



New connection on: : 06-07-2018 : 23:24:51 - Last disconnection on: : 06-07-2018 : 22:52:27

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201802)) (RPM D201802)

## Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 12] ..fi EPODOC

 Database: EPODOC

[EPODOC: SS 12] scaffold+

Results in EPODOC 46.685

[SS 13] scaffold+ AND stair AND base AND rail+

Results in EPODOC 4

[SS 14] ..v

[EPODOC: SS 14] scaffold+ AND stair AND base AND truss

Results in EPODOC 0

[SS 15] scaffold+ AND stair AND truss

Results in EPODOC 1

[SS 16] scaffold+ AND truss

Results in EPODOC 653

[SS 17] scaffold+ AND (stair+ OR ladder+) AND truss

Results in EPODOC 21

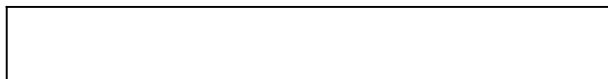
[SS 18] ..v

[EPODOC: SS 18] ..li



1/21 © EPODOC / EPO

PN - [JP2017089096](#) A 20170525  
PNFP - JP5971878B B1 20160817  
PR - JP20150215440 20151102  
AP - JP20150215440 20151102  
DT - I  
FI - E04G1/14&303C; E04G21/32&B;  
E04H15/34&Z  
FT - 2E141/AA01; 2E141/BB01;  
2E141/CC03; 2E141/DD02  
PA - (A)  
SAN E PROTENT CO LTD  
TI - (A)  
STRUCTURAL MATERIAL FOR  
FRAME STRUCTURE, AND FRAME  
STRUCTURE USING THE SAME  
AB - (A)  
PROBLEM TO BE SOLVED: To  
provide a structural material for  
a frame structure and a frame  
structure using the same, the  
structural material enabling a  
frame structure of a desired size  
to be constructed readily, may be  
stored conveniently in a small  
storage space, and offering high  
strength. SOLUTION: A structural  
material 1 for a frame structure  
is connected detachably and  
serially to constitute a column  
material and a beam material of  
a frame structure, and includes:  
right and left vertical materials 2  
disposed in a vertical posture  
opposite each other and being  
provided with connecting means  
17 at a top end and a bottom  
end; a plurality of diagonal  
materials 3 disposed in a **truss**-  
form in alternating orientations  
in a vertical direction between  
the right and left vertical  
materials 2, for connecting the  
right and left vertical materials  
2; a plurality of horizontal  
materials 4 disposed in a



horizontal posture between the right and left vertical materials 2 leaving a prescribed interval in the vertical direction, positioned at an intermediate position between at least a part of the diagonal materials 3 that are adjacent in the vertical direction, for connecting the right and left vertical materials 2 and having an end of a **scaffold** plate or a **stair** engaged thereon detachably; and a connecting part 6 provided at a position where the horizontal material 4 is connected to the right and left vertical materials 2, and having an end of a horizontal through crosspiece connected thereon detachably. SELECTED DRAWING: Figure 1

**2/21** © EPODOC / EPO

PN - [CN105756370](#) A 20160713  
 PR - CN2015100524 20150104  
 AP - CN2015100524 20150104  
 DT - I  
 CT - || STSE (A)  
[CN201003213Y](#) Y 20080109  
 [A] (YAHGEE MODULAR HOUSE CO LTD [CN])  
 [A] 1-8  
 \* 全文 \*;  
[CN201553072U](#) U 20100818  
 [A] (ZHENJIANG KF MOBILE SYSTEMS CO LTD)  
 [A] 1-8  
 \* 全文 \*;  
[AU2012100996](#) A4 20120830  
 [A] (MEER ANDREW V D)  
 [A] 1-8  
 \* 全文 \*;  
[CN203347267U](#) U 20131218  
 [A] (YEERZHATI HUERMAITI)  
 [A] 1-8  
 \* 全文 \*;  
[CN203846797U](#) U 20140924  
 [A] (YUNNANHUIFENG

