

1) Family number: 66206066 (US2017183569A)

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Title: METHOD AND SYSTEM FOR DYNAMICALLY CHARGING A COKE OVEN

Abstract: Systems and methods of dynamically charging coal in coke ovens related to the operation and output of coke plants including methods of automatically charging a coke oven using a charging ram in communication with a control system to increase the coke output and coke quality from coke plants. In some embodiments, the control system is capable of moving the charging ram in a horizontal first direction, a horizontal second direction and a vertical third direction while charging coal into the oven. In some embodiments, the coal charging system also includes a scanning system configured to scan an oven floor to generate an oven floor profile and/or oven capacity. The scanning system used in combination with the control system allows for dynamic leveling of the charging ram throughout the charging process. In some embodiments, the charging ram includes stiffener plates and support members to increase the mechanical strength of the charging ram and decrease the sag of the charging ram at a distal end.

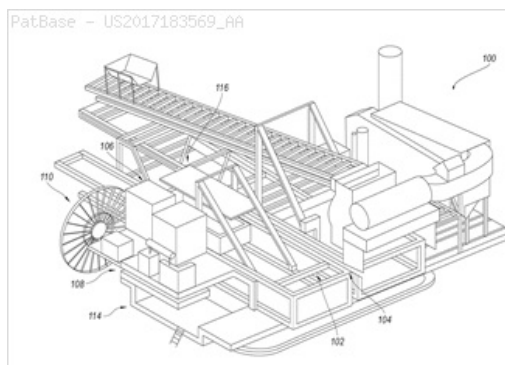
Classifications:

International (ipc 8-9): B30B B30B1/00 C10B C10B31/00 C10B31/04 C10B31/08 C10B39/12 C10B41/00 C10B45/00 C10B47/46 (Advanced/Invention)

International (ipc 1-7): B30B1/00 C10B31/00 C10B39/12 C10B45/00 C10B47/46

CPC: C10B31/00 B30B1/00 C10B39/12 C10B45/00 C10B47/46 C10B31/08 C10B41/005 B65G21/00

US: 1/1 201/40

**Family:**

Publication number	Publication date	Application number	Application date
AU2016382975 AA	20180719	AU20160382975	20161228
BR112018013220 A2	20181211	BR20181113220	20161228
CA3009822 AA	20180626	CA20163009822	20161228
CN108463536 A	20180828	CN201680079027	20161228
CO20180006493 A2	20180710	CO20180006493	20180626
EP3397719 A1	20181107	EP20160882600	20161228
EP3397719 A4	20190821	EP20160882600	20161228
IN201817024455 A	20181207	IN201817024455	20180630
JP2019504163 T2	20190214	JP20180533903T	20161228
KR20180089536 A	20180808	KR20187021331	20161228
MX2018000953 A1	20180607	MX20180000953	20161228
US2017183569 AA	20170629	US20160392942	20161228
WO17117282 A1	20170706	WO2016US68996	20161228
ZA201804216 A	20190424	ZA20180004216	20180622

Priority:

US20150271963P 20151228 US20160392942 20161228 WO2016US68996 20161228

Probable Assignee: SUNCOKE TECHNOLOGY AND DEVELOPMENT LLC

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Assignee(s): BALL MARK ANTHONY ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; CHOI CHUN WAI ; QUANCI JOHN FRANCIS ; SUNCOKE TECHNOLOGY AND DEVELOPMENT LLC

Inventor(s): (std): MARK ANTHONY BALL ; CHUN WAI CHOI ; JOHN FRANCIS QUANCI ; QUANCI JOHN FRANCIS ; BALL MARK ANTHONY ; CHOI CHUN WAI

Agent(s): SPRUSON AND FERGUSON; GOWLING WLG CANADA LLP; JOSE ANDRES RINCON USCATEGUI; BEATTIE ALEX THOMAS STEWART; TANI AND ABE PC; BETCHER SUSAN D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT 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

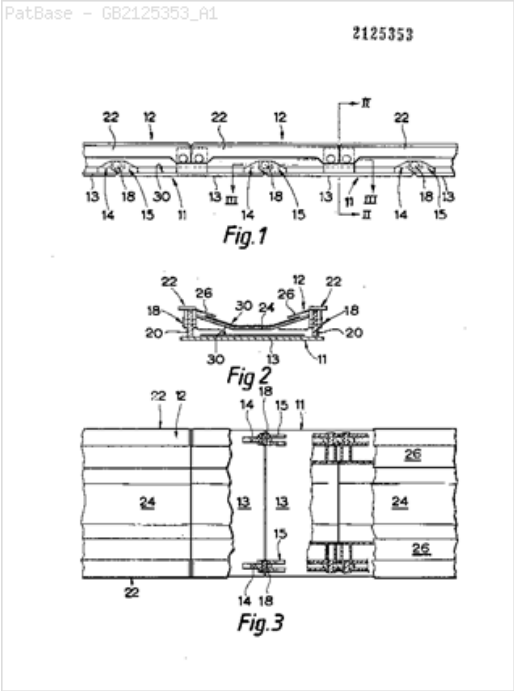
2) Family number: 2062122 (GB2125353A)

