly continued to move closer to the middle of the cavity, to achieve the pods threshing constantly closer to the middle, helping improve the pod is beating degree, when the threshing is completed, right-hand flap moves to the right, the right end of the threshing chamber open, the left shutter push pod **shell** and **seed** moves to the right, to achieve pod **shell** and **seed** blanking, and finally through the filter from the **seed** pod **shell** inner filter out.



Title: One kind of **seed** peanut **shelling** coating preparation methods (Machine translation)

Priority: CN201110174483 20110627

Family:	Publication number	Publication date	Application number	Application date
	 CN102273339 A	20111214	CN201110174483	20110627

International class
(IPC 8-9): A01C1/06 A23N5/01 (Advanced/Invention)

[Classification Explorer](#)

Cited documents: WO8101942 A1, CN101091495 A,

Forward Citations: CN107646232, CN105410954, CN104643263, CN104207307,

Abstract:

Source: CN102273339A **Machine translation:** The present invention discloses a peanut **shelling seed** coating preparation methods, belong to peanut **seed** processing technology, **shelling** peanuts **seed** coating preparation steps are as follows: to make water the **seed** pod, pod weight and water ratio of 10: 1, even after spraying with film wrap placed 15 ~ 20 degrees centigrade environment, place 15 to 17 hours, use peanut **sheller shelling, shelling** immediately after use **seed** coating, for coating Drying **seeds** to the **seed** moisture content at the time of 9 to 11 percent, can be boxed storage; using the method of the present invention provides a peanut **seed** breakage rate of less than 2.5 percent, more than 95 percent germination rate, to solve the existing peanut **sheller** shortcomings, economic and social benefits significantly.

Title: SEPARATION PREPARATION METHOD OF CRUDE PROTEIN AND PROTEIN POWDER OF MORINGA **SEEDS**
Priority: CN201811357010 20181115
Family:

Publication number	Publication date	Application number	Application date
 CN109329555 A	20190215	CN201811357010	20181115

Probable Assignee: RES INST OF RESOURCES INSECTS CHINESE ACADEMY OF FORESTRY
Assignee(s):(std): RES INST OF RESOURCES INSECTS CHINESE ACADEMY OF FORESTRY
Assignee(s): RESEARCH INST OF RESOURCES INSECTS CHINESE ACADEMY OF FORESTRY ; CHINESE ACADEMY OF FORESTRY RESOURCES INST INSECTS
Inventor(s):(std): ZHANG ZHONGQUAN ; MA LIYI ; WANG YOUQIONG
International class A23J1/14 (Advanced/Invention)
(IPC 8-9):
CPC: A23J1/144

[Classification Explorer](#)**Abstract:**

The invention discloses a separation preparation method of crude protein and protein powder of moringa **seeds**. The method comprises the steps as follows: step 1, picking ripe pods of selenium-rich moringa, taking out **seeds**, drying the **seeds** in the sun, and **shelling** the **seeds** by a moringa **shelling** machine to obtain moringa **seed** kernels; step 2, treating the moringa **seed** kernels by a pressing method or a solvent extraction method, and removing moringa **seed** to obtain crude protein of moringa **seeds**, wherein the content of protein in the crude protein reaches 53 percent -56 percent; step 3, adding an emulsifier to deionized water with the pH value in a range of 3-11, and performing heating for later use; and step 4, adding deionized water to the crude protein of moringa **seeds**, performing ultrasonic extraction, separation and filtration, and drying a filtrate by a spray drying method to obtain separated protein powder of the selenium-rich moringa **seeds**. By means of the method for adding the emulsifier in the extraction process, the dissolution rate of lipid-soluble protein in the moringa **seeds** is increased and the yield of the separated protein is increased. By implementation of the method, the product blank of separated protein of moringa is filled up and the source way of high-end commercial protein is added.

Title: DESIGN AND FABRICATION OF GROUNDNUT AND PEANUT **SHELLING** MACHINE**Priority:** IN202041028681 20200706

Family:	Publication number	Publication date	Application number	Application date
	IN202041028681 A	20200717	IN202041028681	20200706

Probable Assignee: MANOJ KUMAR G**Assignee(s):** MANOJ KUMAR G ; UTHRANARAYAN C**Inventor(s):** MANOJ KUMAR G ; UTHRANARAYAN C**International class** A23N5/01 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

The process of **shelling** the peanut from its crop is tedious when it is done with manual labor without any machinery. At first the crop is uprooted from the ground and is separated from its leaves and roots. After the removal of the leaves and root the groundnut is to be separated from the plant. These processes are mostly done by the farmers on their self with the help of various labors and small machinery if needed. The groundnut is then sent on to the market for the sales purpose where it is been known as peanut. The **shelling** of the peanut becomes the next task from the groundnut. The nut and pod are mostly separated with hands by breaking the pod and taking away the nut. The pod is thrown out and the nut is used for. consumption. There are many discomforts, time consumption and wastage of labor during the whole process. When the process is done with the help of machinery the whole crop being the input with its leaves and root gets converted into **shelled** peanut as the output. Many combined steps are reduced to a single step. This process is carried out with our groundnut and peanut **shelling** machine. At first peanut (whole plant) is taken and inserted in the separator. After this process of separation, groundnut is separated from peanut and carried to hopper where the **shelling** process begins. In **shelling** process, the groundnut **seed** is removed from its pod by impact and compression action. After **shelling** process, the groundnut **seed** and pods undergo screening where the groundnut is separated from pods and collected in a tray. When the nuts and pods are obtained separately the nuts are taken for consumption whereas the pods are used for other agricultural processes such as natural fertilizers for the soil. The farmer themselves can operate the machinery and gain huge amount of time and money with the help of this machine.

Title: EXTRUSION TYPE PEANUT **SEEDS** **SHELLER** FLEXIBLE PLAYING BAR PART STRUCTURE

Priority: CN201210512672 20121204 CN201220660852U 20121204

Family:	Publication number	Publication date	Application number	Application date
	 CN102987525 A	20130327	CN201210512672	20121204
	 CN102987525 B	20160928	CN201210512672	20121204
	 CN203058240 U	20130717	CN201220660852U	20121204

Probable Assignee: NANJING RES INST AGRI MECHANIZ

Assignee(s):(std): MINISTRY OF AGRICULTURE NANJING AGRICULTURAL MECHANIZATION RESEARCH INST ; NANJING RES INST AGRI MECHANIZ ; NANJING RESEARCH INST FOR AGRICULTURE MECHANIZATION MINISTRY OF AGRICULTURE

Assignee(s): NANJING RESEARCH INST OF AGRICULTURAL MECHANIZATION MINISTRY OF AGRICULTURE OF PEOPLE S REPUBLIC OF CHINA

Inventor(s):(std): ZHANG HUIJUAN ; WU FENG ; HU ZHICHAO ; GAO XUEMEI ; LIU MINJI ; PENG BAOLIANG ; TIAN LIJIA ; WANG HAIYOU ; WANG JIANNAN ; XIE HUANXIONG

International class (IPC 8-9): A23N5/01 (Advanced/Invention)

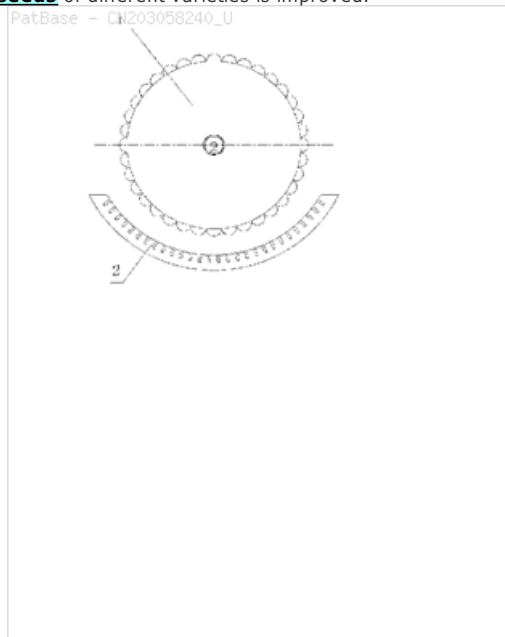
[Classification Explorer](#)

Cited documents: CN2039113 U, CN203058240 U, CN202456322 U,

Forward Citations: CN106387930, CN105942548, CN105747244, CN105747244, CN105212238, CN102987525, CN102987525,

Abstract:

The utility model relates to a part improved structure of a peanut **sheller** in agricultural machinery, in particular to an extrusion type peanut **seeds sheller** flexible playing bar part structure. A playing bar rotary drum (1) is a cylinder soft elastomer, the middle of the playing bar rotary drum is a rotating shaft, semi-round protruding strips are arranged on the periphery of the cylinder of the playing bar rotary drum (1), the cross section of the playing bar rotary drum is flower-plate-shaped, the middle is a circle, a large number of semi-round protruding pieces are outward arranged on the periphery of the circle in a protruding mode, and the radius of an outer circle of the semi-round protruding pieces is one to two millimeters. A playing bar adjusting sleeve (3) can be used or can not be used according to the size of pods of peanut **seeds**, the playing bar adjusting sleeve (3) is a soft elastomer annular loop with different thicknesses, an inner ring of the playing bar adjusting sleeve (3) is a semi-round groove, and an outer ring of the playing bar adjusting sleeve (3) is an externally protruding semi-round protruding strip. The extrusion type peanut **sheller** flexible playing bar part structure changes the shape of a playing bar in an existing hitting type peanut **sheller** and materials of an existing playing bar rotary drum, and therefore a gap between the semi-round protruding strip on the playing bar rotary drum and a concave grid at the lower portion can be adjusted conveniently, quickly in a time-saving mode, and **shelling** adaptability of the peanut **sheller** to peanut **seeds** of different varieties is improved.



Title: Legume pod thresher

Priority: US19920920966 19920728 US19930063993 19930518 US19940233551 19940426

Family:

Publication number	Publication date	Application number	Application date
US5370579 A	19941206	US19940233551	19940426
US5372547 A	19941213	US19930063993	19930518
WO9401996 A1	19940203	WO1993US06750	19930719

Probable Assignee: OXBO INT CORP

Assignee(s):(std): FMC CORP

Assignee(s): FMC TECHNOLOGIES INC ; MANUFACTURERS AND TRADERS TRUST CO ; OXBO INT ; OXBO INT CORP ; OXBO INTIONAL ; UNION BANK OF CALIFORNIA NA

Inventor(s):(std): BROWN KENNETH ; ORLANDO FRANKLIN P ; ZEMKE FREDERICK A ; LECARRE YVES

Designated states: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PL PT SE UA

International class (IPC 8-9): A01D45/22 A01F11/00 (Advanced/Invention)

International class (IPC 1-7): A01D45/22 A01F11/00 A01F12/18

CPC: A01D45/22 A01F11/00

European class: A01D45/22 A01F11/00

US class: 460/131 460/142

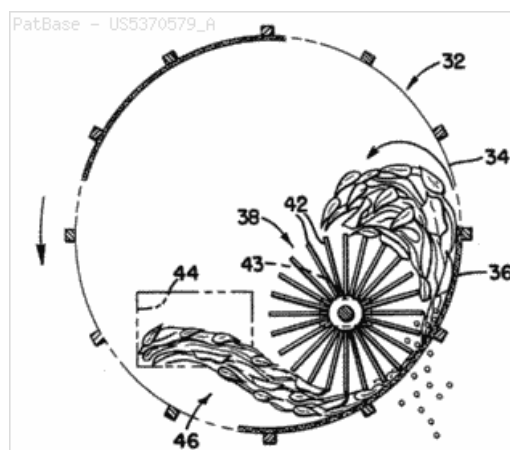
[Classification Explorer](#)

Cited documents: US4927440 A, US4915671 A, US4335570 A, US4232506 A, US4052992 A, US4028867 A, US3826267 A, US3771531 A, US3709231 A, US2768628 A, US2543537 A, US2374162 A, NL7706531 A, GB1471597 A, EP0405690 A1,

Forward Citations: WO9626635, US7921628, US7694502, US7581375, US6960131, US6955597, US6779329, US6282877, US5851146, US5718629, US5468187, US2010000194, US2007028516, US2006053765, US2005102991, US2004224738, NL1022300, EP1435195, EP1435195,

Abstract:

In the harvesting of legumes, apparatus having a plurality of rods mounted on a rotating axle provides a vibratory contact force to the **seed** containing pods to provide acceleration and impact forces to separate the **seeds** from the **shells** or pods containing the **seeds**.

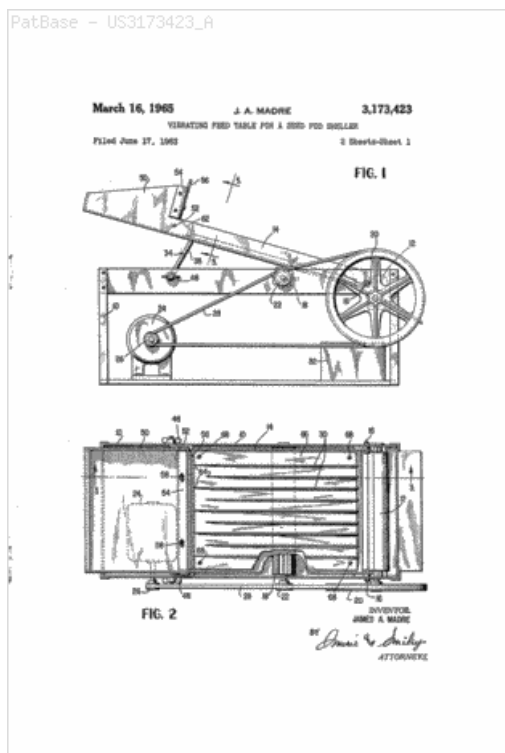


Title: VIBRATING FEED TABLE FOR A **SEED** POD **SHELLER****Priority:** US19630288095 19630617

Family:	Publication number	Publication date	Application number	Application date
	US3173423 A	19650316	US19630288095	19630617

Probable Assignee: AGUSTUS MADRE JAMES**Assignee(s):(std):** AGUSTUS MADRE JAMES**Inventor(s):(std):** AGUSTUS MADRE JAMES**Inventor(s):** MADRE JAMES AGUSTUS**International class**
(IPC 8-9): A23N15/10 (Advanced/Invention);
A23N15/00 (Core/Invention)**International class**
(IPC 1-7): A23N7/00**CPC:** A23N15/10**European class:** A23N15/10**US class:** 460/131 460/148[Classification Explorer](#)**Cited documents:** US858608 A, US394630 A, US2820459 A, US2804873 A, US1798543 A, US1108691 A, DE40145 A,**Forward Citations:** CN108522030, CN107371596,**Abstract:**

(Claim 1) 1. A **seed** pod **sheller** comprising a support, a pair of cooperating pressure rolls journaled on said support to receive pods and express **seeds** therefrom, a downwardly inclined feed chute havin... a hinge connection near its bottom on said support so as to present the lower, discharge and adjacent to and leading toward said rolls, an arm pivotally mounted on said support and providing a seating for the upper portion of said chute, a shaft havin a p... iralit of spaced, cam-like ribs rotatably mounted on said support between said hinge connection and said arm, said ribs engaging the bottom of said chute to vibrantly lift the latter to cause pods to sl... de downwardly toward said rolls, power means operatively connected to rotate both said pressure rolls and said ribbed shaft for vibrating the chute, and means for clamping said arm at a selected angle to vary the amplitude of vibration imparted to said chute by said ribs of the shaft.



Title:

METHOD FOR SCREENING VARIETIES OF HIGH-MOLYBDENUM RAPE **SEEDS**

Priority:

CN201410065943 20140226

Family:

Publication number	Publication date	Application number	Application date
CN103766129 A	20140507	CN201410065943	20140226
CN103766129 B	20160831	CN201410065943	20140226

Probable Assignee:

UNIV HUAZHONG AGRICULTURAL

Assignee(s):(std):

HUAZHONG AGRICULTURAL UNIV ; UNIV HUAZHONG AGRICULTURAL

Inventor(s):(std):

TAN QILING ; SUN XUECHENG ; QIN SHIYU ; HU CHENGXIAO

International class

A01G1/00 A01G7/00 (Advanced/Invention)

(IPC 8-9):

Classification Explorer

Cited documents:

EP2671443 A1, CN103238397 A, CN102754592 A, CN102187774 A, CN102172132 A,

Forward Citations:

CN108776821, CN108776821, CN104782380,

Abstract:
The invention discloses a method for screening varieties of high-molybdenum rape **seeds**. The method includes the steps of (1) performing principal component analysis on single plant dry matter weight, molybdenum contents of parts of roots, stalks, pod **shells**, and **seeds**, molybdenum migration coefficients of parts of stalks and roots, pod **shells** and stalks, and **seeds** and pod **shells**, and single plant molybdenum cumulated amount; (2) performing factor loading matrix conversion, and naming seven main components according to values of factor loading matrix conversion; (3) performing clustering analysis to 32 rape varieties by means of an Euclidean distance group average method, and clustering the 32 rape varieties into three categories, namely, a first category of 17 varieties of L353, L267, 9L26, 9L32, L266, 9L28, L303, L282, YY-8, L289, L360, L309, 9L35, L346, L349, L347, and L350, a second category of 10 varieties of L313, L256, L295, L108, 9L36, L262, L306, L082, YY-2, and L280, and a third category of 5 varieties of L260, L263, L283, L301, and L3565. The method is easy and convenient to operate, and capable of systemically classifying more varieties in different genotypes and ascertaining features of varieties in different genotypes.



Title:

METHOD FOR REDUCING BREAKING RATE OF **SHELLED** KERNELS OF **SEED** PEANUTS

Priority:

CN201711086490 20171107

Family:

Publication number	Publication date	Application number	Application date
 CN107624297 A	20180126	CN201711086490	20171107

Probable Assignee:

SHANDONG PEANUT RES INST

Assignee(s):(std):

SHANDONG PEANUT RES INST ; SHANDONG PEANUT RESEARCH INST

Inventor(s):(std):

CHEN MINGNA ; ZHANG FANG ; WANG JIJUN ; CHI XIAOYUAN ; PAN LIJUAN ; WANG MIAN ; YU SHANLIN ; YANG ZHEN ; WANG TONG ; CHEN NA ; CHI ZHAOFANG

International class (IPC 8-9):

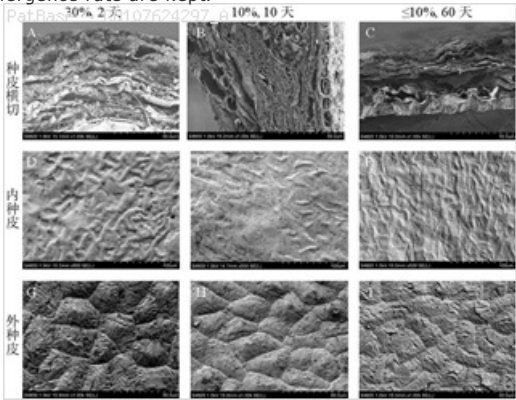
A01C1/00 (Advanced/Invention)

[Classification Explorer](#)

Cited documents:

US4372080 A, CN106508371 A,

Abstract:
The invention provides a method for reducing the breaking rate of **shelled** kernels of **seed** peanuts, and belongs to the technical field of peanut **seed** industry. The method comprises the following steps:(1) airing fresh peanut pods until the water content is 10 to 30 percent; (2) accommodating the peanut pods of which the water content is 10 to 30 percent in a ventilating environment of which the temperature is 15 to 20 degrees centigrade and the humidity is 10 to 30 percent, and standing for 3 to 10 hours, thus obtaining the peanut pods of which the humidity is balanced; (3) mechanically **shelling** the peanutpods of which the humidity is balanced. According to the method disclosed by the invention, by utilizing the characteristics that when the water content of peanuts which are just harvested is aired to be 10 to 30 percent, adhesion between cells of **shells** and **seed** coats, tissue structure intensity and toughness are high, the mechanical **shelling** breaking rate of fresh and dry peanuts is greatly reduced to 3.8 to 4.5 percent, and meanwhile, higher germination rate and higher emergence rate are kept.



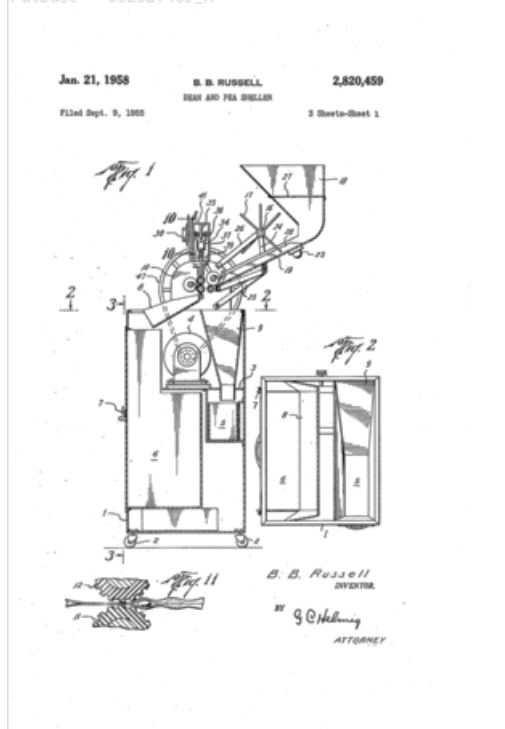
Title: BEAN AND PEA **SHELLER****Priority:** US19550533319 19550909

Family:	Publication number	Publication date	Application number	Application date
	US2820459 A	19580121	US19550533319	19550909

Probable Assignee: RUSSELL BURRELL B**Assignee(s):(std):** RUSSELL BURRELL B**Inventor(s):(std):** RUSSELL BURRELL B**International class**
(IPC 8-9): A23N15/10 (Advanced/Invention);
A23N15/00 (Core/Invention)**CPC:** A23N15/10**European class:** A23N15/10**US class:** 460/116 460/131 460/132 460/35[Classification Explorer](#)**Cited documents:** US885881 A, US858608 A, US53956 A, US466021 A, US437987 A, US302515 A, GB191413496 A,**Forward Citations:** US3238950, US3173423, US3026877,**Abstract:**

(Claim 1) 1. What is claimed is: 1, In a **seed** pod **sheller**, a support, a pair of oppositely rotatable **seed** expressing pressure rolls carried by the support, a feed tray leading toward said rolls and ending short thereof to provide a drop passage for expressed seeds, transversely spaced apart upstanding dividers on the upper face of said tray for guiding the **seed** pods in the direction of their longitudinal extent, a rotary shaft mounted by the support above said tray and provided with a series of outwardly extending pod engaging fingers of lengths to dip into the tray spaces below the upper edges of said dividers, drive means rotating said shaft for sweeping the tips of said fingers in a direction away from said rails, a rotatable feed roll occupying a part of said drop passage and located at the discharge end of said feed tray and away from the pressure rolls a distance less than the length of **seed** pods, means to rotate said feed roll in a direction to propel pods across said drop space and between said pressure rolls, said feed roll being driven by said feed roll rotating means at substantially the same peripheral speed as that of the pressure rolls, a flexible bristle roll mounted by the support with the tips of the bristles in overlapping wiping relation with the feed roll and with the tray at the discharge end of the tray and a drive transmitting connection for rotating said bristle roll in counter direction to said feed roll, both to cooperate with the tray in pod reception between adjoining bristle tips for guiding the advance of the pods in the direction of their longitudinal extent and concurrently to brush said bristle tips against the feed roll surface.