CONSTRUCTION INVEST GROUP  
CO LTD)  
[A] 1-8  
\* 全文 \*

- PA - LIU LING
- TI - Multi-story lookout caravan
- AB - The invention relates to a multi-story lookout caravan, which is fabricated from an integral carriage, a plurality of tyres, a towing frame and a chassis. Steel frames, a trapeziform steel **truss**, wall purlins, top purlins, steel floor support plate frame, floor support plates, **staircases**, **staircase** railings, doors and windows of a first story and a second story are installed, color steel rock slab composite slabs are mounted on the wall purlins of the first story and the second story and the top purlins, three-dimensional gusset plate keels are mounted on the internal and external color steel rock slab composite slabs, three-dimensional gusset plates are mounted on the mating keels, the color steel rock slab composite slabs and the three-dimensional gusset plates over the trapeziform steel **truss** are removed and circular steel tubes are welded, so that a plurality of sets of round holes door type **scaffolds** mating with the circular steel tubes can be inserted, a color steel roof is mounted upon the **scaffolds**, round hole fixing points are welded on steel columns of the first story and the second story, pits are dug at places corresponding to the round hole fixing points, ground anchors mating with the pits are buried into the pits, and wire ropes and tensioners are used for

connecting the upper and lower round hole fixing points with the ground anchors.

**3/21** © EPODOC / EPO

- PN - [UA82959U](#) U 20130827
- PR - UA2013201301316U 20130204
- AP - UA2013201301316U 20130204
- DT - I
- PA - RIABIKOV VOLODYMYR VIKTOROVYCH [UA]
- TI - MOBILE **SCAFFOLDS** FOR ON-SITE INVESTIGATION AND REPAIR OF METAL CONSTRUCTIONS OF ROOF TRUSSES AND COVER SLABS OF INDUSTRIAL BUILDINGS AND CONSTRUCTIONS
- AB - Mobile **scaffolds** for on-site investigation and repair of metal constructions of roof trusses and covering slabs of industrial buildings and constructions includes a spatial construction made of inclined support-thrust elements and vertical side walls as **ladders** connected to each other with working deck with flap hatch. The **scaffolds** include a flat basic frame oriented in horizontal direction and reinforced with hollow rectangular beams, in its opposite sections the main support elements as vertical plates are placed, the planes of those are normal to the long axis of the frame. The main support and the upper connecting elements have mounting slots and openings providing reciprocal and vertical displacements, and to each main support element wheels are fixed by means of bearings, the axles of those are oriented at angle to horizontal plane. The mobile **scaffolds** comprise inclined cups for fixation of inclined support-thrust elements at the ends of which there as well are cups for the side vertical props of **scaffolds** as **ladders**, with rigidity of those at large height provided with control diagonals and elements fixed by "pressing system" that is fixed through special fixation elements of the skis to the rods of the **truss**, with fixation of **scaffolds** structure for provision of spatial rigidity. Each pair of **ladders** placed along the long axis of the frame is connected to each other with working deck, and each pair of symmetrical **ladders** arranged normally with respect to the longitudinal axis of the frame and placed at both sides of the **truss** is connected to each other by means of tie pins and hooks that go through two horizontal pressing skis, with possibility of fixation of the last ones at given distance, with presence of safety cramps through which the **scaffolding** is fixed at its displacement to another place, by means of two safety cables that are placed and fixed at both sides of the roof **truss**, and safety barrier.

**4/21** © EPODOC / EPO

- PN - [UA63649U](#) U 20111010
- PR - UA2011201105887U 20110511
- AP - UA2011201105887U 20110511
- DT - I
- PA - RIABIKOV VOLODYMYR VIKTOROVYCH [UA]
- TI - MOBILE **SCAFFOLD** FOR THE FIELD OBSERVATION AND REPAIR OF METAL CONSTRUCTIONS OF **TRUSS** FRAME AND ROOF SLABS OF BUILDINGS AND CONSTRUCTIONS
- AB - Mobile **scaffold** for field observation and repair of metal constructions of **truss** frame and roof slabs of buildings and constructions includes three-dimensional structure

