

Search query (4): (FN=(14919000 OR 17732132 OR 73434145 OR 15784173 OR 14959374 OR 58962391 OR 3211398 OR 13814489 OR 27907536 OR 6336537 OR 30274577 OR 17167583 OR 33542607 OR 33542608 OR 33542610 OR 2994705 OR 3062734 OR 2746848 OR 21493852 OR 3407964))

Results: 20

Search history

Search FT=(machine* and wear* and nail* and tip* and bolt* and thread* and coupling* and cavity* and lock* and opening* and groove*)
1: (Results 117)

Search (1) AND IPC=(B23) (Results 23)

2:

Search 1.excavator* (Results 403)

3:

Search (FN=(14919000 OR 17732132 OR 73434145 OR 15784173 OR 14959374 OR 58962391 OR 3211398 OR 13814489 OR 27907536 OR 6336537 OR 30274577 OR 17167583 OR 33542607 OR 33542608 OR 33542610 OR 2994705 OR 3062734 OR 2746848 OR 21493852 OR 3407964)) (Results 20)

4:

1) Family number: 14919000 (DD257094B)

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Title: BAGGEREIMER FUER EIMERKETTENTROCKENBAGGER

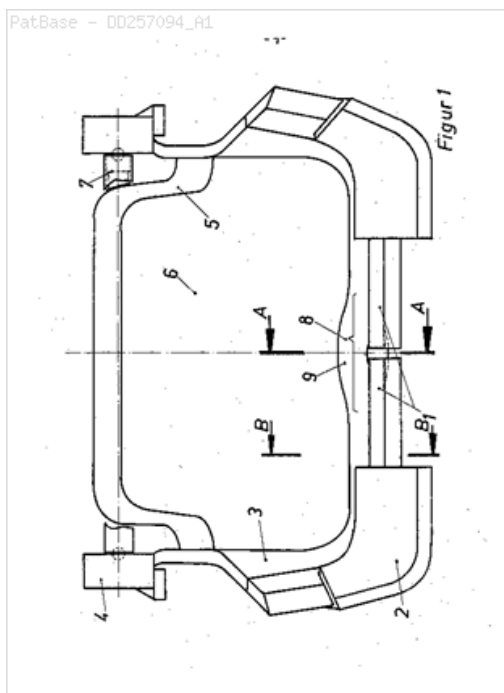
Abstract: Source: DD257094A [DE] [Source: Claim 1] 1. Baggereimer fuer Eimerkettentrockenbagger mit einem am Messertraeger angeschlossenen und der oberen Mantelform des Eimers folgenden ein- oder mehrteiligen Stuetzrahmen und einem kastenfoermig oder T-foermig ausgebildeten Profil seines Messertraegers im Bereich der Vorschneide und seiner Seitenteile, dadurch gekennzeichnet, dass der mittlere Bereich (8) des Messertraegers (3) als drehelastisches und ausreichend biegesteifes Profil, vorzugsweise Rundprofil (9) ausgestaltet ist und das Messer (1) im Bereich seiner Symmetrieebene ganz- oder teilweise geschlitzt ist. **Machine translation:** [Source: claim 1] 1 excavator bucket for bucket chains dry excavators with a knife carrier following connected and top coat shape of the bucket one-piece or multi-piece support frame and a boxy or shaped profile of his knife holder in the area which cut out and his side panels, characterised in that the middle section (8) of the knife holder (3) as a rotating elastic and sufficiently rigid to bend profile, preferably round (9) is designed and the knife (1) with regard to its plane of symmetry is wholly - or partially-slotted.

Classifications:

International (IPC 8-9): E02F3/14 (Advanced/Invention);

E02F3/08 (Core/Invention)

International (IPC 1-7): E02F3/14



Family:

Publication number	Publication date	Application number	Application date
DD257094 A1	19880601	DD19870299146	19870108
DD257094 B5	19960222	DD19870299146	19870108

Priority:

DD19870299146 19870108

Probable Assignee: SENFTENBERG VE BKK

Assignee(s): (std): LAUSITZER BRAUNKOHLE AG ; SENFTENBERG VE BKK

Assignee(s): VE BKK SENFTENBERG DD ; LAUSITZER BRAUNKOHLE LAUBAG AG

Inventor(s): (std): BESSER DIETMAR DR SC ; HAMPEL WOLFGANG ; PAULIG REINHARD ; SCHOLZ SIEGFRIED DR RER OEC ; SCHOLZ SIEGFRIED ; SCHLEEF ULLRICH ; PONTO ULLRICH ; KUJAU DIETER ; BESSER DIETMAR ; SCHLEEF ULLRICH DIPL ING ; PONTO ULLRICH DR ING ; KUJAU DIETER DIPL ING ; BOEHM WOLFGANG DIPL ING ; BOEHM WOLFGANG

Inventor(s): BESSER DIETMAR DD ; HAMPEL WOLFGANG DD ; BOEHM WOLFGANG DD ; PAULIG REINHARD DD ; KUJAU DIETER DD ; PONTO ULLRICH DD ; SCHLEEF ULLRICH DD ; SCHOLZ SIEGFRIED DD

2) Family number: 17732132 (DE3412149A1)

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Title: METHOD AND APPARATUS FOR CLEARING MUD FROM STRETCHES OF WATER, PONDS AND THE LIKE

Abstract: Excavators which have tracked running gear and a pivotable superstructure are used to remove mud from ponds and relatively small lakes. A boom with a grab bucket is fastened to the superstructure. However, the boom only has a limited radius of action. For the purpose of simplifying the mud removal, provision is made for homogenizing of sediments with overlying water and/or other added diluting water, in particular fed-back concentrated water coming out from the sludge, before and/or during the mud removal. In terms of the apparatus, such homogenizing is carried out with an excavator whose boom consists of two support arms which are essentially of the same length and are connected to one another in an articulated manner, in which arrangement the outer of the two support arms can be actuated via a rope guide and carries a sinkable mud pump at its free end. A homogenizer is arranged ahead of the mud pump.

Classifications:

International (IPC 8-9): E02B3/02 E02F3/90

E02F9/14 (Advanced/Invention);

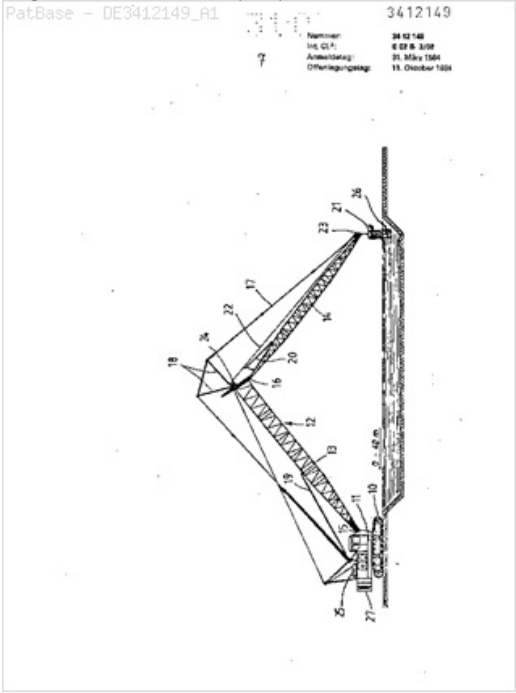
E02B3/00 E02F3/88 E02F9/14 (Core/Invention)

International (IPC 1-7): E02B3/02 E02F3/46 E02F3/90 E02F3/92

E02F5/28 E02F9/14

CPC: Y02A10/28 E02F9/14 E02B3/023 E02F3/90

European: E02B3/02B E02F3/90 E02F9/14



Family:

Publication number	Publication date	Application number	Application date
AT35684 A	19900115	AT19840000356	19840203
AT390982 B	19900725	AT19840000356	19840203
CH662383 A	19870930	CH19840000739	19840215
DE3412149 A1	19841011	DE19843412149	19840331
DE3412149 C2	19860306	DE19843412149	19840331
DE8309779 U1	19831006	DE19830009779U	19830402

Priority:

DE19830009779U 19830402 DE19843412149 19840331

Probable Assignee: KREYENBERG HEINER

Assignee(s): (std): HEINER KREYENBERG DIPL ING ; KREYENBERG HEINER

Assignee(s): KREYENBERG HEINER DIPL ING ; KREYENBERG HEINER DIPL ING 4100 DUISBURG DE ; KREYENBERG HEINER DIPLING ; DIPL ING HEINER KREYENBERG

Inventor(s): (std): KREYENBERG HEINER DIPL ING ; KREYENBERG HEINER DIPLING

Inventor(s): KREYENBERG HEINER DIPL ING 4100 DUISBURG DE

3) Family number: 73434145 (WO19043897A1)

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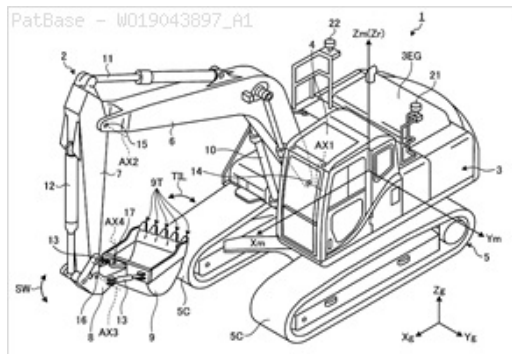
Title: DISPLAY SYSTEM FOR EXCAVATION MACHINERY, EXCAVATION MACHINERY, AND DISPLAY METHOD FOR EXCAVATION MACHINERY

Abstract: A display system for excavation machinery comprises: a calculation unit that calculates a reference vector extending in the width direction of a bucket of a work machine and passing through a stipulated site on the bucket on the basis of vehicle state data indicating the position and orientation of the vehicle body of the excavation machinery, work machine exterior shape data indicating the exterior shape and dimensions of the work machine supported by the vehicle body, and work machine state data indicating the orientation of the work machine; and a display control unit that causes a display device to display the bucket and a target line as seen from a direction orthogonal to the reference vector.

Classifications:

International (IPC 8-9): E02F9/26 (Advanced/Invention)

CPC: E02F9/26



Family:

Publication number	Publication date	Application number	Application date
CN110352280 A	20191018	CN201780087716	20170831
DE112017007023 T5	20191024	DE201711007023T	20170831
KR20190110590 A	20190930	KR20197024640	20170831
WO19043897 A1	20190307	WO2017JP31501	20170831

Priority:

WO2017JP31501 20170831

Probable Assignee: KOMATSU MFG CO LTD

Assignee(s): (std): KOMATSU MFG CO LTD

Assignee(s): KOMATSU LTD

Inventor(s): (std): KUMAKURA YOSHITO ; SHINTANI SATORU ; ARIMATSU DAIKI

Agent(s): FLUEGEL PREISSNER SCHÖBER SEIDEL PATENTANWÄLTE PARTG MBB; SAKAI INT PATENT OFFICE

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

4) Family number: 15784173 (WO03021047A1)

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Title: EXCAVATOR ASSEMBLY

Abstract: A hydraulic excavator having a control station is disclosed in which a boom (40) has a first stick (41) attached to the boom and a bucket (54) attached to the first stick, and hydraulic means under the control of an operator at the control station for operating the boom, stick and bucket and including two-way hydraulic means (56) for providing a hammer function to the bucket. The excavator also has a second stick (50) connectable between the first stick (41) and the bucket for extending the reach of the excavator, the second stick having a head bracket(51) at the inboard end adapted for connection to a quick hitching mechanism (43).