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Title: Belt conveyor support structure

Abstract: A belt conveyor assembly includes a plurality of base sections 13 aligned in a row in an end to end fashion, adjacent base sections being pivotally connected to one another at 18, the row of base sections collectively defining a support surface for the lower run of a conveyor belt, and a plurality of upper sections 12 aligned in a row in an end to end fashion to collectively define a support surface for the upper run of the conveyor belt, each upper section being positioned to extend across a pair of adjoining base sections and being pivotally connected at each end to a respective one of said pair of

base sections.
Classifications:
International (IPC 8-9): B65G21/06 (Advanced/Invention);
B65G21/00 (Core/Invention)
International (IPC 1-7): B65G21/00
CPC: B65G21/06
European: B65G21/06



Family:

Publication number	Publication date	Application number	Application date
GB2125353 A1	19840307	GB19820023307	19820813
GB2125353 B2	19851204	GB19820023307	19820813

Priority:

GB19820023307 19820813

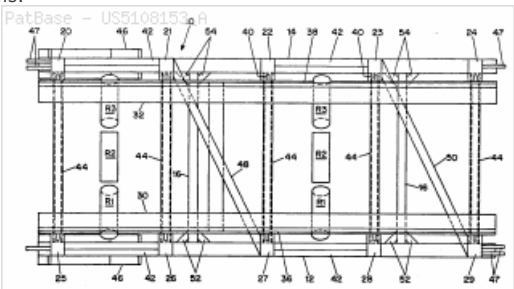
Probable Assignee: MMD DESIGN AND CONSULT
Assignee(s): (std): MMD DESIGN AND CONSULT
Assignee(s): MMD DESIGN AND CONSULTANCY LIMITED
Inventor(s): (std): POTTS ALAN
Inventor(s): ALAN POTTS

3) Family number: 5000180 (US5108153A) © PatBase

Title: Elevated roadway for continuous haulage unit

Abstract: An elevated roadway for use with a self-propelled continuous haulage unit in underground mining consists of a multiplicity of substantially identical roadway units joined together end to end. Each unit has a pair of elongated bottom side beams joined by bottom cross beams, columns arranged in laterally opposite pairs and supported on the side beams and a pair of elongated track members supported on the upper ends of the columns and defining a track for trams to move over the roadway above the haulage unit. Longitudinal brace beams and transverse brace beams join the columns. The durability and rigidity of the unit is enhanced by diagonal brace beams connecting selected ones of the columns and by gussets at each joint between the bottom side beams and the bottom transverse beams.

Classifications:
International (IPC 8-9): B65G21/02 B65G21/14 (Advanced/Invention);
B65G21/00 (Core/Invention)
International (IPC 1-7): B65G21/02 F21C35/20
CPC: B65G21/02 B65G21/14
European: B65G21/02 B65G21/14
US: 198/830 198/860.2 299/64



Family:

Publication number	Publication date	Application number	Application date
US5108153 A	19920428	US19910663449	19910301

Priority:

US19910663449 19910301

Probable Assignee: GENERAL CHEMICAL INDUSTRIAL PRODUCTS INC
Assignee(s): (std): GEN CHEMICAL CORP
Assignee(s): GENERAL CHEMICAL A CORP OF DELAWARE CORP ; GENERAL CHEMICAL CORP ; GENERAL CHEMICAL GROUP INC ; GENERAL CHEMICAL INDUSTRIAL PRODUCTS INC ; GENERAL CHEMICAL INC ; GENERAL CHEMICAL INT ; NHO CANADA HOLDING INC ; HSBC BANK USA NATIONAL ASSOCIATION COLLATERAL A AS ; GENERAL CHEMICAL INT INC ; GENERAL CHEMICAL SODA ASH INC ; HSBC BANK USA NATIONAL ASSOCIATION COLLATERAL AGEN ; STANDARD CHARTERED BANK ; CHASE MANHATTAN BANK COLLATERAL AGENT AS ; DEUTSCHE BANK TRUST CO ; DEUTSCHE BANK TRUST CO AMERICAS

Inventor(s): (std): PENNINGTON JOHN H ; SILBERMAN FRANK

4) Family number: 31959222 (US2005211534A)

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Title: CONVEYOR AND SUPPORT

Abstract: A conveyor has frame sections formed from two laterally spaced apart longitudinal truss frames connected together on their ends by lateral truss frames. Sections include trussed beams which support the conveying medium. In the case of a moving conveying medium, upper and lower trussed beams are used to support the conveying run and the return run. Divert chassis are carried by one or more frame sections, secured in divert chassis tracks which allow easy installation adjustment of the divert locations. Spur conveyor supports are included which allow easy installation and adjustment of the spur conveyor locations.