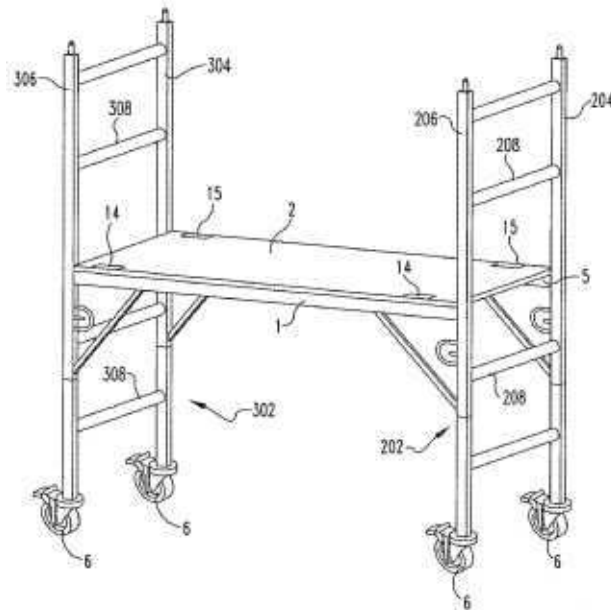
made of side poles as **stairs** connected to each other with working platform with flap door. The **scaffold** includes directed in horizontal position base frame in corner parts of which main support elements are placed. The main support and the upper connecting elements have mounting slots and openings. To each main support element wheels and vertical cups are fixed. Each pair of symmetrical **stairs** are connected to each other.

**5/21** © EPODOC / EPO

- PN - [CN202559701U](#) U 20121128  
 PR - CN20122210012U 20120511  
 AP - CN20122210012U 20120511  
 DT - I  
 PA - XINJIANG CONSTRUCTION ENGINEERING GROUP CO LTD  
 TI - Operating platform for mounting roof **truss** and steel structure beam  
 AB - The utility model belongs to the field of building construction appliances and in particular relates to an operating platform for mounting a roof **truss** and a steel structure beam. The operating platform comprises an aerial **ladder**; a concave bottom plate is fixedly connected to the top end of the aerial **ladder**; a concave opening is formed in the middle of the concave bottom plate; and a guardrail is arranged at the peripheral edge of the concave bottom plate so as to form the operating platform, wherein a platform entrance is formed in a direction facing the aerial **ladder**. Compared with the traditional operation in which the construction of a **scaffold** is needed, the operating platform provided by the utility model has the advantages of time and labor conservation, convenience and rapidness and is worth being popularized; more important, safeties of construction workers in operation are guaranteed.

**6/21** © EPODOC / EPO

- PN - [US2012292132](#) A1 20121122  
 PR - US201113068799 20110520  
 AP - US201113068799 20110520  
 DT - \*; Rep  
 CT - || R141 (A1)  
[US6761247](#) B2 20040713 [ ] (WYSE STEVEN J [US]);  
[US6223857](#) B1 20010501 [ ] (WYSE STEVEN J [US]);  
[US6823965](#) B2 20041130 [ ] (STRINGER MATTHEW D [US]);  
[US2892661](#) A 19590630 [ ] (FRENCH BEVERLY H);  
[US5558179](#) A 19960924 [ ] (MATTHEWS LEROY [US]);  
[US2010224447](#) A1 20100909 [ ] (ROGERS PETER J [CA]);  
[DE3832818](#) C1 19891214 [ ]  
 CCI - [E04G1/15](#) ; [E04G1/30](#)  
 CCA - [E04G2001/305](#)



- PA - LOVAS GARY [US]
- TI - **Scaffold**, releasable support and method
- AB - A **scaffold** including a right end frame access **ladder** having a right rail and a left rail in spaced relation with the right rail, and a plurality of horizontals attached to the right rail and the left rail. The **scaffold** includes a left end frame access **ladder** having a right rail and a left rail in spaced relation with the right rail, and a plurality of horizontals attached to the right rail and left rail. The **scaffold** includes a first adjustable platform support **truss** attached to the right end frame access **ladder** and the second end frame access **ladder**. The **scaffold** includes a second adjustable platform support **truss** attached to the right end frame access **ladder** and the second end frame access **ladder** and essentially in parallel and spaced relation with the first adjustable platform support **truss**. The **scaffold** includes a removable support having a first bracket, a second bracket and a center portion connected to the first and second brackets. A removable support. A method for using a **scaffold** having a removable support.