Classifications:

International (IPC 8-9): E02F3/30 E02F3/32

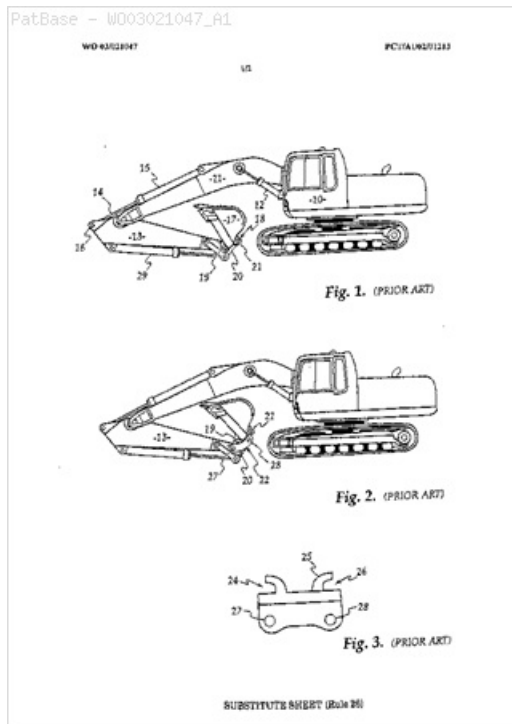
E02F3/36 (Advanced/Invention);

E02F3/28 E02F3/36 (Core/Invention)

International (IPC 1-7): E02F3/32 E02F3/38 E02F9/14

CPC: E02F3/301 E02F3/3618 E02F3/3622

European: E02F3/30A E02F3/36C2C E02F3/36C2E



Family:

Publication number	Publication date	Application number	Application date
AU2001007461 A0	20010927	AU2001PR07461	20010904
AU2002325666 AA	20030318	AU20020325666	20020903
AU746101 A0	20010927	AU2001PR07461	20010904

Priority:

AU2001PR07461 20010904 WO2002AU01213 20020903

Probable Assignee: BRIEN G O**Assignee(s):** (std): BRIEN G O ; O BRIEN GERARD**Assignee(s):** O BRIEN G**Inventor(s):** (std): O BRIEN GERARD**Agent(s):** PIZZEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**5) Family number: 14959374 (DE4132908A1)**

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Title: Mechanical excavator unit - has articulated arm which can be rotated about horizontal axis

Abstract: A mechanical excavator has a chassis (1) which supports a turntable on which the driver's cab is mounted. The driver's cab supports a bearing (17) with an outer part (14) which can be rotated about the horizontal axis (20) relative to the inner part. The outer part (14) of the bearing (17) supports the inner part (8) of an articulated arm which has an outer part (9) to which the bucket (12) is attached. the bucket (12) can be swung about its support by a hydraulic actuator (13). The outer part (9) of the arm is actuated by the actuator (11) and the arm as a whole is actuated by the actuator (16). USE/ADVANTAGE - Mechanical excavator with means to rotate excavator arm about a horizontal axis.

Classifications:**International (IPC 8-9):** E02F3/32 E02F3/38 (Advanced/Invention);

E02F3/28 E02F3/36 (Core/Invention);

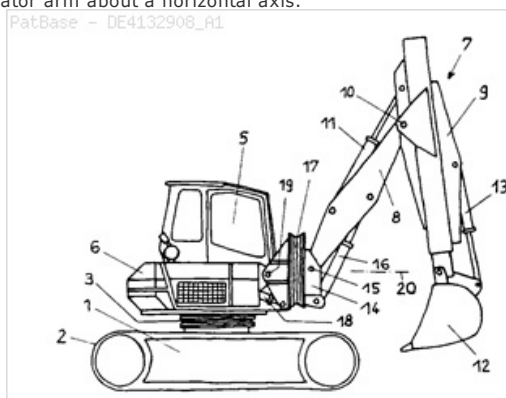
E02F (Subclass/Invention)

International (IPC 1-7): E02F E02F3/00 E02F3/28 E02F3/32 E02F3/36

E02F3/42 E02F9/08

CPC: E02F3/382**European:** E02F3/38B

PatBase - DE4132908_A1

**Family:**

Publication number	Publication date	Application number	Application date
AT203590 A	19920815	AT19900002035	19901009
AT395881 B	19930325	AT19900002035	19901009
CH684199 A	19940729	CH19910002750	19910917
DE4132908 A1	19920430	DE19914132908	19911004
DE4132908 C2	20010426	DE19914132908	19911004
IT1251208 B	19950504	IT1991TO00712	19910920
ITTO910712 A0	19910920	IT1991TO00712	19910920
ITTO910712 A1	19920410	IT1991TO00712	19910920

Priority:

AT19900002035 19901009

Probable Assignee: KAISER JOSEF**Assignee(s):** (std): KAISER JOSEF**Assignee(s):** KAISER JOSEF SCHAANWALD LI ; JOSEF KAISER**Inventor(s):** (std): KAISER JOSEF**Inventor(s):** KAISER JOSEF SCHAANWALD LI**6) Family number: 58962391 (RU2006109143A)**

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Title: Excavators logging (Machine translation)

Abstract: Source: RU2006109143A **Machine translation:** 1. Excavator for logging felled trees, 2 vkluchajushijstrelu, and specified the arrow 2 is designed for effective absorption of traction loads on the front end of the boom and ensure additional sustainability specified excavator; forearm 11 having at its lower end bucket, which articulated set bottom specified arrows 2, while moving the specified bucket is performed hydraulically powered; pulley 1, installed on the front end of the indicated arrows; 3 drum for winch cable with free end connected through the pulley 1, with the system installed on the back-end of the indicated arrows. 2. Excavator on p. 1, distinguished by the fact that the specified bucket is made in such a way that being horizontally located on land creates support specified forearm 11 backhoe bucket, acting as a hinge and simultaneously taking the weight specified excavator and backpressure during lifting operation using winch. 3. Excavator on p. 1, featuring that additionally contains a valve with solenoid operated 44 mounted on the rear end of the indicated arrows 2 and intended for control by regulating the flow and volume of fluid Wednesday for filing power of this system winches and other components of excavator. 4. Excavator on p. 1, featuring those that drive specified 3 drum for winch cable are two hydraulic engine. 5. Excavator on p. 1, featuring that specified 3 drum winch cable has loose end for attaching to the consignment passes through specified pulley. 6. Excavator on p. 1, featuring what WAIS

Classifications:**International (IPC 8-9):** A01G23/087 (Advanced/Invention)

Family:

Publication number	Publication date	Application number	Application date
RU2006109143 A	20150410	RU20060109143	20060323

Priority:

RU20060109143 20060323

Probable Assignee:

LOG FISHER INT SDN BCD

Assignee(s):

LOG FISHER INT SDN BCD

7) Family number: 3211398 (SU1105560A)

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Title: BACK HOE MACHINE

Abstract: Source: SU1105560A **Machine translation:** 1. EXCAVATOR "backhoes, comprising a chassis frame on which is mounted turntable boom pivotally connected with the heads Tew bucket with teeth and dozer blade, characterized in that in order to increase productivity by reducing the time bucket rotation in the horizontal plane for by reducing the rotating masses, it is equipped with a rigidly fixed to the frame chassis annular frame with guide and installed them in mobile support, bonded by means of articulated rods and cylinder with a dozer blade.

Classifications:**International (IPC 8-9):** E02F3/38 (Advanced/Invention);

E02F3/36 (Core/Invention)

International (IPC 1-7): E02F3/38**Family:**

Publication number	Publication date	Application number	Application date
SU1105560 A1	19840730	SU19833560590	19830228

Priority:

SU19833560590 19830228

Probable Assignee: KUZNETSK NI PK I DOBYCHE**Assignee(s):** (std): KUZNETSK NI PK I DOBYCHE ; KUZNETSKIJ NI PK I DOBYCHE POL**Assignee(s):** KUZNETSKIJ NI PK I PO DOBYCHE POLEZNYKH ISKOPAEMYKH OTKRYTYM SPOSOBOM**Inventor(s):** (std): NENASHEV ANATOLIJ S ; RYBAKOV BORIS N ; RYBAKOVA VALENTINA D**Inventor(s):** RYBAKOVA VALENTINA D SU ; RYBAKOV BORIS N SU ; NENASHEV ANATOLIJ S SU**8) Family number: 13814489 (ES2126416B)**

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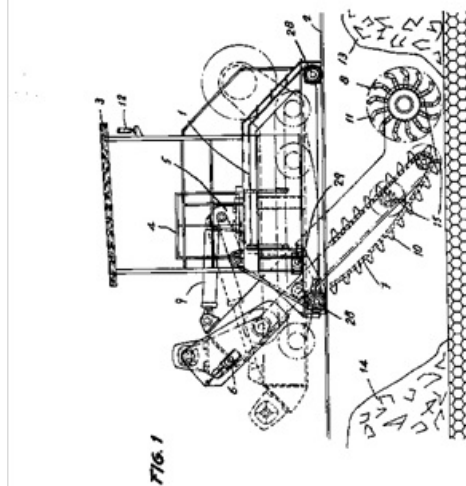
Title: MAQUINA AUTOMATICA PARA COMPOSTAJE.

Abstract: Automatic composting machine which comprises a body mounted on wheels so that it can move on rails located on the tops of walls forming at least one channelled space, the carriage supporting an electrical control cabinet, a motor/reduction gear for propulsion of the carriage and hydraulic equipment for operating an excavator frame bearing a chain of buckets and an excavator drum comprising multiple radial knives. The control panel is supplied by means of a flexible cable of length appropriate to the channel over which the carriage travels, and the hydraulic equipment comprises a frame activating piston which extends and is hinged at one of its ends while the other end supports the excavating drum, adopting two limiting positions, a retracted and a working position. The knives of the drum are J-shaped and are replaceable, and match the positions of the buckets on the chains. Applicable to a plant converting wastes and by-products into useful materials.