Classifications:

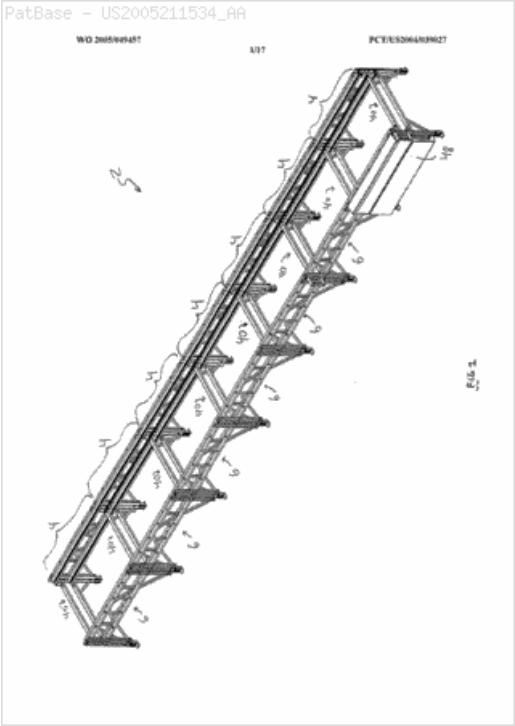
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International (IPC 1-7): B65G13/11 B65G21/00 B65G21/02 B65G23/06 B65G47/46 B65G47/84 B65G47/84

CPC: B65G13/11 B65G21/02 B65G21/06 B65G23/06 B65G47/46 B65G47/844 B65G2207/30 B65G2207/36

European: B65G13/11 B65G21/02 B65G21/06 B65G23/06 B65G47/46 B65G47/84A4 L65G207/30 L65G207/36

US: 198/860.2 198/860.200P



Family:

Publication number	Publication date	Application number	Application date
US2005211534 AA	20050929	US20050992956	20050303
WO05049457 A2	20050602	WO2004US39027	20041118
WO05049457 A3	20051110	WO2004US39027	20041118

Priority:

US20030520931P 20031118 US20050992956 20050303

Probable Assignee: INTELLIGRATED INC

Assignee(s): (std): INTELLIGRATED INC ; TEFEND MATTHEW J ; TEFEND MATTHEW JOHN

Assignee(s): WELLS FARGO FOOTHILL LLC AGENT AS ; WELLS FARGO FOOTHILL LLC AS AGENT ; FKI LOGISTEX INC

Inventor(s): (std): TEFEND MATTHEW J ; TEFEND MATTHEW JOHN

Inventor(s): TEFEND MATTHEW

Agent(s): FROST BROWN TODD LLC

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 KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

5) Family number: 32472279 (US2008260509A)

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Title: APPARATUS AND METHOD FOR MOVING A MINE CONVEYOR SEGMENT

Abstract: The invention provides an apparatus for moving a mine conveyor segment (2, 3) between a first position in line with a train of conveyor segments and a second storage position out of line with the train of conveyor segments, comprising: a segment holder (9), and a guide (8) for guiding the movement of the segment (2, 3) between the first and the second position, wherein the apparatus is connectable to a device (102) for manipulating the train of conveyor segments such that the segment holder (9) is at least partially movable independent from the train manipulating device (102). The handling of the conveyor segments (2, 3) in the first position is not decisive for the status of the apparatus according to the present invention, and therefore the handling of the segments outside the first position can coincide (overlap) with the operating of the launch platform.