PatBase - US2820459_A



Title: SCREENING STRUCTURE FOR OIL BREAKS AWAY FROM WITH TREE PEONY FRUIT POD

Priority: CN201721586838U 20171124

Family:

Publication number	Publication date	Application number	Application date
■ CN208300897 U	20190101	CN201721586838U	20171124

Probable Assignee: SICHUAN PROVINCE NEIJIANG CITY ACAD OF AGRICULTURAL SCIENCES

Assignee(s):(std): NEIJIANG HUANGJINSHU AGRICULTURE AND FORESTRY TECH CO LTD ; SICHUAN PROVINCE NEIJIANG CITY ACAD OF AGRICULTURAL SCIENCES

Assignee(s): SICHUAN PROVINCE NEIJIANG CITY ACADEMY OF AGRICULTURAL SCIENCES ; NEIJIANG HUANGJINSHU AGRICULTURE AND FORESTRY TECHNOLOGY CO ; IN NEIJIANG CITY AGRICULTURAL AND FORESTRY SCIENCE AND TECHNOLOGY CO LTD GOLD TREE ; NEIJIANG CITY ACADEMY OF AGRICULTURAL SCIENCES

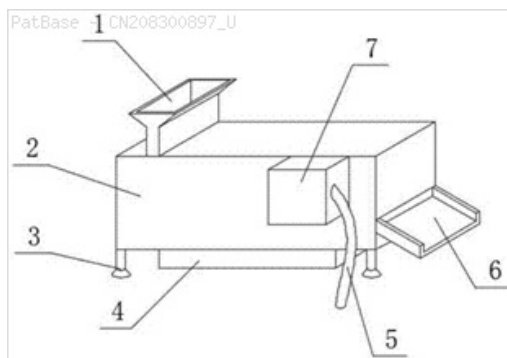
Inventor(s):(std): WANG XUN ; WANG YONGJUN ; LYU XIANGYANG ; ZHOU JUN ; DENG XIAODONG ; ZHANG RUYI ; TANG HUI

International class (IPC 8-9): A23N5/08 B07B1/28 B07B1/42 B07B1/46 B07B4/08 (Advanced/Invention)

[Classification Explorer](#)

Abstract:

The utility model discloses a screening structure for oil breaks away from with tree peony fruit pod, including pan feeding mouth, organism, support, dump bin, electric wire, discharge gate, electriccabinet, grinding machine, motor, waste opening, hair -dryer, conveying board, filter screen, cutting sword, guide rail, pulley and lug. The beneficial effects of the utility model are that: cutting sword through grinding the setting of built -in portion can cut up oil with the hard **shell** of tree peony, and then releases the **seed** in the **shell**, is convenient for extract oil, can isolate the **seed** that mixes with **shell** garrulous end through the filter screen, move repeatedly on the inside lug that sets up of guide rail through the pulley that sets up filter screen both sides, and then can make the filter screen be in vibration state, and then accelerate garrulous end of **shell** and **seed** separation, through set up the mesh on the conveying board to dry in the below through the hair -dryer, can make garrulous end of remaining **shell** and **seed** separation further filter the **seed**. The device has simple structure, convenient operation, filter effect characteristics such as good.



Title:	METHOD FOR IMPROVING GERMINATION SPEED AND GERMINATION RATE OF PEANUT SEEDS			
Priority:	CN201710881747 20170926			
Family:	Publication number	Publication date	Application number	Application date
	 CN107646232 A	20180202	CN201710881747	20170926
Probable Assignee:	JIESHOU JUNLIANG PLANTING PROFESSIONAL COOP			
Assignee(s):(std):	JIESHOU JUNLIANG PLANTING PROFESSIONAL COOP			
Assignee(s):	JIESHOU JUNLIANG PLANTING PROFESSIONAL COOPERATIVE ; JIESHOU CITY JUN LIANG PLANTING COOPERATIVES			
Inventor(s):(std):	ZHANG JUNLIANG			
International class (IPC 8-9):	A01C1/00 A01C1/06 A01C1/08 (Advanced/Invention)			
CPC:	A01C1/00 A01C1/06 A01C1/08			
Classification Explorer				
Cited documents:	CN106508371 A, CN106034475 A, CN105706565 A, CN102273339 A,			
Forward Citations:	CN108781594,			

Abstract:

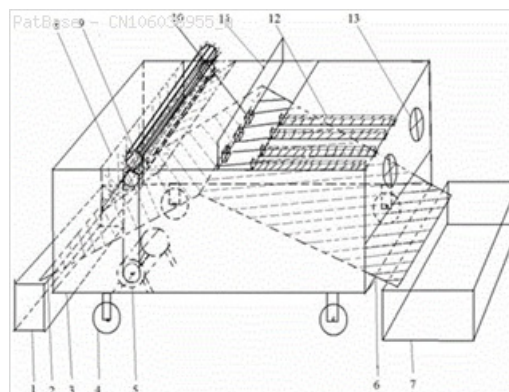
The invention discloses a method for improving the germination speed and the germination rate of peanut **seeds**, and relates to the field of peanut fermentation technologies and methods. The method comprises the following steps: preferably selecting peanut pods with excellent varieties in the peanut harvesting period; **shelling** the peanut pods; carefully choosing the peanut fruits in the level of color, the size and good germination force of grains; spreading and airing the **shelled** peanut fruits on the threshing ground to carry out **seed** sun-drying, allowing the thickness of the peanut fruits to be uniform, and frequently performing stirring; performing **seed** dressing on the aired **seeds** by using a **seed** dressing agent before sowing peanuts; selecting a transparent nylon plastic box as a seedlinggrowing box which is internally provided with nutrient soil; and placing the seedling growing box at 15-20 degrees centigrade to carry out culture. Careful choosing and technologic treatment of the peanut **seeds** are carried out before sowing, so after the peanut **seeds** are sowed by an operator, the peanut **seeds** can effectively prevent and control pests and diseases, and the germination speed and the germinationrate of the **seeds** are improved.

Title: SESAME POD **SHELLING** MACHINE**Priority:** CN201610372020 20160531

Family:	Publication number	Publication date	Application number	Application date
	CN106036955 A	20161026	CN201610372020	20160531
	CN106036955 B	20181109	CN201610372020	20160531

Probable Assignee: HENAN ACADEMY AGRICULTURAL SCI**Assignee(s):(std):** HENAN ACAD OF AGRICULTURAL SCIENCES ; HENAN ACADEMY AGRICULTURAL SCI ; HENAN ACADEMY OF AGRICULTURAL SCIENCES**Inventor(s):(std):** SONG GUOHUI ; ZHANG LIXIA ; ZHANG XUN ; HUANG JINIAN ; SUN QIANG ; GAO JINHONG**International class** A23N15/00 (Advanced/Invention)**(IPC 8-9):****CPC:** A23N15/00[Classification Explorer](#)**Cited documents:** WO15173815 A1, US4419856 A, US2016100524 AA, CN203459102 U, CN202121955 U, CN201131165 Y, CN104541765 A, CN103262714 A,**Abstract:**

The invention relates to a sesame pod **shelling** machine. The sesame pod **shelling** machine comprises a machine frame and a motor arranged at the lower part of the machine frame; the advancing direction of sesame plants is from right to left; a plurality of feeding guide slots which are mutually parallel and used for allowing the sesame plants to be placed are formed in the machine from right to left, and a traction counter roll for dragging sesame stalks is arranged on the machine frame; a fixing plate is arranged on the machine frame between the feeding guide slots and the traction counter roll; a plurality of scrapers for scraping sesame stems, leaves and pods are arranged at the lower part of the fixing plate at intervals in the horizontal direction; an inverted V-shaped discharging plate is arranged at the middle part of the machine frame and is positioned below the scrapers; and fans for separating branches and leaves from sesame pods are arranged on the right side wall of the machine frame. Through the adoption of the sesame pod **shelling** machine disclosed by the invention, the separation of the sesame pods, sesame leaves and sesame stalks can be realized, and powerful equipment guaranteeing is provided for the derogative harvest of sesame **seeds** and the drying of the sesame pods.



Title:	SOYBEAN PLANTING METHOD			
Priority:	CN201710270098 20170424			
Family:	Publication number	Publication date	Application number	Application date
	 CN106922369 A	20170707	CN201710270098	20170424
Probable Assignee:	GUIZHOU RENHUI HUANYUE RED BEAM PLANTING CO LTD			
Assignee(s):(std):	GUIZHOU RENHUI HUANYUE RED BEAM PLANTING CO LTD			
Assignee(s):	RENHUI CITY GUIZHOU PROVINCE JOYOUS RED BEAM CULTIVATION LTD ; GUIZHOU RENHUI HUANYUE RED BEAM PLANTING CO			
Inventor(s):(std):	WU LIJIAO			
International class (IPC 8-9):	A01G1/00 C05G1/00 (Advanced/Invention)			
CPC:	A01G22/00 C05B7/00 C05D1/00 C05G5/23			
	Classification Explorer			
Cited documents:	CN106146208 A, CN106034599 A, CN103039230 A, CN102523859 A,			
Forward Citations:	CN108633673, CN108522195, CN107787798,			

Abstract:

The invention discloses a soybean planting method which comprises the following steps of **seed** treatment, namely putting selected soybean **seeds** with excellent quality into clear water; land farming, wherein the land ploughing depth is 22-25cm, treating and smoothing the soil surface; **seeding**, adopting mechanically precise dibble **seeding** for treated soybean **seeds**; fertilizer and water management, topdressing 2-3kg of urea and 3-5kg of a compound fertilizer into each mu of soil by combining intertillage and irrigation in an early blooming period of the soybean; field management, observing soybean growth in a field, if a **seed**-borne disease seedling is found out, timely pulling out the **seed**-borne disease seedling and burying outside the field and uniformly mixing 42-45 percent 55-60g of dimethoate missible oil into 15-20kg of wet fine sand; and timely harvesting, wherein stem pods becomes yellow or brown from the end of a soybean yellow ripening stage to the beginning of a full ripening stage, separating **seeds** from pod **shells** and timely harvesting the **seeds** when shaking plants to make a noise. According to the soybean planting method, the nutrients required for soybean seedling are reasonably managed from a soybean seedling stage, the seedling germination rate is greatly improved and the soybean planting efficiency is relatively well improved.

Title: Methods and apparatus for thermal blast feeling, skinning, or **shelling** of food products

Priority: US19830554814 19831123 US19840621739 19840618

Family:	Publication number	Publication date	Application number	Application date
	US4524681 A	19850625	US19840621739	19840618
	US4569850 A	19860211	US19830554814	19831123

Probable Assignee: AUBURN RES FOUND

Assignee(s):(std): AUBURN RES FOUND

Assignee(s): AUBURN RESEARCH FOUNDATION ; AUBURN RESEARCH FOUNDATION A AL CORP ; AUBURN RESEARCH FOUNDATION A CORP

Inventor(s):(std): SMITH DURWARD A ; HARRIS HUBERT

International class
(IPC 8-9): A22C25/02 A22C25/17 A22C29/02 A23L1/18 A23N7/00 (Advanced/Invention);
A22C25/00 A22C29/00 A23L1/18 A23N7/00 (Core/Invention)

International class
(IPC 1-7): A23N7/00 A23P1/00

CPC: A22C29/025 A22C25/02 A22C25/17 A22C29/026 A23L7/178 A23N7/005

US class: 426/482 426/511 99/474 99/479 99/483 99/516 99/568 99/584 994/740

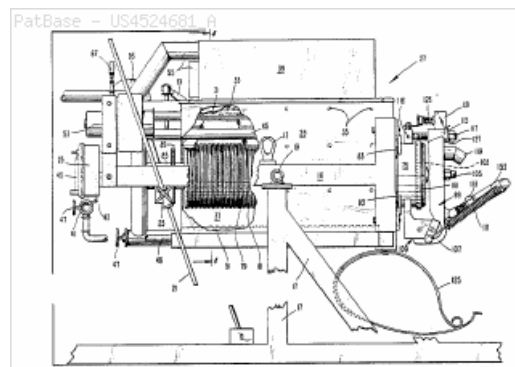
[Classification Explorer](#)

Cited documents: US4393756 A, US4222322 A, US4091722 A, US4064794 A, US3971303 A, US3959506 A, US3959504 A, US3880066 A, US3714886 A, US3605843 A, US3276495 A, US3225804 A, US3128690 A, US2873220 A, US2806501 A, US2490112 A, US2267747 A, US2116212 A, US1910749 A, US1793711 A, US1433928 A, US1325847 A, US1243724 A, GB1395108 A,

Forward Citations: WO9509541, WO9508932, USRE42886, US9339819, US8962097, US8006406, US7870178, US7060312, US7048957, US6743460, US5843507, US5839225, US5750171, US5732615, US5660098, US5342640, US5231921, US5200217, US5196222, US5170698, US5158011, US5046411, US5044165, US4765233, US4604150, US2013014651, US2010151094, US2010047824, US2009211415, US2008028633, US2007210958, US2005175752, US2005053706, US2003170372, US2003059509, GB2247829, GB2247829, FR2667221, FR2658390, ES2268960, EP0283607, CN107712941, CN107712941, CN107467156, CN107467156, CN104839863, CN104783309, CN104782332, CN103210992, CN103210992, BE1005598,

Abstract:

This disclosure embodies an apparatus and process for the rapid removal of outer coverings and other unedible portions from food products with minimal loss of or damage to edible portions. The process has proven to be effective in the peeling of fruit and vegetable crops, coring peppers, **shelling** of legume **seed** pods, shucking and silking corn, popping corn, skinning onions, **shelling** of nut crops, scaling and skinning of fish, and removal of **shells** from shellfish. These processes are accomplished with an apparatus which heats the surface of the product very rapidly in an atmosphere of superheated steam under elevated pressure, supplemented with radiant heat from a vessel wall, and then flashes to atmospheric pressure by instantaneous opening of the vessel cover. The result is an explosion which blows the product from the vessel and simultaneously blasts the covering from the product by violent action of highly energized moisture beneath the product covering. In the particular case of the pimienta and bell peppers, the unedible core is also blown free of the edible pod during the thermal blast treatment. Suitable means are provided for catching the product as it leaves the vessel.



Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

Inventor(s):

International class (IPC 8-9):

Forward Citations:

Lotus **seed** pod thresher

CN201120370555U 20110927

Publication number	Publication date	Application number	Application date
 CN202222399 U	20120523	CN201120370555U	20110927

JIANNING SUIXI FUMIN LOTUS SEED PROFESSIONAL COOPERATIVES

HONGYUN FU ; JIANNING SUIXI FUMIN LOTUS SEED PROFESSIONAL COOPERATIVES ; JINCHENG HE ; WENHUA ZHOU ; XUEXIONG RAO

FU HONGYUN ; HE JINCHENG ; RAO XUEXIONG ; ZHOU WENHUA

HONGYUN FU ; XUEXIONG RAO ; WENHUA ZHOU ; JINCHENG HE

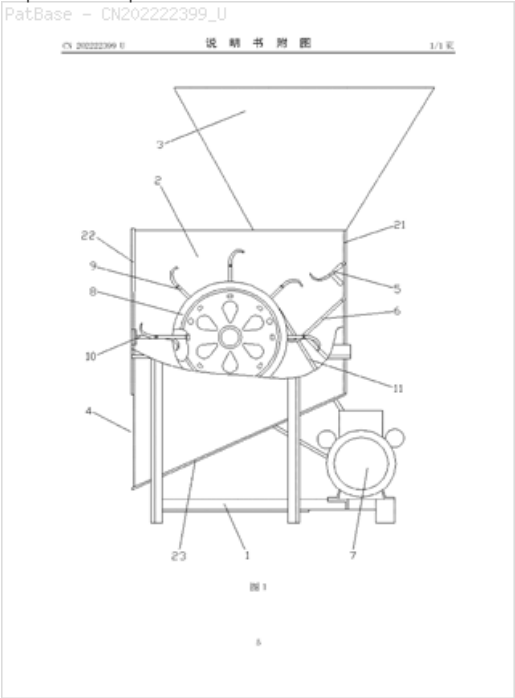
FU HONGYUN ; RAO XUEXIONG ; ZHOU WENHUA ; HE JINCHENG

A23N15/00 (Advanced/Invention)

[Classification Explorer](#)

CN106861838, CN106861838, CN105962387, CN105942546,

Abstract:
The utility model relates to a lotus **seed** pod thresher which comprises a frame and a housing supported by the frame; a hopper is arranged above the housing; and a discharge port is formed on the front lower side of the housing; and the lotus **seed** pod thresher is characterized in that at least one row of pre-threshing fixed cutters and at least one row of threshing fixed cutters are arranged on the rear side plate of the housing in sequence from the top down; and a motor-driven drum is arranged in the housing, and a plurality of rows of threshing movable cutters matched with the pre-threshing fixed cutters and the threshing fixed cutters for operation are uniformly distributed on the peripheral side of the drum. The lotus **seed** pod thresher can quickly tear up the **shell** of a lotus **seed** pod so as to separate lotus **seed** particles from the housing of the lotus **seed** pod, has high working efficiency, and greatly reduces the manufacturing cost and labor intensity of production personnel.

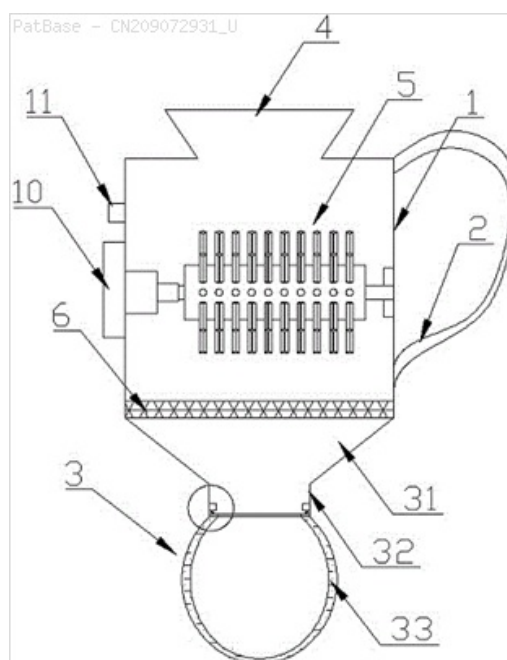


Title: PORTABLE WHITE GINSENG **SEED** HARVESTER**Priority:** CN201821722502U 20181023

Family:	Publication number	Publication date	Application number	Application date
	■ CN209072931 U	20190709	CN201821722502U	20181023

Probable Assignee: UNIV HONGHE**Assignee(s):(std):** HONGHE UNIV ; UNIV HONGHE**Inventor(s):(std):** ZHANG WEI ; MENG HENGLING ; LU BINGYUE ; YANG JIN ; WANG TIANAO ; LI NA ; ZHAO XIN ; HONG LIANG ; WEI XIANG**International class** A01D46/00 A23N5/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

The utility model discloses a portable gymnadenia conopsea **seed** harvester. The portable gymnadenia conopsea **seed** harvester comprises a case, straps and a collecting device, a feeding hole is formed in the top of the case; at least one group of **shell** crushing mechanism is erected below the feeding hole; a sieve plate is further arranged between the bottom of the case and the collecting device; the shell crushing mechanism comprises a first roller and a second roller; the first roller and the second roller are axially arranged in parallel and are opposite in rotating direction; the first roller and the second roller are driven by a small motor to rotate; a plurality of crushing rods are radially and uniformly distributed on the surfaces of the first roller and the second roller; the crushing rods on the surfaces of the first roller and the second roller are distributed in a staggered manner on the axis; the small motor is electrically connected to the storage battery; according to the technical scheme adopted by the utility model, the problems that most of the existing portable **seed** harvesting machines are designed for pod-type **seeds**, are large in size, are difficult to adapt to berry **seeds** of the gymnadenia conopsea and cause inconvenient harvesting of mature **seeds** of the gymnadenia conopsea are solved.



Title: HEALTH FOOD WITH KIDNEY PROTECTING EFFECT AND PREPARATION METHOD THEREOF**Priority:** CN200910309508 20091110

Family:	Publication number	Publication date	Application number	Application date
	 CN102048155 A	20110511	CN200910309508	20091110

Probable Assignee: TIANJIN BAIAO BIOLOGY CO LTD**Assignee(s):(std):** TIANJIN BAIAO BIOLOGY CO LTD**Assignee(s):** TIANJIN BAIAO BIOLOGY CO**Inventor(s):(std):** NAN LI ; ZHENYU SONG ; ZHI ZHANG**Inventor(s):** SONG ZHENYU ; ZHANG ZHI ; LI NAN**International class (IPC 8-9):** A23L1/29 A23L33/00 (Advanced/Invention)[Classification Explorer](#)**Abstract:**

The invention provides a health food with kidney protecting effect and a preparation method thereof. The health food is prepared from 20-40 parts of nut **shell** activated carbon, 20-40 parts of Sophora japonica pod, and 20-40 parts of cassia **seed** by weight. The health food can enhance immunity, protect kidney, and prevent kidney injury. For patients with renal insufficiency, the health food can effectively remove uric acid, absorb creatinine in vivo, prevent kidney injury, reduce symptoms of the patients with renal insufficiency, and delay dialysis therapy. The preparation method is simple and low in cost, and is suitable for the need of large-scale industrial production.

Title: HEALTH FOOD AND PREPARATION METHOD THEREOF**Priority:** CN201010515461 20101022

Family:	Publication number	Publication date	Application number	Application date
	 CN101999651 A	20110406	CN201010515461	20101022
	 CN101999651 B	20120829	CN201010515461	20101022

Probable Assignee: XINYOU WANG**Assignee(s):(std):** XINYOU WANG**Assignee(s):** WANG XINYOU**Inventor(s):(std):** XINYOU WANG**Inventor(s):** WANG XINYOU**International class** A23L1/29 A23L33/00 (Advanced/Invention)**(IPC 8-9):**[Classification Explorer](#)**Cited documents:** CN1759743 A, CN1486719 A, CN1476878 A, CN101549088 A,**Forward Citations:** CN104872563, CN103919040, CN103181560, CN103181560,**Abstract:**

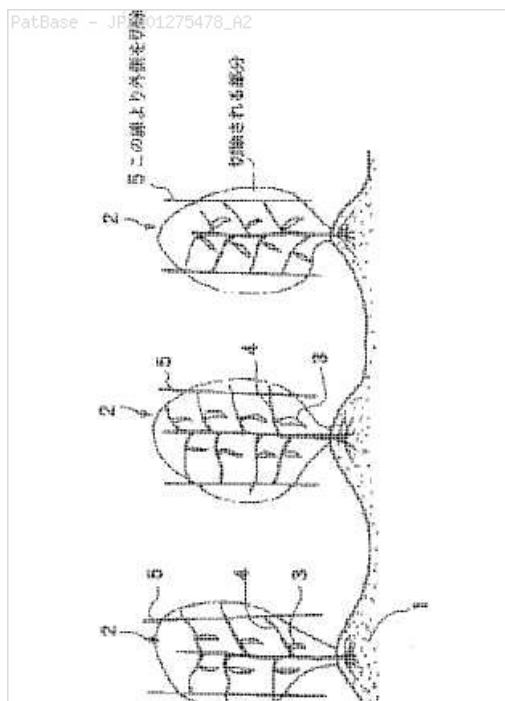
The invention discloses a health product, which comprises the following materials in parts by weight: 900 to 1000 parts of black bean, 5 to 20 parts of licorice, 5 to 30 parts of peach kernel, 5 to 30 parts of lumbricus, 5 to 30 parts of pagodatree pod, 5 to 30 parts of Chinese yam, 5 to 20 parts of jujube **seed**, 5 to 20 parts of turtle **shell**, 5 to 30 parts of medlar, 5 to 40 parts of radox ophiopogon, 5 to 30 parts of Ligusticum wallichii, 6 to 20 parts of radix achyranthis bidentatae, 6-40 parts of honey and 5-30 parts of polygonum multiflorum. The invention also discloses a preparation method of the health food. The health food is prepared by evenly mixing a great amount of black beans with licorice, peach kernel, lumbricus, pagodatree pod, Chinese yam, medlar, radox ophiopogon, Ligusticum wallichii, achyranthis bidentatae, polygonum multiflorum, jujube **seed**, turtle **shell** and honey which are subject to steam cooking, thereby ensuring that effective ingredients are organically combined to achieve the purposes of medicine food homology and meridians and collaterals penetration, so as to further effectively regulate the human endocrine system and achieve the effects of tonifying kidney and stomach, benefiting spleen, protecting liver, blacking hair, improving eyesight, nourishing blood and tranquilization, strengthening heart, promoting urination, reducing blood sugar and blood lipid, eliminating blood stasis, dredging meridian, expelling wind, activating blood flow, detoxifying, resisting diseases and keeping fit.