Classifications:**International (IPC 8-9):** C05F17/02 E02F3/20 (Advanced/Invention);

C05F17/02 E02F3/18 (Core/Invention)

International (IPC 1-7): B02C18/40 C05F17/02 E02F3/20**CPC:** Y02W30/43

**Family:**

Publication number	Publication date	Application number	Application date
ES2126416 AA	19990316	ES19940000271	19940208
ES2126416 BA	19991116	ES19940000271	19940208

Priority:

ES19940000271 19940208

Probable Assignee:

BIWATER CISA S A

Assignee(s): (std):

BIWATER CISA S A

Assignee(s):

BIWATER CISA SA

Inventor(s): (std):

ESTERUELAS GALIA JORGE

9) Family number: 27907536 (US6502292B)

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Title: APPARATUS AND METHOD FOR PREPARING AN EXCAVATOR STICK FOR TRANSPORT

Abstract: An apparatus for preparing an excavator stick for transport includes a base supporting two symmetrically spaced platforms for use by a mechanic. The base comprises a saddle at one end for holding the back portion of the excavator stick which has been detached from the boom of the excavator, an excavator stick point support bracket at the opposite end of the base for removably engaging the front portion of the excavator stick which has already been detached from the excavator bucket, and an extendible fork-shaped excavator stick support member disposed between the saddle and the excavator stick point support bracket for supporting the body of the excavator stick in the excavator stick support eye region of the excavator stick during preparation for transport. The saddle and excavator stick point support bracket are mounted on a pair of parallel rails mounted on symmetrically spaced parallel cross support bars with the fork-shaped excavator stick support member pivotally mounted on one of the cross support bars. The excavator stick support member can be raised or lowered in a vertical plane as needed by a base-integrated come-along which is handled by the mechanic. The excavator stick is prepared for transport in a series of steps including removably engaging the front end of the excavator stick in the excavator stick point support bracket with a pin, raising the fork-shaped excavator stick support member to removably engage the excavator stick with another pin in the excavator stick support eye region, unhinging the excavator stick from the boom, disengaging the fork-shaped excavator stick support member from the excavator stick support eye region of the excavator stick, lowering the unhinged back portion of the excavator stick onto the saddle and strapping the lowered excavator stick to the base in preparation for transport.

Classifications:

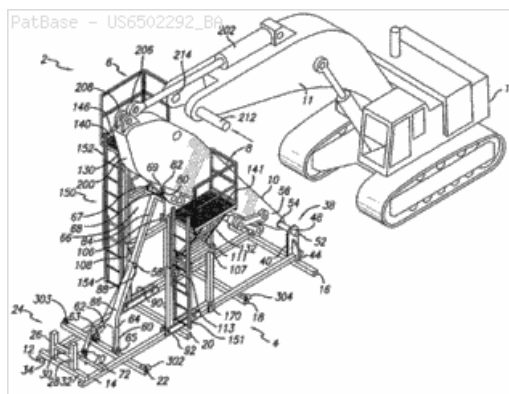
International (IPC 8-9): E02F3/627 E02F3/96 (Advanced/Invention); E02F3/04 (Core/Invention)

International (IPC 1-7): B23P19/00

CPC: E02F3/6273 E02F3/968 Y10T29/49815 Y10T29/49819 Y10T29/49822 Y10T29/53

European: E02F3/627L E02F3/96T

US: 212/177 212/200 212/201 212/202 212/226 29/426.1 29/426.3 29/426.5 29/700

**Family:**

Publication number	Publication date	Application number	Application date
US6502292 BA	20030107	US20000650320	20000829

Priority:

US19990171791P 19991222 US20000650320 20000829
Probable Assignee: HARTLEY WILLIAM E
Assignee(s): (std): HARTLEY WILLIAM E
Inventor(s): (std): HARTLEY WILLIAM E

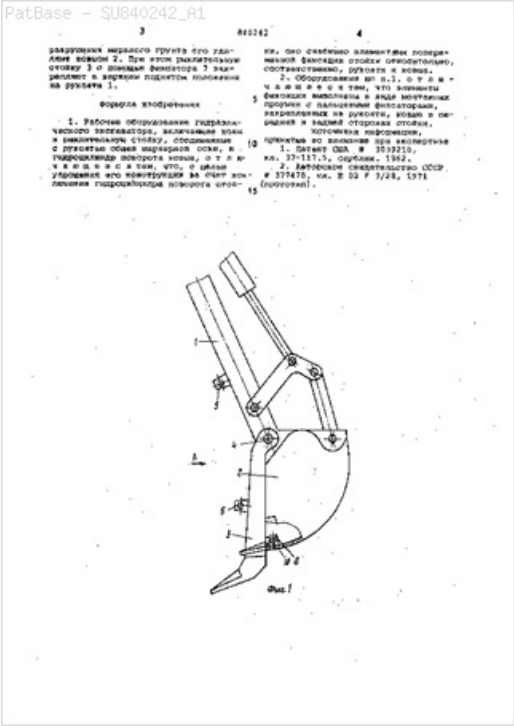
10) Family number: 6336537 (SU840242T) © PatBase

Title: HYDRAULIC EXCAVATOR WORKING EQUIPMENT

Abstract: Source: SU840242T **Machine translation:** Invention relates to nym excavation machines, in particular to the work equipment hydraulic excavator, which can be used in the development of frozen soils. Known excavator working equipment including a bucket and Ord ening on it in front of the rack G1 mattock. The disadvantage of this equipment s lyuchaets pereoborudova no difficulty in working bodies. Known as hydraulic excavator working equipment including arrow handgrip with a bucket and ripper bar and power cylinder. Front ripping mouth lished inside the bucket on its axis pivotally 2. However, for rotating rack ripper has a special cylinder, guide complicates the design of equipment. The purpose of the invention - to simplify struction equipment by exceptional liver cylinder rotation rack The goal is achieved in that work equipment is provided with an alternate fixative tion stand regarding, respectively, the handgrip and the bucket. In addition, the fixing elements are executed in the form of mounting lugs with finger clamps attached to the handgrip, ladle, and the front and back sides of the rack. 1 shows a hydraulic excavator working equipment in position loosening; 2 is at the same position Kopan Fig. 3vid A in Figure 1. On the handgrip 1 excavator bucket strengthened 2 3 hour and ripping through axis 4. To compound ripper supports 3 with the heads on the last one to five and on the front side of the rack 3 fixed lugs 5 and used finger latch 7. To compound ripper supports 3 with bucket 2 on the bottom of the ladle and at the rear side of the frame 3 are fixed eyelets 8 and 9 with the locking finger 10. equipment operates as follows. In the early development of frozen soil ripping rack 3 by retainer 10 is connected to the bucket 2 and cut furrows using force bucket rotation. After fracture of frozen soil removed his bucket 2. Moreover ripping rack 3 with latch 7 is secured in the upper raised position on the handgrip 1. claims 1. Operating hydraulic excavator equipment, including bucket and ripping rack connected with the heads Tew common hinge axis cylinder and bucket rotation about Whitlock i.chayuschees that in order to simplify its structure by eliminating cylinder rotating rack it is provided with fixing elements alternate relative to the rack, respectively, of the handgrip and a bucket. 2.. Equipment according to claim 1, characterized in that the fixing elements are designed as mounting lugs with finger clamps attached to the handgrip, and the bucket front and rear sides of the rack. Sources of information received into account in the examination 1.Patent USA number 3039210, cl. 37-117.5, published. 1962. 2.Avtorskoe USSR certificate number 377478, cl. E 02 F 3/28, 1971 (prototype).

Classifications:

International (IPC 8-9): E02F3/28 E02F5/30 (Advanced/Invention);
E02F5/30 (Advanced/Non-invention);
E02F3/28 E02F5/00 (Core/Invention);
E02F5/00 (Core/Non-invention)
International (IPC 1-7): E02F3/28 E02F5/30



Family:

Publication number	Publication date	Application number	Application date
SU840242 A1	19810623	SU19782698522	19781219
SU840242 T	19810623	SU19782698522	19781219

Priority:

SU19782698522 19781219
Probable Assignee: MO GIDROMELIORATIVNYJ INST
Assignee(s): (std): MO GIDROMELIORATIVNYJ INST
Assignee(s): MO GIDROMELIORATIVNYJ INSTITUT
Inventor(s): (std): GANTMAN VLADIMIR B ; LEONTEV YURIJ P ; GUNDOBIN BORIS V ; MININ VALERIJ M ; BESHNOV GENNADIJ V ; EVDOKIMOV VITALIJ L ; ANDROSOV VALERIJ V ; VASILEV ANDREJ V
Inventor(s): VASILEV ANDREJ V SU ; ANDROSOV VALERIJ V SU ; EVDOKIMOV VITALIJ L SU ; BESHNOV GENNADIJ V SU ; LEONTEV YURIJ P SU ; GUNDOBIN BORIS V SU ; GANTMAN VLADIMIR B SU ; MININ VALERIJ M SU

Title: Planting doing TZE

Abstract: Source: DE29918782U1 [DE] (Claim 1) 1. Stuetzsystem fuer in Pflanzgefaessen befindliche Pflanzen, das umfasst: einen Pflanztopf (1), -kuebel oder -kasten mit einer Grundplatte (2) und Seitenwaendungen, wobei die Grundplatte eine Vielzahl von Buchsen bzw. roehrenfoermigen Huelsen (4 a, 4 b, 4 c) aufweist, die in einem Stueck mit der Grundplatte geformt oder auf diese aufgesetzt und befestigt sind, und besagte Huelse(n) so gestaltet ist/sind, dass sie bei Benutzung das untere Ende eines herkoemmlichen hoelzernen Pflanzenstuetzrohres oder -stabes (5 b) in sich aufnimmt/aufnehmen, so dass das Rohr oder der Stab (5 b) aufrecht gehalten wird, dadurch gekennzeichnet, dass die Huelsen (4 a, 4 b, 4 c) in einem/r oder mehreren Stab/Staeben oder Strebe(n) angebracht ist, der/die in einem Stueck mit der Grundplatte (2) des Pflanzentopfes (1), Kastens oder Pflanzgefasses geformt oder auf andere Weise an dieser befestigt ist/sind.

Machine translation: (Claim 1. Supporting system for plants in planting containers, which covers: a planting pot (1), - excavator buckets or - box with a baseplate (2) and side panels, whereby the baseplate exhibits a multiplicity of sockets and/or tubular cases (4 A, 4 b, 4 C), which are in a piece with the baseplate formed or on these touched down and fastened, and meant case (n) is so arranged/is that it when using the lower end of a conventional wooden plant supporting tube or - staff (5b) to itself takes up/take up, so that the pipe or the staff (5b) is kept upright, by the fact characterized that the cases (4 A, 4 b, 4 C) in einem/r or several staff/staffs or prop (n) attached are formed,/in a piece with the baseplate (2) of the plant pot (1), box or planting container or in other way to this are fastened/are.

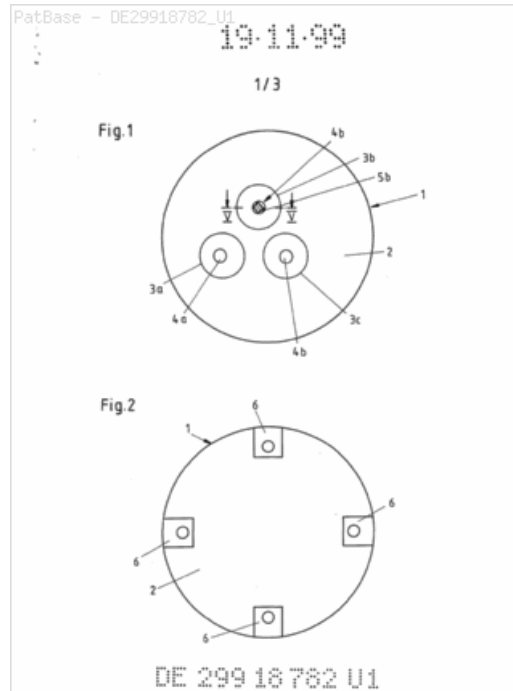
Classifications:

International (IPC 8-9): A01G9/12 (Advanced/Invention);
A01G9/12 (Core/Invention)

International (IPC 1-7): A01G9/02 A01G9/12

CPC: A01G9/124

European: A01G9/12B1



Family:

Publication number	Publication date	Application number	Application date
DE29918782 U1	20000224	DE19992018782U	19991025

Priority:

DE19992018782U 19991025

Probable Assignee:

YOUNG ROY

Assignee(s): (std):

YOUNG ROY

Title: MANIPULATING TOOL ON A MECHANICAL SHOVEL WITH A BUCKET

Abstract: A manipulating tool on a shovel with a bucket, in particular a dipper shovel, and with a hydraulic grab plate associated with the bucket is designed to increase the mobility of the bucket and at the same time make it possible to open and close the grabbing tool individually. This is accomplished by attaching to the grab plate (17) a pivoting carrier frame (5) in which the bucket (11) is articulated, the pivoting support frame (5) itself being articulated on the bucket arm (3) of the shovel (1) and operatively connected to the bucket cylinder (().

