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Title: POWER OPERATED SHUNTING GEAR FOR ROLLING STOCK

Abstract: [Class 79 (i).] In a motordriven shuntinggear for rollingstock a single driving-wheel 10, Figs. 7 and 10, that takes a share of load is employed, and the wheel 10 and its supporting casing 7 are together rotatable about a vertical axis in a frame 1 manually held by the operator, the frame for this purpose preferably being fitted with an annulus 4 serving as a guide for rollers 5 on a ring 6 fitted externally on the casing 7. In use the appliance is brought to a position at right angles to the rail 14 and, by use of a nose 15 formed on the casing, levered into a position, Fig. 10, on and at right-angles to the rail, after which operation the casing is slued through 90 to the operative position, Fig. 7. A prop 40 may be fitted to the frame 1 for preventing the appliance being pushed beyond the rail. The push-bar 16 is then brought into engagement with the under surface of the wagon W and, in order that it may be arranged at the most effective inclination, is preferably adjustable in length, the adjusting-means comprising, for example, a sliding stem 48 giving a coarse adjustment and a screw thread 44 and nut 46 giving a fine adjustment. The wheel 10 may be correctly guided by a roller 60, while an inverted corrugated or roughened trough may be fitted over the rail in advance of the wheel to prevent slip. The drive between the motor 8 and internal teeth 29 fitted on the wheel 10 includes a change speed gear in which, by throwing in one of three clutches 23, any one of three gear wheels 20, 20<1>, 20<11> may be selected for transmitting the effort from a driven shaft 17, 19.

Classifications:

International (IPC 8-9): B61J3/00 B61J3/12 (Advanced/Invention);
B61J3/00 (Core/Invention)

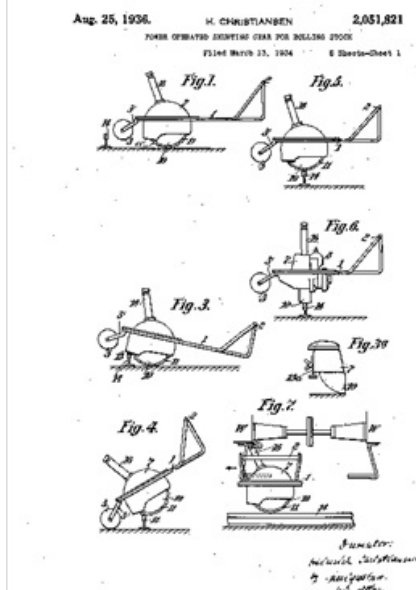
International (IPC 1-7): B61J3/12 H01J61/64

CPC: B61J3/00 B61J3/12

European: B61J3/00 B61J3/12

US: 105/108 105/141 105/26.1 105/90.2 254/133R

PatBase - US2051821_H



Family:

Publication number	Publication date	Application number	Application date
BE402032 A	00000000		00000000
DE604928 A	19341031	DE1933C 047664D	19330318
FR770131 A	19340908		19340313
GB418345 A	19341023	GB19340007020	19340305
US2051821 A	19360825	US19340715272	19340313

Priority:

19330317 DE1933C047664 19330318 US19340715272 19340313

Probable Assignee: HEINRICH CHRISTIANSEN

Assignee(s): (std): HEINRICH CHRISTIANSEN

Inventor(s): (std): CHRISTIANSEN ; HEINRICH CHRISTIANSEN

Inventor(s): CHRISTIANSEN HEINRICH

Title: WAGON TRAVERSER

Abstract: [Aug. 17, 1950] No. 20472/50. Class 104 (ii). A **railway** wagon traverser has a carriage which is movable along a track arranged transversely to a set of parallel **railway** sidings and is surmounted by a travelling mechanism movable thereon in a direction parallel to the sidings and comprising two or more trolleys mounted one above the other and movable bodily and also relative to one another in the same direction so that the effective movement imparted to one of the trolleys, which is provided with catch means for engaging a wagon to be moved, is greater than the width of the carriage. A carriage 19 mounted on **rails** 24 disposed at right angles to siding **rails** 15 has mounted thereon a section of the **rails** 15 for the passage of a wagon 67 and **rails** 16 for the passage of a trolley 17. The trolley 17 carries a secondary trolley 26 movable thereon on flanged wheels running in channels 29 and is moved over the **rails** 16 by a pair of ropes 23 passed over pulleys 25 at the ends of the carriage 19 and attached to driving drums 22 and at their ends anchored at 27 on the trolley 17. The secondary trolley 26 is moved by a pair of ropes 31 attached to anchorages 32 on the carriage 19 and at one end passed over pulleys 33 mounted at one end of the trolley 17 and attached to a spring device 34 on the trolley 26 and a pair of ropes 35 also attached to the anchorages 32 and passed over pulleys 36 at the other end of the trolley 17 and attached to the other end of the spring device 34. The carriage 19 and the trolleys 17, 26 are moved by an electric motor 18 through an epicyclic gear mechanism 20. The mechanism 20 has two brake drums and when the trolleys 17, 26 are to be moved a band brake 61 is applied to one drum through levers 62 and solenoids 63 so that the drums 22 are driven through bevel gears 52, 53 and pinions 55, 56 and when the carriage 19 is to be moved a band brake 61 is applied to the other drum so that a shaft 59 is rotated through a train of gear wheels. A catch 38 on the secondary trolley 26 engages with an axle 66 to move the wagon 67. After the carriage 19 is aligned with the siding **rails** 15, 16 the drums 22 are driven to move the trolley 17 on to the siding **rails** 16 and to move the trolley 26 over the trolley 17 so that the catch 38 may engage axle 66. The trolley 26 is then moved further to the right to rotate the catch 38 from the position shown in Fig. 7 to that shown in Fig. 6 and to withdraw a connecting rod 68 from above a stop pin 69 which is then moved upwards by a balance weight 70. The wagon is thereupon pulled onto the traverser and moved to align with the required siding and pushed thereonto. A shock absorber 75 limits the rotation of the catch 38. Towards the end of this movement a roller 78 mounted on a lever 82 **pivoted** on a lever 71 rolls on to a **cam plate** 80 of a tripper 77 and is **pivoted** in a clockwise direction against a spring 83 and at the same time a pair of pawls 79, freely mounted on either side of the lever 71 run idly over ratchet grids 81 as the trolley 26 is moved to the extreme right hand position shown dotted in Fig. 1. The trolleys 17 26 after reaching the extreme right hand position are returned to their initial position and as the return movement is commenced one of the pawls 79 engages a ratchet grid 81 to tilt the lever 71 to withdraw the stop pin 69 to disengage the catch 38 from the axle 66. The spring 83 pulls the lever 82 to lift the pawls 79 away from the grid 81 once the lever 71 has been tilted. Specifications 550,529 and 628,500 are referred to.

Classifications:

International (IPC 8-9): B61J1/10 (Advanced/Invention);

B61J1/00 (Core/Invention)

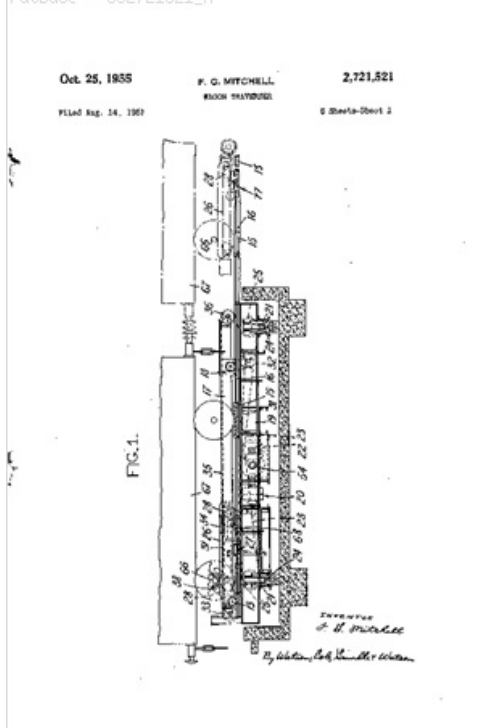
International (IPC 1-7): B61J1/10 B61J3/06