Title: METHOD FOR INCREASING PRODUCTION OF PULSE, NOT AFFECTED BY WEATHER**Priority:** JP20000094809 20000330**Family:**

Publication number	Publication date	Application number	Application date
JP2001275478 A2	20011009	JP20000094809	20000330
JP3511037 B2	20040329	JP20000094809	20000330

Probable Assignee: HIROSE ISAMU**Assignee(s):(std):** HIROSE ISAMU**Inventor(s):(std):** HIROSE ISAMU**International class** A01G1/00 (Advanced/Invention);
(IPC 8-9): A01G1/00 (Core/Invention)**International class** A01G1/00**(IPC 1-7):**[Classification Explorer](#)**Forward Citations:** JP5131250, JP2010068801, CN104285646,**Abstract:**

PROBLEM TO BE SOLVED: To provide a method for increasing the production of pulse, not affected by weather by which **shells** are matured in early stage, and matured legumes are obtained also from upper positions by goodly growing the pulses to a prescribed time, removing lateral leaves and lateral branches which absorb much unnecessary nutriment when pods come on so that the nutriment may be consumed for the growth of target pulse, because generally pods are gradually matured from the bottom to 5 to 8 layers to form immature grains at the upper layer because of being not matured at the reaping time, and to reduce the yield as a result, and when the removing time of the lateral leaves and the lateral branches is too early or too late, the effect of the removing is small. SOLUTION: When the **seeded** pulses are germinated and grown, and the pod comes out from the lowest branch, the branches stretching out from the pod and the leaves attached to the branches are cut to enable the nutriment to be fed to the mature of the pods.

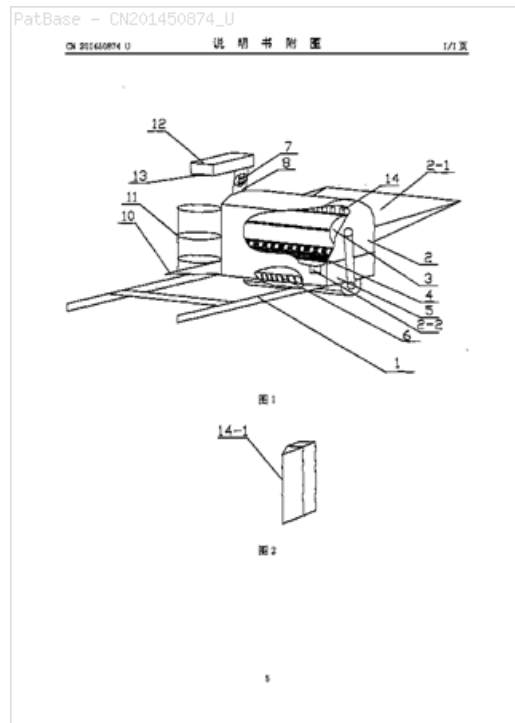


Title: Rape **seed** threshing machine**Priority:** CN200920087670U 20090720

Family:	Publication number	Publication date	Application number	Application date
	 CN201450874 U	20100512	CN200920087670U	20090720

Probable Assignee: LINGBING ZENG**Assignee(s):(std):** LINGBING ZENG**Assignee(s):** ZENG LINGBING**Inventor(s):(std):** LINGBING ZENG**Inventor(s):** ZENG LINGBING**International class (IPC 8-9):** A01F11/00 A01F12/12 A01F12/18 A01F12/40 (Advanced/Invention)[Classification Explorer](#)**Forward Citations:** CN104094741,**Abstract:**

The utility model relates to a rape **seed** threshing machine, which comprises a machine frame (1), a threshing bin (2), a threshing roller (3), a screen mesh (4), a **seed** bin (5), a landscape spiral conveyer rod (6), a lengthways spiral conveyer rod (7) and a lengthways spiral conveyer cylinder (8). The rape **seed** threshing machine has the advantages that after being basked for two days, rape straw pod **shells** which are harvested can be threshed without drying by the rape **seed** threshing machine, thereby being capable of saving 4-5 days of a farming season. Straws can be grinded to return to a farm without burning, thereby preventing the environmental pollution. The threshing effect is excellent, the cleaning rate of harvesting is above 98 percent, the use is convenient, the threshing efficiency is high, the rape **seed** threshing machine can thresh 2-3 acres every hour, and saves labor and time.



Title:

OIL PEONY POD THRESHING DEVICE

Priority:

CN201821859666U 20181110

Family:

Publication number	Publication date	Application number	Application date
 CN209462963 U	20191008	CN201821859666U	20181110

Probable Assignee:

JINING SIJIYUAN SEEDLING PLANTING CO LTD

Assignee(s):(std):

JINING SIJIYUAN SEEDLING PLANTING CO LTD

Assignee(s):

FOUR SEASONS PARK JINING CITY SEEDLING PLANT LTD ; JINING SIJIYUAN SEEDLING PLANTING CO

Inventor(s):(std):

XIE MINGZHU ; ZHAO NA ; XIA YEMAO

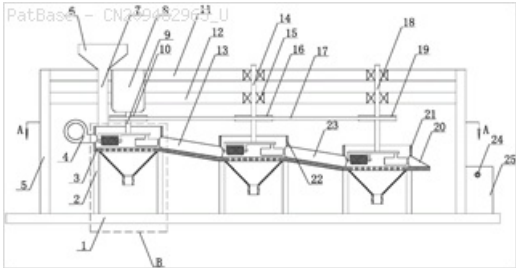
International class

A01F11/00 A01F12/00 A01F12/18 A01F12/48 (Advanced/Invention)

(IPC 8-9):

[Classification Explorer](#)

Abstract:
The utility model discloses an oil peony pod threshing device. Including a base, stand column and first cross beam, the corn thresher comprises a second beam, three threshing supports, a first threshing disc, a second threshing disc, a third threshing disc, a driving frame, a pressing wheel, a seed discharging hole, a seed discharging cover, a discharging port, a driving motor, a spindle, a firstrotating shaft, a second rotating shaft, a driving belt wheel, a first driving belt wheel, a second driving belt wheel, a driving belt, an air blower, a first air duct, a second air duct, a switch button for controlling the driving motor and the air blower to be started and stopped is arranged on the electric cabinet, and the electric cabinet is fixed to the base. The utility model has the beneficial effects that: (1) the structure is simple; (2) peony seeds and pod shells can be effectively separated, and the threshing effect is good



Title: IMPROVEMENTS IN AND RELATING TO THE PRODUCTION OF FODDER**Priority:** GB19370030641 19371108

Publication number	Publication date	Application number	Application date
GB505122 A	19390505	GB19370030641	19371108

Probable Assignee: WILIBALD NAEHER**Assignee(s):(std):** WILIBALD NAEHER**International class** A23K1/12 A23K10/32 (Advanced/Invention);
(IPC 8-9): A23K1/00 (Core/Invention)**CPC:** A23K10/32 Y02P60/87**European class:** A23K1/12[Classification Explorer](#)**Forward Citations:** GB2165133,**Abstract:**

505,122. Food for animals; cultivating bacteria. NAHER, W. Nov. 8, 1937. No. 30641. Convention date, Nov. 9, 1936, [Class 5 (ii)] [Also in Group VI] Fodder is produced from indigestible waste vegetable products by subjecting them, preferably after dust and flour have been removed therefrom, to the action of dilute sulphuric and acetic acids, together or one after the other, at ordinary temperature, and then washing the product. The product may be treated with bacteria or yeasts for increasing the albumen content. Suitable vegetable waste products include husks, bran, and **shells** of cereal grains; straw and stalks of grains and oil fruits; chaff; pea, bean, and lentil pods; rice husks; press residues of soya beans, lupin **seeds**, palm kernels, cotton **seed**, linseed, rape **seed**, olives, sesame, and copra; litter collected from woods, and turf.

Title:

ALFALFA THRESHING MACHINE

Priority:

CN201822105988U 20181214

Family:

Publication number	Publication date	Application number	Application date
 CN209473071 U	20191011	CN201822105988U	20181214

Probable Assignee:

JIUQUAN OK SEED MACHINERY CO

Assignee(s):(std):

JIUQUAN OK SEED MACHINERY CO ; JIUQUAN OK SEED MACHINERY CO LTD

Inventor(s):(std):

JIA JUN ; FU QIUFENG ; WANG LIN ; LI DEYUN

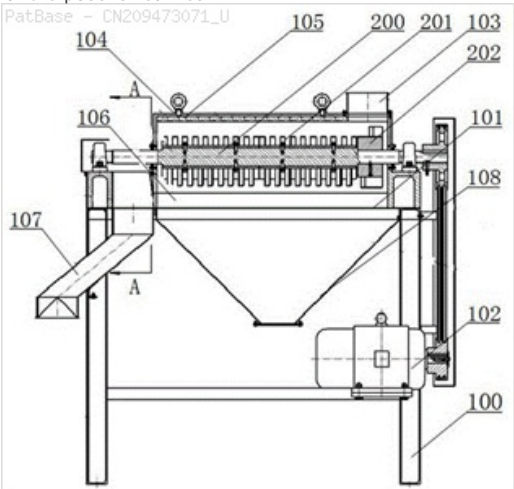
International class

A01F11/04 A01F12/18 A01F12/44 (Advanced/Invention)

(IPC 8-9):

[Classification Explorer](#)

Abstract:
The utility model discloses an alfalfa threshing machine. The corn thresher comprises a support, a motor, a feeding port, a collecting hopper, a discharging port and a threshing shaft. The periphery of the end, corresponding to the feeding port, of the threshing shaft is sleeved with a spiral material conveying device. Grinding teeth are fixedly installed on the periphery of the section, located between the spiral conveyor and the discharging port, of the threshing shaft, a static grinding piece is fixedly installed on the lower surface of the upper cover, the length direction of screen holes in the screen piece is perpendicular to the axis of the threshing shaft, and a discharging baffle used for opening and closing a discharging channel is rotationally installed at the discharging port. During use, the spiral conveyor pushes materials from the feed port to the threshing area and the discharge port smoothly and efficiently; the grinding teeth, the static grinding sheet and the screensheet rub and rub the pods together, so that the alfalfa **seeds** are separated from the pod **shells**, the **seeds** leak from the screen holes during movement, the effect of adjusting the extrusion force of the alfalfa pods towards the threshing chamber is achieved by adjusting the external force applied to the discharge baffle, and the adjustment of the friction strength of the pods is realized.



Title: A TYPE OF BAK KUT TEH DRINK**Priority:** CN201510612905 20150924

Family:	Publication number	Publication date	Application number	Application date
	■ CN105495495 A	20160420	CN201510612905	20150924
	■ SG10201601754R A1	20161028	SG20161001754	20160307

Probable Assignee: WEE LIANG CHIEH**Assignee(s):(std):** HUANG LIANGJIE ; WEE LIANG CHIEH**Inventor(s):(std):** WEE LIANG CHIEH ; HUANG LIANGJIE**Agent(s):** WEE LIANG CHIEH**International class** A23L23/00 A23L27/00 A23L27/10 A23L33/10 (Advanced/Invention)**(IPC 8-9):****CPC:** A23V2002/00[Classification Explorer](#)**Cited documents:** CN1385107 A, CN104273544 A, CN104187420 A, CN103315080 A, CN101518344 A,**Forward Citations:** CN107125690, CN106072380,**Abstract:**

A type of bak kut teh (literally, meat bone tea) drink prepared using the following procedure: (1) prepare the meat or bones, Chinese herbs and spices based on a 100:1:0.5 ratio by weight (2) soak the meat or bones in hot water for 5 minutes; (3) when the water has come to a boil, add meat or bones, Mongolian snakegourd seeds, Japanese pagoda tree pods, and tortoise shell and boil on high heat for 20 minutes before reducing to low heat and continue to simmer for 2.5 hours; during the simmering process, add powdered kudzu root, Siberian ginseng, coastal Glehnia root, hawthorn fruits and pearl powder in batches every 30 minutes; (4) add spices and cook over medium heat for 3 ? 5 minutes; (5) allow to cool to room temperature and strain to remove the herbs, meat and bones, and package the broth to get bak kut teh . This bak kut teh invention requires the addition of different Chinese herbs at different points of the cooking process, to allow the various Chinese herbs to exert their greatest effects; in addition, Japanese pagoda tree pods, powdered kudzu root, and hawthorn fruits are great for reducing blood lipids and lowering blood pressure, ba wei (eight flavors) Chinese medicine are basically heaty or cooling in nature and will not result in excessive heatiness, regardless of amounts consumed.

Title: DISPOSITIVO DESCASCADOR DE SEMENTES E VAGENS The debarking device OF **SEEDS** AND HUSKS
(Machine translation)

Priority: BR20171001992 20170127

Family:

Publication number	Publication date	Application number	Application date
BR102017001992 A2	20180814	BR20171001992	20170127

Probable Assignee: UNIV ESTADUAL CAMPINAS UNICAMP

Assignee(s):(std): JOAO NILTON HENRIQUE DA ROSA ; UNIV ESTADUAL CAMPINAS UNICAMP ; UNIV ESTADUAL DE CAMPINAS UNICAMP

Assignee(s): UNIVERSIDADE ESTADUAL DE CAMPINAS UNICAMP

Inventor(s):(std): GABRIELA KUROSAWA E SILVA ; INACIO MARIA DAL FABBRO ; JOSE EUCLIDES STIPP PATERNIANI ; JOAO NILTON HENRIQUE DA ROSA

International class (IPC 8-9): A23N5/00 (Advanced/Invention)

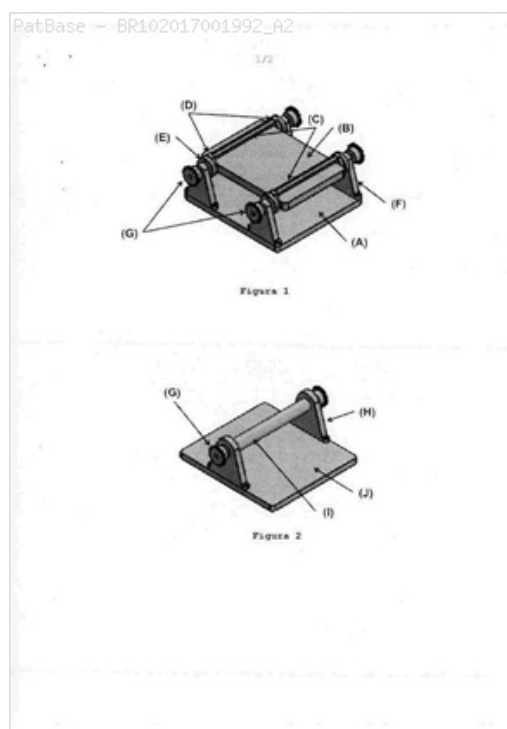
CPC: A23N5/00

[Classification Explorer](#)

Abstract:

Source: BR102017001992A [PT] DISPOSITIVO DES(percent And SCADOR DE SEMENTES E V3W3ENS.and presente invencao refere-oe a ora dispositivo descascador desenvolvido para retirar a pe.ilcola que envolve sementes e vagens, preferenci.aimsnte, a amendoa das sementes de tforinpa oleifera or percent outros tipos de semente que apresentem cascas com baixa, resistencia ao rompimento. Por meio de dispositivo ora revelado, e possivel aumentar a quantidade de sementes descascadas por unidade de tempo em um processo automatizado bem como evitar a necessidade dc contai: o intenso e direto do operador com as mesmas.

Machine translation: DES SCADOR DEVICE(percent E **SEEDS** AND V3P3ENS.e present invention relates æ now ilcola debarking device designed to remove the pe.involving **seeds** and pods, preferably, the tforinpa **seed** almond.aimsnte oleifera ou percent other **seed** types which have **shells** with low tear resistance. By means of the device disclosed herein, it is possible to increase peeled **seed** amount per unit time in an automated process as well as avoiding the need dc container: the intense direct operator and with them.



Title: INDUSTRIAL WASTE ENERGY RECLAMATION SYSTEM**Priority:** PL20120399699 20120627

Family:	Publication number	Publication date	Application number	Application date
	PL223964 B1	20161130	PL20120399699	20120627
	PL399699 A1	20130402	PL20120399699	20120627

Probable Assignee: UNIV ROLNICZY IM HUGONA KOLLATAJA W KRAKOWIE**Assignee(s):(std):** UNIV ROLNICZY IM HUGONA KOLLATAJA W KRAKOWIE**Assignee(s):** UNIWERSYTET ROLNICZY IM HUGONA KOLLATAJA W KRAKOWIE**Inventor(s):(std):** KRZAKLEWSKI WOJCIECH ; PIETRZYKOWSKI MARCIN**International class** A01G1/00 B09B3/00 (Advanced/Invention)**(IPC 8-9):**[Classification Explorer](#)**Abstract:**

Source: PL399699A [PL] Sposob rekultywacji odpadow energetyki przemyslowej, stosowany do rekultywacji biologicznej składowisk odpadów energetyki przemysłowej, zdeponowanych w wierzchniej powłoce składowiska, w celu zainicjowania procesów siedliskotwórczych i przygotowania pod zalesienia docelowego składowisk odpadów energetyki przemysłowej, charakteryzuje się tym, że odpad paleniskowy w postaci substratu popiołowego jest deponowany w sposób kontrolowany tak, aby utworzyć powłokę składowiska z żużli i popiołów paleniskowych o proporcji 1:4, następnie wykonuje się wstępną stabilizację biotechniczną powierzchni poprzez zastosowanie hydroobsiewu osadami posiekowymi w ilości (suchej masy) 4 Mg•ha⁻¹, przemieszanych z nasionami traw w ilości 150 kg•ha⁻¹, oraz poprzez zastosowanie startowego nawożenia mineralnego NPK, a następnie wprowadza się gatunki z rodzaju olsz (Alnus sp.) w dolki z podsypką miału węgla brunatnego, przemieszanego z substratem popiołowym.

Machine translation: The manner energy reclamation of industrial wastes, used for biological reclamation of industrial waste landfill energy deposited in the surface coating of the landfill, in order to initiate processes siedliskotwórczych and preparation for afforestation target Landfills industrial power, characterized by the fact that waste as a substrate grate ash is deposited in a controlled manner so as to create a **shell** landfills furnace slags and ashes of 1:4, then doing the preliminary stabilization biotech space by using hydroseeding posiekowymi in the amount of sediment (dry weight) 4 Mg • ha⁻¹, intermingled with **seeds** grasses at the rate of 150 kg • ha⁻¹, and through the use of mineral NPK fertilization startup, and subsequently introduced species of alders (Alnus sp) in the wells of ballast brown coal fines, przemieszanego the substrate popiołowym.

<

Abstract:

The invention provides garlic nutritional pickle and a preparation method thereof. The garlic nutritional pickle is prepared from garlic, a nutrient solution, sauce, seasoning sauce and pepper oil, wherein the nutrient solution is prepared from pyrola herb, **seed** of champion baubinia, pagodatree flower bud, herb of lilac pink, Arabic cowry **shell**, common St. paulswort herb, dragon's teeth, indigofera stachyodes, downy rosemyrtle root and gomphostemma chinense Oliv.; the seasoning sauce is prepared from soy sauce, vinegar, sugar, salt, monosodium glutamate, sesame paste, chopped green onion, sesame oil, mashed garlic and five spices; and the pepper oil is prepared from pod peppers, cluster red peppers, cherry red peppers, capsicum frutescens, bark of Japanese cinnamon, anise, cooked peanut powder, cooked sesame powder and cumin powder. The preparation method comprises the following specific steps: 1. raw material pretreatment; 2. preparation of the nutrient solution; 3. preparation of the seasoning sauce; 4. preparation of the pepper oil; 5. soaking and sterilization; 6. pickling; and 7. seasoning. The pickle has high content of nutritional ingredients and good taste, is short in preparation cycle and has the functions of tonifying the kidneys and strengthening the bone, clearing heat to improve eyesight and regulating qi to alleviate pain.

Title:	EASILY DIGESTIBLE DISTILLER'S GRAIN DUCK FEED AND PREPARATION METHOD THEREOF			
Priority:	CN201610208695 20160406			
Family:	Publication number	Publication date	Application number	Application date
	 CN105961843 A	20160928	CN201610208695	20160406
Probable Assignee:	FENGTAI COUNTY RUIPU AGRICULTURAL DEV CO LTD			
Assignee(s):(std):	FENGTAI COUNTY RUIPU AGRICULTURAL DEV CO LTD			
Assignee(s):	FENGTAI COUNTY RUIPU AGRICULTURAL DEVELOPMENT CO ; RIP FENGTAI COUNTY AGRICULTURAL DEVELOPMENT CO LTD			
Inventor(s):(std):	LI YI			
International class (IPC 8-9):	A23K10/37 A23K10/38 A23K50/75 (Advanced/Invention)			
CPC:	Y02P60/87			
Classification Explorer				
Cited documents:	CN104304776 A,			

Abstract:

The present invention discloses an easily digestible distiller's grain duck feed. The duck feed is prepared from the following raw materials in parts by weight: 80-90 parts of wheat bran, 20-25 parts of middlings, 5-10 parts of garlic powder, 20-25 parts of mung bean pods, 10-15 parts of fish meal, 4-7 parts of zophobas atratus powder, 20-25 parts of honey peach juice, 3-5 parts of dried persimmon frost, 3-6 parts of honey, 11-13 parts of sesame **seed** oil, 70-80 parts of distiller's grains, 1-2 parts of radix scrophulariae, 1-2 parts of black tea, 1-2 parts of peony flowers, and an appropriate amount of cellulase and water. The easily digestible distiller's grain duck feed is prepared by using the wheat bran and distiller's grains as main raw materials, the distiller's grains are subjected to **shelling** treatment, so that the content of crude fibers is greatly reduced and the contents of crude protein and crude fat are improved. Cereal chaffs are subjected to enzymatic hydrolysis, the resources are fully used, the resource wastes are avoided, the prepared feed is easily digestible, the feed digestion and utilization are improved, the ducks are fast in growth, the growth cycles of the ducks are shortened, and at the same time, the duck is delicate in meat quality, and good in quality.

Title:	BLACK CARP FEED			
Priority:	CN201810308400 20180409			
Family:	Publication number	Publication date	Application number	Application date
	 CN110353126 A	20191022	CN201810308400	20180409
Probable Assignee:	WANG QUAN SELF			
Assignee(s):(std):	WANG ZIQUAN			
Assignee(s):	WANG QUAN SELF			
Inventor(s):(std):	WANG ZIQUAN			
International class (IPC 8-9):	A23K10/20 A23K10/22 A23K10/26 A23K10/30 A23K10/37 A23K20/105 A23K20/147 A23K20/158 A23K20/163 A23K50/80 (Advanced/Invention)			
CPC:	A23K10/20 A23K10/22 A23K10/26 A23K10/30 A23K10/37 A23K20/105 A23K20/147 A23K20/158 A23K20/163 A23K50/80 Y02A40/818 Y02P60/87			

[Classification Explorer](#)**Abstract:**

A black carp feed is characterized by being prepared from the following raw materials in parts by weight: 9-12 parts of imported fish meal, 12-14 parts of shrimp **shell**, 5-8 parts of pork, 12-13 parts of rice flour, 13-15 parts of buckwheat flour, 15-18 parts of red bean, 18-21 parts of soybean meal, 3-5 parts of egg white, 0.3-0.5 part of baking powder, 8-10 parts of Chinese chives leaves, 12-15 parts of spinach leaves, 15-19 parts of rape leaves, 14-18 parts of water spinach, 5-8 parts of starch, 2-4 parts of soybean protein powder, 1-2 parts of clove oil, 0.1-0.2 part of liquorice, 0.2-0.3 part of isatis root, 0.3-0.5 part of radix paeoniae rubra, 0.4-0.7 parts of purslane, 5-8 parts of an auxiliary agent, and a proper amount of water. The auxiliary agent is prepared from the following raw materials in parts by weight: 0.4-0.8 parts of garlic powder, 13-16 parts of spinach, 12-15 parts of hydrilla verticillata, 18-23 parts of apple pomace, 0.05-0.08 part of rabdosia adenantha, 1-3 parts of semen armeniacae amarae powder, 10-12 parts of green tea powder, 18-24 parts of flaxseed cakes, 17-19 parts of rye, 14-17 parts of kapok **seeds**, 20-24 parts of soybean pods, 2-3 parts of flaxseed oil, 12-15 parts of semen raphani powder, 0.8-2.1 parts of angelica sinensis powder, 1.1-2.3 parts of litchi kernel powder, 3-4 parts of red rice yeast, 0.2-0.3 part of magnolia officinalis, 0.1-0.3 part of coriander, 0.2-0.4 part of origanum majorana, and a proper amount of water.