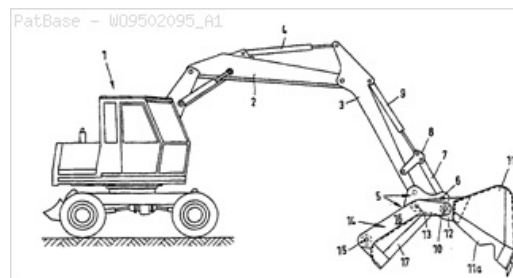
Classifications:

International (IPC 8-9): E02F3/40 (Advanced/Invention);
E02F3/40 (Core/Invention)

International (IPC 1-7): E02F3/40

CPC: E02F3/404

European: E02F3/40G2



Family:

Publication number	Publication date	Application number	Application date
AT187518 E	19991215	AT19940919673T	19940630
DE59408985 D1	20000113	DE19945008985	19940630

DE9310018 U1	19931007	DE19930010018U	19930706
EP0656975 A1	19950614	EP19940919673	19940630
EP0656975 B1	19991208	EP19940919673	19940630
JP8501364 T2	19960213	JP19950503809T	19940630
WO9502095 A1	19950119	WO1994EP02140	19940630

Priority:

DE19930010018U 19930706 DE19945008985 19940630 WO1994EP02140 19940630

Probable Assignee: NAGLER JUERGEN

Assignee(s): (std): NAGLER JUERGEN

Assignee(s): NAGLER JUERGEN 58313 HERDECKE DE

Inventor(s): (std): NAGLER JUERGEN

Designated states: AT BE CH DE DK ES FR GB GR IE IT JP LI LU MC NL PT SE US

13) Family number: 33542607 (FR2326542A)

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Title: TWO WHEEL EARTH EXCAVATING AND LOADING SYSTEM - HAS CONVEYOR SYSTEM TRANSPORTING SPOIL UPWARDLY AND REARWARDLY

Abstract: The excavating and loading system includes an excavating and wheel assembly at the front and a material conveyors from the excavating wheel assembly upward and rearwardly. A power plant is provided and a drive shaft extends down along the supporting and housing means between the two excavating wheels. Gearing in the interior of the wheels is connected to the drive shaft for powering the excavating wheels. Apparatus is provided for raising and lowering excavation height of excavation wheel assembly to thereby vary the grade of the excavation. The excavating wheels has means for positively moving the walls of buckets between material receiving and material discharge positions.

Classifications:

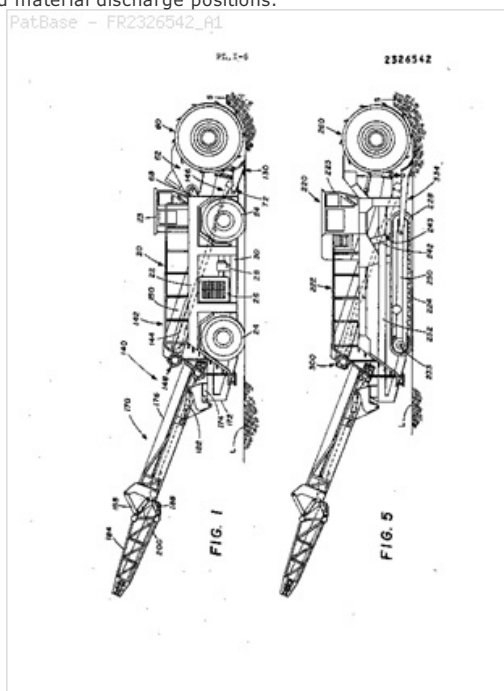
International (IPC 8-9): B65G65/20 E02F3/18 E02F3/76 E02F3/78 E02F7/02 (Advanced/Invention);

B65G65/00 E02F3/18 E02F3/76 E02F7/00 (Core/Invention)

International (IPC 1-7): B65G65/16 E02F3/18 E02F3/24 E02F3/78 E02F7/02 E02F7/04

CPC: E02F3/18 E02F3/783 E02F7/02

European: E02F3/18 E02F3/78B E02F7/02



Family:

Publication number	Publication date	Application number	Application date
AU197614453 A1	19771208	AU19760014453	19760531
AU498996 B2	19790329	AU19760014453	19760531
CA1035375 A1	19780725	CA19760249051	19760329
DE2626575 A1	19770203	DE19762626575	19760614
FR2326542 A1	19770429	FR19760021779	19760716
FR2326542 B1	19821126	FR19760021779	19760716
JP52012706 A2	19770131	JP19760072863	19760622
ZA7601633 A	19770330	ZA19760001633	19760317

Priority:

US19750596677 19750717

Probable Assignee: UNIT RIG AND EQUIP

Assignee(s): (std): UNIT RIG AND EQUIP ; UNIT RIG AND EQUIPMENT CO ; UNIT RIG ET EQUIPMENT CO

Assignee(s): SATTERWHITE CHARLES R ; SATTERWHITE IND INC ; UNIT RIG AND EQUIPMENT CO TULSA OKLA ; YUUNITSUTO RITSUGU ANDO IKUUITSUPUMANTO CO

Inventor(s): (std): SATTERWHITE CHARLES RAY ; SATTERWHITE C R ; SATTERWHITE CHARLES R ; SATTERWHITE C ; CHARLES RAY SATTERWHITE ; CR SATTERWHITE

Inventor(s): CHIYAARUZU REI SATAHOWAITO ; C R SATTERWHITE ; SATTERWHITE CHARLES RAY DALLAS TEX ; RAY SATTERWHITE CHARLES

Agent(s): RI; FB RICE PTY LTD

Title: ANGULARLY DISPOSED SINGLE WHEEL EXCAVATOR - EXCAVATION WHEEL HAS MEANS FOR MOVING BUCKET WALL BETWEEN MATERIAL RECEIVING AND DISCHARGE POSITIONS

Abstract: Excavating and loading system includes an excavating wheel assembly at the front and a number of conveyors for conveying the material from the excavating wheel assembly upward and rearwardly. The excavating wheel assembly includes at least one excavating wheel which is angularly disposed with respect to the direction of travel to form an excavation and has digging surfaces on the forward extending end of the excavating wheel. The wheel forms an excavation wider than the following portion of the system. A supporting and housing apparatus rotatably supports the excavating wheel means from the vehicle. Apparatus is provided for raising, lowering and/or tilting the supporting and housing apparatus to position the excavation wheel assembly to thereby vary the excavation.

Classifications:

International (IPC 8-9): B65G65/16 B65G65/20 E02F3/18 E02F3/24 E02F3/76 E02F5/08 E02F7/02 (Advanced/Invention);

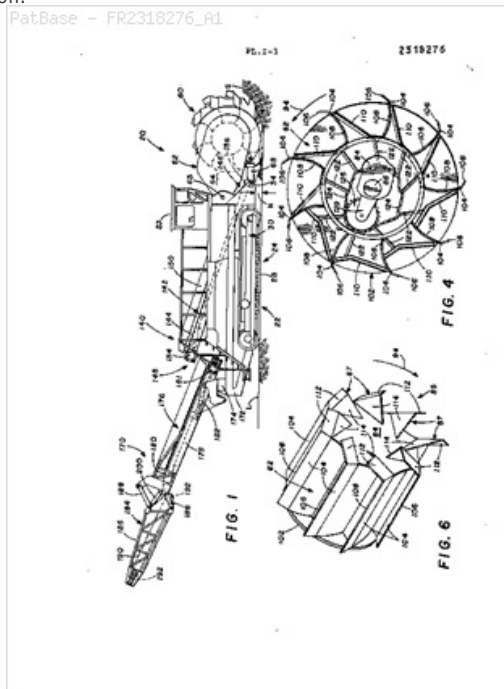
B65G65/00 E02F3/18 E02F3/76 E02F5/02 E02F7/00 (Core/Invention)

International (IPC 1-7): B65G65/16 E02F3/18 E02F3/24 E02F3/78 E02F5/08 E02F7/02 E02F7/04

CPC: E02F3/18 E02F3/248 E02F3/783 E02F7/02

European: E02F3/18 E02F3/24K E02F3/78B E02F7/02

PatBase - FR2318276_A1



Family:

Publication number	Publication date	Application number	Application date
AU197614487 A1	19771208	AU19760014487	19760601
AU498997 B2	19790329	AU19760014487	19760601
CA1030564 A1	19780502	CA19760249014	19760329
DE2630101 A1	19770203	DE19762630101	19760703
FR2318276 A1	19770211	FR19760021770	19760716
FR2318276 B1	19821217	FR19760021770	19760716
JP52012710 A2	19770131	JP19760072867	19760622
JP60022134 B4	19850531	JP19760072867	19760622
ZA7601637 A	19770427	ZA19760001637	19760317

Priority:

US19750596575 19750717

Probable Assignee: UNIT RIG AND EQUIP

Assignee(s): (std): UNIT RIG AND EQUIP ; UNIT RIG AND EQUIPMENT CO ; UNIT RIG ET EQUIPMENT CO ; YUNITSUTO RIGU ANDO EKIITSUPUMENTO CO

Assignee(s): SATTERWHITE CHARLES R ; SATTERWHITE IND INC ; UNIT RIG AND EQUIPMENT CO TULSA OKLA ; YUUNITSUTO RITSUGU ANDO IKUITSUPUMANTO CO

Inventor(s): (std): SATTERWHITE CHARLES RAY ; SATTERWHITE C R ; SATTERWHITE CHARLES R ; CHAARUZU REI SATHOWAITO ; SATTERWHITE C ; CHARLES RAY SATTERWHITE ; CR SATTERWHITE

Inventor(s): C R SATTERWHITE ; CHIYAARUZU REI SATHOWAITO ; SATTERWHITE CHARLES RAY DALLAS TEX ; RAY SATTERWHITE CHARLES

Agent(s): RI; FB RICE PTY LTD

Title: OUTSIDE SUPPORTS FOR EXCAVATING WHEELS - HAS YOKE ABOVE DESIRED DIGGING DEPTH AND DEFINING MAXIMUM WIDTH OF VEHICLE

Abstract: The excavating and loading system includes an excavating wheel assembly at the front and conveyors from the excavating wheel assembly upwardly and rearwardly. The excavating wheel is wider than the overall width of the following portion of the system. A supporting and housing apparatus rotatably supports the excavating wheel and includes portions which engage the ends of the excavating wheel. The supporting and housing apparatus can be raised and lowered to adjust the excavating height of the excavating wheel assembly and thereby vary the grade of the excavating. The excavation wheel can positively move the walls of buckets between digging and dumping positions.