PN - [US2012292131](#) A1 20121122

PR - US201113136611  
20110830; US201113068799  
20110520

AP - US201113136611 20110830

DT - \*; Rep

CT - || R141 (A1)  
[US2010224447](#) A1 20100909 [ ] (ROGERS PETER J [CA]);  
[US6761247](#) B2 20040713 [ ] (WYSE STEVEN J [US]);  
[US6223857](#) B1 20010501 [ ] (WYSE STEVEN J [US]);  
[US5558179](#) A 19960924 [ ] (MATTHEWS LEROY [US]);  
[US2892661](#) A 19590630 [ ] (FRENCH BEVERLY H);  
[US6823965](#) B2 20041130 [ ] (STRINGER MATTHEW D [US]);  
[DE3832818](#) C1 19891214 [ ]

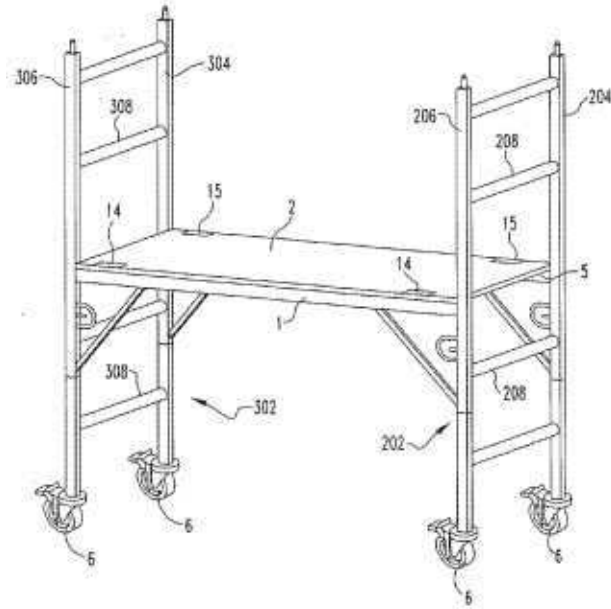
CCI - [E04G1/15](#) ; [E04G1/30](#) ; [E06C1/39](#)

CCA - [E04G2001/305](#) ; [Y10T29/49826](#)

PA - LOVAS GARY [US]

TI - **Scaffold**, releasable support and method

AB - A **scaffold** including a right end frame access **ladder** having a right rail and a left rail in spaced relation with the right rail, and a plurality of horizontals attached to the right rail and the left rail. The **scaffold** includes a left end frame access **ladder** having a right rail and a left rail in spaced relation with the right rail, and a plurality of horizontals attached to the right rail and left rail. The **scaffold** includes a first adjustable platform support **truss** attached to the right end frame access **ladder** and the second end frame access **ladder**. The **scaffold** includes a second adjustable platform support **truss** attached to the right end frame



access **ladder** and the second end frame access **ladder** and essentially in parallel and spaced relation with the first adjustable platform support **truss**. The **scaffold** includes a removable support having a first bracket, a second bracket and a center portion connected to the first and second brackets. The **scaffold** comprises a longitudinal removable support having a first hook connected to one of the plurality of horizontals of the right end frame. The **scaffold** also comprises a second hook connected to one of the plurality of horizontals of the left end frame and a longitudinal strap attached to the first and second metal hooks, the longitudinal strap and the removable strap together forming a harness system. The **scaffold** comprises a platform disposed on the first and second support trusses and first and second brackets upon which a user stands. A method for using a **scaffold** having a removable support.