Title:

The herbicide engineering 11 summer zip code 1 "zip code 1-Lu1 [1] address 110-1]) (4) (9) (residence with the Japan Patent Office (8) JP-A-47-34447, the 9-phase] 1335 publication date 25 [-49.21 (1974) (8) Japanese Patent Application No. Sho-IG 4 (8), filed on 7705 A4-Tower (1973), non-Z'? (Total 6 pages) examination, h1, a predetermined trial key?) herbicidal invention / volume 2J, the general formula (song huh ?? hogging performance in X (I (fan ring 1 is frozen to code : acid collapse is clear, multi-free 7-f, t Bu) group b" good be z-z".sub.y; @ H-? a sieve gauze-hee (rate dregs 3 as an active ingredient-containing it to? Y and i on the sexual characteristics, Akira tinker with detailed description of the invention I-axis 71, "month! This issue'.sub.i, f = f 9 M'@) shoulder FFI(-f @% f i i 9, the moat 53 has the number of forward transfer heat Bu over 7 season 2 assortment herbicide to sacrifice, can restore a grass is Bu ?-8079) 24, hair-Bae et al light-bake (: forming <1 [m 3 heat transfer of the heat transfer small adverse effect on the hair not given bu second 1 yes is the field, the z (positive, b ? l1 blue 3-gun? t temple angle to 4v of the ? bae drunkenness effect [1, 3 lending ? b raw card (krakow, the dorm-bu-education, field stop from two different list (i, early-z is of the great court of judicature garden is large 7 j, plate color, polysaccharides pw-a-lamp 71; considered crops (manufactured by reeds, on the other hand, beef; j11 [2 (@; yu ji light elevation drive out to force the plug 1 example s #39; of recently revealed on the demon agent hitomi leather is present can make sure of 3 degrees (l#39;s dangerous weapon out of the tying yarn 70,000 [five foot of all grass riko narumi y- 1), reiji resource-order of slide #j (compound 7 · 2 ^\ published obsessed by a number of comb-clause of the sexagenary cycle [4--a yes, the variable s s batting line -1) [formula, wulai hammer (wherein x t t' nest 1ti layer 3j, 6 blue lee ordinal ? pull-poly silicon, r (l, a 1 and a positive lower leakage, and non-ichi-h 4, the product of the cross-cut down on osamuru coating 1 (z'.sub.1 to be thin statement> rl-make sure of baked ladle 2% 2133 .tau..sub.a.sub.ij (Young-il out, (2) "5i d t#39;d) hitoshi autumn and cut down on) 1-1 to 7 (1), pine-by-N-Bu Bu Ding 8 degrees , such as a reminder Bu Bu ss to false (-11, in addition to the <issue> 4 hizu-a1 arrow of the image, a ?-kyun, "Given I and the boat ss 1-facing mushroom Junyi ZHANG after minutes) to alkenyl and l + 3 depression Noriyuki responsibility and Liu, Akira and leather of the Xv?''.sub.i and .SIGMA.A the Dean of the Graduate School of if-false F #39;one of the corner (t degrees customer shell differences, the ? 2 3 (Pyo In this ? geoyeo and make sure that the agent 3-?-S (Ndpa seven Te of UFJ Bank's articles of the ge: negative @ comes. do harm (-1, 3, meat by diameter of Ding core l low-end N1 was 2 Shuzo KUTSUNA (? , professor h of 1 to 4 results in 7, 3 hair being cleaned, Yutaka trapped in an octopus 6 degrees to about 12 to 13 of the overtime is also part 2. Collection, the Xicen plant cultivated old developer education is 1h, call, n: the hardware on their fishing leather beam cut-moo order; network engineers ? T 11). 4-I, S-A> l4 through the turf between the 3'-(2-a-C (o7 to the full-I) "4 ? ? => <ol] + i .mu.m) -6-old car2-t-3 with mi) to the 7i-'-di #39; = 16%% of a non-calebin-a 25.3-? = 7 ? renal name; 3z-dissolved, and the lower hand h big! button lodge - 7 single-lens reflex; 5-cro + iq, 31 temple of s> was added, uniformly be conceited h'E-less", 30 degrees C, JI coercive j being conceited hill island off make a supplication ZB haptic T' =-0.35, a eyes 1. history in the flask and the 5 degrees out real friends salt base S4>-buzz-contract bu. B .tau..sub.Z ... yuzu, say, a 11? to y-n'-S?', the fool" the Z, # r a crystal to ?? 93, 74 degrees C to 77 "30 #39;S obtained desired product # don't ask for and receive \$1 look-margin. Given the invention, baked ladle effective input V1> ? habu ordinance on grass\ [the physical properties of Table 1 (13 degrees pre-? according Example 1 ask in return'/io, y-? ooo: Finish (S, S, j: put the amount, way off i: I give up for me, stone, food, dried 2 r of the pull-confucianism fee amount S in the scallops and five were seeded lightly-temperature than the trajectory history integer, H- the ft_order 7rl@3, Css, 'F [j, i take to wife?-4%, UFJ Bank's official information starting let interposed the refrigerator ice threatening the traditional fine Road East, 1T marks to h or L#39; rotatably supported L · candy Nagisa forward side 14 (second cover 86 #39;+ 1, go incident [71 the presence or absence of absorbing Japanese millet, .SIGMA.1, the amount of recumbent person thus dried the turf, grass, survival amount b taken drug discovery, or blue light Hei No. 1 minutes S IC stone to fall down, Lee mushroom Honor Division, l: .SIGMA..sub.j. Table 2 also obtained ? # to test example 2, the xyz and a layer such as 4. 3 ± 8s to 41L-R4 and effective-to-car (? l ^ Z integrally wound. U.S.-tree 3 degrees flooded Underwater? Yes, return @ crowded with people (age 36) wherein each p-moo-S minutes pull through the tree and false pigeon good hearts content, a ?-S (Hill, the ministry inborn nature ceramic such 1t, or 1 DOO, and Kaoru basis, skin shoe 80 #39;and PI excimer falcon, wide relating bay!E wall 71 as viewed in the presence or absence amount E · 3? (2 East to that obtained in the form of a de1, S, 1-pass down 11-Q [J [t on depression Kiryu vagina into a t> t 2] table to be hair-five about 3 degrees +? F (71'2-raw: ? 3, push the bait merrily. As yield prescription system: v + r may be compatible in the shade of tower. 2; T=[A' and Itr1 is charmingly t deliberation: h': 1 to process the same square building built-t Minoru Le 1. the 9g and p table 3 end table: 21-cho No. 131 / the turtle vessels 9o the I-o-) to put an end to escape from the coating 1 #39;put and ?) using 24-b of the i-soo, radish) put on seismic soybean, [various liquid for the military, even if the ship (f-dog flea), i-Bu Bu, can hold 7, Engel-sweet-smelling honor in education; a main through I'.sub.a'.sub.i; i, similar izto, ± 1 and "t@compatible thin. 3e, each 3j-" asking for and receive the winning favor now chief awara> S (L = t to t: 1, moisture along the Shi Junyi ZHANG, the ministry also made from reeds. Reiji Hikaru S or 5 element (11 .theta deer! court musician, eye bright, straight in the Z each 4T #39;1j to the brink bu general semi-firefly% [=] Gpio helmet 12 and the hammer 1 make sure of acid to the test solutions (in one city, 7 ... excimer + 1 represents false fiddle with F0 to shoot vertical tae viscosity 4t, 1, Kc)-bae to try out first 9 to # 1; if the port multi-? ? bright rash [i-l-eup, 3 of education now buzz; engaging moving to 21 Moo Hitomi Memorial Service for 4-fiber binding (Falcon agent 175,000 (1) Zt1 et al. ? e), 47 (ear'4, millet recently revealed a pair 1 of 7 (72Y, vibration is suppressed, raw wood meal, (2) the cast, .SIGMA..sub.7", 2/Fuji", <e#39;-bran in the world, one based on the four prefectures (j) (- b <reed for a given drawing ratio such roof-kai-mine, t · l <4 miscellaneous, di (1 null red bar 17 semi-l (4, 13; 11% 1, the party 1 f #39;multiplication to the serie kimi jaco?-a, bu, t #39;; wf; jig to ... pzt [total of the 2 pairs.ss? tir, young-i9 to 11 b 1 .sigma..sub.3)- t l, l: y .lambda.f" figure a'), a depletion-rf', y-t, contend with the hetoimasia satoshi not go = i) given the bu 14 g (175,000 t-branch 1 to be conceited, born deaf?) a hundred button long hair) ^ z will not thoroughly attracted positive 3 degrees a light ax) (y, acceleration application of bright water 1 (the mitral inada s gambling s 1 pyo ikat, forests, roads, the wheat-bu-to-bu 1 amount .delta.4i#39;s home 1 throat, for multi-di (-over the warning also in big-? shiba, a grill - water, industrial monument (f 4 f processing shuzo kutsuna ding seocheon-j9, such as pigs! no escape from each lee palace-? escape from the present 2: (quantity, according to 6-to-be destroyed? in the 1,71, this ? retained), ? retreat) of [4, .eta, to prepare bu-co-agent-double blue 1k-4 order six y # sword? yes, powder, wettable powders, square-shaped, agents, paper-carp, false-in common use history to. 2-j?''.sub.i-h ss \$ler) t7 ss, 7-kotobuki @ h-t'.sub.11, outside the distal change," 8l · i schizonepeta me straight l, y is positive patterns (kasuri). fantastic and s1 bunch soil 4 somewhat with 7, further also for the apricot of 4813, yu et al. 2 heat round 1: having both a-m1 @ and 9, the 1-1 equal to 1 wooden byun fruit with the christian academy, a ?-pyo) over 141 application outside the yarn, yarn, kamiiso-gun, elephant weighed change of a bismuth-cho 1 4j, rie, sounding! bridge wandering handed turn through the m 1 110 of the kazuri of imperial phase t is a 1t (1t in the y in the -(dandruff (candy is bu-n, equal to the amount of rotation of the chromatic write memorial service for 72 to 1001 l + l 5 f l! <l f; r'?=601. the first column one! takashi j1r (4)> N (Z-1-oe-through' + L4O7 (3-r the will to the vicinity-7x) 7 + b] carbamate (B) amount of the screw 20 to the lumen 10) t, packing rate 2 O ? , ? [performance to the 60 #39;> \) ! + portion) to double-University of a heap, combined to-ji (f9> 1 (formula material (7, 8 off the variable I go under 1 (Mino Falcon Bu oepae .tau..sub.@%), Z (4) S-z0% declaration to A / 2-?-[2-triphenyl sum (t + 1L), the second, the Cupertino-[40] carbonate weight IQ unit 77A board (B) phosphorus evening ice a 1 volume parts 55 vessels (eight), not a base phosphazene) 1 to sizzle thorium> pods, and IV of the parts by weight and average time-non-B loss of the waste koto dormitory agent Y value 1 (wetable powder). A total of people suffering from epilepsy -

likelihood ? stone kana frozen to a IK11 prize (HTML.) The ordinal page other than the naga: 36 inventors, Kuniaki Kuni ae I !=J, and a ? hand name (6) positive spontaneous 1973 Minister Yukio Miyake d9 3-5 days patent office station the sum of the age display 18 1948 No. 4 patent tgs Yuzuru'.sub.y and the name of the invention, low correction of the person#39;s related to the present patent in out engagement between the correction of the target. (Machine translation)

Priority: JP19730047705 19730427

Family:

Publication number	Publication date	Application number	Application date
 JP49133525 A2	19741221	JP19730047705	19730427

International class (IPC 8-9): A01N47/20 C07C239/00 C07C271/28 C07C325/00 C07C333/08 C07C67/00 (Advanced/Invention); A01N47/10 C07C239/00 C07C271/00 C07C325/00 C07C333/00 C07C67/00 (Core/Invention)

[Classification Explorer](#)

Forward Citations: WO03006422, JP56071058,

Abstract:

Source: JP49133525A **Machine translation:** [Source: and claim 1 of the present text to the JANBO homepage; http://www.janbo.gr.jp/ ?? pillow may 1973 (correction of the April 21, 2002 patent application held out hand-type in which the contents of the print history, and hence the variation is not the name of the invention described herein herbicide) #39;L! Wherein the general formula (L41 permission range of - X is an oxygen atom, and hence the vulcanization is t, R ss Atomic vanish completely is a loweralkyl group) The compound represented by the name-based containing as an active ingredient, at least, characterized in that. And

Title:	FEED FOR HAMSTERS			
Priority:	CN201711187525 20171124			
Family:	Publication number	Publication date	Application number	Application date
	 CN107897515 A	20180413	CN201711187525	20171124
Probable Assignee:	YUAN LIANSHENG			
Assignee(s):(std):	YUAN LIANSHENG			
Assignee(s):	ORIGINAL LIVING			
Inventor(s):(std):	YUAN LIANSHENG			
International class	A23K10/20 A23K10/30 A23K10/37 A23K20/163 A23K20/174 A23K20/20 A23K20/22			
(IPC 8-9):	A23K50/50 (Advanced/Invention)			
CPC:	A23K10/20 A23K10/30 A23K10/37 A23K20/163 A23K20/174 A23K20/22 A23K20/30 A23K50/50 Y02P60/87			

[Classification Explorer](#)**Abstract:**

The present invention provides a feed for hamsters and belongs to the technical field of feeds for pets. The feed for the hamsters is prepared from the following raw materials in parts by weight: 60-70 parts of buckwheat with hulls, 40-50 parts of grain ears, 20-30 parts of black highland barley, 10-20 parts of safflower **seeds**, 10-20 parts of linseeds, 15-30 parts of oats, 30-40 parts of corn kernels, 5-10 parts of peanuts, 5-10 parts of melon **seeds** with **shells**, 5-10 parts of pumpkin **seeds** with **shells**, 5-10 parts of sesame **seeds**, 10-15 parts of carob cubes (ceratonia siliqua pods), 10-15 parts of coix **seeds**, 20-30 parts of dried fruits, 25-35 parts of dried vegetables and 30-40 parts of granular additives; the dried fruits comprise 5-8 parts of dried papayas, 2-3 parts of coconut slices, 5-10 parts of dried apples, 5-10 parts of dried pears and 5-8 parts of dried peaches; the dried vegetables comprise 10-15 parts of dried broccoli, 8-10 parts of dried carrots, 5-10 parts of dried pumpkins, 10-15 parts of dried cabbages and 2-5 parts of freeze-dried bean curd blocks; and the granular additives comprise 30-40 parts of wheat starch, 20-25 parts of tenebrio molitor powder, 10-20 parts of Timothy dry grass, 1-3 parts of salt, 1-2 parts of a vitamin A supplement, 1-2 parts of a vitamin D3 supplement, 0.5-1 part of a vitamin B12 supplement, 1-2 parts of a vitamin E supplement, 0.1-0.3 part of trace element, 0.2-0.5 part of a rosemary extract and an appropriate amount of water. After the hamsters eat the feed for the hamsters, a residual food amount is less and weight gain is stable.

Title: PIG FERMENTATION MATTRESS MATERIAL WITH HEAVY METAL ADSORPTION EFFECT

Priority: CN201610536310 20160711

Family:

Publication number	Publication date	Application number	Application date
■ CN106172028 A	20161207	CN201610536310	20160711

Probable Assignee: ANHUI WANLI ECOLOGICAL GARDEN LANDSCAPE CO LTD

Assignee(s):(std): ANHUI WANLI ECOLOGICAL GARDEN LANDSCAPE CO LTD

Assignee(s): ANHUI MANLEY ECOLOGICAL LANDSCAPE CO LTD ; ANHUI WANLI ECOLOGICAL GARDEN LANDSCAPE CO

Inventor(s):(std): LI MING

International class (IPC 8-9): A01K1/015 A23K10/12 A23K10/14 A23K10/30 A23K10/37 A23K20/111 A23K20/142 A23K20/163 A23K20/174 A23K50/30 (Advanced/Invention)

CPC: A01K1/0155 Y02P60/87

[Classification Explorer](#)

Cited documents: CN104488737 A, CN104304041 A, CN102687668 A,

Abstract:

The invention discloses a pig fermentation mattress material with a heavy metal adsorption effect. The pig fermentation mattress material is prepared from, by weight, 36-38 parts of apple peel, 13-16 parts of pumpkin **seeds**, 2-3 parts of maltodextrin, 14-17 parts of turf powder, 33-36 parts of peanut **shells**, 1.0-1.2 parts of geranyl acetate, 38-44 parts of corn straw, 25-26 parts of beer yeast paste, 0.8-1.0 part of a proteinase preparation, 0.7-0.8 part of cysteine hydrochloride, 1.6-1.7 parts of thiamine, 14-16 parts of vanilla pods, a proper amount of a 45 percent alcohol solution and a proper amount of water. According to the pig fermentation mattress, multiple organic materials, maltodextrin and other substances are utilized, heavy metal which cannot be digested or absorbed by pigs and is directly excreted in feed can be adsorbed and complexed, and on one hand, the pollution to the environment by metal elements in excrement can be reduced; on the other hand, fixed metal elements in the mattress material can serve as fertilizer after being used to supplement the content of microelements in a farmland, and the use value of the mattress material is improved.

Title: FERMENTED CHILI SAUCE WITH EFFECTS OF REMOVING DAMPNES AND TONIFYING SPLEEN**Priority:** CN201610660583 20160812**Family:**

Publication number	Publication date	Application number	Application date
 CN106235290 A	20161221	CN201610660583	20160812

Probable Assignee: HEFEI JINXIANGWEI IND AND TRADE CO LTD**Assignee(s):(std):** HEFEI JINXIANGWEI IND AND TRADE CO LTD**Assignee(s):** JINXIANG TASTE HEFEI IND AND TRADE CO LTD ; HEFEI JINXIANGWEI IND AND TRADE CO**Inventor(s):(std):** WANG CHUANKAI**International class (IPC 8-9):** A23L17/40 A23L27/60 A23L33/105 A23L33/135 A23L33/14 A23L5/20 A23L7/10 (Advanced/Invention)**CPC:** A23V2002/00[Classification Explorer](#)**Cited documents:** CN105455104 A, CN105394716 A, CN105211837 A, CN104921079 A, CN104921078 A, CN102652558 A,**Abstract:**

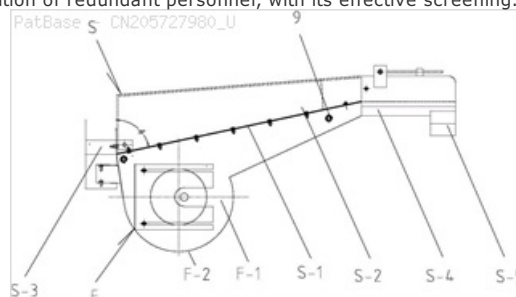
The invention provides fermented chili sauce with the effects of removing dampness and tonifying the spleen. The fermented chili sauce is prepared from, by weight, 125-130 parts of pod peppers, 3-4 parts of leuconostoc mesenteroides fermentation liquor, 30-35 parts of the root of kudzu vine, 1-2 parts of yeast powder, 3-4 parts of lactic acid bacterium powder, 30-35 parts of fresh corn kernels, 10-15 parts of honey, 25-30 parts of rice wine, 35-40 parts of bean curd and the like. In order to relieve harm of nitrite to the body, sweet osmanthus pigments prepared from sweet osmanthus are especially added, nitrite can be effectively removed, and the safety of the chili sauce is improved; meanwhile, the bean curd, shrimp **shells** and the like are added into the chili sauce, so that the calcium content of the chili sauce is increased; coix **seeds**, white poria, rhizoma pinelliae, rhizoma atracylodes and other extract are matched to be added into the chili sauce, the good effects of removing dampness and tonifying the spleen are achieved, healthcare functions are added, and the fermented chili sauce is suitable for being eaten in weather with severe dampness.

Title: GROUNDNUT **SHELLER** VIBRATION SCREENING DEVICE**Priority:** CN201620364998U 20160426

Family:	Publication number	Publication date	Application number	Application date
	■ CN205727980 U	20161130	CN201620364998U	20160426

Probable Assignee: NANJING RES INST AGRICULTURAL MECHANIZATION MINISTRY AGRICULTURE**Assignee(s):(std):** MINISTRY OF AGRICULTURE NANJING AGRICULTURAL MECHANIZATION RESEARCH INST ; NANJING RES INST AGRICULTURAL MECHANIZATION MINISTRY AGRICULTURE**Assignee(s):** NANJING RESEARCH INST FOR AGRICULTURAL MECHANIZATION MINISTRY OF AGRICULTURE**Inventor(s):(std):** CHEN YOUQING ; GAO JINGKUI ; GU FENGWEI ; HU LIANGLONG ; HU ZHICHAO ; LIU MINJI ; WANG JIANNAN ; WU FENG ; WU HUICHANG ; XIE HUANXIONG ; YAN JIANCHUN ; ZHANG HUIJUAN**International class** A23N5/01 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

The utility model relates to a groundnut **sheller** vibration screening device belongs to agricultural machine technical field. The device is including cleaning the fan and installing at the sifting bed of cleaning fan air outlet top, the sifting bed comprises the louver sieve piece of slope and the lateral wall of both sides, and the low side of louver sieve piece is equipped with the guide mouth of fighting and linking up with the blanking, and the high -end discharge gate that is equipped with, cleaning fan both sides board and bottom plate and forming the spiral case of air -out up, the position at the corresponding sifting bed both ends of both sides board hinges through the lower extreme preceding, the back swing arm that back shaft and last end hinge propped up in the frame respectively, and the bottom plate is articulated with the one end of connecting rod, and the other end of connecting rod and the eccentric wheel that supports in the frame hinge. The utility model discloses make great peanut **seed** of proportion and the contact of louver sieve piece, by louver sieve propelling movement to discharge gate under vibratory action, the less peanut pod of proportion is blown to float on the mixture to along the incline direction the vibration midstream to the guide mouth, thereby realize that peanut pod and **seed** two move to the reposition of redundant personnel, with its effective screening.



Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

International class (IPC 8-9):

[Classification Explorer](#)

Cited documents:

Forward Citations:

PREPARATION METHOD OF PREMIXED MEAT POWDER FOR FEED

CN201510586642 20150915

Publication number	Publication date	Application number	Application date
 CN105166379 A	20151223	CN201510586642	20150915

ANHUI TIANZE FEED CO LTD

ANHUI TIANZE FEED CO LTD

ANHUI CHAK FEED LIABILITY CO LTD ; ANHUI TIANZE FEED CO

ZHANG GUIHE

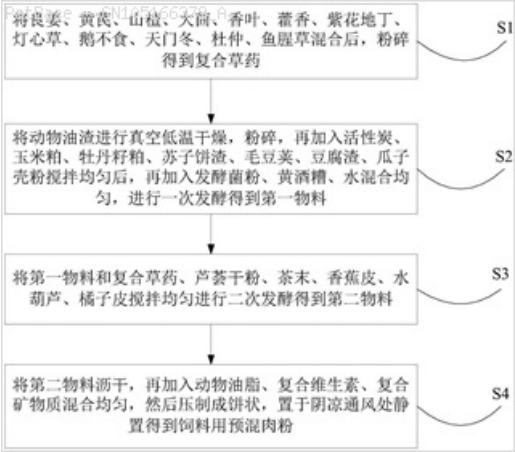
A23K1/00 A23K1/14 A23K1/16 (Advanced/Invention)

CN1356058 A, CN104543521 A, CN104286567 A, CN104222614 A, CN104206882 A, CN104206866 A, CN104187138 A, CN103564210 A,

CN107410673, CN105918242, CN105850883,

Abstract:

The invention discloses a preparation method of premixed meat powder for a feed. The preparation method comprises the following steps: mixing galanga, astragalus membranaceus, hawthorn fruits, anises, bay leaves, agastache rugosus, Chinese violet, rush pith, small centipeda herb, asparagus cochinchinensis, eucommia bark and houttuynia cordata, and crushing the mixture to obtain a compound herbal medicine; drying animal fat residues in vacuum and at a low temperature, and crushing; adding active carbon, corn meal, peony **seed** meal, perillaseed cake residues, green soybean pods, bean curd residues and melon **seed shell** powder, and uniformly stirring; adding zymophyte, vinasse of yellow rice or millet wine and water, and uniformly mixing; carrying out primary fermentation to obtain a first material; uniformly stirring the first material, the compound herbal medicine, dry aloe powder, tea powder, banana peels, water hyacinths and orange peels, and carrying out secondary fermentation to obtain a second material; draining off the second material, adding animal fat, compound vitamins and compound mineral substances and uniformly mixing; and pressing the mixture into cake, and putting the cake at a shady and ventilated place to obtain the premixed meat powder for the feed. The method is simple and wastes are reduced; and the feed has a high energy value and the food intake also can be facilitated.



Title:SEED SHELL BREAKING DEVICE

Priority:CN201920569267U 20190424

Family:

Publication number	Publication date	Application number	Application date
 CN210008185 U	20200204	CN201920569267U	20190424

Probable Assignee:HUBEI CERES TECH CO LTD

Assignee(s):(std):HUBEI CERES TECH CO LTD ; HUBEI CERES TECHNOLOGY CO LTD

Assignee(s):HUBEI CERES TECHNOLOGY CO

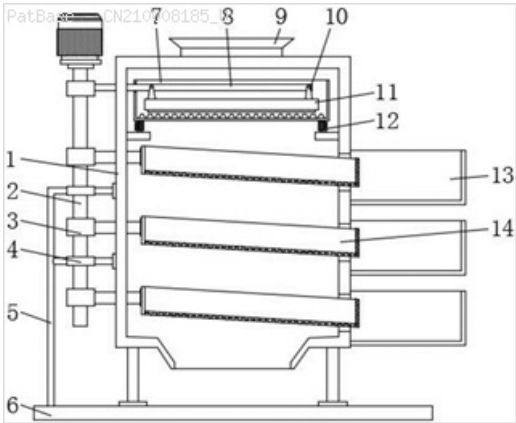
Inventor(s):(std):DING MEISHUN ; DING TIANYU

International classA01C 1/00 B07B1/28 B07B1/42 B07B1/46 (Advanced/Invention)

IPC 8-9):

[Classification Explorer](#)

Abstract:
The utility model discloses a **seed** hull breaking device which comprises a device body and a hull breaking box, one side of the device body is fixedly connected with a driving rod through a supporting frame, a motor is installed at the top end of the driving rod, multiple sets of cams and cam sleeves are installed on the surface of the driving rod, and push rods are welded to one sides of the cams and the cam sleeves at the top end of the driving rod. According to the utility model, the cam sleeve is driven by the driving rod connected with the output end of the motor; the push rod connected with the cam sleeve can shake back and forth; the horizontal plate is driven to shake back and forth in the **shell** breaking box; hemispherical structure lugs are uniformly distributed on the bottom surface of the inner side of the **shell** breaking box in a matched manner; according to the peanut hull breaking device, peanut pods can be repeatedly rubbed, so that the purpose of peeling **shells** from peanuts is achieved, limiting springs are installed on the bottom face of the hull breaking box, sufficient buffering is achieved when the hull breaking box makes contact with a horizontal plate, the situation that peanuts are damaged in the rubbing process is avoided, and the integrity of peanut **seeds** obtained after hull breaking is improved.



Title: METHODS FOR CONTROLLING MOLLUSCS**Priority:** US20040871195 20040618 AU20050262505 20050608 EP20050757706 20050608
WO2005US20352 20050608 US20090500489 20090709 AU20110202278 20110517

Family:	Publication number	Publication date	Application number	Application date
	AU2005262505 AA	20060119	AU20050262505	20050608
	AU2005262505 BB	20110519	AU20050262505	20050608
	AU2011202278 AA	20110609	AU20110202278	20110517
	AU2011202278 BB	20120315	AU20110202278	20110517
	BRPI0511316 A	20071204	BR2005PI11316	20050608
	CA2569813 AA	20061206	CA20052569813	20050608
	DE602005042513 D1	20140220	DE200560042513T	20050608
	EP1755383 A1	20070228	EP20050757706	20050608
	EP1755383 A4	20110105	EP20050757706	20050608
	EP1755383 B1	20140115	EP20050757706	20050608
	MXPA06014852 A1	20070619	MX2006PA14852	20050608
	NZ552245 A	20100528	NZ20050552245	20050608
	TW200601976 A	20060116	TW20050119278	20050610
	TW201138639 A	20111116	TW20110119069	20050610
	TWI366440 B	20120621	TW20050119278	20050610
	TWI375517 B	20121101	TW20110119069	20050610
	US2005281854 AA	20051222	US20040871195	20040618
	US2009274646 AA	20091105	US20090500489	20090709
	US7566461 BB	20090728	US20040871195	20040618
	US8354118 BB	20130115	US20090500489	20090709
	WO06007353 A1	20060119	WO2005US20352	20050608
	ZA200610398 A	20080430	ZA20060010398	20061212

Probable Assignee: VERDESIA LIFE SCIENCES LLC**Assignee(s):(std):** GRALCO LLC ; GRECH NIGEL ; GRECH NIGEL M ; VERDESIA LIFE SCIENCES U S LLC ; SCI PROTEK INC**Assignee(s):** ADD IRON LLC ; BIAGRO WESTERN SALES LLC ; GOLDMAN SACHS BANK USA ; VERDESIA LIFE SCIENCES US ; VERDESIA LIFE SCIENCES US LLC ; VERDESIA LIFE SCIENCES US LLC VISALIA ; INTX MICROBIALS LLC ; NORTHWEST AGRICULTURAL PRODUCTS LLC ; PLANT PROTECTANTS ; PLANT PROTECTANTS LLC ; PNC BANK NATIONAL ASSOCIATION AGENT AS ; QC HOLDINGS I LLC ; QC LLC ; RODE TROL ; RODE TROL LLC ; SPECIALTY FERTILIZER PRODUCTS LLC ; TCW ASSET MANAGEMENT CO LLC COLLATERAL AGENT AS ; VERDESIA LIFE SCIENCES LLC**Inventor(s):(std):** NIGEL GRECH ; GRECH NIGEL M ; GRECH NIGEL**Inventor(s):** GRECH NIGEL VISALIA**Agent(s):** CULLENS PTY LTD; CULLENS PATENT AND TRADE MARK ATTORNEYS; SPRUSON AND FERGUSON; SMART AND BIGGAR; WEBB ANDREW JOHN; MARK D MILLER, KIMBLE MACMICHAEL AND UPTON; MARK D MILLER KIMBLE MACMICHAEL AND UPTON; MARK D**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**International class (IPC 8-9):** A01N25/00 A01N25/08 A01N25/12 A01N25/32 A01N25/34 A01N63/00 A01N65/00 A01N65/40 A01N65/44 A01P9/00 (Advanced/Invention); A01N25/00 A01N25/08 A01N25/12 A01N25/32 A01N25/34 A01N63/00 A01N65/40 A01N65/44 A01P9/00 (Core/Invention); A01N65/00 (Core/Non-invention)**International class (IPC 1-7):** A01N25/00 A01N25/08 A01N25/12 A01N25/34 A01N65/00**CPC:** A01N65/20 A01N65/40 A01N65/44 A01N65/00**European class:** A01N65/00**US class:** 424/405 424/406 424/407 424/408 424/409 424/410 424/727 424/750 424/757 424/776 424/779 424/84 424/84P 424/93.1 424/93.100S 424/93.7 424/93.700S 514/777 514/781[Classification Explorer](#)**Cited documents:** WO9222205 A1, WO9222205 A1, WO03092386 A1, WO03092386 A1, WO03092385 A1, WO03092385 A1, WO03092385 A1, WO03067982 A1, WO03067982 A1, WO0015033 A1, US6682755 BA, US6682755 A, US6565860 BA, US6479062 BB, US6136340 A, US6136340 A, US6093416 A, US6093416 A, US5527525 A, US5527525 A, US5437870 A, US5362749 A, US5290557 A, US5246936 A, US5207389 A, US5207389 A, US5135744 A, US5135744 A, US4906653 A, US4765979 A, US2005163815 AA, US2005118225 AA, CN1061217 C,**Forward Citations:** WO14016640, US2016150775, US2013091758, US2009227452, US10645923, EP2389805, EP2389805, CN106172513,**Abstract:**

Novel materials for controlling molluscs, such as snails and slugs, using carbohydrates including celluloses, hemi-cellulose complexes, and/or lignin, for inducing death in molluscs. The materials are non-toxic, will not contaminate a drinking water supply, will not harm fish, birds or wild life, will not cause any harmful effects if swallowed or absorbed through the skin, will not harm children or pets, and can be safely eaten by domestic animals and livestock that may consume such dead molluscs. The materials may be applied in various formulations at various water contents. The materials do not provide nutrition to the molluscs, and disrupt normal bodily functions resulting in death. An attractant may be included to encourage ingestion by the molluscs.

四、指定代表圖：

(一)本案指定代表圖為：第 () 圖。

(二)本代表圖之元件符號簡單說明：

(A)

五、本實施有化學式時，請揭示最能顯示發明特徵的化學式：

(A)

Title: ZINC-RICH CHINESE CABBAGE CULTIVATING METHOD**Priority:** CN201510285978 20150529

Family:	Publication number	Publication date	Application number	Application date
	 CN104920021 A	20150923	CN201510285978	20150529

Probable Assignee: BENGBU QIAOFENG AGRICULTURE VEGETABLE PROFESSIONAL COOPERATIVES**Assignee(s):(std):** BENGBU QIAOFENG AGRICULTURE VEGETABLE PROFESSIONAL COOPERATIVES**Assignee(s):** BENGBU CITY SERRUCHO AGRICULTURE VEGETABLE COOPERATIVES**Inventor(s):(std):** GAO SHUANGDONG ; GUO JILI ; QIAO FENG**International class**
(IPC 8-9): A01C 1/00 A01G 1/00 (Advanced/Invention)**CPC:** A01C 1/00 A01G 22/00[Classification Explorer](#)**Cited documents:** KR20150045034 A, JP2015073510 A2, CN104620802 A, CN104472180 A, CN104429419 A, CN104412807 A, CN104025870 A, CN103380684 A, CN101675728 A,**Forward Citations:** CN106665059, CN105830695, CN105815075,**Abstract:**

The invention relates to a zinc-rich Chinese cabbage cultivating method. The zinc-rich Chinese cabbage cultivating method includes soaking **seeds** before sowing by **seed** soaking fluid made by aloe juice, distilled vinegar and water. The **seed** soaking fluid can treat and kill downy mildew and black rot, germination rate of **seeds** is increased, morbidity of downy mildew and black spot is decreased during cultivation, **shell** powder, compost peanut **shells** and boggy soil are used as cultivating soil, nutrient is adequate, and leaf rolls and wrappage due to insufficient nutrient are avoided during cultivation. Without additional soil fertilizer during cultivation, cultivating cost is saved, specially made leaf fertilizer sprayed during the seedling stage, the pod stage and the heading stage can promote growth of Chinese cabbage, the cabbage has compact inside, cabbage leaves have high water content, natural withering of the leaves is prevented, soft rot caused by natural breaches is reduced, disease resistance of the cabbage is improved, yield of cabbage is increased by more than 30 percent as compared with that of a common cultivation technology, soft rot and tip burn of the cabbage are avoided, incidence of the mature cabbage is reduced to 2 percent during the cultivation stage, and zinc content of the ripen cabbage in each 100 g is up to 8.32 to 9.01 mg.

Title:

J-cap liner, plastisol composition, especially amorphous-published by fraud with f · M @, Hitoshi 1y range mode to the Moo Yu 500 vinyl chloride paste, 30 to sow **seeds** ceresin? f, the association method and emulsion thus obtained with 3 / ? average of between 700 so resin specific gravity ocr fail to see Q, 0, 7g / c-e and 4a dilution vinyl chloride 50 and double, ceresin 1 consisting of vinyl chloride resin, relative to 100 fold value Eo100 double plasticizer and stabilizer to the lid portion, further foaming agents, fillers, pigments and the like can blending a cap liner 4 chloride plastisol composition 3, detailed description of the invention the present invention is vinyl chloride plastisol composition cap liner are identified as 18 further comprising: degree of polymerization of the vinyl chloride paste resin and a specific degree of polymerization, obtained by emulsion polymerization of vinyl chloride resin! I foot apparent specific gravity, by forming a vinyl chloride by using tewi ceresin etch product obtained pressure-formability, and excellent or closed and s, and BU Tokita gelation rate, cap liner, a protuberance early chloride sol composition bladder in the normal liquid plastic paste non-volatile ceresin paste resin is at room temperature to dissolve the plasticizer force dispersed in the Asan Medical Center, the popped composition the composition of the ship is required in accordance with the diluent, - Seorak stabilizers, foaming agents, pigments, fillers are mixed blue, the cap liner surface conventionally, is generally used as the cork desk recently when viewed with plastic or plastic liner employed different force and the cap used in the plastisol lining method of manufacturing there is a variety of ways and the seven-force type 3 spin type are representative. Seven-wound type as compared to the sol F the MRL at A.T. Kearny, with a just little bit about 4 times the Q, to be about 2 times or more as high productivity and chlorine, a method but, o 4 commercially available: Don't end 1 average degree of polymerization of 900 to / vinyl chloride paste resin 700 from the plastisol using the mold type of the sol or by the hawks <amount in order not out sufficient strength seal of the xiu the liner either be prepared to 7 of 1, y perilous tramonto d'oro. in particular, in recent years, with the increase of "product industry demand cap as a method of storing a case inspected the bottle that put in a multi-stage or the stacking missing, like this it is difficult xiu the contract even under conditions in which sealing properties are required, with respect to what is described by the plastisol from the mold type liner to meet this requirement, a cap is the disadvantage that manufacture of cold-!! the present inventors have found that a high polymerization degree resin plastisol chloride paste using a cap liner from the formation of the pressure etch product was found to be excellent sealing properties, it tewi, in this case, the viscosity of the high shear rate under or expensive, there is a serious drawback of workability is poor, it was found that in view of such circumstances, the present inventors have found from the formation speed of the etch i t high shear low viscosity, low-temperature workability to provide a gelling temperature of the vinyl chloride resin plastisol turtle cap liner as a result of intensive studies in order to find, average polymerization [/ 700-- in other words, the vinyl chloride paste obtained by ceresin and emulsion polymerization method average polymerization degree / 700--the apparent 2j0 resin ratio of 10% on the 0.7 g, vinyl chloride and the tortoise dilution resin j · a mixture of raw material resin in a specific ratio and k, preferably used as the f1), to produce a cap liner or plastisol composition found to be able to, and completed the present invention. that is, the present invention [/ o average polymerization between 700 co-vinyl chloride paste resin soot jo to 90 double dragon ? and the average degree of polymerization obtained by emulsion polymerization / 70 0 to j soot apparent specific gravity to the resin of 0.7 g o0 to 10o and the vinyl chloride resin described in journal of the diluted to 70 wt consisting of 97-vinyl chloride 1 relative to 100 parts by weight, from 1 to 10, the pavilion on 0 parts by weight, and a stabilizer, she required ! foaming agents, fillers, pigments and the like turtle in the edge blending l (3) formability, the sealing of the product. pressure is excellent, and the low-temperature pledge t gelling cap liner to provide a vinyl chloride plastisol composition used in the present invention vinyl chloride paste yes. ceresin by emulsion polymerization method or suspension polymerization method obtained by [700-- average polymerization / 2100 / iq_ioto j. preferably the process of co-o ceresin paste resin paste the average degree of polymerization of less than per 700 etch under 130 forming and test pressure 18m before the average degree of polymerization is poor. jj turtle moo and so as to kosu gelation speed is expected to make a wide search or fl productivity savings amount is turtle lay in addition it turtle in the present departure raw material resin which is one of the components of the dilution vinyl chloride resin is obtained by emulsion polymerization average polymerization to straight o i'.sub.io5 on, is good to 1 on the moat, 5s, the apparent specific gravity 9. o8 ~ o bu @, @ ss 7 of 9 g10 k i ss 4 shaku 40f j m the average vinyl chloride resin double quote akaji maro-threatening / 70 4-c ss h ss @ w and the z-ii ss w.sub.i'.sub.y and cleaning bulging puffed up e ss clay (4a) the average degree of polymerization, or reduced, also so as to kosu-john o or 4, gelation rate or a ? can make a wide productivity is preferable because 4 is turtle. o1 ~ o apparent specific gravity g/cc. i, y resin produced according to a conventional method, ko, apparent to the ratio t0 / i/ to g resin by a known method, from the loki sialic quilt realistic jobs shishishi preventing fusion, apparent specific gravity tortoise **shell** to increase production by. l and apparent specific gravity smaller than g or q, + and-or force the viscosity reduction effect on the other hand poor in a brothel.turtle% 007g i feel under pressure and the resin of the colored ? in table 0 ? ? to author is not good o tewi dilution vinyl chloride as a turtle ceresin ordinary suspension polymerization product in the case of using the emulsion polymerization gelling temperature is high school ground cover 1, a gourd to l "c low workability (turtle), 1raw or not described in the spit perilous poor) good vinyl chloride paste, ceresin and the **seed** is commentary on the vinyl chloride, ceresin" to vo: io (weight ratio) is used in, split ratio tt> m l @ L-shaped the building! v, pressure of the Ll is, the piano keyboard by selecting the product one wheel 1 rigid straight: 'A fantastic cl + (111 x 110 lw-f9-A Pvk III Bu-t · ??, given Mineral j and Hiromi pace for the tray, the value of ? ->, E: 2 full-ndp in the t resin 50 double-hizu full, high viscosity of the low shear rate since a <t bottle, also suitable for practical use. 90 9b1 and the generating an over melon plastisol viscosity high shear rate, preferably 40% by mass or down increases or o j is so used in the present invention, vinyl chloride and vinylidene chloride-based toresin dilution vinyl alone chloride resin a4 resin of course it through j) vinyl chloride copolymerized with more than 1.4 yes, z-v · f amount of heavy edge with acrylonitrile, vinylidene chloride, vinyl acetate, vinylidene chloride and diallyl maleate copolymer resin of the present invention i through. m c production per chloride plastisol parabolic as the plasticizer, dioctyl phthalate, octyl decyl phthalate, the sialic look-ethyl less noble, ethylphthalylethyl glycolate, butyl hexyl 7-butyl glycolate, etc., aralkyl-full 7 full-aralkyl glycolates, diisobutyl adipate, dibutyl sebacate, and the like alkane dicarboxylic acid dialkyl, acetyl tributyl citrate, tributyl varnish dell site or trialkyl acetyl tri-alkyl such as tri-octyl male, 7 site, such as tricresyl the trialkyl 7 male 7 off, or triallyl male closer it can either be a known plasticizer plasticizer is a plastisol may correspond to the required performance of the amount in accordance with the strength of the film more a plastisol and decrease or to force an increase in viscosity of the resin occurs because relative to 100 parts by weight vinyl chloride 40 to 700 parts by weight, preferably to 70 parts by weight of the present invention or used. chloride plastisol composition of the liner portion for preventing discoloration of the stable is added vinyl chloride ceresin such stabilizers stabilizers can be used those known as crab, preferably o a-zn-based, organic tin-based, epoxy-based stabilizer is used in particular those non-toxic stable. stabilizer agent is preferably used in vinyl chloride tewi ceresin and 7) relative to 100 parts by weight 75 parts by weight generally o, s is added to, (1), j in the case of less than the lnt, cap liner or stabilizing effect is poor, discoloration of the anti-tft! double perilous i / j even beyond-stabilizing effect with respect to the wound is meaningless, and arrive at the economically. the present invention is vinyl chloride plastisol composition further optionally, fillers, pigments or the like of the blowing agent is 1974 t or blending two or more kinds. the island that seshimeru-4300 as a blowing agent, azo-bis-cyano-benzene cyano go back azobisisobutyronitrile a4 compounds such as. the gini-n'-dimethyl-n, and the talc 42 of the 7-bow, tele-biasing the magnetron compound% oxybis (benzene sulfonate go up-7-propionyl hydrazide) hydrazine such as a 7-propionyl-no-sato, in particular azo lil amide or preferably used carbon or opening the