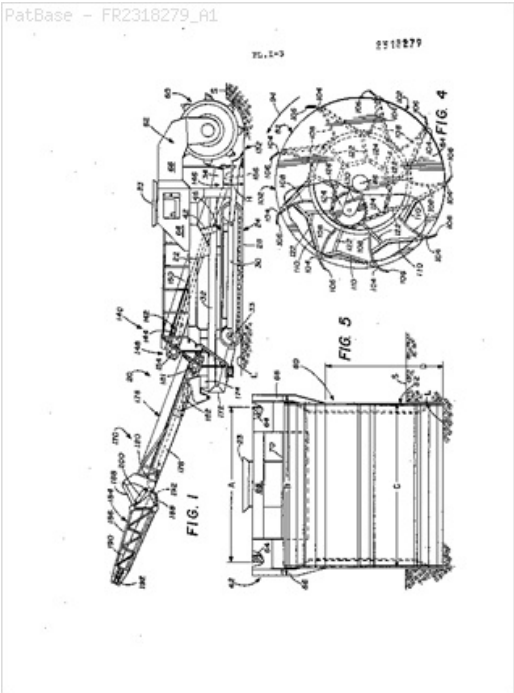
Classifications:

International (IPC 8-9): B65G65/20 E02F3/18 E02F3/20 E02F3/24 E02F3/76 E02F5/08 E02F7/02 E21C25/16 (Advanced/Invention);

E02F3/18 (Advanced/Non-invention);

B65G65/00 E02F3/18 E02F3/76 E02F5/02 E02F7/00 (Core/Invention)

International (IPC 1-7): B65G65/16 E02F3/18 E02F3/22 E02F3/24 E02F3/78 E02F3/80 E02F5/08 E02F7/02 E02F7/04 E02F9/08 E21C25/16



Family:

Publication number	Publication date	Application number	Application date
AU197615213 A1	19780105	AU19760015213	19760623
AU500836 B2	19790531	AU19760015213	19760623
CA1041561 A1	19781031	CA19760249228	19760330
DE2631176 A1	19770203	DE19762631176	19760710
DE2631176 C2	19860911	DE19762631176	19760710
FR2318279 A1	19770211	FR19760021775	19760716
FR2318279 B1	19821217	FR19760021775	19760716
JP1266775 C3	19850527	JP19760072865	19760622
JP52012708 A2	19770131	JP19760072865	19760622
JP59044464 B4	19841030	JP19760072865	19760622
ZA7601635 A	19770427	ZA19760001635	19760317

Priority:

US19750596576 19750717

Probable Assignee: UNIT RIG AND EQUIP

Assignee(s): (std): SATTERWHITE IND INC ; UNIT RIG AND EQUIPMENT CO ; UNIT RIG AND EQUIP ; UNIT RIG ET EQUIPMENT CO

Assignee(s): YUNITSUTO RIGU ANDO EKUITSUPUMENTO CO ; SATTERWHITE CHARLES R ; UNIT RIG AND EQUIPMENT CO TULSA OKLA ; YUUNITSUTO RITSUGU ANDO IKUITSUPUMANTO CO ; SATTERWHITE IND INC GARLAND TEX US ; SATTERWHITE INDUSTRIES INC ; SATTERWHITE INDUSTRIES INC GARLAND TEX US

Inventor(s): (std): CR SATTERWHITE ; CHARLES RAY SATTERWHITE ; SATTERWHITE C ; CHAARUZU REI SATAHOWAITO ; SATTERWHITE CHARLES R ; SATTERWHITE CHARLES RAY ; SATTERWHITE C R

Inventor(s): C R SATTERWHITE ; RAY SATTERWHITE CHARLES ; SATTERWHITE CHARLES RAY DALLAS TEX ; SATTERWHITE CHARLES RAY DALLAS TEX US ; SATTERWHITE G R ; CHIYAARUZU REI SATAHOWAITO

Agent(s): RI; FB RICE PTY LTD

16) Family number: 2994705 (FR2193124A)

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Abstract: Source: FR2193124A [FR] (Claim 1) 1. - Pelle hydraulique transformee, suivant les besoins, en perforatrice, dans laquelle le trepan est dispose a l'extremite du dernier bras de ladite pelle, pres de l'emplacement du godet de celle-ci, grace a un dispositif comportant un support intermediaire amovible interpose entre ce bras et le trepan, caracterisee par le fait que ce support tourne autour de l'axe dudit bras et soutient en porte-a-faux le trepan par l'entremise des glissieres de ce dernier, pivotantes sur le support autour d'un axe substantiellement parallele a chaque plan vertical dans lequel peut se deplacer la fleche de la pelle.

Machine translation: (Claim 1) 1. - Excavator transform, as required in drill, in which the drill bit is disposed at the end of the last arm of said shovel near l'emplacement bucket of it, thanks to a device comprising an intermediate removable interposed between this arm and the drill bit, characterized by the fact that this support is around the axis of said support arm and door overhang the drill bit through the slides of the latter, pivoting on the support about an axis substantially parallel to each plane in which can move the arrow to the shovel.

Classifications:

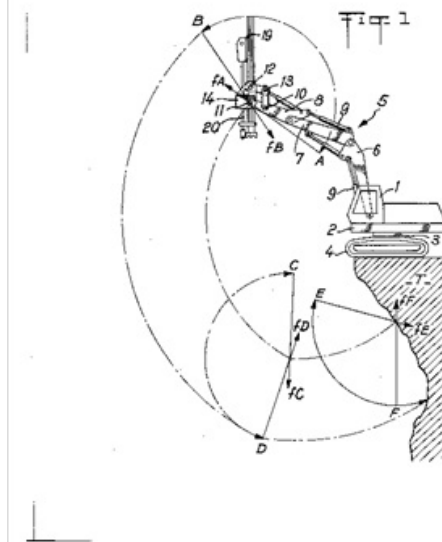
International (IPC 8-9): E02F3/30 E02F3/42

E02F3/96 (Advanced/Invention)

International (IPC 1-7): E02D17/00 E02F3/00

CPC: E02F3/30 E02F3/32 E02F3/425 E02F3/963

European: E02F3/30 E02F3/32 E02F3/42D E02F3/96D

**Family:**

Publication number	Publication date	Application number	Application date
FR2193124 A1	19740215	FR19720027181	19720721
FR2193124 B1	19741025	FR19720027181	19720721

Priority:

FR19720027181 19720721

Probable Assignee:

LACOSTE DOMINIQUE

Assignee(s): (std):

LACOSTE DOMINIQUE

Assignee(s):

LACOSTE DOMINIQUE FR

17) Family number: 3062734 (FR2211569A)

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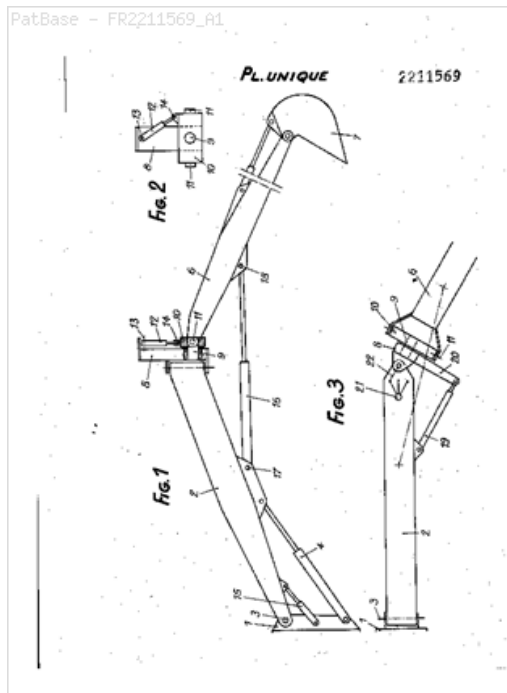
Abstract: Source: FR2211569A [FR] (Claim 1) 1. - Dispositif correcteur de verticalité pour excavateurs pouvant travailler en déport, comportant un bâti relié de façon articulable au châssis et à l'excavateur et sur lequel une flèche peut pivoter autour d'un axe horizontal, ainsi qu'un bras portant un godet ou outil analogue, relié à pivotement à l'extrémité libre de cette flèche dans des conditions telles que ce bras puisse être orienté par rapport à la flèche et puisse effectuer des mouvements de travail dans un plan vertical, caractérise en ce qu'il est prévu, à l'extrémité libre de la flèche, un axe occupant une position verticale pour une position d'inclinaison donnée de cette flèche, un support relié à cet axe vertical et sur lequel un axe horizontal d'articulation du bras est monté de façon à pouvoir lui-même basculer autour d'un pivot perpendiculaire à la fois à l'axe vertical précité et à cet axe d'articulation du bras, et des moyens prévus entre cet axe d'articulation du bras et le support pour modifier la position angulaire dudit axe d'articulation du bras par rapport à ce support, afin de le maintenir dans une position horizontale lors du mouvement de relevage et d'abaissement de la flèche, de telle sorte que le plan de travail du bras demeure vertical.

Machine translation: (Claim 1) 1. - Device for correction of verticality excavators can work in exile, comprising a frame connected so as to be articulable at the chassis and the excavator. an arrow which can pivot about a horizontal axis, and a arm with a bucket or similar tool, pivotally connected to the former free end of the arrow under conditions such that the arm can be oriented with the flèche and can perform work movements in a vertical plane, characterized in that it is planned, at the free end of the arrow, axis occupying a vertical position for a given tilt position of the arrow, a support connected to this vertical axis and above which a horizontal axis of articulation of the arm is mounted so that it can switch itself around a pivot perpendicular to the. Once a vertical axis above and has the hinge axis of the arm, and means provided between the pivot pin-arm and support to change the angular position of said pivot axis of the arm relative to said support, to keep it in a horizontal position during the movement of lifting and lowering of the arrow, so that the work plan of the arm remains vertical.