8/21 © EPODOC / EPO

PN - [US2010218452](#) A1 20100902

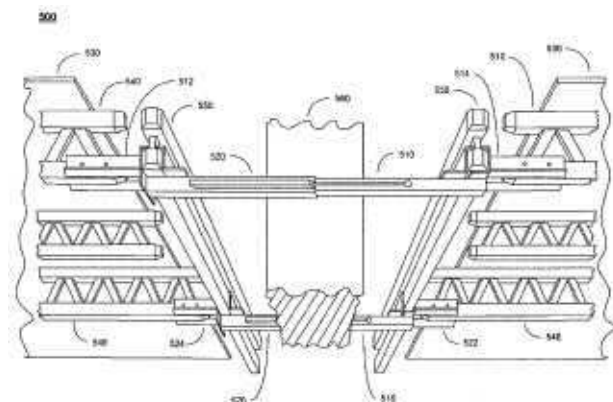
PR - US20090396134 20090302

AP - US20090396134 20090302

DT - \*; Rep

CT - || R141 (A1)  
[US3890750](#) A [];  
[US2008172976](#) A1 [];  
[US1314491](#) A [];  
[US3900182](#) A [];  
[US7255319](#) B2 [];  
[US4349491](#) A [];  
[US4123031](#) A [];  
[US2007266674](#) A1 []

CCI - [E04G11/50](#) ; [E04G11/56](#) ;  
[E04G17/16](#)



- PA - EL SACRIFICIO VENTURES LLC [US]
- TI - Adjustable Telescoping Support Mechanism for Use with Concrete Forming Systems
- AB - An adjustable telescoping support mechanism is provided that may be connected between members of two positionally separated and supported **truss** members for providing support for a concrete-forming surface for fabricating building floors or ceilings. The telescoping support mechanism may be easily positioned adjacent to the location of vertical concrete structures of a building, such as building support columns, **stairwells** or elevator shafts in order to tie in a concrete floor or ceiling to the vertical concrete structure. The mechanism provides a means for fabricating a floor or ceiling adjacent to a vertical concrete structure either prior to or after the vertical structure has been fabricated, without the need for supporting **scaffolding** which impedes normal construction activity and creates safety issues.

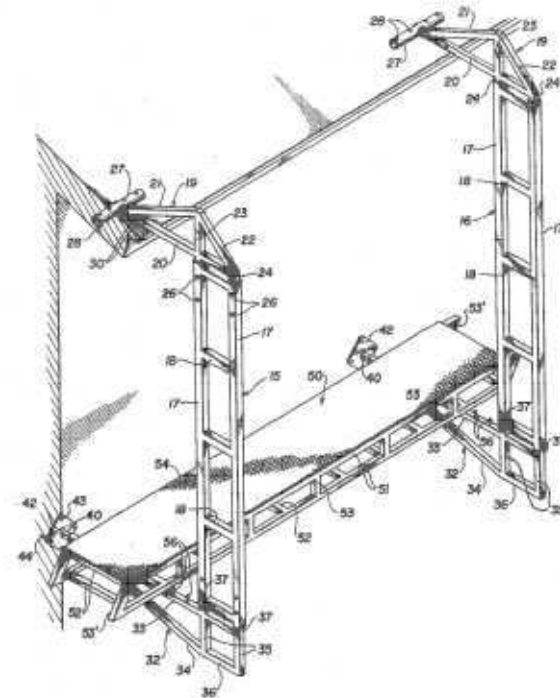
9/21 © EPODOC / EPO

- PN - [CN201221193Y](#) Y 20090415
- PR - CN20082301194U 20080617
- AP - CN20082301194U 20080617
- DT - I
- PA - BEIJING URBAN CONSTRUCTION GRO [CN]
- TI - High altitude packway ceiling construction operating platform
- AB - The utility model relates to an overhead berm ceiling construction operation platform, which is located below a roof **truss**. A pair of longitudinal beams and a group of intervallically distributed cross beams arranged between the longitudinal beams are connected together to form a straight trapeziform steel framework; connecting bolt hanger rods are symmetrically arranged on the longitudinal beams; one end of each steel rope is connected with one of the bolt hanger rods; the other end is connected with a windlass; and the steel ropes round the roof **truss** to hang the operation platform below the roof **truss**. The operation platform resolves the technical problem that ceiling

construction can be fulfilled without a full-hall **scaffold** when a ceiling is high, and changes the ground operation of the ceiling construction into overhead operation, so workers do not need to frequently climb up and down and move a **ladder**, and therefore the labor intensity of workers is greatly reduced. The overhead hung berm platform can be used as a manned ceiling steel framework as well as a future maintenance platform.