CPC: B61J1/10

European: B61J1/10

US: 104/183 104/48 104/50

PatBase - US2721521_A



Family:

Publication number	Publication date	Application number	Application date
BE505285 A	00000000		00000000
FR1047988 A	19531218		19510816
GB692492 A	19530610	GB19500020472	19500817
NL81164 C	00000000		00000000
US2721521 A	19551025	US19510241771	19510814

Priority:

GB19500020472 19500817

Probable Assignee: FREDERICK GILBERT MITCHELL

Assignee(s): (std): FREDERICK GILBERT MITCHELL ; GILBERT MITCHELL FREDERICK

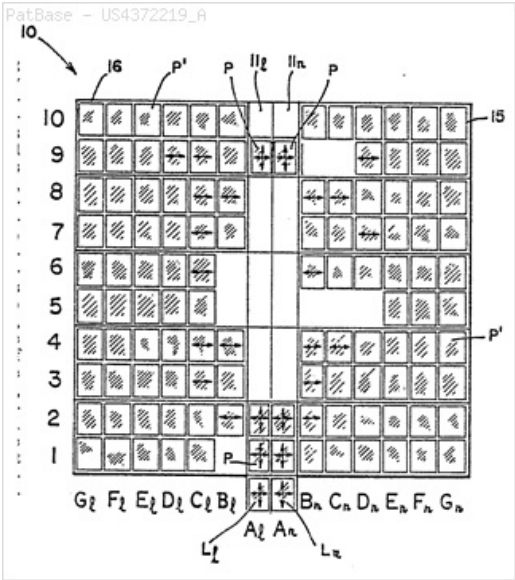
Inventor(s): (std): GILBERT MITCHELL FREDERICK ; MITCHELL FREDERICK GILBERT

Title: Material handling system

Abstract: PCT No. PCT/US79/00730 Sec. 371 Date May 22, 1980 Sec. 102(e) Date May 22, 1980 PCT Filed Sep. 17, 1979 PCT Pub. No. WO80/00690 PCT Pub. Date Apr. 17, 1980. Material handling apparatus for the controlled movement of goods on pallets having wheels for engaging intersecting **rails**, movable track sections in the intersecting **rails** underlying the wheels to selectively permit movement of the pallets in two angular directions, and a drive engaging the pallets for selective movement along either of the two intersecting **rails**. The drive includes a direction control for orienting a pinion to drive the pallets along either of the two intersecting **rails** and a direction control locking device for locking the pinion in position to drive the pallets along either of the two intersecting **rails**.

Classifications:

International (IPC 8-9): B61B13/00 B61B13/02 B61C11/04
B65G1/00 B65G1/04 B65G13/02 (Advanced/Invention);
B61B13/00 B61B13/02 B61C11/00 B65G1/04
B65G13/02 (Core/Invention)
International (IPC 1-7): B61B13/00 B61B13/02 B61B13/12
B61C11/04 B61J3/00 B61J3/02 B65G1/00 B65G1/04 B65G13/02
E01B7/00
CPC: B65G1/0478
European: B65G1/04M
US: 104/165 104/35 104/88 198/782 414/286



Family:

Publication number	Publication date	Application number	Application date
CA1146476 A1	19830517	CA19790336091	19790921
DE2953163 A1	19810423	DE19792953163T	19790917
DE2953163 T0	19810423	DE19792953163T	19790917
GB2043038 A1	19801001	GB19800016176	19790917
GB2043038 B2	19830112	GB19800016176	19790917
GB2080266 A1	19820203	GB19810024230	19790917
GB2080266 B2	19830309	GB19810024230	19790917
JP55500737 T2	19801002	JP19790501745T	19790917
US4372219 A	19830208	US19800261128	19800522
WO8000690 A1	19800417	WO1979US00730	19790917

Priority:

US19780945056 19780922 WO1979US00730 19790917 CA19790336091 19790921

Probable Assignee: GIBBS RYDER MAT HANDLING

Assignee(s): (std): GIBBS J ; GIBBS RYDER MAT HANDLING

Assignee(s): GIBBS RYDER MATERIALS HANDLING SYST INC ; GIBBS RYDER MATERIALS HANDLING SYSTEMS INC ; GIBBS JAMES W

Inventor(s): (std): GIBBS JAMES W ; GIBBS J

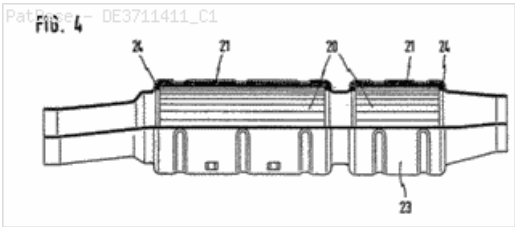
Agent(s): GOWLING LAFLEUR HENDERSON LLP

Designated states: DE GB JP US

Title: Conveyor device for an automatic shunting system for **railways**

Abstract: Conveyor device for an automatic shunting system for **railways**, having a transport wagon and traction drive for a backward and forward movement between a basic position and a limit position of the transport wagon in a sorting siding. The transport wagon is guided in a trackway with running rollers arranged at its end sides in the direction of transportation and in the reversing direction, the said trackway being arranged between the **rails** of the sorting siding. The transport wagon has a transport arm which can **pivot** in and out, has a restoring spring and, when **pivoted** out, engages on a wheel of a wagon to be transported. The transport wagon is provided with a locking device with which the **pivoted**-out transport arm can be locked. For this purpose, a control bar which is arranged fixedly in the region of the basic position of the transport wagon can be **pivoted** out when the transport wagon is moved out of the basic position by its traction drive. The locking device is coupled to a control drive, arranged in the transport wagon and operating as a function of the direction of travel, for locking and unlocking, which control drive has a drive roller which intermeshes with a trackway component by means of frictional engagement. The control bar is equipped with a transverse elongated-hole-type guide thus permitting the transport wagon which is returning into its basic position to travel over it.

Classifications:
International (IPC 8-9): B61J3/06 (Advanced/Invention);
B61J3/00 (Core/Invention)
International (IPC 1-7): B61B10/00 B61J3/06
CPC: B61J3/06
European: B61J3/06



Family:

Publication number	Publication date	Application number	Application date
DE3711411 C1	19880811	DE19873711411	19870404

Priority:

DE19873711411 19870404

Probable Assignee: HAUHINCO MASCHF

Assignee(s): (std): HAUHINCO MASCHF

Assignee(s): HAUHINCO MASCHINENFABRIK G HAUSHERR JOCHUMS GMBH A ; HAUHINCO MASCHINENFABRIK G HAUSHERR JOCHUMS GMBH AND CO KG 4300 ESSEN DE

Inventor(s): (std): BASU SUJIT DIPL ING ; OSTENDORF ROLF

Inventor(s): OSTENDORF ROLF 4300 ESSEN DE ; BASU SUJIT DIPL ING 4200 OBERHAUSEN DE

Title: Automated transportation system

Abstract: A system is provided that includes guideways having tracks for supporting a type of vehicle which moves within the guideways and tracks for a type of vehicle which moves on top of the guideways. Guide tracks are provided within the guideways for guiding vehicles of either type and controlling movement through Y junctions. The type of vehicle that moves on top of the guideway includes auxiliary wheels which cooperate with auxiliary tracks in Y junctions to insure reliable support. Each type of vehicle includes automatic load tilting mechanisms and also a special four wheel drive arrangement.