Classifications:**International (IPC 8-9):** E02F3/30 (Advanced/Invention);

E02F3/28 (Core/Invention)

International (IPC 1-7): E02F9/00**CPC:** E02F3/307**European:** E02F3/30L

**Family:**

Publication number	Publication date	Application number	Application date
FR2211569 A1	19740719	FR19720046334	19721227
FR2211569 B1	19770225	FR19720046334	19721227

Priority:

FR19720046334 19721227

Probable Assignee:

PINGON PIERRE JOSEPH

Assignee(s): (std):

PINGON PIERRE JOSEPH

Assignee(s):

PINGON PIERRE ; PINGON PIERRE FR

18) Family number: 2746848 (SU988990A)

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Title: DRAGLINE EXCAVATOR

Abstract: Source: SU988990A **Machine translation:** 1 Invention relates to the Semper - ing machines, and more particularly for excavators working equipment drag line. known dragline excavators, vklyuchayu.gtsy chassis, pivoting boards form a working equipment and navodKy.li. A disadvantage of this excavator and I is that when trenching around the excavator due to insufficient tapers navodkn deflection in the horizontal plane. also known excavator equipment for piling, vklyuchak extending verhnkzh) chassis frame with a reference turntable, rotary platfo1 mu working equipment, fire rounds and support beam forth in front of her 2 With J. No residue izvestnohch) excavator is that the movement in the cable r gobogo sides of the axis of the excavator is effected with the slide block. which otklonzhyuts by spe-. social actuator which makes construction difficult tion and insufficiently reliable. object of the invention - simplification con-, struction and operation. object is achieved by the fact that in the dragline excavators, comprising an upper frame chassis with support and rotating krugom, turntable working equipment, and support 6aitku tip, top of its stroke frame has a copier and the front part of the turntable is provided pivotally mounted thereon two-arm lever, otOHO shoulder which has an additional attachment, and the other - Pulley, establish th em with OPPORTUNITIES of the interaction with the copier. Fig. 1 shows the excavator. view / side; Fig. 2 - is top view of HDA; Fig. 3 - A-A in Fig. 1. excavator includes a top-Hodo. vuyu 1 turntable 2, installed with the support of the turntable 3. On the platform in front of the 2-part of it on the axis of the lever 4 is dvuzshpechy 5, on a long-arm front which additionally installed aiming 6, and short rear - roller 7 in contact with the cam 8, in a semicircle from the gate fortified by 9 10 n bolts to the frame 1. Front length shoulder rests on the beam 11 mounted on platform 2. At the front of the middle of the lever 5 shv uotanovlena leveling 12. The traction cable 13 passed through the pickup 12 and 6. pulling line 13 retracted to the right. (Rvedenny right cable allows developers vedeshshsh oufofv f -.. «vx percent 1GGCH1GY account the wide trench near the excava. Equator. When you need to choose more left side wall of the trench, then turn on the platform 2 HSE with roller reaches 7 plot and free from the copier 8 Arm 5 roller 7 rotates in, towards the center of the excavator under the influence of the cable 13 and then uperg shis roller 7 to 8 copier end pivoted position marked in Fig. 3 dotted line and the cable 13 is bent by the the left side. positions of the traction cable 13 at the center, as well as more than is shown in Fig. 3 bends in the cable side, reach sootvet98 tvuyushim swing in the outcome position for throwing bucket. invention simplifies Application Design excavator naezhnost increases and improves conditions ekspluataii. claims dragline excavators, vklyuchayuishy upper chassis frame with slewing ring, turntable working equipment, a tip and the support beam, wherein the sake of simplicity.. tion construct and operate, top, chassis frame has a copier and the front part of the turntable provided with a pivotally mounted thereon a two-arm riagom, one shoulder which has an extra tip, and another - a roller mounted for engagement with the cam. Sources of information received into account in the examination 1.Avtorskoe USSR certificate number 313450, cl. E 02F 3/48, 1969. 2.Avtorskoe USSR certificate number 708013, cl. E 02F 7/20, 1975 (prototype).

Classifications:**International (IPC 8-9):** E02F3/48 (Advanced/Invention);

E02F3/46 (Core/Invention)

International (IPC 1-7): E02F3/48



Family:

Publication number	Publication date	Application number	Application date
SU988990 A1	19830115	SU19813300210	19810603

Priority:

SU19813300210 19810603

Probable Assignee:

KIREENKOV VLADIMIR A

Assignee(s): (std):

KIREENKOV VLADIMIR A

Assignee(s):

KIREENKOV VLADIMIR A SU

Inventor(s): (std):

KIREENKOV VLADIMIR A

Inventor(s):

KIREENKOV VLADIMIR A SU

19) Family number: 21493852 (FR1432914A)

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Title: EXCAVATRICE A ROUE MOBILE SHOVEL WHEEL MOBILE (Machine translation)

Abstract: Source: FR1432914A [FR] [Source: Claim 1] 1. Excavatrice a roue, automotrice caracterisee par les points suivants pris separement ou en combinaisons 1 Elle comprend un chassis supporte par des roues, une plate-forme supportee par le chassis et pouvant tourner par rapport au chassis, une roue d'excavatrice portee par la plate-forme et pouvant tourner dans un plan sensiblement vertical par rapport au plan de la plate-forme, des dispositifs servant a transporter les materiaux excaves par la roue jusqu'a une zone de dechargement situee a une certaine distance de la roue d'excavatrice, et un appareil autonome de source d'energie effectuant les operations de propulsion, de rotation, d'excavage et d'evacuation; 2 La roue d'excavatrice est supportee a la partie de l'extremite exterieure d'une elinde qui peut tourner autour d'un pivot sensiblement horizontal place sur la plate-forme; 3 La roue et la partie de l'extremite exterieure de l'elinde sont deplacees dans un plan sensiblement vertical par l'intermediaire de moyens de levage fixes d'un cote a la plate-forme, de l'autre a l'elinde, les moyens de levage etant places entre la roue et le pivot place sur la plate-forme de l'elinde; 4 Les dispositifs servant a transporter les materiaux excaves comprennent en premier lieu un transporteur d'elinde, porte par l'elinde, qui s'etend a partir d'un endroit sur l'avant ou les materiaux de chaque godet peuvent etre directement deposes sur le transporteur jusqu'a un endroit sur l'arriere au-dessus de la plate-forme tournante, ledit transporteur d'elinde pouvant tourner avec l'elinde et la plate-forme, et en second lieu un transporteur d'evacuation, s'etendant depuis l'endroit ou il recoit les materiaux venant du transporteur d'elinde jusqu'a un endroit d'evacuation des materiaux eloigne du premier, la plate-forme tournante comportant une ouverture placee en un endroit a peu pres dans l'alignement de l'extremite ou les materiaux se deversent du transporteur d'elinde, et de l'extremite ou les materiaux sont repris du transporteur d'evacuation, grace a quoi les materiaux se repandent entre les deux extremités ci-dessus des transporteurs tombent dans une zone bien delimitée; 5 Le transporteur d'evacuation comporte un dispositif servant a le replier entre ses extremités, au moins partiellement, grace a quoi la hauteur hors tout de l'excavatrice peut etre diminuee pour les deplacements sur route; 6 Le dispositif servant a replier le transporteur d'evacuation comprend un moyen de verrouillage, liberable et assurant une liaison rigide, qui sert a maintenir les parties repliables du transporteur en position determinee l'une par rapport a l'autre, un moyen elastique pour maintenir les parties repliables en position determinee l'une par rapport a l'autre ou pour les replier, et un moyen formant une butee réglable, de facon a limiter l'amplitude du repliement des parties repliables. au cas ou le moyen de verrouillage et le moyen elastique seraient inefficaces; 7 L'elinde comprend une paire d'elements qui supportent la roue d'excavatrice et qui sont places de part et d'autre de la roue, chaque element s'etendant complètement au-dessous de la surface superieure exposee de la roue; quelles que soient les positions de la roue par rapport au sol, grace a quoi il n'existe pas a tous moments d'obstacles a la vision de la roue; 8 La roue est directement entrainee par l'appareil autonome de source d'energie; 9 Le dispositif servant a transporter les materiaux excaves comprend une couronne dentee, portee par le chassis de l'excavatrice, un moyen pour bloquer le transporteur d'evacuation a la couronne dentee et un moyen pour bloquer la plate-forme tournante a la couronne dentee; 10 L'excavatrice comporte un dispositif servant a faire reposer la plate-forme tournante et, par voie de consequence, l'equilibre de la construction, sur trois points pendant le deplacement de l'excavatrice, et sur quatre points pendant l'excavage et la rotation de la plate-forme autour du chassis. II. Roue d'excavatrice, spécialement destinee a equiper une excavatrice a roue a deversement direct, caracterisee en ce qu'elle comprend un support de godet, de forme generale conique, et un element qui porte ce support de facon a ce qu'il tourne autour d'un axe, ledit support de godet comportant une serie d'ouvertures, chaque ouverture ayant une forme irreguliere correspondant a celle de l'orifice d'un godet dispose sur l'ouverture, chaque ouverture etant plus longue sur le cote du godet qui attaque le sol que sur le cote du godet expose a la vue. III. Dent d'excavatrice, caracterisee par les points suivants pris separement ou en combinaisons 1 Elle comprend une pointe de dent, un manchon de fixation construit et dispose de facon a loger la pointe de dent et a ne lui permettre de se deplacer que dans une direction, une clavette introduite dans la dent en avant du manchon

et susceptible d'empêcher le mouvement dans l'autre direction l'un par rapport à l'autre de la pointe de dent et du manchon de fixation, et un dispositif de blocage, à l'intérieur de la dent, pour maintenir la clavette dans une position déterminée par rapport à la dent, ce dispositif de blocage comprenant un élément disposé dans un évidement ménagé dans l'ouverture ou est introduite la clavette et entre les faces exposées de la dent, ledit élément comportant une surface rendue d'une façon générale rugueuse et disposée de façon à venir au contact de la clavette de la dent.

2 Les extrémités de l'évidement se terminent en deca des surfaces extérieures de la dent;

3 La portion de clavette qui vient buter sur la surface rugueuse de l'élément de blocage est elle-même rugueuse, de façon à assurer un blocage réciproque des deux pièces.

IV. Construction destinée à relier, eu une liaison de coulissement l'un par rapport à l'autre, un élément comportant une surface périphérique circulaire, comme par exemple une couronne dentée de forme circulaire, à une surface complémentaire, comme par exemple un anneau sphérique, caractérisée par les points suivants pris séparément ou en combinaisons

1 Elle comprend une couronne dentée, comportant une partie de queue dont l'extrémité extérieure se termine par une surface de forme générale conique, un anneau sphérique dont une partie de son corps est destinée à recevoir la partie de queue de la couronne dentée, ladite partie du corps de l'anneau se termine à son extrémité extérieure par une surface de forme (générale conique complémentaire à celle de 1: partie de queue de la couronne dentée, et comportant à son autre extrémité une surface de forme conique, un anneau de fixation dont le diamètre intérieur possède une dimension suffisante pour recevoir la couronne dentée et qui comporte une surface de forme générale conique complémentaire à celle de l'autre extrémité de ladite partie du corps de l'anneau sphérique, et un moyen de blocage fiable à la couronne dentée et servant à presser l'anneau de fixation contre ladite partie du corps de l'anneau de fixation;

2 Elle comprend des dents qui engagent l'intérieur de ladite partie du corps et le prolongement de la couronne dentée;

3 Les surfaces coniques s'écartent vers l'extérieur à partir d'un point sur la couronne dentée située entre ces surfaces.

V. Construction destinée à relier le logement tournant, qui porte un godet d'une roue d'excavatrice, à un support formant un pivot fixe, caractérisée en ce qu'elle comprend une surface annulaire conique sur le logement du godet, une surface conique complémentaire sur le support, une cale comportant une surface conique placée entre le support et une surface conique complémentaire sur le logement du godet, et un moyen pour presser en contact de butée la cale sur la surface conique du logement et, par voie de conséquence, amener en contact de butée les surfaces coniques complémentaires entre le logement et le support.