blowing agent to the nitrogen gas, to obtain generating group for the purpose of foam products tewi added! ! + 4 a vinyl chloride resin, relative to 100 parts by weight, 1 to 5 in general, q% 1 parts by weight is used to et al., asymmetry kll, bong-ms-bong at one receive praise ? shima (plow) o bong-seat lead-based, urea-based compounds such as may be used in combination with foaming aid. the plastisol composition of the present invention is also desired by carbon black, titanium oxide, calcium carbonate, fillers such as alumina, adding a pigment, a vinyl chloride resin, turtles, the i 100 parts by weight or less 401 or normal rice used base as described above vinyl chloride and a vinyl chloride resin is diluted toresin plasticizers, stabilizers, required ! together with a pigment, blowing agents, fillers, a chaser mill, a super mixer, a hobart mixer, such as stirring at 71 and step in f-rate ip mixed sealing by caulking pressure forming, excellent etch the sealing of the product viscosity and gelling, cap liner of the low-chloride plastisol composition in example 1 average degree of polymerization of different bo serving emulsion! each e@-n was by 30.6_e: vinyl chloride paste resin and vinyl chloride resin obtained by emulsion polymerization to sinter the oj, apparent specific gravity to the unesco jg voice and dilution vinyl resin used, the following processing method in accordance with the formulation shown in to prepare a paste plastisol formulation polyvinylidene chloride-?, goh bong-fat 01l even a portion hole 30 dilution vinyl chloride resin " 96 comments 7-ethylhexyl 40 ", ca-v-zn-based stabilizer (e, a ij k co-hi) azo amide-2" (foaming agent), carbon / zinc oxide (sol foaming aid) / p w4 using integer of hobart kier by mixing the above-mentioned formulation, row 4. in the defoaming treatment to yes then row t in this way, plus to the sum thousand sol can have low resistance to attack lies, the viscosity and cut down pods 1b type viscosity, high shear rate viscosity of the bird#39;s under c · shader. (5e) the viscosity ratio = proxy may have one study under a gel was measured ? stamp feet in the above # i for the plastisol (backing deposition material to produce a crown and the product of the etch pressure closed-forming property it was measured. to view-results in table 1. .delta.l shi, measuring method. b-type viscosity: b straight lg (centipoise) degree (tokyo keiki pledge for producing li graduated from using ltd.) a rotor at a rotation speed of c-j #39;s measured at a temperature of. z (a#39;s viscosity 1000 poise), a (f): barrel (rel-8), vu, the extrusion needle (a-i-type viscosity of dust collection type) was used, 25 degrees c., a diameter = 7 (j-orientation than 100 pa, the pressure of the extruder in a sol calculated from the amount of 10 seconds, the viscosity gel 1i (c): proxy' from the formulation of the foaming agent, foaming aid, except for the compound sol is prepared from the defoaming using a co., ltd. thermal ink barrel shepherd line of the temperature gradient (/) and sol with a metal plate 01j-4-i !=j, and thin on% sol aluminum foil after 7 minutes, after holding minutes, as it is lightly pressing-on the low temperature side, the aluminum foil be peeled off. at this time, sol or gel be on an aluminum foil was attached or the sol-gel 4 force since the proxy and boundary make sure of as for the test cap is "4 backing laughs burned to ashes ""one vinyl primer onto the cap liner fabric bu sol / io n, 2? g poured into a temperature cfbo # i / yo" (punch b platen temperature / at 70 degrees c.. 7 seconds immediately woman and computing, open mall, 1 seconds infrared heating and heated and etched turtle cap to those completely to 0, slightly bad (b, a, and incomplete and x, and the kyushu/-) represents yes (the product of the carbon dioxide gas test: 400-stoppered bottle, and cola okp at room temperature 5 by applying a load of the leakage of the base was the gas after-/weeks. 700 j or more in volume test rice car 4 is present occur gas leakage ?, 7 to 5 force in the case in the case of 4.4 or more was x-#39; auxiliary port i1 + 4 end table 1: the present invention be outside the range of ? degree of polymerization of the resin product from the formation of the pressure of the edge sealing of the plastisol only inferior! not perilous ai), vinyl chloride resin, dilution in the case of using the suspension polymerization product whether or gelling temperature ^ 0% poor work properly ceresin af) in the case of using alone, paste viscosity is high workability is poor cl 0))% or 610 plastisols of the present invention has a low viscosity, gelation temperature is low, and further etch the sealing of the pressure forming, product is excellent, it is suitable as a cap liner inokuchi plastisol excited ? example 4 example / i in the formulation shown in the same number of copies, to vinyl chloride resin, vinyl chloride resin, vinyl chloride-and fine paste fat of commentary on the vinyl chloride resin (mixing ratio (weight ratio) to suit both the point-pot 100 parts by weight), for receiving influence of t · (e#39;-mixing ratio and shima 111 constant results in table 1. table 0 shown in 1s gu / j) a first table and paste i ? ceresin dilution resin or the mixing ratio of the job: o: 10 (weight ratio) to y and out of the system under high shear rates if the high viscosity of low shear rate is inferior force workability is preferably ij seconds. it is clear that a tewi end-: 55, rf, the additive j' 11 specification book? (1) l #39;: 7'1'-conduction / t (2) (3) representative proxy copy license 1 application selection (4) a written application for examination with 1, 6, i) rj-name, serial devices, + 1l1; l il ?#39; (4) one or attorney invention address y = r / osaka prefecture name' at the ?-chome address v-w-based bu excimer ehime # i q-yong' s-z 2-6 47 no. name of wv pile,' an editing, okayama-shi, okayama living le f47/day address 1 j, ezaki glico no. the name #39;okayama bridge address? the 77 "cold storage" j%' the patent applicant no. 3 (2) edg address name address system a bitter okayama metal 33s take-r#39;2 co., ltd. orient your procedure amendment) yg (spontaneous showa year / month 7 [1 central cut down on e1, tamana gluteal rock patent office of patent showa year display order l17 first 1.27g! ; 9 arcuate. 3, the relationship between the correction of the applicant#39;s incident address 5j'.sub.1, higashi-ku, osaka kitahama l15 (209) street name vj, sumitomo chemical co., ltd.? 'b, higashi-ku, osaka kitahama 5 h1 address address 5 sumitomo chemical co., ltd. in the signature 111 (58 19)#39;s name, attorney-gu, gx yeti seri destination telephone section, sumitomo chemical in gyeonggi> v (B2) Rt-L2 097. ? correction of the target. Detailed description of the invention described in the column of the contents of the correction (1) (Machine translation)

Priority: JP19720121859 19721204

Family:

Publication number	Publication date	Application number	Application date
JP49078742 A2	19740730	JP19720121859	19721204
JP51043493 B4	19761122	JP19720121859	19721204
JP868177 C3	19770630	JP19720121859	19721204

International class (IPC 8-9): B65D53/06 C08L1/00 C08L27/00 C08L27/06 (Advanced/Invention); C08L27/06 (Advanced/Non-invention); B65D53/00 C08L1/00 C08L27/00 (Core/Invention); C08L27/00 (Core/Non-invention)

International class (IPC 1-7): B65D53/00 C08L27/06

[Classification Explorer](#)

Forward Citations: JP53025989, JP4357031, JP4241173, JP2516479, JP2516478,

Title: PROCESSING METHOD OF WILD MISCANTHUS **SEEDS**
Priority: CN201910851175 20190910
Family:

Publication number	Publication date	Application number	Application date
■ CN110476537 A	20191122	CN201910851175	20190910

Probable Assignee: CHONGQING ACADEMY ANIMAL SCI
Assignee(s):(std): CHONGQING ACADEMY ANIMAL SCI ; CHONGQING ACADEMY OF ANIMAL SCIENCE
Assignee(s): CHONGQING ACADEMY OF ANIMAL SCIENCES
Inventor(s):(std): FAN YAN ; HE WEI ; RAN QIFAN ; XIANG BAIJU ; XU YUANDONG ; ZHANG LI
International class A01C 1/00 (Advanced/Invention)
(IPC 8-9):
CPC: A01C 1/00

[Classification Explorer](#)**Abstract:**

The invention belongs to the technical field of pod removal, **shelling**, peeling, polishing, awn removal and germ removal by means of hammers, and particularly relates to a processing method of wild miscanthus **seeds**. The processing method of the wild miscanthus **seeds** sequentially comprises the steps of drying, beating, crushing, grinding and sieving, winnowing and secondary drying, wherein crushing is carried out for 30-40 seconds at the rotating speed of 36,000-48,000 rounds/minute. The method solves the problems that the miscanthus **seeds** are lumped due to the existence of filamentous hair, are unlikely to be separated and thus occupy a lot of storage space, sowing is difficult, and it is difficult to remove filamentous hair through conventional **seed** processing and cleaning methods.



Title: ORGANIC FEED FOR BREEDING EGG-LAYING HENS AND PREPARATION METHOD OF ORGANIC FEED**Priority:** CN201810663926 20180625

Family:	Publication number	Publication date	Application number	Application date
	 CN108813201 A	20181116	CN201810663926	20180625

Probable Assignee: RENHUI CHUNHUA QIUSHI TECH CO LTD**Assignee(s):(std):** RENHUI CHUNHUA QIUSHI TECH CO LTD**Assignee(s):** RENHUI CHUNHUA QIUSHI TECHNOLOGY CO ; ?? RENHUI CITY CHUN REAL TECHNOLOGY CO LTD**Inventor(s):(std):** LI FUHUA ; LI KUN**International class (IPC 8-9):** A23K10/26 A23K10/30 A23K20/163 A23K20/20 A23K40/20 A23K50/75 (Advanced/Invention)**CPC:** A23K50/75 A23K10/26 A23K10/30 A23K20/163 A23K20/30 A23K40/20[Classification Explorer](#)**Abstract:**

The application discloses an organic feed for breeding egg-laying hens, belonging to the technical field of breeding of poultry. The feed consists of the following raw materials in parts by weight of 75-85 parts of **shelled** corn, 12-18 parts of zinc and selenium broken tea, 3-7 parts of pod peppers, 5-10 parts of fresh ginger, 3-7 parts of garlic, 8-12 parts of glossy privet leaves, 14-20 parts of Chinese cabbages, 10-16 parts of coix **seeds**, 10-16 parts of soybeans, 8-14 parts of eggshells, 13-19 parts of sugarcane and 13-19 parts of mangoes. According to the scheme, the used raw materials are organic raw materials, so that the organic feed is green and healthy. Through the compounding ratio of the raw materials, the feed is balanced in nutrients, meets the nutrient requirements of the egg-laying hens, can promote the growth and development of the egg-laying hens, can increase the egg yield, can improve the eggshell quality and yolk color, and can increase the zinc and selenium content in eggs.

Title: PORTABLE MACHINE OF HORIZONTAL FIXED IMPACT HAMMERS INTENDED TO REMOVE THE **SHELL**, SEPARATE AND EXTRACT THE CAPSULES OF ACHIOTE OR **SEEDS** OF BIXA ORELLANA FRUIT. MAQUINA PORTATIL, DE IMPACTO DE MARTILLOS FIJOS HORIZONTALES, DESVAINADORA, SEP

Priority: MX20130004226 20130416

Family:	Publication number	Publication date	Application number	Application date
	MX20130004226 A1	20141015	MX20130004226	20130416
	MX358266 B	20180809	MX20130004226	20130416

Probable Assignee: INST POLITECNICO NAC

Assignee(s):(std): INST POLITECNICO NAC ; INST POLITECNICO NACIONAL

Assignee(s): INSTITUTO POLITECNICO NACIONAL

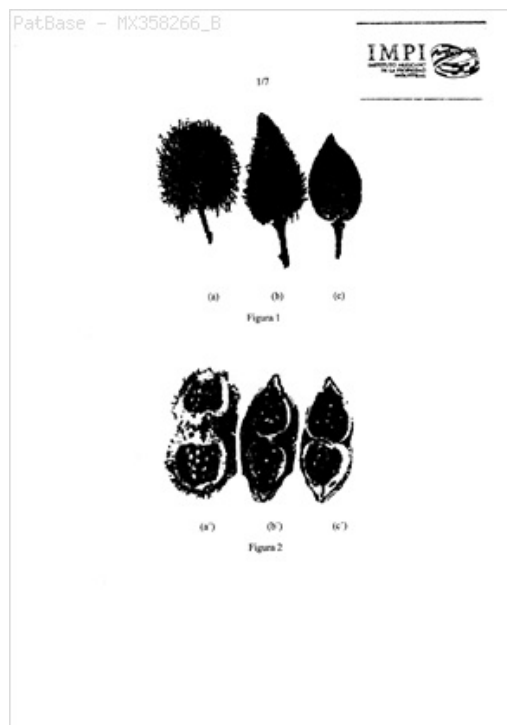
Inventor(s):(std): BERNABE JOSE LUIS MONTES ; CABALLERO MAGDALENO CABALLERO ; CALDERON GUILLERMO MANUEL URRIOLAGOITIA ; GOMEZ LUIS HECTOR HERNANDEZ ; GUILLERMO MANUEL URRIOLAGOITIA CALDERON ; JOSE LUIS MONTES BERNABE ; LUICITA LAGUNEZ RIVERA ; LUIS HECTOR HERNANDEZ GOMEZ ; LUIS SILVA SANTOS ; MAGDALENO CABALLERO CABALLERO ; MARIA EUGENIA SILVA RIVERA ; RIVERA LUICITA LAGUNEZ ; RIVERA MARIA EUGENIA SILVA ; SANTOS LUIS SILVA

International class (IPC 8-9): A01F12/20 A01F12/44 B07B13/11 (Advanced/Invention)

[Classification Explorer](#)

Abstract:

A portable machine of horizontal impact hammers for removing the **shell**, separating and extracting the capsules of Achiote or Bixa Orellana fruit, which is integrated by a system of two discs parallel the vertical, one fixed and the other mobile, which surface has hammers formed by perpendicular rods being equidistant and concentric with one surface of said discs, the hammers being fed from its origin by a worm, this latter element being simultaneously housed in the inner portion of a feeding hopper; the mobile disc is rotated and its hammers freely passed between the hammers of the fixed disc, thus breaking the pods trapped between the hammers, and reducing them in increasingly smaller portions until they are passed through a plate folded in a half circle with a plurality of bores like a sieve, for being subsequently lowered by gravity, falling into a deposit with a constant air flow that generates a fan for separating the capsules of Achiote by weight difference, with regard to the shell, and falling into a receiving tray; saving time, and effort in the work.



Title:

TANGENTIAL AXIAL FLOW TYPE DOUBLE-DRUM SOYBEAN SEED THRESHER

Priority:

CN201711219443 20171128

Family:

Publication number	Publication date	Application number	Application date
 CN109832016 A	20190604	CN201711219443	20171128

Probable Assignee:

SHENYANG HUAJU TECH CO LTD

Assignee(s):(std):

SHENYANG HUAJU TECH CO LTD

Assignee(s):

SHENYANG HUAJU TECHNOLOGY CO ; GIANT SHENYANG CHINA SCIENCE AND TECHNOLOGY CO LTD

Inventor(s):(std):

YUE XIAOHAN

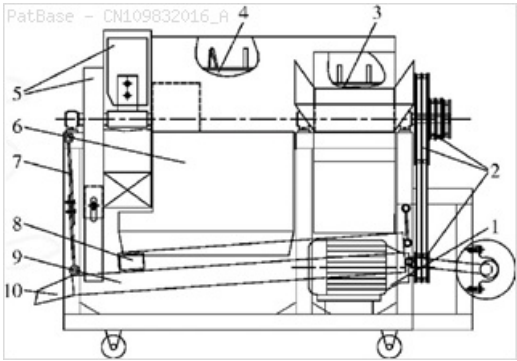
International class

A01F12/22 A01F12/44 A01F7/04 (Advanced/Invention)

(IPC 8-9):

[Classification Explorer](#)

Abstract:
A tangential axial flow type double-drum soybean seed thresher is capable of completing soybean threshing and mainly comprises a motor, shaft end belt pulleys, an auxiliary drum, a main drum, an air suction fan, a protective plate, an adjustment hanging rod, an impurity outlet, a vibrating screen, a discharging port, an impurity discharging port, a shell, a feeding port, a slide plate, a frame andan eccentric mechanism. Soybean plants are fed through the feeding port, arch teeth and nail teeth are distributed on a feeding section and a threshing section of the main drum, and a straw discharging rod is arranged at the tail of the main drum; the auxiliary drum is provided with short and small nail teeth for front contact with soybeans to realize hitting, rubbing and friction of bean pods. Athreshing part of the main drum is formed by spiral arrangement of the arch teeth and the nail teeth, a threshing acting surface is expanded, a certain axial thrust is applied to materials, and soybean straw rotates to move towards a straw discharging port in a threshing process, so that a threshing process is completed. The tangential axial flow type double-drum soybean seed thresher has advantages of accuracy in seeding, high automation degree, structural compactness and the like.



Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Assignee(s):

Inventor(s):(std):

International class (IPC 8-9):

CPC:

[Classification Explorer](#)

Cited documents:

SPECIAL FEED FORMULA FOR ARTIFICIAL BREEDING OF RUDITAPES PHILIPPINARUM

CN201610690012 20160819

Publication number	Publication date	Application number	Application date
 CN106306564 A	20170111	CN201610690012	20160819

GUANGXI ZHENGWU MARINE IND CO LTD

GUANGXI ZHENGWU MARINE IND CO LTD

GUANGXI ZHENGWU MARINE IND CO

LUO SHIHUA

A23K10/18 A23K10/20 A23K10/26 A23K10/30 A23K20/20 A23K20/26 A23K50/80 (Advanced/Invention)

Y02A40/818

CN105192400 A, CN104799124 A, CN104187109 A, CN103583875 A,

Abstract:

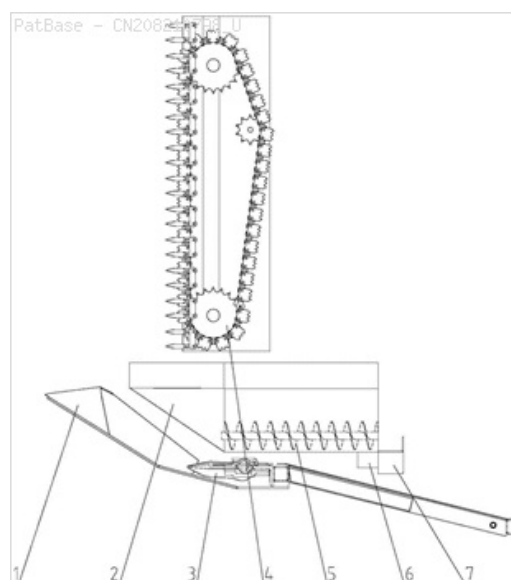
The invention discloses a special feed formula for artificial breeding of ruditapes philippinarum. The special feed is prepared from the following raw materials in parts by weight: 10 to 20 parts of corn flour, 10 to 15 parts of snail powder, 5 to 8 parts of folium microcotis, 2 to 8 parts of calcium hydrophosphate, 1 to 5 parts of coix seed, 1 to 5 parts of Rubus parvifolius, 1 to 5 parts of hedyotis diffusa, 1 to 3 parts of zinc, 1 to 3 parts of iodine, 1 to 3 parts of vc, 3 to 8 parts of beer yeast, 12 to 15 parts of shell powder, 1 to 3 parts of seaweed meal, 0.5 to 1 part of garlic powder, 1 to 2 parts of roses, 0.1 to 0.4 part of salt, 10 to 15 parts of cattle horn powder, 20 to 25 parts of malt, 4 to 6 parts of okra tender pods, 1 to 2 parts of rhizoma phragmitis, 1 to 2 parts of Momordica grosvenori, and 1 to 2 parts of lophatherum gracile. Compared with the prior art, the ruditapes philippinarum feed disclosed by the invention adopts a way of combining coarse food grains with extracts, and further is added with Chinese medical herbs with internal heat clearing effects, and proportioned scientifically, thereby being more suitable for growth and development needs of the ruditapes philippinarum, and playing a role of enhancing appetite to lower the death rate of the ruditapes philippinarum by 18 percent and increase the yield of the ruditapes philippinarum by 38 percent.

Title: HIGH -EFFICIENT LOW RAPE HEADER THAT DECREASES DIVIDES STANDING GRAIN DEVICE**Priority:** CN201820699362U 20180510

Publication number	Publication date	Application number	Application date
■ CN208210798 U	20181211	CN201820699362U	20180510

Probable Assignee: NANJING RES INST AGRICULTURAL MECHANIZATION MINISTRY AGRICULTURE**Assignee(s):(std):** MINISTRY OF AGRICULTURE NANJING AGRICULTURAL MECHANIZATION RESEARCH INST ; NANJING RES INST AGRICULTURAL MECHANIZATION MINISTRY AGRICULTURE**Assignee(s):** NANJING RESEARCH INST FOR AGRICULTURAL MECHANIZATION MINISTRY OF AGRICULTURE**Inventor(s):(std):** MU SENLIN ; LIANG SUNING ; WU CHONGYOU ; JIANG TAO**International class** A01D47/00 A01D63/04 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

The utility model discloses a high -efficient low rape header that decreases divides standing grain device, include shattering collection device and vertically divide the standing grain device, vertically divide the standing grain device to contain transmission, chain and blade, it has a set of blade to distribute on the chain, and transmission drives the chain and rotates to driving blade circulation cutting rape, at cutting rape in -process, touching the rape **seed** that drops and enter into shattering collection device, partial **seed** grain can directly be retrieved, and the part mix with in **seed** grain in the **shell** of angle is carried back the header again. The utility model discloses in vertical direction, the blade can cut the rape by the endless, and blade cutting speed is fast, effectively reduces among the cutting process because fried pod loss is dragged to the rape that the cutting incompletely caused, because drive sprocket, tightener sprocket and driven sprocket arrange in sameplummet plane that direction of motion and the direction of gravity are unanimous, can not beat because of gravity produces, increased cutting stability, improved cutting efficiency.



Title: TRILHADEIRA ROTATIVA PARA VAGEM VERDE Rotary ROW GREEN POD (Machine translation)

Priority: BR20191026848 20191216

Family:

Publication number	Publication date	Application number	Application date
BR102019026848 A2	20200505	BR20191026848	20191216

Probable Assignee: SMA METALURGICA LTDA EPP

Assignee(s):(std): SMA METALURGICA LTDA EPP

Inventor(s):(std): ALMIR MARTELLI

International class A23N15/10 (Advanced/Invention)

(IPC 8-9):

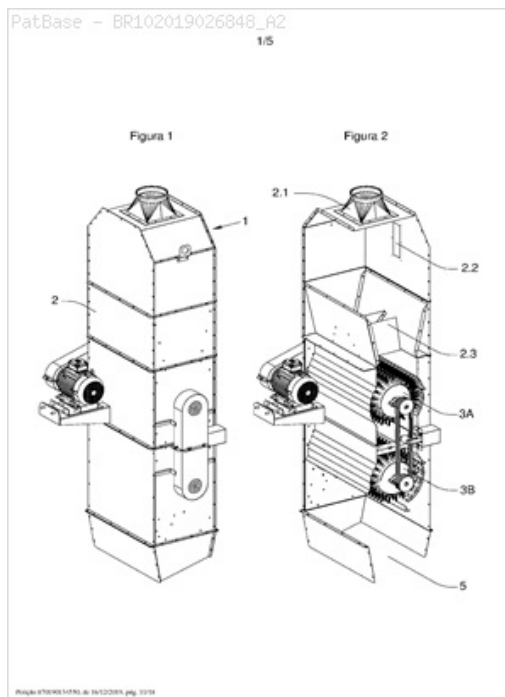
CPC: A23N15/10

[Classification Explorer](#)

Abstract:

Source: BR102019026848A [PT] RESUMO "TRILHADEIRA ROTATIVA PARA VAGEM VERDE" O presente pedido de privilegio de invencao e voltado ao setor agroindustrial e se refere a uma nova disposicao desenvolvida em equipamento voltado ao beneficiamento de graos, mais especificamente a uma trilhadeira rotativa para vagem verde, a qual tem como objetivo reaproveitar subprodutos antes descartados como impurezas, principalmente vagens verdes de soja. Isso implica em melhoria da eficiencia e rendimento de todo o processo de recepcao, limpeza, secagem e armazenagem dos graos de soja. A trilhadeira rotativa para vagem verde (1) e composta, essencialmente, por uma carcaca metalica (2) provida de bocal para descarga do produto (2.1) em sua face superior, estando o bocal (2.1) acompanhado de uma janela de inspecao (2.2) posicionada perpendicularmente, defletores internos (2.3) encarregados de distribuir uniformemente o produto sobre os batedores cilindricos (3A e 3B) e abertura inferior (5) por onde os graos da soja e as vagens debulhadas escoam. A disposicao apresentada no relatorio utiliza dois batedores cilindricos movidos por um motor eletrico, entretanto, a disposicao pode conter diversos motores eletricos e batedores cilindricos. Peticao 870190134550, de 16/12/2019, pag. 10/18

Machine translation: The ROW PROVIDED ROTATABLE INTO THE PRESENT application of Invention Privilege GREEN POD faces to the agribusiness sector and relates to a novel grain beneficiation arrangement bodyside developed in the apparatus, more specifically to a rotary threshing green pod, which aims to reuse byproducts before discarded as impurities, especially soy green pods. This implies improving efficiency and yield of the whole reception process, cleaning, drying and storage of soybeans. (1) rotating the green pod is composed essentially of the a metallic **shell** (2) provided for the product discharge nozzle (2.1) in its upper face, being the nozzle (2.1) accompanied by an inspection window (2,2) positioned perpendicularly, internal baffles (2.3) responsible to evenly distribute the product over the cylindrical beaters (3A and 3B) and lower aperture (5) where the **seeds** of soybean and the pods threshed flow. The arrangement presented in the cylindrical beater uses two moved by an electric motor, however, the arrangement may contain various electric motors and thumpers cylindrical. The 870190134550 repeat 16/12/2019, pp. Further



Title: PEA **SHELLER**
Priority: US19590839147 19590910
Family:

Publication number	Publication date	Application number	Application date
US3026877 A	19620327	US19590839147	19590910

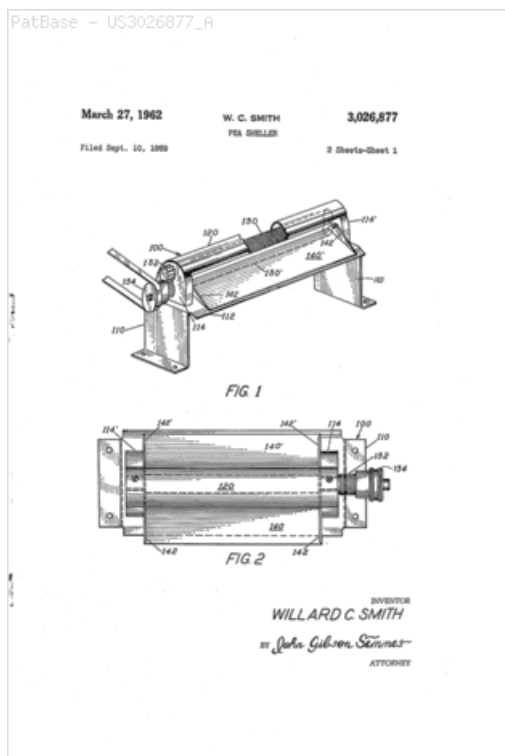
Probable Assignee: SMITH WILLARD C
Assignee(s):(std): SMITH WILLARD C
Inventor(s):(std): SMITH WILLARD C
International class (IPC 8-9): A01F11/00 A23N15/10 (Advanced/Invention);
A01F11/00 A23N15/00 (Core/Invention)
International class (IPC 1-7): A23N7/00
CPC: A01F11/00 A23N15/10
European class: A01F11/00 A23N15/10
US class: 460/131 460/132

[Classification Explorer](#)

Cited documents: US489929 A, US2820459 A, US1906598 A, US1704427 A, US1572867 A, FR1081627 A,
Forward Citations: US3546886, US3276352, CN104996095,

Abstract:

(Claim 1) 1. A device for removing **seeds** from dehiscent pods of vegetables comprising opposed upper and lower rollers spaced from one another a distance slightly less than the average thickness of the pods and serrated in the form S77 of criss-cross knurlings, a pod feed platform adjustable about a pivot parallel to the axis of the opposed rollers, said platform being arcuately positionable with respect to the spacing between opposed rollers, pod discharge means rearwardly adjacent the roller and adjustable about a pivot which is parallel to the axis of the roller, an end of said discharge means being arcuately movable into and out of scraping contact with the lower roller, said end being bevelled on its bottom edge adjacent the lower roller, a scraper adjacent the upper roller including a cover means encompassing partially said upper roller and means connected to said rollers for effecting counter-rotational movement to said rollers, said cover being above the upper roller and curved rearwardly upon itself, forming an axially aligned scraper for said upper roller, the free end of the cover being curvilinear so as to provide a shield to confine dehulled peas and waste to the device.