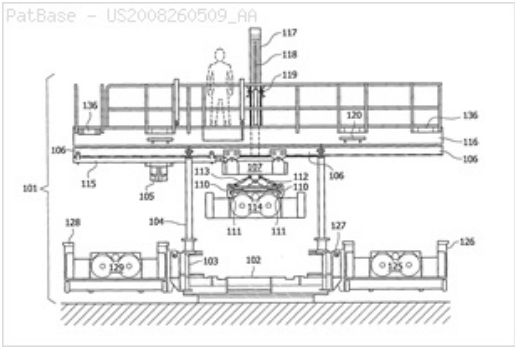
Classifications:

International (IPC 8-9): B65G15/26 B66C1/66 B66C11/12 B66C13/06 B66C17/00 E21C25/58 E21F13/08 (Advanced/Invention); B65G15/00 B66C1/62 B66C11/00 B66C13/04 B66C17/00 E21C25/00 E21F13/00 (Core/Invention)

International (IPC 1-7): B66C13/06 E21C25/58 E21F13/08

CPC: B66C1/66 B66C11/12 B66C17/00 E21C25/58 E21F13/083

European: B66C1/66 B66C11/12 B66C17/00 E21C25/58
E21F13/08Y
US: 198/300 198/313 198/812 299/67 414/754 414/816



Family:

Publication number	Publication date	Application number	Application date
CN1997809 A	20070711	CN200480043435	20040525
CN1997809 B	20110126	CN200480043435	20040525
RU2006145870 A	20080627	RU20060145870	20040525
RU2367796 C2	20090920	RU20060145870	20040525
US2008260509 AA	20081023	US20040569520	20040525
US7721869 BB	20100525	US20040569520	20040525
WO05116402 A1	20051208	WO2004NL00372	20040525

Priority:

RU20060145870 20040525 WO2004NL00372 20040525

Probable Assignee: CATERPILLAR INC

Assignee(s): (std): IN T HOUT CORNELIS WILHELM ; JUPERIOR KHAJUOLL MAJNERZ INK ; SUPERIOR HIGHWALL MINING SYSTE ; SUPERIOR HIGHWALL MINERS INC ; SUPERIOR HIGHWALL MINING SYSTEM

Assignee(s): SUPERIOR HIGHWALL MINERS LLC ; SUPERIOR HIGHWALL MINING SYSTEMS N V ; SUPERIOR HIGHWALL ACQUISITION INC ; CATERPILLAR GLOBAL MINING HIGHWALL MINERS LLC ; CATERPILLAR INC ; S JUPERIOR KHAJUOLL MAJNERZ INK ; SHM SYSTEMS NV ; SUPERIOR HIGHWALL MINING SYSTEMS NV

Inventor(s): (std): IN T HOUT CORNELIS WILHELM ; IN T KHAUT KORNELIS VIL KHEL M ; WILHELM IN T HOUT CORNELIS

Inventor(s): IN AND 39 T HOUT CORNELIS WILHELM ; IN`T KHAUT KORNELIS VIL`KHEL`M

Agent(s): RENNER OTTO BOISSELLE AND SKLAR LLP

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 KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

6) Family number: 1410293 (US4031997A) © PatBase

Title: Mobile telescopic articulated cascade conveyor system for mining and automatic self-tramming wheel-mounted conveyor unit therefor

Abstract: A mobile conveyor system having a series of articulately interconnected mobile conveyor units arranged in cascade relationship for conveying mined material from a movable mining machine to a remote stationary floor conveyor. The series includes inbye and outbye units which are bridge conveyors, and at least one intermediate unit. The discharge end of the inbye unit has a carriage supported for movement along the receiving portion of the adjacent intermediate unit. The articulated interconnection between the receiving end of the outbye unit and the discharge end of the adjacent intermediate unit has a fixed lapped relation, a bottom-engaging skid, and springs urging the adjacent units into alignment. Each intermediate unit has a pair of self-powered tram wheels, and a mine-bottom-engaged receiving end providing a stable three-point ground support both when moving and stationary. An automatic control powers the tram wheels in response to relative movement between adjacent units.

Classifications:

International (IPC 8-9): B65G41/00 (Advanced/Invention); B65G41/00 (Core/Invention)

International (IPC 1-7): B65G21/14 E21F13/02

CPC: B65G41/008

European: B65G41/00D2

US: 198/301 198/303 198/588 198/589 280/124.136 280/6.155 299/64

Publication number	Publication date	Application number	Application date
US4031997 A	19770628	US19750637977	19751205

Inventor(s): (std): NELSON ROBERT C

Publication number	Publication date	Application number	Application date
DE3613458 A1	19870910	DE19863613458	19860421
GB2187253 A1	19870903	GB19860006563	19860317
GB8606563 A0	19860423	GB19860006563	19860317
US4736835 A	19880412	US19860835263	19860303

Assignee(s): DONALD LESLIE HINKLE

Inventor(s): (std): HINKLE DONALD L ; HINKLE DONALD LESLIE
Inventor(s): L HINKLE DONALD ; DONALD LESLIE HINKLE

8) Family number: 29128382 (US4696236A)