VI. Godet à déversement direct destiné à équiper une roue d'excavatrice, caractérisée par les points suivants pris séparément ou en combinaisons

1 Il comprend une embase comportant une ouverture, une partie en forme d'écopée s'étendant vers l'extérieur à partir de l'embase, la partie en forme d'écopée se terminant en une poche ouverte disposée transversalement au plan de l'embase, les côtes de ladite poche n'étant pas dans le même plan et la partie avant de la poche étant placée sur le côté du godet soumis aux charges d'excavation les plus fortes;

2 Par rapport à l'embase, la partie avant de la poche est plus longue que la partie arrière.

VII. Rouleau de guidage pour des conditions de service très dures, destiné à être utilisé avec une courroie flexible de transporteur, caractérisée par les points suivants pris séparément ou en combinaisons

1 Il comprend un arbre, un logement pouvant tourner autour de l'arbre, des roulements entre le logement et l'arbre, et une série d'éléments annulaires élastiques portés par le logement de façon à être en contact de la courroie, chaque élément annulaire étant formé en une matière ayant les caractéristiques générales correspondant à celles qui produisent la déformation du caoutchouc, et chaque élément annulaire comportant une partie centrale creuse;

2 La section de la partie creuse a la forme générale d'un œuf dont la plus petite extrémité est placée tout près de la surface extérieure de l'élément annulaire;

31, Chaque élément annulaire creux est porté par un anneau qui se loge dans le logement, grâce à quoi chaque anneau annulaire peut être démonté pour échange ou réparation;

41, Il comprend un moyen d'étanchéité pour isoler les roulements des impuretés et de la poussière venant de l'extérieur, ledit moyen comprenant une paroi, à chaque extrémité du logement, s'étendant radialement vers l'intérieur vers l'arbre et étroitement rapprochée de l'arbre, une paire de joints racleurs de forme annulaire, un joint étant placé à chaque extrémité du rouleau et chaque joint étant placé vers l'intérieur à partir de la paroi d'extrémité correspondante, chaque joint racleur comportant une levre qui est en contact de glissement avec l'arbre, ainsi qu'un moyen pour maintenir la levre en contact de l'arbre, et deux paires de logements, une paire de chaque côté des roulements à chaque extrémité du rouleau de guidage, chaque logement de roulement pouvant tourner par rapport à une bague de roulement et se déplacer par rapport à l'autre;

5 Le moyen pour maintenir la levre en contact étanche avec l'arbre est un anneau qui entoure la levre et qui a un diamètre assez petit pour maintenir la levre en contact de glissement avec l'arbre au moins pendant le début de fonctionnement.

VIII. Roue d'excavatrice, caractérisée par les points suivants pris séparément ou en combinaisons

1, Elle comprend une embase de montage de godet et une série de godets montés sur l'embase en un alignement général les uns avec les autres, l'embase étant entaillée dans la partie qui se trouve sous chaque godet de façon à ce que le godet comporte un fond ouvert, l'embase étant en outre entaillée dans la partie en avant de chaque godet sur une distance suffisante pour former une ouverture assez grande pour éliminer à peu près totalement le passage par-dessus le godet des matériaux excavés;

2' greater than Elle comprend une embase de support, qui est placée à l'intérieur de l'embase de montage de façon à servir de fond au godet, cette embase de support ayant la même étendue dans le sens radial que l'embase de montage, sur la partie au moins du trajet effectuée par chaque godet pendant laquelle un déchargement prématuré des matériaux risque de se produire;

3 Au moins une partie de l'embase de support, qui s'étend radialement au-dessous du trajet effectuée par les godets, est décalée radialement vers l'intérieur à partir de l'embase de montage de façon à déterminer ainsi un espace pour recevoir les matériaux qui est en fait plus grand que celui qui représente théoriquement le produit de la capacité nominale du godet par celle du décalage radial de l'embase de support;

4 L'embase de support est fixe et l'embase de montage est mobile par rapport à elle.

IX. Ensemble destiné à équiper une excavatrice à roue et comprenant une roue d'excavatrice, selon le paragraphe VIII ci-dessus, et un dispositif transporteur, caractérisée par les points suivants pris séparément ou en combinaisons

1 Une extrémité du dispositif transporteur est placée dans le trajet effectuée pour les godets, grâce à quoi les godets, durant leur mouvement, passent sur le dispositif transporteur, et l'embase de support de la roue a la même étendue dans le sens radial que l'embase de montage des godets au moins jusqu'à l'endroit où le dispositif transporteur agit pour enlever les matériaux déchargés par les godets;

2 L'embase de support de la roue comprend une toile concave, qui a un élément en forme de languette placée radialement vers l'intérieur à partir du pourtour de la toile concave, l'extrémité de cet élément en forme de languette recouvrant le dispositif transporteur sur une distance suffisante pour assurer l'enlèvement des matériaux par le dispositif transporteur à l'issue de leur déchargement sur le dispositif.

X. Ensemble destiné à équiper une excavatrice à roue et comprenant une roue d'excavatrice, selon le paragraphe VIII ci-dessus, et un transporteur à courroie, caractérisée par les points suivants pris ensemble ou en combinaison

1 Le transporteur à courroie comporte une extrémité qui est disposée dans le trajet des godets, grâce à quoi, les godets passent sur le dispositif transporteur et le mouvement des godets qui provoque le déchargement des matériaux s'associe à celui du dispositif transporteur. Ledit transporteur à courroie étant disposé de façon à former un angle aigu avec le plan dans lequel tourne la roue, grâce à quoi il existe une zone de transmission des matériaux dont la plus grande longueur est supérieure à la longueur de la courroie, ledit transporteur comprenant une poulie d'extrémité montée de telle façon qu'elle pénètre à l'intérieur de la roue, et ladite embase de support de la roue comprenant une toile concave qui possède une partie dont l'extrémité recouvre radialement la poulie d'extrémité du transporteur en un endroit où la courroie du transporteur agit pour enlever les matériaux déchargés par les godets sur cette portion extrême de la toile;

2 Ladite extrémité est placée en deca de la partie la plus haute de la poulie du transporteur.

XI. Procédé d'excavation caractérisé par les points suivants pris séparément ou en combinaisons

1 Il consiste à faire avancer une série de récipients, destinés à recevoir les matériaux, sur la trajectoire d'un mouvement d'excavation, à déplacer les matériaux jusqu'à une zone de transmission des matériaux déterminée par le recouvrement de la trajectoire des récipients avec un dispositif d'enlèvement des matériaux qui se trouve en relation angulaire avec la trajectoire des récipients, à faire débiter, en les laissant tomber librement et sous l'action de leur propre poids, la transmission au dispositif d'enlèvement des matériaux contenus dans les récipients, cette opération s'effectuant en un endroit de la périphérie de la zone de transmission des matériaux coïncidant pratiquement avec la trajectoire des récipients, et à enlever les matériaux jusqu'à une zone d'évacuation;

2 Il consiste à faire déplacer un récipient, destiné à recevoir les matériaux, sur la trajectoire d'un mouvement d'excavation, grâce à quoi les matériaux sont admis dans le récipient, à déplacer les matériaux jusqu'à une zone de transmission des matériaux déterminée par le recouvrement de la trajectoire du récipient avec le dispositif d'enlèvement des matériaux, au moins à faire débiter, en les laissant tomber librement et sous l'action de leur propre poids le transfert des matériaux contenus dans le récipient au dispositif d'enlèvement, en un endroit associé à la zone de transmission des matériaux et qui est sensiblement commun à la fois à la trajectoire du récipient et au dispositif d'enlèvement, grâce à quoi une partie au moins des matériaux est transférée au dispositif d'enlèvement sans qu'il ne se produise pratiquement de chocs et à enlever les matériaux de la zone de transmission des matériaux;

3 Les matériaux sont en même temps admis dans le récipient et transmis du récipient au dispositif d'enlèvement pendant une partie au moins du mouvement du récipient sur la trajectoire du mouvement d'excavation.

Machine translation: [Source: Claim 1] 1. Excavator a wheel, propelled characterized by the following points taken separately or in combinations

1 It includes a chassis supported by wheels, a supported platform by the frame and rotatable relative the chassis, a wheel excavator scope by the platform and rotatable in a substantially vertical plane relative to the plane of the platform, devices used to transport the excavated material from the wheel until an unloading area situated at a distance from the excavating wheel. and an autonomous unit of energy source EFFEC killing propulsion operations, rotation, of excavation and evacuation;