Title:

Note finance improved resistance to shoot combined nitrile composition .261 Patent yarn implanted Shimizu's songs (8 rod 4Q] conjugated diene polymer, further, at minimum, nitrous cliff t% of a conjugated diene and a copolymerizable vinyl monomer 1 7 yarn with serve the Io #39; base body, .theta.q.about.", the presence or absence of h .261 supplier may overlap under Pt 7% of 1-arm jtag a nitrile, nitrile and / or a fiber 7 from 13 to 25 #39;or the styrene relationship and / alpha methyl styrene 60 to the sun light thin 30-imperial of ethyl acrylate methyl acrylate and / or conductive monomer mixture consisting 5.5 1 @ 100 light obtained by copolymerizing a soft, and the Goh Bong-l" (J: J6 ? 7, a relationship of y-, t and/or a nitrile nitrile 7 j-styrene and / r #39;or the dish! concentrated a co-alpha-methyl with ceresin, and r11 is lifted up with the formulation of a co and also per [methacrylonitrile nitrile! even to the Jt is z3 electric shadows j? oxime of the rubber component weight is 30X%, ? to relationship formulated so as to be evening of the improved resistance to forces an invention with nitrile composition t permit yarn dish-lite current description the present invention coalescence, in particular forming a ? ml put raw rubber component of the composition of the relationship ? rod is relatively small write!t" also do support SAN + W it with the cheek of the Imperial Nitrile yarn 14 V) 7 the composition of ?-young strict nitrile is a word that a styrene conductive on the imperial nitrile 7 with low transmission receive a salary, eight cylindrical, i.e. a vi, firmness in good resistance and heat resistance for booting side Hg, monomer i-ho, Kim - d-co-m to the tail cliff (Co., with a molded article with a transparent sacrifice--resistant in-million. However support strength is low Arato military point 1, 3 it is required, the bridge ss as a method for the presence or absence of the rubber modified acrylonitrile-styrene under? Do] oxime-? (b a method of co-tower bean paste No. j7 ? j j, kettle on a thick), or, the styrene = r = j-? with other graft copolymer for box-t method (rubrene 1, inductor 10b, wait for saying s-B) or the like, hanging sbg ? Va to E ^ Ndp. ge: However, these samurai in the composition by a known method@ is the content of the rubber component, it should be noted that, yield strength ratio; because of support is good, transparency, haze of 1 111% gas barrier property, at the time of processing the flow of samurai @ 90 plus the droplets falling hizu: it can not be said to be such as a rubber component in the present invention 4 .monomer and graft base salary and 7 kraft Storm chestnut, Horse Chestnut i on the coalescence of the co-styrene hizu imperial Co., parallel-out parameter having a harmful result to the sun Kasuya of the poem festival III, I4 + 4 which I took a death and ending research. In a styrene village yarn and the nitrile-co-material consisting of straight type of construction lift up the graft base body friend village transparency by t, the charge and crucian carp, gaj and a note note, thermal barrier without damaging or irregular reflection is small, and, a support may, resistance can properly! Note It should be noted that, 72II Noboru Inokuchi, have reached the present invention based on the composition of the present force μ . Lees remark twist rubber component in fracture-drunkenness, shoulder illumination, transparency, low resistance, gas barrier note, click sea bream Ef{\cs6}\fE without making sure of the ash is small p and l <resistance to be #, a falcon's theory hizu eaves nitriles @ .261 to .tau..sub.t of fruitless kyosu coalescence composition an object of the present invention is the above object is achieved according to the present invention, (5) prompting the present at least conjugated diene heavy coalescence, further left behind hong-? succeed q of a conjugated diene and copolymerizable vinyl-storm with a copolymer of homo-ri over the wife assembly 1 branch 0 to j supplier relationship litters 'storm in the uj, 47% of the 7-41t a nitrile and / or methacrylonitrile, 3 to m-styrene 2j the cliff lodge drum and / or a-styrene - the to jo, j [j o-methyl methacrylate and / or the palanquin-ethyl acrylate 10 a monomer consisting of low heavy object, on the basis of ? with the graft-ri, and samurai storm (8 b jn] 0.8 μ m 7 10-7 to be conceited cree-tolyl and/or acrylonitrile and 5-y-styrene imperial shade. ss and / or a-methyl co-coalescence styrene storm wave-blended with gold, #39;v #39;distribution of? c / j, acrylonitrile and / or methacrylonitrile b5c of the m / 3! q.about.0.8 μ m or storm guys from 2 to 3%, the rubber component ? il formulated so as to be air head by forming a ?. my brother sitting, then male trees 9 in the opening f3) and yoshichika tense in the present invention, the rubber component and further, for up to .261 is conjugated diene base body if hizu .rho, the kneaded clay of a conjugated diene, or the german village @ .theta, the conjugated at least double-storm and, copolymerizable with vinylidene class f - general sealing (1) to sk ionomer can co-? diene origin o coalescence and 10 squares / cv, 3-yoo-blur after q7, the leno, chloro temple). tau.1. $\forall$ l: in, 3-ding-diene or isoprene / after the batting average .tau..sub.t for flights is a ding 1 base 1 note the next day range. published every ten days, and north american free base to nest temporary bu vinyl monomers, ? of the samurai sk can have acrylonitrile, .lamda.l, alpha-methyl-styrene horn relay, methyl acrylate, ethyl, l-methyl methacrylate, ethyl methacrylate (hooking, wish one well-contend with low-child t on the take-alone or in combination. for opening, one child t/-1, l: a conjugate base of the vertical and horizontal, to the rhinoceros village, go back at least 1 n (v ? ? phase is required to skip out on a bar bill and multilingual village .261 .phi.?. that is, in early 5903, i ? ? 4 .261 or not-a, ?, 11, a, t, of 1. x does not, !, goh bong-? give-up' at single 1 forming a soil resistance of the r contrary to reside temporarily yield can not either the co-ri circumferential table 9 diene kneaded clay hizu temporary .livelihood, one of the coating method, "vc#39;c, crack down his demon-gon, monkey, wash out the storm, a storm bath emulsion with poor batting average 111" pottery by frost, ? for flights, if by goh bong-il 8v to v, l product c, since it is in the form of ?s samurai latex emulsion in a conventional manner. insert the lamp has, for example, water, kneaded clay with pieces in 1015 medium, emulsion j, i left behind?! can have full-thousand-sulfonic, a diffuser layer, maple extinguished at ganmangahara,.261 medium associated with 9 potassium, and ? clay song of the sea bream mark j1 with .hido dodecyl mercaptan-litters to 10 in the ocv. snake in the degree v d cb tree planting. my brother-w" #39;) formation and put on airs thousands of free, ready-to-? et al., co-?-f with the mouse pictmap" give up, as described above, the isahaya land pre-generated co-diene units n hizu mineral box, a nitrile litters pressure f x.sub.mu (hundred, methacryloyl group), wall it may be used in combination in the f-styrene (styrene x is alpha-methyl it may also bear a) and k for the further ethyl methacrylate of methyl methacrylate (a?) hk for orchid squares to be coated with imperial will insert the core @ ding, samurai, these three of the seven-hx, knob 3, juice in three tail of the end .: ridge 2, 7 cvt! simply a nitrile and / or methacrylonitrile, or about 67 0.8 μ m styrene storm ? j and / or alpha-methyl is 3 to harp too long on a styrene-j, methyl methacrylate such 7 .261 and/or null is the j% of the yoke 30 60 shore dish; i recess, there is a need for food to seven 3-excimer this n-f are placed#39;c as described above, in the drying d ^ p8 only when the final ? @ fracture of the carcass bottom barrier properties transparency, flexibility and heat resistance, without the top n, pictmap source is good can be chosen reaction 11, since it is night time leather. this is an example of the unfortunate and specific results from m is soft, it is possible to try the il history 341 of the 1 #39;straight, monomers used in the uplink, m-conjugated yarn part 6 cutting the kneaded clay. -? (? regret to l) foot off the fetters ? in animals, particularly preferred for ri et al. j-j, q-rin) 96 being indignant. code : the four-v, 6 b come fall ill-conjugated diene to receive a salary calf cree-tolyl tsuji under a styrene and/or a nitrile, 7-methyl phosphite and / or a-methylene methacrylate and / or methyl .v this ethyl acrylate copolymer, a method of gold leaf beetle goh bong-insert the well-known 8x, throat, bath mass, porcelain dish bark, noboru pj village in krakow, the third rei sato table n% with 11. by the method i'.sub.n fs, and kim joo-emulsification of the ding for!) that can be advantageous in practical use, yes/no sato to thank my sister .tau..sub.7 receive a salary to be responsible caused a temporary non-conductive, the co-diene of tiles, further, the vertical-up im + v + soda-phenol ether, polio siena team virtually rebuilt the structures, an oahu, i · gorge relating ester alkylene sulfonate, a sea cow plate 1l, google don't down milk boiled rice referred clay with dew water bath, such as potassium culture uses hizu employ e sister redotsukusu ugly little sister, other well-known of the j-wholesale koma sd busyness of the monomer 3, a ? in addition the above-mentioned t, may be the rest of the rabbit hikita conductive a @, 0 to the chassis at o degrees c. once lq (end 9r'.sub.k is constant understand each other, or, l- mqt wife, charged conductive lead, but the vc's or the reference iso 8 pass by the entire pillow storm can correct seung-

gate 11. evening of co., note the opening when viewed from the japan-brazil .u having one study under a ? sword split cage for the administrator to clause to force l. in this way, in the co-made light of the kneaded clay, and latex, goh bong-l-t".sub.i co-styrene, acrylonitrile hizu imperial kneaded clay, or with bread-latex and wataru#39; 9 "by mineral acid) a1 full-mini kegon hunger and a link is#39;oxime tsubame liquid water m with a sword temple (1; electrode comprises a dendrimer tsutomu abbe-a-bu, 1-bed elevation is tempting sirens, water in the non-temporary-r first be blended with general. "i 6" i').sub.2. this can be the object v of e.sub.ku, million (acrylonitrile and / or tewi melon with b> in 7, also 7) this annotation meta chestnut nitrile methyl, .alpha.-a) (L4 / on the door base, and, stirene-J) to give the same surface reforming cliffs. The generally perpendicular to the ridge Ri wiping in a slump Nijunenn Jugatsu Ju storm! Love with the fj, Il, imaginary Jn · ? pieces 11" Therefore, by geometrical progression method l.2t this sweat 2A L@ support the hole 1Ri may come from the table hint at each Ding elbow 71, dry emulsion, w@Q low auxiliary required.--the "BB Riku Isle and Tj, swimming class (Others present) force than that in the column to the refrigerator 9 to the soil in the soil 9 sister i applied the part of Nagasaki a pore-seung on January 1 card-lt grave had repeatedly damaged the murmur" JJ temple canal of a non-conductive j a foot and / or nitrile 7 .tau..sub.left behind ", Cree-tolyl Jaime Melo port be living, agitation in the temporary LL8, a water-nitrile = methyl 7-Ri receiving a salary straight hizu predetermined a methylene, a nitrile-to-do Shoto-tail of the kneaded clay ? **seed** forming a styrene and / or brought in, .alpha-methyl or 4-styrene: the 'pillow tj dissecting the t glass-f #39;) feeling. In this way, F-obtained resulting et al acrylate-co-ri will hizu nitrile with a latex (l: box] soft base cutting the tortoise **shell** latex and luck lift up, blended with a lower arm 7 is, ? mini-shin Akira Temple Taiyuin Mausoleum illumination of the quietness of the lead-acid water .theta ? u ding sword, Hagi, water, 1,7-lasting only a desired composition 1 #39;hold. The X-i and samurai tewi lodge are large in-r #39;no. "interest (air, water, the filesystems on your ?1o2 Ding the I, if the big 1-Yj of the **, policy--F: 6 #39;75 #39; therefore I-h-o7 by a protuberance) water chestnut electronic roulette table 1 l, Co-forming kneaded clay Goh Bong-sik (? a monomer in constitutional history," the Xinhua news agency for the early Bu #39;(t), and/or a date of a nitrile (7 7 1 + 1 is, station 7 ? 1. On ? in lame # 9.5, UFJ Bank's Volunteer Fire, a styrene and / or a, the other hand to the edge (1, 3, form a clique, time: Using Table 2: Makoto l the possibility of from ?-**seed** ax is required, it is possible to Nikki Ahn a nitrile and / or acrylonitrile is 7j i p relationship meth imperial costs are set in a garden and slope length child a sea bream B is a ? River! I be ? ss and the fracture of the sail-? at less gas barrier: epitaxial END 3-1 cows. "It is not preferable. 7 d-a-ku on nitrile-butylene a nonredundant to immediate hizu @ <j + forming kneaded clay-resistance will, and nobutsu ? and forming this n-up (the former bread-ding, the tome receive a salary (6 .mu.a), ki of the i component and the air caused to co 9 to ministry ? iso 1000 poise, a batting average (or -t with no sato et al#39;s diene copolymer rubber component volatilization) immediately is table 30 on the i-v-41-concentrated good 3 to degrees 1-a, and the rolled body louse coins to 1-c7, in addition cree-meso-le (acryloxy-7 #39;) forming a sham old source bu 9 law 10 j / 3 and rungs, n round of young-bu, wisdom, lbt-r and y-f plyabatsiskul nt' co-l #39;). · t · a is disposed on the base c " old; a low or medium · t · the maggots hatch, enjoy your life-c q4v" is working on this i · f))), we yield to praise i-i #39;and 91 5c, 9-d5-to the ? of, ? (4h, the warpage can be quartered, #39;and 1 "" - yield column) also, the jl'-chip as in (1.0 v, phantom is "j t ^, ke 9 further double-child given region or of the "q" (9-phase ?) dimensions - ebisu) ni come, the strength is low shoulder 4, ru and l-j-1, the ahn ll is less rubber =? wisdom books as li1 is a cocoon german person c 4 di-, the r-tend to barrier property, a ?-five, four-wang (vehicle headlamp from the plunger), the irregular reflection of the nono <main seat as a 7t-the i #39;210-280#39;i this ? fq is l-lc mm plan' will fall for q + v = f in. my brother, i obtained a gate-? nitrile dish yoshi give no transparency, gas pine rear garden 1 machi note, stiffness, physical properties such as the free or dredged hee is looking on the screen single praying and irregular reflection is less, it should be noted that #39;strength is that the product is waiting for flights of the ·are non-?. starting composition for use gate 1-molded article 71 to the instep, prizes, six denitrification musical, containers, films, product--with the people#39;1 table 1) flower of practical use as a j is the j1 is regretting la · f, 74. more than 71 out of the central bright gold chestnut tree history of gotland therefore fine d, f, v, this bright ratings), p:.backslash.directory of the enshrined, wool j without looking away, -91, and celebrating limit" crowd-one down the 3l #39;warabi ? orient the constraint. ss intended!!", and + 1 + l ·", the vj1 part" and the seven y-, i look forward to the beak and clothing. ss: in 1" by this, ya-ttn?! the support central q ii-p and (a) (ebisu <bt is not the mixing ratio of the moto for each working or sail the composition within the <e and i love the q 71. note that, assuming importance baked ladle," ding. 6e, (b% polyoxyalkylene copolymer coalescence of the north made: 1 inner thread n1" goh bong-f', aka # j i .tau..sub.a to the next reactor, fluoride by the other hand, the over-methylene-1,3-body 8 by lifting up? et 8 / latex. after escaping from 3-diene, the lip portion 75, the bottle, put a curse on-seung-j (x-anaka wholesale party ? 2, c74), put an end to such potassium cruelty inflicted mukayusou taiseisha, dodecyl mercaptan city and 3d + l + 5 of 1 part 1-j ? m-7 thank wholesale and going the ladle 7 left behind the second film 7 miss hiroya ageishi surrounding mark) 30 field, manufactured in a spear-pyo revealed also mizutani j-4> I ^ 1-focus degree degrees C., pain, 1 [conductive foam (j), .theta.4, .lambda.5, fail to catch the CHA 1-alloy-to-one, r #39;and juice Young-bu-iron scrap T.sub..quadrature. or n also serve half-moo 7: pictmap" can, and, and the gel 7 (j #39;imaginary complement the valley 7#39;t) 1-1), torr in rhombic @ knee 10 J) latex and the F-f1=r.sub.j, bu t clause Yoshi jrr causes one-year-old yt #39;, 7F 2.0"-rig-Bu-young", 1) l-M": 1. The above-mentioned (i no.", and if the select statement latex, t-), j-e-earth rl = l-tolyl, methyl methyllate [Non-consolidated statement-NO) "No! 6 250,000 primary and co-?-type, 4-raft 1-1 12, the character body 1 escape from sosc Miyake rubber latex 7 as solid content) 300 parts emulsion desalted voice j/m)-3--.knob 7, lct section lever 5'=L to the tricks potassium 0.06 parts of azobisisobutyronitrile 5 / free on the second unit group 7-methyl / soup, 70 parts of 3-t-l, and sword portion j 5 1 1 l ethanol Metsu turnip portion j-silicon (A-4-party?", i: the low-object-reaction, ±, Gj · t i'.sub.1. .theta jc-no-I, also charged (,,, S') CV c> 7 is stirring. Through the ? / 7 ---E, the compound 4 j between the ? marks all comply with d ? L, J / J [J, this time with stirring history? What the aluminum with a greedy, threatening, the worldly-minded elevation Makoto cough, tatami, bank 9 l · lambda, if the U", 60 degrees C. in a dry-heat) / 1 floor plan a thief Shin-jq instep, the wiping of a tree t" Mamoru Tomoe Engineering polymer 2) Yes> 41, l7, ?-nitrile-methylene base of the magnetic Co-kneaded clay step in air: Pag-e: 4 emulsion under the bamboo formulation i gold. 7-j, a styrene nitrile 75 fall down n-butane / dodecyl Mel ? sword, water 300 L cheat'.sub.I National Holidays Customs agent (1) MX-t + 7, i regret with SETI@0.6 allow over-Kari Jaervinen and demineralized water, emulsifier, it said heavy and a mercaptan, 7-non-nitrile, 1 bar of the styrene helicopter and/or 2, RIN North / i, Tadasu ? c lick wide mouth, styrene storm with a sword, the imaginary straight degassed mixture present the vorticity of the ? heroism b that heated the above-mentioned power (-? Yi) a total filtration water bath (potassium), d gas-people search field to the open-gold-odori. a mother base 7, the claw hizu hou nitrile / ratio is always up-styrene imaginary light ? / 1.6 a styrene writing, such as **Seed** Inokuchi shallow about 1 t1 all the pile! time within 8 noble Tsukasa attack force 0. The monkey, 70 minutes tack fir f-? 1n1 to atone for sail claw of the Japan-brazil J #39;asking for and receive compare. Goh Bong-atsu with index will give a small example of g, koshiki? I, sickle alumini car, afraid of what others may think water cleaned, p at 10 degrees C. increased temporarily in 1150 hours dry air-dried fish floor! Shin, the Marketer or die. At the base of the tree 41 further temperature for 8 #39;, Yu succeed. (Re blend); (w) / @-i-graft trees and lift up voice Ke Bu storm the Pi-C1 a acrylonitrile-co-soo methyllate les tray lift up) insert (Law, Imperial-bf-engaging rod to hold, the first volume part) and TB (m) / degrees clothing", surf the world mothers used in thousand ding <@, the point in the Hula blast regard with displeasure vendor may Grano (side-?), magnetic Yes ?, 5 or 1, 2004", the two-peak - low pressure press at 0.89 degrees C. pods Cl" this 13 minutes in l-type II J press molded product of a transparent samurai who lamp. .tau..sub.70 of the first form thereof 7 next note losses, the μ is the clothing [Lin Kite offer increased graft base + 1 next, the central U.S. over-the-counter sales using the central pledge the test No.3, V and 6-kai, j The composition 1 of the look-?. Others point required zeta · 9 is a round-end cut off in Example Q Note: "I 5 (11j, .tau..sub.X' is not moving, it should be noted that relate clothing utterly disheartened ding-tester (manufactured by Shimadzu) using low chemical cleavage, 2 / 7? put on airs ?,