© PatBase

Title: Conveyor apparatus

Abstract: This invention relates to a conveyor apparatus which has rails laid at a predetermined interval in parallel with each other; a truck movable by means of wheels on the rails; a conveying belt moving in parallel with the rails; a unit roller mechanism mounted on the truck and having two rollers arranged longitudinally along the direction of the belt; and springs for pressing the rollers of the unit roller mechanism to the belt so that the rollers are in contact with each other; thereby operating to isolate one roller from the belt when the truck is stopped. The conveyor apparatus can thus remarkably reduce the line pressure at the accumulating time of a truck and reliably operate to readily restart the truck at the stopper releasing time, and the conveyor apparatus is inexpensive by virtue of its employment of a system for accumulating the truck without disengaging the truck from contact with the belt of a conveying strip member.

Classifications:

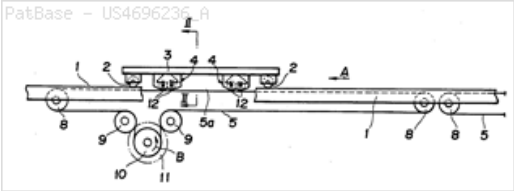
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B65G35/06 B65G47/29 (Advanced/Invention);
B61B13/12 B65G17/00 B65G19/00 B65G35/00
B65G47/28 (Core/Invention)

International (IPC 1-7): B61B13/12 B65G17/00 B65G35/06
B65G47/29

CPC: B61B13/12 B65G19/02

European: B61B13/12 B65G19/02

US: 104/165 198/803.01 198/867.14



Family:

Publication number	Publication date	Application number	Application date
JP1683553 C3	19920731	JP19850033434	19850221
JP3046346 B4	19910715	JP19850033434	19850221
JP61193962 A2	19860828	JP19850033434	19850221
US4696236 A	19870929	US19850738226	19850528

Priority:

JP19850033434 19850221

Probable Assignee: HOKOKU CHEN KK

Assignee(s): (std): HOKOKU CHAIN CO LTD ; HOKOKU CHAIN KK ; HOKOKU CHAIN MFG ; HOKOKU CHEN KK

Inventor(s): (std): KANAYAMA HITOSHI

9) Family number: 16039421 (US6276521B)

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Title: Modular truss assembly for a conveyor system

Abstract: A conveyor truss module for constructing conveyor support spans includes a substantially rectangular base assembly and a single-pin top chord joint. The conveyor truss module also includes a plurality of lacing struts coupled to the single-pin top chord joint and the corners of the base assembly.

Classifications:

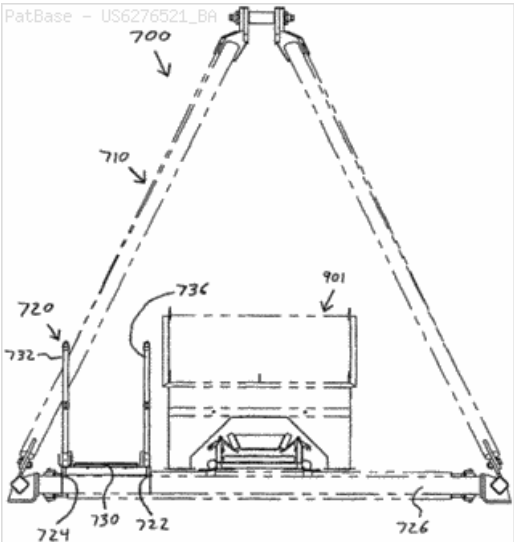
International (IPC 8-9): B65G21/02 B65G41/00 (Advanced/Invention);
B65G21/00 B65G41/00 (Core/Invention)

International (IPC 1-7): B65G21/00 B65G41/00

CPC: B65G41/008 B65G21/02

European: B65G21/02 B65G41/00D2

US: 198/300 198/303 198/860.1 198/860.2



Family:

Publication number	Publication date	Application number	Application date
US6276521 BA	20010821	US19990464940	19991216
US6336545 BA	20020108	US19990464942	19991216

Priority:

US19980112355P 19981216 US19990464940 19991216 US19990464942 19991216

Probable Assignee: ROTEC IND

Assignee(s): (std): ROTEC IND ; ROTEC INDUSTRIES

Assignee(s): ROTEC INDUSTRIES INC

Inventor(s): (std): ARNDT BRUCE ; LEDGER A STEVEN ; OURY ROBERT F

Title: Highwall mining apparatus

Abstract: An apparatus for mining aggregate material from a partially exposed seam adjacent a bench on a surface mine and which extends from the bench at an elevation and angle relative to the bench. The apparatus includes a self-propelled mining machine for dislodging aggregate material from the seam and conveying apparatus that is attached to the self-propelled mining machine for conveying the dislodged material to a location remote from the seam. The apparatus further includes a guidance assembly for selectively orienting the mining machine and the conveying apparatus at a predetermined attack angle that corresponds to the seam angle.