10/21 © EPODOC / EPO

- PN - [US4074792](#) A 19780221
- PR - US19770795938 19770511
- AP - US19770795938 19770511
- DT - \*; Rep
- CT - || STSE (A)  
[US2308142](#) A 19430112 [ ] (GUY ALLOWAY);  
[US2957670](#) A 19601025 [ ] (WENDL GEORGE D, et al);  
[US2966228](#) A 19601227 [ ] (KOWALSKI FRANK J, et al);  
[US3135351](#) A 19640602 [ ] (CHARLES ECONOMOS, et al);  
[US3391757](#) A 19680709 [ ] (PAUL DUKE, et al);  
[US3767010](#) A 19731023 [ ] (NEWLAN J, et al);  
[US3900082](#) A 19750819 [ ] (SAKAMOTO KENICHI, et al)
- CCI - [E04G5/041](#) ; [E04G3/22](#) ;  
[E04G5/04](#) ; [E04G5/06](#) ;  
[E04G5/062](#)
- PA - ZAUGG ALONZO N; ELLIS RICHARD W
- TI - Portable hanging **scaffold**
- AB - A strong lightweight hanging **scaffold** for four or more workmen with heavy materials has a wide range of adjustability adapting it for a variety of uses on many types of one and two story buildings including buildings with gable ends. The **scaffold** features strong top and bottom **truss** arms or beams which are vertically adjustable on end vertical **ladder**-type frames. A sturdy walkway of box form has a non-slip metal walking surface and may be



employed in both level and inclined positions while resting on the bottom **truss** arms. Top spiked engaging bars of the upper **truss** arms have swiveled connections therewith so as to be compatible with various roof contours. The lower **truss** arms have extension bars with feet adapted for stable engagement with building walls.

**11/21** © EPODOC / EPO

- PN - [US4534447](#) A 19850813
- PR - US19840596501 19840403
- AP - US19840596501 19840403
- DT - \*
- CT - [US1943871](#) A []; [US2982379](#) A [];  
[US2994402](#) A []; [US3207260](#) A [];  
[US3212605](#) A []; [US3235038](#) A [];  
[US3434567](#) A []; [US3504768](#) A [];  
[US3509966](#) A []
- CCI - [E04G1/154](#) ; [E04G1/34](#)
- PA - CHAMPIGNY LUCIEN
- TI - Foldable **ladder scaffold**
- AB - A foldable **scaffold** is disclosed, including a frame and a person-supporting plank. The frame comprises two upwardly-extending end **ladders**. A backwardly-located **truss** pivotally joins the **ladders** together and includes a hinge at the intermediate portion thereof for pivotal forward movement of the latter from a fully-extended **truss** position to a folded **truss** position. The latter movement produces relative lateral movement of the **ladders** from spaced-apart positions, one toward the other, to near-abutting positions. The frame also includes a hinge to releasably immobilize the hinge and maintain the **truss** in fully-extended position. The person-supporting plank is removably fixed to and extends between the **ladders** when the **truss** in its fully-extended position.

**12/21** © EPODOC / EPO

PN - [US5099953](#) A 19920331

PR - US19900549505 19900706

AP - US19900549505 19900706

DT - \*

CT - [US2852145](#) A [ ]; [US3011586](#) A [ ];  
[US3221837](#) A [ ]; [US3266503](#) A [ ];  
[US3392801](#) A [ ]; [US3747898](#) A [ ];  
[US4155424](#) A [ ]; [US4534447](#) A [ ];  
[US4609071](#) A [ ]; [GB2056545](#) A [ ]