Classifications:

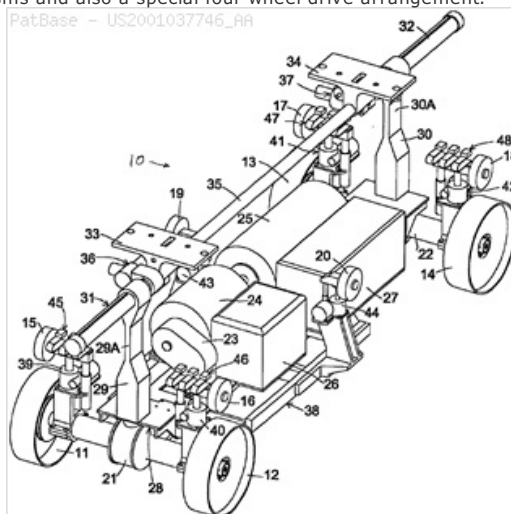
International (IPC 8-9): B61B13/00 B61D3/18 B61L23/00 B61L27/00 B61L27/04 B61L3/22 E01B25/08 (Advanced/Invention); B61B13/00 B61D3/00 B61L23/00 B61L27/00 B61L3/00 E01B25/00 (Core/Invention)

International (IPC 1-7): B61B13/00 B61D3/18 B61F13/00 B61J3/00 B61K1/00 B61L27/04 B61L3/18

CPC: B61B13/00 B61L3/225 B61L23/002 B61L23/005 B61L27/04 E01B25/08 Y02T30/30

European: B61B13/00 B61L23/00A B61L23/00A1 B61L27/04 B61L3/22B E01B25/08 Y02T30/30

US: 104/124 104/130.01 104/130.07 104/139 104/139S 104/140 104/242 104/298 104/299 104/300 104/31 104/48 104/88.01 104/88.03 104/88.030P 104/88.04 105/33 105/73 238/122 238/17 246/182R 246/28R 246/29R 246/63R 364/424.027 364/426.05 414/228 414/537 701/20 701/23



Family:

Publication number	Publication date	Application number	Application date
AU199661587 A1	19961230	AU19960061587	19960606
CA2223448 AA	19981204	CA19962223448	19960606
CA2223448 C	20070605	CA19962223448	19960606
EP0839102 A1	19980506	EP19960919184	19960606
EP0839102 A4	20000531	EP19960919184	19960606
US2001037746 AA	20011108	US20010867162	20010529
US5590603 A	19970107	US19950477182	19950607
US5590604 A	19970107	US19950481771	19950607
US5598783 A	19970204	US19950475750	19950607
US5706735 A	19980113	US19960746318	19961112
US5979334 A	19991109	US19970945919	19971201
US6082268 A	20000704	US19980005854	19980112
US6237500 BA	20010529	US19990240187	19990129
US6622635 BB	20030923	US20010867162	20010529
WO9640545 A1	19961219	WO1996US09390	19960606

Priority:

US19950475750	19950607	US19950477182	19950607	US19950481771	19950607
WO1996US09390	19960606	US19960746318	19961112	US19970945919	19971201
US19980005854	19980112	US19990240187	19990129	US20010867162	20010529

Probable Assignee: AUTRAN CORP

Assignee(s): (std): AUTRAN CORP ; LUND VAN METRE

Inventor(s): (std): LUND VAN METRE ; LUND VANMETRE ; VAN METRE LUND ; LUND METRE VAN

Agent(s): SMART AND BIGGAR

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

Title: WORK CONVEYING DEVICE

Abstract: A plurality of working blocks (A, B) are connected by **rails** (18). A branched transporting mechanism (100) is disposed at the intersections of the **rails** (18). A transportation vehicle (300) of non-self-propelled type moves on the **rails** (18) by the driving power of a wire (20). A placement table (450) is positioned in the vicinity of the working blocks (A, B). The placement table (450) moves up and down with a workpiece placed thereon between the transportation vehicle (300) and the working blocks (A, B). Transfer of work is effected by moving the placement table (450) up and down, and adjusting the height of the placement table (450) to the height of the transportation vehicle (300) or to the height of the working blocks (A, B). Further, the transportation vehicle (300) has a wire gripping mechanism (350) for gripping the wire (20), and workpiece placement plates (326a, 326b) for placing the workpiece thereon.