Classifications:

International (IPC 8-9): E21C25/58 E21C47/06

E21F13/08 (Advanced/Invention);

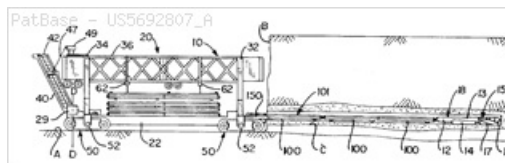
E21C25/00 E21F13/00 (Core/Invention)

International (IPC 1-7): B65G15/24 B65G17/10 B65G21/10
B65G41/02 E21C E21C01/00 E21C25/58 E21C25/68 E21C29/00
E21C35/20 E21C41/18 E21C47/00 E21F13/00 E21F13/08

CPC: E21C25/58 E21F13/083

European: E21C25/58 E21C35/20 E21F13/08Y

US: 299/30 299/56 299/67



Family:

Publication number	Publication date	Application number	Application date
AU199660858 A1	19961121	AU19960060858	19960729
AU672163 B1	19960919	AU19950028543	19950816
CN1150213 A	19970521	CN19961012155	19960809
GB2304356 A1	19970319	GB19960016750	19960809
GB2304356 B2	19990127	GB19960016750	19960809
GB9616750 A0	19960925	GB19960016750	19960809
MX9603263 A1	19980531	MX19960003263	19960808
RU96115688 A	19990110	RU19960115688	19960807
US5692807 A	19971202	US19950501741	19950809
ZA9606745 A	19970218	ZA19960006745	19960808

Priority:

US19950501741 19950809 AU19950028543 19950816

Probable Assignee: JOY MM DELAWARE INC

Assignee(s): (std): JOY MM DELAWARE INC

Assignee(s): BANKERS TRUST CO

Inventor(s): (std): ZIMMERMAN JOSEPH J ; SIMMERMAN JOSEPH J

Inventor(s): JOSEPH J SIMMERMAN ; JOSEPH J ZIMMERMAN

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD

Title: CONTINUOUS MINING APPARATUS AND METHOD

Abstract: A continuous mining apparatus and method for the underground mining of coal. The continuous mining apparatus includes a cutter assembly, conveyor assembly and base assembly. The base assembly is adapted to be maintained in a stationary position during a cutting operation. The cutter assembly is adapted to be projected outwardly from the stationary base assembly into the seam of coal for a substantial distance on the order of 80-100 feet. The conveyor assembly is positioned between the cutter assembly and the base assembly and, with the aid of telescoping members, provides two functions. First, the conveyor assembly provides for a variable length conveyor between the cutter assembly and the base assembly permitting the cutter assembly to project outwardly from the base assembly for varying distances of up to 80-100 feet. Second, the conveyor assembly serves as a means to crowd the cutter assembly into the coal seam without movement of the base assembly. The method of mining of this invention provides method steps for the continuous mining of coal from seams.

Classifications:

International (IPC 8-9): B65G21/14 E21C27/24 E21C35/20

E21D9/12 E21F13/06 (Advanced/Invention);

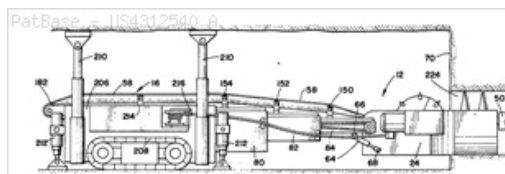
B65G21/00 E21C27/00 E21C35/00 E21F13/00 (Core/Invention)

International (IPC 1-7): B65G21/14 B65G23/44 E21B E21C27/22
E21C27/24 E21C29/02 E21C35/20 E21C41/04

CPC: E21C35/20 B65G21/14 E21C27/24 E21C41/18

European: E21C27/24 E21C35/20 E21C41/18

US: 198/313 198/812 198/830 299/11 299/18 299/57 299/64



Family:

Publication number	Publication date	Application number	Application date
AU198178746 A1	19830630	AU19810078746	19811222
US4312540 A	19820126	US19790053439	19790629
US4390211 A	19830628	US19810326035	19811202
US4474287 A	19841002	US19810326036	19811202
ZA8108976 A	19821124	ZA19810008976	19811229

Priority:

US19790053439 19790629 US19810326035 19811202 US19810326036 19811202

AU19810078746 19811222 ZA19810008976 19811229

Probable Assignee: THOMPSON T M

Assignee(s): (std): THOMPSON T ; THOMPSON T M ; THOMPSON THOMAS M

Assignee(s): THOMPSON TM

Inventor(s): (std): THOMPSON THOMAS M ; THOMPSON T
Inventor(s): THOMAS M THOMPSON
Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD

12) Family number: 19286630 (US3796503A)

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Title: BELT CONVEYORS

Abstract: A belt conveyor having a pair of parallel elongate members carried by a number of support members, known as "stools", disposed at spaced intervals along the length of the elongate members and roller assemblies supported at spaced intervals between the elongate members to carry the movable belt, wherein each elongate member comprises a plurality of stringers in end to end arrangement and each stool includes means to support a stringer or stringers comprising a channel section member having two parallel sides and a base to receive the stringer between the parallel sides, pins and hole means operative in a loosely fitting manner between the stringer and the channel section member such that the stringer may enter the channel section member between the sides thereof to cause engagement of the pin and hole engagement means to locate the stringer in the endwise sense in the channel section member and locking means engageable between the stringer and the channel section member at least partly by angular movement of the stringer about a longitudinal axis relatively to the channel section member.

Classifications:

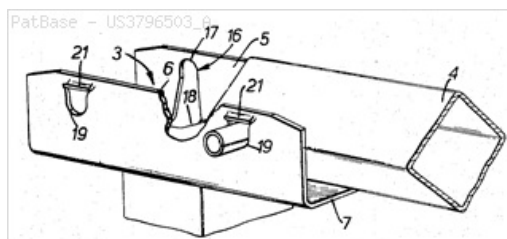
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B65G21/00 (Core/Invention)

International (IPC 1-7): B65G15/00 B65G21/02 B65G21/06
B65G41/00 F16B1/00 F16B7/04

CPC: B65G21/06 Y10T403/7015 Y10T403/7016 Y10T403/7083
B65G21/02

European: B65G21/02 B65G21/06

US: 198/860.1 403/35.3 403/353 403/354 403/379.2



Family:

Publication number	Publication date	Application number	Application date
AU197131799 A1	19730201	AU19710031799	19710729
AU207131799 A1	19730201	AU19710031799	19710729
AU461640 B2	19750605	AU19710031799	19710729
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DE2138325 A1	19720210	DE19712138325	19710730
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GB1363840 A	19740821	GB19700000940	19700730
US3796503 A	19740312	US19710163874	19710719
ZA7104744 A	19720927	ZA19710004744	19710716

Priority:

GB19700000940 19700730 GB19700036899 19700730 GB19700036899 19710714
GB19740000940 19710714 AU19710031799 19710729

Probable Assignee: DOWTY MECO LTD

Assignee(s): (std): DOWTY MECO LIMITED ; DOWTY MECO LTD ; DOWTY MECO LTD GB

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GORDON BERTRAM PARKFIELD CROWN EAST WORCESTER GROSSBRITANNIEN ; DAWSON GORDON
BERTRAM PARKFIELD CROWN EAST WORCEST

13) Family number: 30043691 (US2003221939A)

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Title: CONVEYING APPARATUS

Abstract: The present invention relates to a conveying apparatus comprising an endless conveyor, a frame for mounting the conveyor thereon, the frame being comprised of basic structural elements which extend in substantially three directions, viz. length, width and height, and of fixing elements, such as screws and nuts, wherein the basic structural elements comprise five types: a longitudinal structural element, a stabilizer element, slidably fitting into at least two longitudinal structural elements placed behind each other, a transverse structural element, a pillar element, and a mounting block, for mounting and mutually positioning the longitudinal structural elements, the transverse structural elements, and the pillar elements, wherein at least the longitudinal structural elements and the transverse structural elements are generally lengthwise extending cylindrical material pieces, for instance hollow tubes or massive tubes, the cross section possessing a non-circularly symmetrical circumference, fitting with a close fit into corresponding recesses in the mounting blocks. In particular, the tangent line to the circumference runs horizontally in at most two points thereof, so that the edges slope up/down gradually, substantially without notches. With great advantage, such a frame is assembled from recurrent and readily expandable modules, such a frame has a high strength and stability, and is properly cleanable, specifically owing to the sloping edges and the close fit of the parts used.