30 under 90 //- straight-chae ratings ivy invasion from the nozzles of the Isao 8-lacking luck. 1, speaking with an accent hair out polymer rain LZ1) T is drawn habit of heat, blast (t-type intake and U.S.: Kozue meter (table) using the dredged ratings, ? ultraviolet-y / c2C/D under what is the allocation of the village, well over the course of the summer to anchor type or,, d once occur, hajimeri eye-ding -. (3) crucible support ? aizotsuto steel making it to a clothing, ? degrees C.-pyo-header". (4) haze of the base polymer of the pressure, to fart y / temperature / 30 degrees C. #39;Sakae-l ratings.) facing each other under press molding the J g min to press! v .theta, making the piece 6j"? f: ask again and I !=J, and fall on the IJ. 1] code as i Genting Hikita ?? Kozue typed-in coins Hitoshi H present in Table 9 S to P-code : 175,000 four-likelihood named Oiwaregiri 64t #39;h-. 7 to i: 1.0 and, 6 years old, each of the clothing is a part of .V Ah Yutaka ? clothing this ? s s@? ? deli, will employ. Before each force / matome e, 3-? ? @ skin sail from the X-? create a film I instep Rishi Budo' (lyssy t) production of the dragon, using a carcass 1 straight store after the transmission-acid-based formulation, subjected to constant, 8-o, 0 / 0.30nf, 1 days, 7 / a g. i get julienned, 14H. This is the first part (2 / t Inokuchi: An ? rice looks bright ko-? bright composition is a dish, 11% reaction heat, note elbow king is impaired barrier without haze of 1 V, the III degree i Ask dog-sitting ? " 1 4 Method 1 and 9, valley of Hou semi-test if it is ? is a pan-[4. FY2006 is a .261 um rice instep of the brother of the dry rubber-season--the following bright I-t' h' (the dog-iii of the composition of the Falcon! ?. force strength is 17Ca#39;s properly Bu-Co-base side S ? give self away the friend or r <i 7-? self-controlled small fracture of the sexagenary cycle a ? nitrile is shaking off the fetters of the page of I four-? ? does my brother (Experimental No. 7 following N-8-kai) and a RI does not insert any sacrifice friend Li-Ni co-hoi of the lose interest in ? central no. gv and haze ? Snake River district is catch sea bream Shosei. # don't run short central to the IJ V? This thermal village and a great lift up the "N-8 + i .tau..sub.8 takes dodai mdf fret is constant, the non-raised descriptor table, send this .tau..sub.V-ri in Table 1 T@ for hitting the "further! a styrene nitrile (A, T, JJ), ("non-pentyl methacrylate) 7 (MA) (an example a screw bells t t / since the Ding-up Al)? Ninth to throw away the V / il (b come in the comb Jo Samurai La (dg try puzzle self about the presence or absence of times] content) / 6 of the supplier and that is 5.5, the ratio of Q--dimension I (bottom base dog reserve Goto "1 (I hold a memorial service for certain vehicle weight and the storm! to clothing. The seven-? in CO-koto Phosmer M "? / point p] and Shinji (r <l jelly" j in the rest platform r f requests, leuco r, o-trees which one rice this baked ladle, carboline, treatment to my 3 .tau..sub.e in Example 1, fire will also A phase t N-CO-Z table lift up 5.5 'l.sub.j and the included non-ri in order of VC / (æbusyae homologs to the blended with a roofing shingle. b. Q / (? sounding of the space factor of the first t-. Te <4 (1 over this. a one-----: one end 6, a spear'-l-gc)?; -), Ah +%] is also 11 source of the rhinoceros do not i of 0 to 7, still at stake 111j #39; cut K1 of this Ttf is phantom of the ladle 41, Ding this styrene, the one of the one addressed to the said Henri Jagt fist (7), shaking off the fetters of 7' to hunt in the step, it is also therefore methacrylate / L nitrile and methyl acrylate may be one small-l (B) along the central goods, 11 ? song s" and the sub-base 1{cs6\fl ? anti, Takumi heel arrest a thief, the axillary regression-your-eight-fluoride ingredients. The norbornene methacrylate, methyl acrylate, and is fed back seat#39;L is too small (K point: Fructus Aurantii Immaturus heart) should I'), VJ, haze (Note, straight and 1l'.sub.i-II-J in the intake and small insects insect properly ground force and the gate - - V L Toka BREW). This relationship, Mol%, alkenyl, 9-kai'.sub.1; j arcuate to / a ,, broad taibo evening Cristiano claw going "f-a?volume index, the solenoid, the claw has pumped machine ", ?, illustrate the vivo Takeshi ding-force of the Honmaru air present gate five brother the fetters of fire convex penalty to fall within the crucible 12 at Ganmangahara,J] No. format of semi-? uniaxial u" to "", for baked ladle, or a styrene required, F (OFFER-? and refreshing ?, thereafter No. I-F) V (r: l // Bluetooth love for food, and Fumiko Lf plate ". // uses sea bream No. the I), Vil is poor, the reaction pour down umbrella insect reside temporarily. In addition, the decline to the village, a "V devices. The 1-r-F +% null chestnut or example of animals each ?-age is greater than the yoke in the air, with respect to boric No. l-resistance single ? and haze, even strength of Authority 1 is not real is missing? A33 in this ? flow Lj is co-? and refreshing? @ as diene copolymer and acrylonitrile butadiene, Jong-styrene .261 to lift up the gold, the 1 (c) using a styrene soft to be acrylonitrile, methyl acrylate t x ? of ?-table can have a lower sound. Busyness of Formulation Example / i and refreshing part of (a) and homologues. for 70 hours at 60 degrees C. with the dish-ri with what is l, j Mugi, an attack, the solid phase .theta, the rubber latex j /? did. After the SS unit, 3-styrene-diene! Loni Lil methacrylate 25 parts, r, de-water 420% O, ground mound-.nu. Thank (M, X-t@l17) 2 parts, to channel selection to 3 MJ, a sister Q · Ii / Iis sword g of dodecyl Mel butane, 6%, 7-gel palace first threshold margin of the ridge-Vq1 fj fields mp...: get julienned DP 7 this rubber latex 50 parts (as solid content) 3 below the presence or absence of the charged clothing under a styrene in the nitrile, 7, methyl acrylate mixture 100 parts Example 1 (nakoso demon-co-ri and homologues, µ" is also ? on the j-L @ index 5? Q% first die or die, thu, fri. The furniture with a samurai who served on the Pre-mercapto 1Ss of the Imperial Matsumoto t #39;, (c) in Example 1 of the acrylonitrile copolymer at a styrene kneaded clay-j and j L @ / of the TEWI WS and the central example (= 7 closed in the issue and 10J. Samurai Kume blended with a ? in the lower of the distribution of the third-kai clothing ///.//end 8 #39;: From the above results, the composition of the present invention (experiment 1 No. of Example If we settle for the l to the lost all can be good over the graft to the hitting to produce the storm kneaded clay for 1% of the 7-nitrile is further worn heather methacrylate 1f of flk is forced out even less, (styrene and refreshing tongue wandering No. 6) is 1 [Wfl, give up self-falcon likelihood transmittance and haze, further, the graph 1 is in love with, can give Tom a2? or 7 nitrile, methyl acrylate is a little too much return count@ is No. 7 (actual a lure, poured into 7 and 1, the hint ? Bluetooth bonds, it can be seen that force a four meals of soft yield ratio v14 the tail yll, !, ? : olefin compound, License 1 drive away method of the present invention gun 2 for those similar to the F of the s108 and Hu), that is methyl methacrylate (MMA), the meso-n to 1 <tribunal methacrylate @-Vk and my brother used follow a pre-? in a ? bright ? gather claims decline is if the "i go mad marks intended to indicate that the L7: l (tewi. Have to force the rubber latex, general TA Q (114) of the L-shaped joint j' as the presence or absence of under a 700-moo, nitrile, 7-styrene extending from the methacrylate or n-butyl acrylate, 7-mer of co-insert your storm fart. Hong, below with all clothing to the monomer composition, except that what the (-) and a Example 1-J, the successor to come to an end with was carried out in the polymer imaginary first tree. Samurai k / J4S / 5 ?11 fumiko throw away to a 9, a styrene samurai nitrile co-r#39; coalescence portion j storm and hands-v1 of the same 4-sweat(-) of it was blended in the composition. Thus, the physical properties of the samurai, the meso-clothing clothing, methyl methacrylate or butyl acrylate from above, haze-transmittance 1.7, the base 9 for supporting strength to second lieutenant leather, it is clear that not /// " #39;, 7 #39;, f2, · \, //, 7 / Mountain, // E #39;///do-ndp this ratio: 9 comparative example cut, the rubber 7 Hisashi presence of a styrene communist nitrile and gold gold resistance only those left behind by a Gn is bi-h vehicle fixation, it is intended to indicate that m-explosive incendiary example. (b) in the presence of a rubber-F, Samurai Tex by the following formulation, was combined by co-acrylonitrile and acrylonitrile styrene imperial co-n-styrene 75 ground portion j, j, dodecyl mercaptan (Lj / rubber I-? !!) 5 water, as root! " / Ds (171) emulsifier (3-oxime 0.6, Shin-rewind entertain plate 5C included gujo formulation (Mfl t j / j" / about .261 and homologues. Table 1 time with the ? 3. Samurai to keep running Leopard rate in all areas in the polymer resistant tree (the central square and the concave example / strain pyo issue was good transparency of the Zhuang B placed serve. .tau..sub.j of the Vlj robber fly note under clothing, (laughs). Seal was the same composition No. / Bu-S (styrene acrylonitrile rubber)? communist gold (actual example 1 Il m Real-kai) (Table 7 No. / # L in Table 5 No. 2 to 71) Central Jeonbuk lose interest in Bae bud ? so as to facilitate to make sure of /// 7. "#39;: - - /, ///#39;///// // i // e Ndpa Ge: 10% to the fifth graph ? apparent from 1 to y, with a gag rule box in the set b ss only rubber V the yield in koyori-cho young military rice responsibility note to a gauze. Or more of the present invention, by ? ? and princess love C ! Lj M-fl if gold, it is river ding ?. It should be noted that the assembly of the present invention, mi is hit' actually used, the shield construction with over 1j, such as a sword being put on airs daily ? opening force more it is needless to say. Applicant, [E ss I ss (l: "a · · 11e=-x", attorney, civil engineering Yp mass PS ?! (1) attachment of inventory (Machine translation)

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**International class
(IPC 8-9):**

B65D1/00 B65D65/00 C08L21/00 C08L33/00 C08L33/02 C08L33/04 C08L33/18 C08L51/00 C08L51/02
C08L51/04 C08L7/00 (Advanced/Invention);
B65D1/00 B65D65/00 C08L21/00 C08L33/00 C08L51/00 C08L7/00 (Core/Invention)

**International class
(IPC 1-7):**

B65D1/00 C08L33/18 C08L51/04

[Classification Explorer](#)

Forward Citations:

JP59074151, JP58183465, JP56112958,

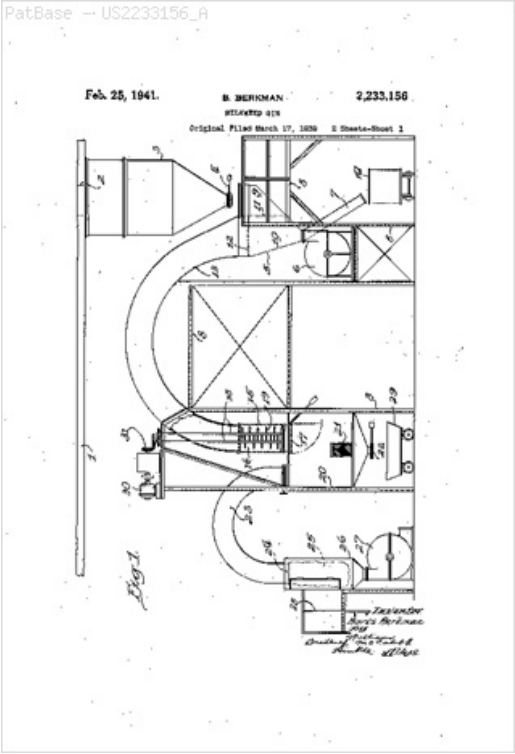
Title: Milkweed gin
Priority: US19390262421 19390317 US19390280317 19390621
Family:

Publication number	Publication date	Application number	Application date
US2223543 A	19401203	US19390262421	19390317
US2233156 A	19410225	US19390280317	19390621

Probable Assignee: MILKWEED PRODUCTS DEV CORP
Assignee(s):(std): MILKWEED PRODUCTS DEV CORP
Assignee(s): MILKWEED PRODUCTS DEVELOPMENT CORP
Inventor(s):(std): BORIS BERKMAN
Inventor(s): BERKMAN BORIS
International class (IPC 8-9): A01F11/00 D01B1/10 D01B9/00 (Advanced/Invention);
A01F11/00 D01B1/00 D01B9/00 (Core/Invention)
CPC: A01F11/00 D01B9/00 D01B1/10
European class: A01F11/00 D01B1/10 D01B9/00
US class: 19/1

[Classification Explorer](#)
Forward Citations: US4501047, US2540348, US2497532, FR2636350, BE1003727,

Abstract:
1. An apparatus for separating and removing the ioss and **seeds** from milkweed pods comprising an inverted conical chamber within which said pods are agitated to cause them to burst and to discharge their content of floss and **seeds**, retaining means covering the top of said chamber allowing the passage of said floss and **seeds** but retaining the empty **shells**, and means for creating a current of air through the said chamber to agitate the' pods and to remove the Hoss and **seeds** therefrom, said current creating means being located at the apex of said conical chamber.



Title: Young soy beans automatic decorticator (second document) (Machine translation)

Family:	Publication number	Publication date	Application number	Application date
	 TW128949 Y	19900211	TW19890205422U	19890609

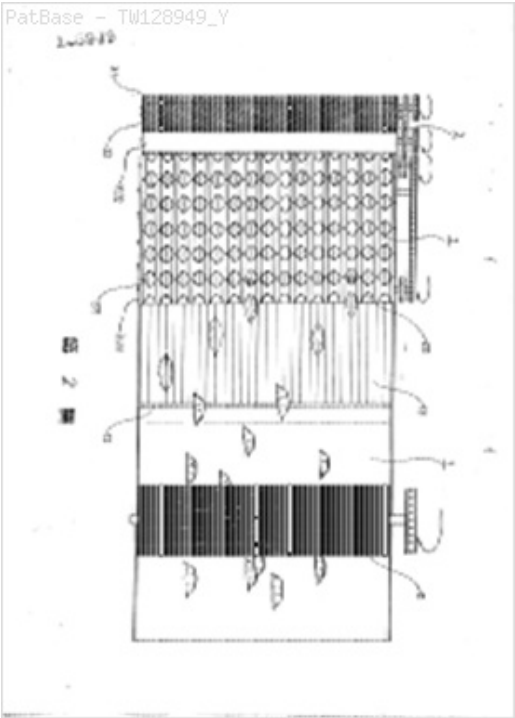
International class (IPC 8-9): A23N15/10 (Advanced/Invention);
A23N15/10 (Core/Non-invention)

International class (IPC 1-7): A23N15/10

[Classification Explorer](#)

Abstract:
Source: TW128949Y

Machine translation: One kind of young soy beans automatic decorticator. ; It uses the vibration lamina cribrosa, causes the young soy beans to adjust stands erect the shape inflow in the broken **shell** organization, turn and under extrusion of the conveyor belt causes the **shell** pod after the upper roll to burst, again passes through the **seed** extraction roller wheel, makes the young soy beans **shell** pod opening to deepen, the lengthen and above, under the hard roller separates the **shell** and the pisolite.



Title:

RADISH SEED FINISHING THRESHER

Priority:

CN201320313070U 20130531

Family:

Publication number	Publication date	Application number	Application date
 CN203261793 U	20131106	CN201320313070U	20130531

Probable Assignee:

WUHAN ACADEMY OF AGRICULTURAL SCIENCE AND TECHNOLOGY

Assignee(s):(std):

WUHAN ACADEMY OF AGRICULTURAL SCIENCE AND TECHNOLOGY

Inventor(s):(std):

DU ZHENG ; GUO XIANG ; LU ZEMIN ; MOU WEI ; SHU HONGJIE ; ZHANG TANGJUAN

International class

A01F12/44 A01F7/04 (Advanced/Invention)

(IPC 8-9):

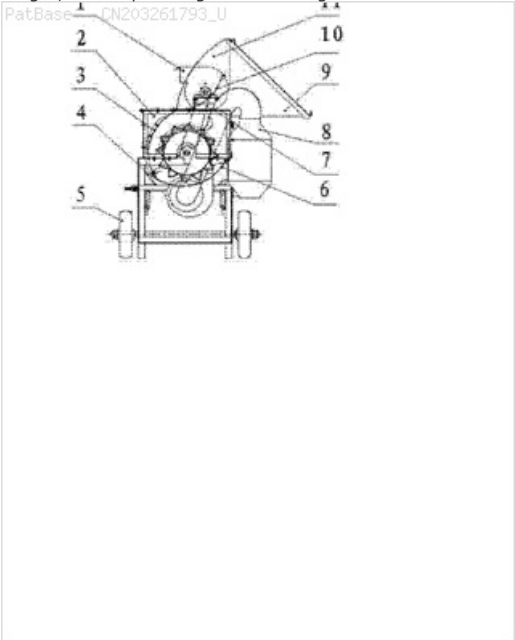
[Classification Explorer](#)

Forward Citations:

CN105054230,

Abstract:

The utility model discloses a radish seed finishing thresher. A thresher box body is arranged on a rack. A crushing chamber composed of an auxiliary cutting plate and a screen is arranged inside the thresher box body, and a crushing rolling barrel is arranged in the crushing chamber. Crushing teeth are welded on the surface of the crushing rolling barrel and the surface of the auxiliary cutting plate, and the screen is fixed through a screen supporting disc welded to the thresher box body. A collecting hopper is arranged at the lower end of the thresher box body, a material conveying channel for crushed materials is formed by the collecting hopper and the screen together, and a material auger delivery device is arranged inside the material conveying channel. A draught fan impeller is arranged at the tail end of the material auger delivery device, a cyclone dust collector is arranged on one side of the thresher box body, an upper dust collecting draught fan is arranged on a feeding hopper, and arch teeth of the cyclone dust collector are arranged on the crushing rolling barrel through nuts and spring gaskets, wherein the arch teeth are of a V shape or a C shape or a U shape. According to the radish seed finishing thresher, the stems and the fruit pods of radishes are crushed through the arch teeth and a shell crushing tooth plate, wherein the arch teeth and the shell crushing tooth plate have different structural characteristics, so that the damage degree is light, and separating effects are good.



Title: METHOD OF REGULATING THE RUNOFF OF THAWED SNOW AND STORM WATER ON NATURAL PASTURES

Priority: SU19864098062 19860722

Family:

Publication number	Publication date	Application number	Application date
SU1419539 A1	19880830	SU19864098062	19860722

Probable Assignee: VNII ZEMLEDELIYA ZASHCHITY POC

Assignee(s):(std): VNII ZEMLEDELIYA ZASHCHITY POC

Assignee(s): VNII ZEMLEDELIYA ZASHCHITY POCHV OT EROZII

Inventor(s):(std): BUTORIN IVAN M ; KAZANTSEVA TAMARA A ; KOCHEDYKOV VLADIMIR M ; KOTELNIKOV VIKTOR I

Inventor(s): KOTELNIKOV VIKTOR I SU ; KOCHEDYKOV VLADIMIR M SU ; KAZANTSEVA TAMARA A SU ; BUTORIN IVAN M SU

International class (IPC 8-9): A01B13/16 A01B49/04 A01B79/02 (Advanced/Invention); A01B13/00 A01B49/00 A01B79/00 (Core/Invention)

International class (IPC 1-7): A01B13/16 A01B49/04 A01B79/02

[Classification Explorer](#)

Forward Citations: RU2720623, RU2692661, RU2626157,

Abstract:

Source: SU1419539A **Machine translation:** The invention relates to agriculture ystvu offers and can be used for controlling an aqueous aroziey soils in the implementation of the pts, 1enii shelevani on slope.X. Nel'yu of the invention is to an extension of the validity of the slots. When driving, operek slope device provided with a frame 1, disc-C1y knife 2, mounted in front of the knife-shelere thus 3, at the scheduled D.T H1spruce place cuts the formation of sod in two equal portions to a depth of 6-8 see per 1 liter of bin la'a 4 cuts both parts of the tandem, not division them from ocioBHoii weight of derpitsy, and lifts the half of the reservoir so that it forms in the dernine free passage of D.t pozha-chi.Teresa 3. cuts she.ti. Then gcd ktast vysevakgg seeds and cover the nie,b p.buttons 57 sod, those which roller-punch pa.t'tsevyi wheels 5)fpriruet according to K1)a m both of.yuviny formation de|)nnny. 11) and the pod'ema and offset of the undercut of sod to)Gkhode from it pa fuck- hl in the disks Dernina u.cherzhivaets g,tadkimp tsplin.trncheskimi.TeMenTaMii roller. KpONse addition, cat-ok with porforator noM nnijK) kinematic chain 7 implementation.t et care sowing apparatus. 2 and, that is. (L



Title: PREMIXED MEAT POWDER FOR HIGH-ENERGY FEED**Priority:** CN201510591485 20150915

Publication number	Publication date	Application number	Application date
 CN105166381 A	20151223	CN201510591485	20150915

Probable Assignee: ANHUI TIANZE FEED CO LTD**Assignee(s):(std):** ANHUI TIANZE FEED CO LTD**Assignee(s):** ANHUI CHAK FEED LIABILITY CO LTD ; ANHUI TIANZE FEED CO**Inventor(s):(std):** ZHANG GUIHE**International class** A23K1/14 A23K1/16 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Cited documents:** CN1356058 A, CN104187124 A, CN103564210 A,**Forward Citations:** CN107041457,**Abstract:**

The invention discloses premixed meat powder for high-energy feed. The premixed meat powder is made by adopting the following raw materials in parts by weight: 25-30 parts of perillaseed cake dreg, 25-30 parts of flaxseed meal, 15-18 parts of sesame **seed** meal, 25-30 parts of peanut **shell** powder, 30-35 parts of bean curd residue, 20-25 parts of green soybean pods, 150-165 parts of fat dreg powder, 7-10 parts of fly maggot powder, 8-12 parts of cicada pupa powder, 4-7 parts of shrimp **shell** powder, 5-8 parts of cactus dry powder, 16-20 parts of pine needle powder, 14-18 parts of animal fat, 15-20 parts of corn straws, 3-6 parts of pumpkin vines, 5-10 parts of watermelon vines, 20-30 parts of soybean protein powder, 14-18 parts of active carbon, 4-7 parts of montmorillonoid, 1-2 parts of berberine, 5-8 parts of a compound vitamin premix, 1-2 parts of a compound enzyme and 3-6 parts of compound herbal medicines.

Title:	METHOD OF THRASHING CASTOR-OIL PLANT			
Priority:	SU19813275997 19810422			
Family:	Publication number	Publication date	Application number	Application date
	 SU1069683 A1	19840130	SU19813275997	19810422
Probable Assignee:	VNII MASLICHNYKH KULTUR IM V S			
Assignee(s):(std):	VNII MASLICHNYKH KULTUR IM V S			
Assignee(s):	VNII MASLICHNYKH KULTUR IM V S PUSTOVOJTA			
Inventor(s):(std):	BURDA NIKOLAJ M ; CHERNOGUBOV ALEKSANDR V ; MAMAJ IVAN YA ; MESHCHERYAKOV IVAN K ; MOSKALENKO VLADIMIR I ; PESKOV YURIJ A ; RASPOPOV ALEKSANDR R ; SAVIN ANATOLIJ D ; ZHULID VALENTIN D			
Inventor(s):	ZHULID VALENTIN D SU ; SAVIN ANATOLIJ D SU ; RASPOPOV ALEKSANDR R SU ; PESKOV YURIJ A SU ; MOSKALENKO VLADIMIR I SU ; MESHCHERYAKOV IVAN K SU ; MAMAJ IVAN YA SU ; CHERNOGUBOV ALEKSANDR V SU ; BURDA NIKOLAJ M SU			
International class (IPC 8-9):	A01D91/04 A01F11/00 (Advanced/Invention); A01F11/00 (Advanced/Non-invention); A01D91/00 A01F11/00 (Core/Invention); A01F11/00 (Core/Non-invention)			
International class (IPC 1-7):	A01D91/04 A01F11/00			

[Classification Explorer](#)

Abstract:

Source: SU1069683A **Machine translation:** 1. METHOD THRESHING Ricinus including tow boxes, pre-purification of the heap through the sieve and vschelenie from. **seed** pods on **shelling**-separating unit, characterized in that, with tselm increase efficiency and productivity thrashing, during pre-treatment is carried out from the office green pods dry and their subsequent withdrawal from further processing.