2

The excavating wheel is supported at the portion of the outer end of a hopper which is rotatable about a substantially horizontal pivot up on the platform; 3 wheel and part of the outer end of the boom are displaced in a substantially vertical plane by fixed lifting means of intermediate from side deck, the other has the hopper, lifting means being spaces between the wheel and the pivotal place on the platform of the ladder; 4 The devices used to transport the excavated material comprises a first conveyor hopper door with the hopper, which extends from a point on the front or the materials of each bucket can be direct deposited ment on the carrier until a spot on the back above the rotating platform, said hopper conveyor rotatable with the hopper and the platform, and a second evacuation of carrier s 'extending from the place where he receives the material from the hopper conveyor until a place of ejection of distant materials of the first, the rotating platform with an opening placed at a location roughly in the alignment of extremity or the material is discharged from the hopper holder trans, and the extremity or the materials are taken from the evacuation conveyor, thanks to which the material spreading between the two ends above carriers fall in a well-demarcated area; 5 The evacuation conveyor comprises a device for folding the ends between his, at least partially, thanks to what the overall height of the excavator can be decreased for displacements Road; 6 The device used to fold the evacuation conveyor includes a locking means, releasable and ensuring a rigid connection, which is used to maintain the folding parts of the carrier determined position relative to the other, an elastic means for maintain the folding parts in determined position relative to the other or to fold, and means forming a butee adjustable to way to limit the amplitude of folding folding parts. in case the locking means and the elastic means are ineffective; 7 the boom comprises a pair of elements which support the excavator wheel and are placed on either side of the wheel, each element extending completely below the exposed upper surface of the wheel; whatever the position of the wheel relative to the ground, thanks to which there are no obstacles at all times has the vision of the wheel; 8 The wheel is directly driven by the autonomous unit of energy source; 9 The device used to transport the excavated materials includes a toothed crown, scope by the chassis of the excavator, Moen to block evacuation carrier of 'the toothed crown and a means for blocking the rotating platform crown toothed; The excavator 10 includes a device for resting the rotating platform and, -by way of consequence, the balance of construction, three points during the displacement of the excavative, and four points for the excavate and rotation of the platform around the frame. II. Excavator wheel excavator equip specially destiny has urn wheel spill live, characterized in that it comprises a cup holder, conical general form. and an element which carries said support so that it rotates about an axis, said cup holder having a series of openings, each opening having an irregular shape corresponding to that of the orifice of a bucket has over the opening, each opening being longer on the side of the bucket, which attacks the soil on the side of the bucket sets a vision. III. Digging tooth, characterized by the following points taken separately or in combinations 1 Includes a tooth tip, a locking sleeve and has built a house the way tooth point and not allow it to move in a direction, a wedge inserted into the tooth of the sleeve and adapted to prevent movement in the other direction relative to the other of the tooth tip and the attachment sleeve, and a locking device, on the inside of the tooth, to keep the key in a specified position by rap harbor the tooth, locking device comprising an element disposed in a recess in the opening or household is introduced between the key and the exposed faces of the tooth, said element having a surface made of a rough way general and arranged to come into contact with the key of the tooth 2 ends of the recess ends in deca for External surfaces of the tooth; 3 The key portion of which abuts on the rough surface of the blocking element is itself rough, a way to ensure a reciprocal locking of the two parts. IV. Construction for connecting, in a sliding its bond with respect to the other, an element having a circular peripheral surface, such as for example a toothed ring of circular shape, has a complementary surface, such as for example a ring sphere- America, characterized by the following points taken separately or in combinations 1 It includes a toothed crown. having a tail portion whose outer end terminates in a generally conical surface, a spherical ring of which part of its body for receiving the tail portion of the toothed crown, said portion of the ring body ends at sor outer end by a form surface (complementary conical general to that of 1: tail portion of the toothed crown, and CONSTITUTING at its other end a form surface, conical, a fixing ring, the inside diameter has sufficient size to accommodate the toothed ring and which has a general conical surface complementary to that of the other end of said body portion of the spherical ring, and a locking means connectable to the ring gear and serving to pressing the fixing ring against said body portion of the fixing ring; 2 It includes teeth which engage the interior of the body part and the extension of the toothed crown; 3 The conical surfaces DIFFER towards each other from a point on the toothed crown between these surfaces. V. Construction for connecting the rotating housing which carries a bucket of a wheel of excavative, has a carrier forming a fixed pivot, characterized in that it comprises a conical annular surface on the housing of the bucket, a surface conical complementary to the support, a wedge having a tapered surface disposed between the support and a complementary conical surface on the housing cup, and means for pressing into abutting the wedge on the conical surface of the housing and through accordingly, butee into contact with the tapered surfaces complementary between the lodge ment and support. VI. Godet spill has directly indicated to equip a cutting wheel, characterized by the following points taken separately or in combination 1. It comprises a base having an opening, a portion scoop shaped to extending outwards has from the base, the scoop shaped part ending in an open pocket extending transversely to the plane of the base, the dimensions of said bag not being in the same plane and the front portion of the pocket being positioned on the side of the bucket subject to charges excavate strongest; 2 Compared with the base, the front portion of the pouch is longer than the rear part. VII. Guide roller for very harsh operating conditions, designed to be used with a flexible belt conveyor, characterized by the following points taken separately or in combinations 1 It includes a shaft, a housing rotatable about the tree of bearings between the housing and the shaft, and a series of annular elastic Elements doors by the way housing has to be in contact with the belt, each annular element being shaped material having a general characteristics corresponding to those that produce the deformation the rubber, and each annular member having a hollow central portion; The hollow part 2 section has the general shape of a widower whose smallest extremity is placed very close to the outer surface of the annular element; 31 Each door is hollow annular element by a ring that fits into the slot, thanks to what each annular ring can be disassembled for repair or exchange; 41 It includes means of tightness to isolate the bearings of impurities and dust coming from the outside, said means comprising a wall, at each end of the housing, extending radially inwards towards the tree and closely rapprochee of the tree, a pair of seals annular scraper, a seal at each end up being rou water and each seal up being inwards from the corresponding extremity wall, each with a wiper seal lip that is in sliding contact with the shaft, and means to maintain the lip in contact with the shaft, and two pairs of housings, a pair on each side of the bearings at each end of the guide roller, each rou housing LEMENT rotatable relative has a bearing ring and move relative to each other; 5 The way to keep in touch waterproof lip with the shaft is a ring around the lip and has a diameter small enough to keep the lip in sliding contact with the shaft at least for the Functioning of the beginning. VIII. Roue excavator, characterized by the following points taken separately or in combinations the, It includes a bucket mounting base and a series of buckets mounted on the base in a general alignment with each other, the the base being notched in the part located under each bucket a way that the cup has an open bottom, the base also being notched in the front part of each cup a distance sufficient to form an opening large enough to eliminate roughly completely passing over the bucket of excavated materials; 2 'Greater Than It includes a support base which is placed on the inside of the way of mounting base to serve as a background to the bucket, this support base having the same extent in the radial direction of the base mounting on at least part of the journey made by each bucket during which a premature unloading of materials may occur; 3 At least a portion of the support base, which extends radially below the path carried by the buckets, is offset radially inwards from the way of mounting base has a space to determine recee see the material that is actually larger than that theoretically represents the product of the nominal capacity of the bucket with the radial lage deca of the support base; The support base 4 is fixed and the mounting base is movable relative to it. IX. All indicated to equip an excavator and wheel including a wheel excavator, according to paragraph VIII above, and a conveyor device, characterized by the following points taken separately or in combinations 1 An extremity of the carrier device is placed in the path carried out for the bucket, whereby the buckets during their movement on a conveyor belt device, and the base of the support wheel has the same extent in the radial direction that the bucket of the mounting base at least until 'in the place where the holder is trans device for removing material discharges from the buckets; 2 The support base of the wheel includes a concave metal sheet, which has an element shaped PLACED tongue radially inwards from the periphery of the concave tole, the extremity of this element in the form of tape from the device carrier a distance sufficient to ensure the removal of materials by the carrier device after their unloading on the device. X. Together indicated to equip an excavator and wheel including a wheel excavator, according to paragraph VIII above, and a carrier belt, characterized by the following points taken together or in combination 1 The carrier belt has a end which is disposed in the path of the buckets, whereby the buckets pass over the conveyor device and the movement of the buckets, which causes the unloading of materials is associated to that of the carrier device. said transporter a belt being available way to form an acute angle with the plane in which the wheel turns, thanks to which there is a trans zone assignment of materials whose greatest length is greater than the length of the court belt, said conveyor comprising a pulley mounted to extremity so that it enters the interior of the wheel, and said wheel support base comprising a concave sheet metal which has a portion whose extremity radially covers the pulley extremity of the carrier in a place where the carrier belt is 'discharges to remove material from the buckets on the extreme portion of the sheet metal; 2 Said end is placed below the uppermost portion of the pulley carrier. XI. Procède of excavate characterized by the following points taken separately or in combinations 1 It is to advance a series of containers, destined to receive the material, on the trajectory of a movement excavate, a move the

materials up has an area of transmission determined by the materials recovery of the trajectory of the containers with a removal device for the material which is in angular relationship with the trajectory of the containers has to debuter, dropping them freely and under the action of their own weight, the transmission to the removal device for materials contained in containers, this operation being carried out in a place of periphery the materials of transmission area virtually coinciding with the trajectory of the containers, and has removed materials until an evacuation zone; 2 It is to move to a container, destined to receive the material, on the trajectory of a movement excavation, thanks to which the materials are allowed in the container, a move the materials up to a material transmission area determined by the recovery of the vessel's trajectory with the removal device of materials, at least to do debuter, letting them fall freely under the action of their own weight transfer of materials contained in the container device removal in a place associated to the transmission of materials which is substantially common area both in the path of the vessel and to the removal device, thanks to what at least part of the material is transferred to the device without removal it happens practical ment shock and remove the materials from the materials of transmission area; 3 The materials are at the same time allowed in the container and transmitted from the container to the removal device for at least part of the movement of the container on the trajectory movement of excavation.

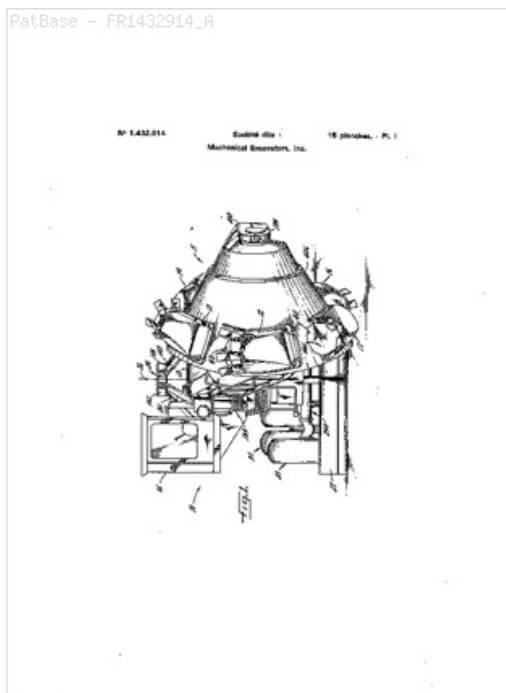
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International (IPC 8-9): E02F3/18 (Advanced/Invention);
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Title: EXCAVATOR FOR WORKING FROZEN SOIL

Abstract: Source: SU1161671A **Machine translation:** 1. excavator frozen ground excavation, including chassis with frame, turntable, Arrow, handgrip with a bucket, rack with wedge tip and the control mechanism of the latter, characterized in that in order to improve performance, it is equipped with Swivel with frame chassis two-chain bars working body and the frame is rigidly attached to the undercarriage of additional supporting frame with brackets, with the rack with wedge tip is fulfilled with continuous longitudinal slot and installed between the chains of bars working body and its control mechanism is made of a set on brackets and pivotally associated with the top of the rack from the crankshaft and placed in a longitudinal slot and fasten tightly-lennogo on rack guide w (A present finger.

Classifications:

International (IPC 8-9): E02F5/30 (Advanced/Invention);
E02F5/00 (Core/Invention)

International (IPC 1-7): E02F5/30

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использования деформированного дренажа
мелкого грунта.

Размеры стойки 17 и проволочного
ока 21 соответствуют размеру с раз-
мерами лопки ковшевого кода 23.

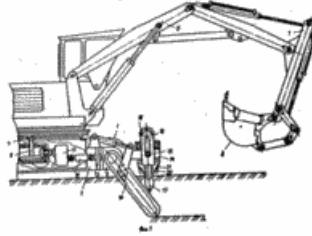
Пружина 20 служит для деформации
стойки 17 и обеспечения ее устойчи-
вой работы.

Главная задача 21 и коночником
16 обходятся вилочной лопатой отгра-
ниченной ковшевого и углового нарез-
ными стойки 17. Для переноса стой-
ки 17 и транспортировки (нагрузки)
используется ковшевый код 23 лопаты
используется и вилочный коночник.
Конструкция вилочной лопаты 16 обеспе-
чивает ее переставку на лопатки в воз-
можной степени с целью регулирова-
ния рабочего кода.

Технический результат заключается в том,
чтобы рабочая лопата 16 и ковше-
вый код 23

стойки 17 с ковшевым коночником
использования разрабатываемого грунта
лопаты 16 с целью выноса его из кода.
2 Засекающая разрабатываемого грунта
грунта имеет высоту соответствующую с
работой лопаты рабочего кода 16
и стойки 17, а также имеет высоту
и разрабатываемого. Высота выноса грунто-
выноса лопаты рабочего кода
отличается кода от кода коночника
16 и лопаты рабочего кода 16.

Такая конструкция, называемая лопатой
лопаты, обеспечивает возможность
использования для разработки грунта
грунта на 30% за счет дополнитель-
но ковшевого коночника и кода
лопаты ковшевого коночника, осу-
ществляющего лопаточный с засека-
ющей грунто.



Family:

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Priority:

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