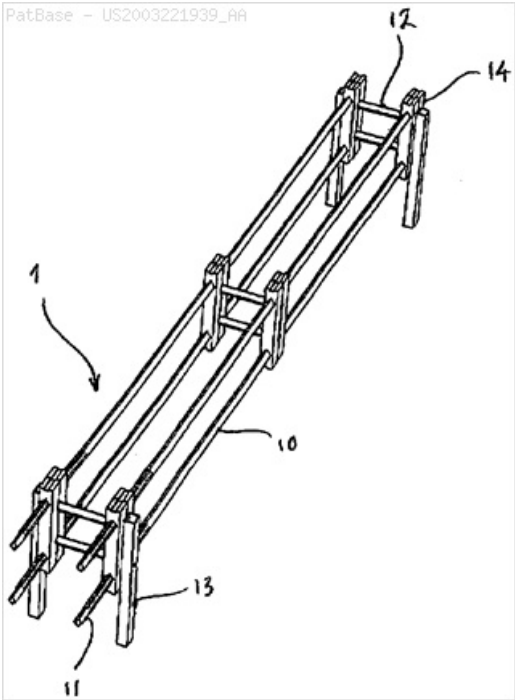
Classifications:

International (IPC 8-9): B65G21/00 B65G21/02

B65G21/14 (Advanced/Invention);

B65G21/00 (Core/Invention)

International (IPC 1-7): B65G B65G15/60 B65G21/00 B65G21/02
B65G41/00
CPC: B65G21/02
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Family:

Publication number	Publication date	Application number	Application date
AT285368 E	20050115	AT20030075574T	20030225
AU2003200677 AA	20030911	AU20030200677	20030226
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US2003221939 AA	20031204	US20030372718	20030225
ZA200301566 A	20030917	ZA20030001566	20030226

Priority:

EP20020075721 20020226 EP20030075574 20030225

Probable Assignee: FPS FOOD PROCESSING SYSTEMS BV

Assignee(s): (std): DELFOS TOM ; FOOD PREPARATION SYSTEM B V ; FOOD PREPARATION SYSTEM BV ; FOOD PROCESSING SYSTEMS ; FPS FOOD PROC SYSTEMS B ; FPS FOOD PROC SYSTEMS B V ; FPS FOOD PROC SYSTEMS BV ; FPS FOOD PROCESSING SYSTEMS B ; VAN WIJNGAARDEN ERIK ; VAN DEN BERG WOUTER ; FPS FOODS PROC SYST BV ; FPS FOODS PROCESSING SYST BV ; FPS FOOD PROCESSING SYSTEMS BV

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Inventor(s): DELFOS ERIK TOM ; VAN WIJNGAARDEN DELFOS ERIK TOM ; BERG WOUTER VAN D ; VAN WIJNGAARDEN ; VAN WIJNGAARDEN ERIK

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Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

14) Family number: 10246739 (US4754864A)

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Title: BIN INFEEED SYSTEM FOR SURGE OR BLENDING BINS OR THE LIKE

Abstract: A bin infeed system for a surge or blending bin or the like including an endless belt trained about a pair of rolls at opposite ends of the bin, a track assembly providing a pair of transversely spaced tracks longitudinally spanning the bin laterally flanking and below the belt movable longitudinally over the upper surface of the upper flight of the conveyor belt and a movable plow assembly including a plow carriage having a carriage frame and wheels rolling on the tracks, and a V-shaped blade member rigidly fixed to the carriage frame and having its apex aligned substantially with the center line of the belt. A pair of wing-like diverter members extend below and from the opposite sides of the carriage providing downwardly and outwardly inclined plate portions of substantially L-shaped cross-section opening toward one end of the bin with the bottom plate portion having a rearwardly inclined front edge.

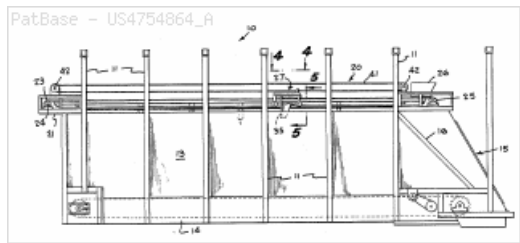
Classifications:

International (IPC 8-9): A01K1/01 A01K31/04
B65G47/76 (Advanced/Invention);
A01K1/01 A01K31/00 B65G47/74 (Core/Invention)

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CPC: B65G69/0408 B65G47/766

European: A01K1/01 A01K31/04 B65G47/76B B65G69/04A



Family:

Publication number	Publication date	Application number	Application date
US4754864 A	19880705	US19870004704	19870120

Priority:

US19870004704 19870120

Probable Assignee: CARDWELL MACHINE CO

Assignee(s): (std): CARDWELL MACHINE CO ; CARDWELL MACHINE COMPANY

Assignee(s): THE CARDWELL MACHINE COMPANY ; CARDWELL MACHINE CO A CORP OF VA

Inventor(s): (std): CROSS JR WILEY E