Classifications:

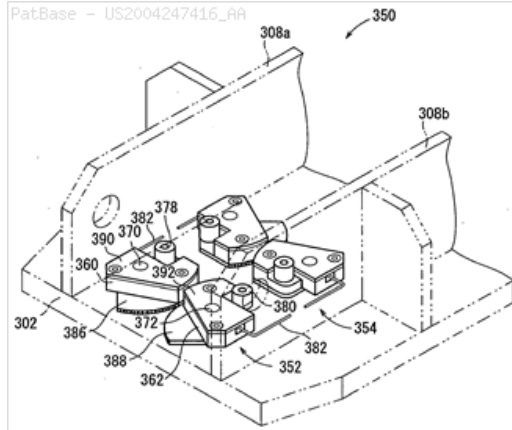
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B23P19/00 B23Q41/02 B25J5/02 B61B13/12 B61B9/00 B65G17/20 B65G19/00 B65G35/00 B65G47/34 B65G47/60 B65G47/90 B66B17/00 (Core/Invention)

International (IPC 1-7): B23P19/00 B23Q41/02 B25J5/02 B61B10/02 B65G17/20 B65G23/02 B65G35/00 B65G35/06 B65G47/36 B65G47/61 B65G47/68 B65G47/74 B65H1/00

CPC: B61B9/00 B61B13/12 B65G35/06 B65G47/901 B65G2201/02 Y02P60/216

European: B61B13/12 B61B9/00 B65G19/02B B65G35/06 B65G47/90B L65G201/02

US: 104/96 198/465.4 414/222.01 414/222.1 414/564

**Family:**

Publication number	Publication date	Application number	Application date
CA2454919 AA	20040123	CA20022454919	20020724
CA2454919 C	20090609	CA20022454919	20020724
GB200401949 A0	20040303	GB20040001949	20020724
GB200500782 A0	20050223	GB20050000782	20020724
GB2394931 A1	20040512	GB20040001949	20020724
GB2394931 A9	20040816	GB20040001949	20020724
GB2394931 B2	20050511	GB20040001949	20020724
GB2407078 A1	20050420	GB20050000782	20020724
GB2407078 B2	20051019	GB20050000782	20020724
JP2003040425 A2	20030213	JP20010223429	20010724
JP2003040426 A2	20030213	JP20010223444	20010724
JP2003040441 A2	20030213	JP20010223419	20010724
JP2003340690 A2	20031202	JP20020157850	20020530
JP2004001931 A2	20040108	JP20020158010	20020530
JP3904478 B2	20070411	JP20020158010	20020530
JP3919479 B2	20070523	JP20010223419	20010724
JP4824216 B2	20111130	JP20010223429	20010724
US2004247416 AA	20041209	US20040484616	20040122
US2007041819 AA	20070222	US20060543139	20061005
US7137769 BB	20061121	US20040484616	20040122
WO03010075 A1	20030206	WO2002JP07473	20020724

Priority:

JP20010223419	20010724	JP20010223444	20010724	JP20010223429	20010724
JP20020158010	20020530	JP20020157850	20020530	GB20040001949	20020724
WO2002JP07473	20020724	US20040484616	20040122	US20060543139	20061005

Probable Assignee: HONDA GIKEN KOGYO KK

Assignee(s): (std): HONDA MOTOR CO LTD ; KANBAYASHI SATOSHI ; KOMATSU TETSU HARU ; MATSUNAGA NAOYA ; MUKUMOTO TAKAJI ; NAKANO JUNICHI

Assignee(s): HONDA GIKEN KOGYO KABUSHIKI KAISHA ; HONDA GIKEN KOGYO KK

Inventor(s): (std): KANBAYASHI SATOSHI ; KOMATSU TETSU HARU ; KOMATSU TETSUJI ; MATSUNAGA NAOYA ; MUKUMOTO TAKAJI ; MUKUMOTO TAKATSUGU ; NAKANO JUNICHI

Inventor(s): NAOYA MATSUNAGA ; SATOSHI KANBAYASHI ; TAKAJI MUKUMOTO ; TETSU HARU KOMATSU ; JUNICHI NAKANO

Agent(s): MARKS AND CLERK; BIRCH STEWART KOLASCH AND BIRCH; BIRCH STEWART KOLASCH AND BIRCH LLP

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 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 VN YU ZA ZM ZW