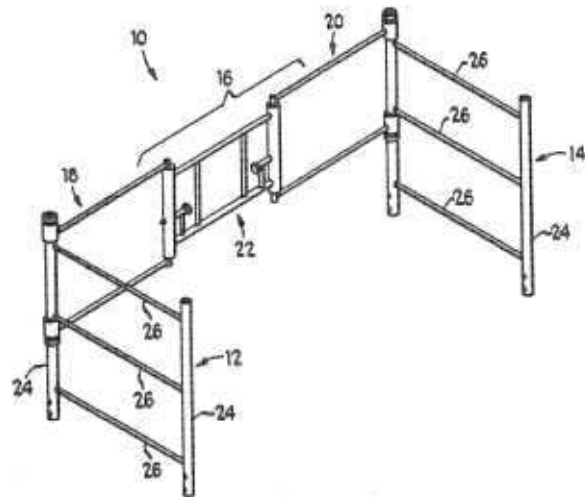
CTNP - [ ] Genie Industries, Genie Quik Step , Jun. 1984

CCI - [E04G1/34](#)

PA - STAGHORN PRODUCTS [US]

TI - Foldable **scaffold**

AB - A foldable **scaffold** includes a frame and one or more planks for supporting one or more workmen. The frame comprises two generally vertically extending end **ladders** and a horizontally extending **truss** portion. The **truss** portion includes three pivotally connected elements to permit collapsing or folding of the **scaffold** for ease in transportation to a job site. The **truss** portion includes two, similar **truss** end members that are pivotally connected to the end **ladders** and a central locking gate element. The locking gate is pivotally connected to the inner ends of the two **truss** end portions and includes means for locking the central gate and end portion in a straight horizontal position to maintain the **truss** in a fully extended position. A plurality of connectors permit vertical stacking of one or more of the foldable **scaffolds** and the



workmen's supporting planks are removably mounted to the tops of the **ladders** when the **truss** portion is in its fully extended, locked position. A plurality of casters are provided to facilitate movement and positioning of the extended **scaffold**.

13/21 © EPODOC / EPO

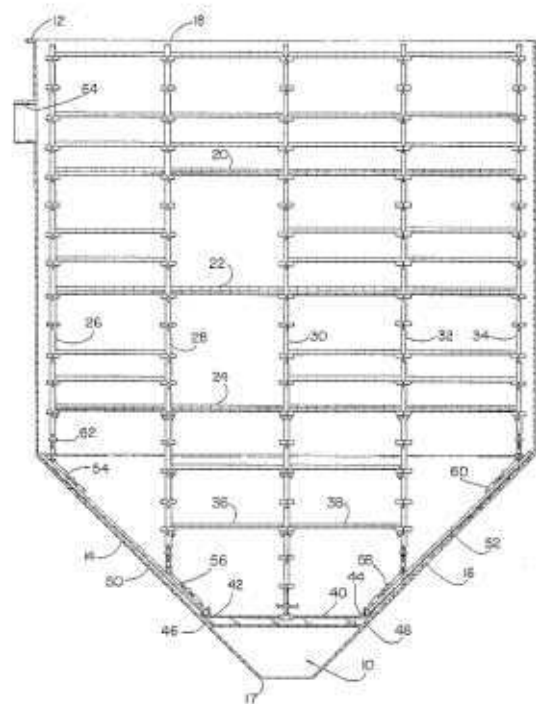
PN - [US4496026](#) A 19850129  
 PR - US19810291275 19810810  
 AP - US19810291275 19810810  
 DT - \*; Rep  
 CT - || STSE (A)  
[US681649](#) A 19010827 [ ] (CHASE JAMES J [US]);  
[US742565](#) A 19031027 [ ] (BERRY THOMAS E [US]);  
[US1090856](#) A 19140324 [ ] (JOHNSON GUSTAVE [US]);  
[US1652403](#) A 19271213 [ ] (GERDEMAN FRANK H);  
[US2848282](#) A 19580819 [ ] (WEBER WILLIAM M);  
[US3245188](#) A 19660412 [ ] (STANFORD EVANS HUGH);  
[US4342374](#) A 19820803 [ ] (MONTANA ANTONIO);  
[AU217052](#) A 00000000 [ ];  
[SU248181](#) A1 00000000 [ ];  
[SU324362](#) A1 00000000 [ ];  
[SU838060](#) A1 19810615 [ ] (REMONTNO STR SP TREST REMONTU [SU])

CCI - [E04G1/362](#) ; [E04G1/36](#)

PA - KWIIFORM AMERICA INC [US]

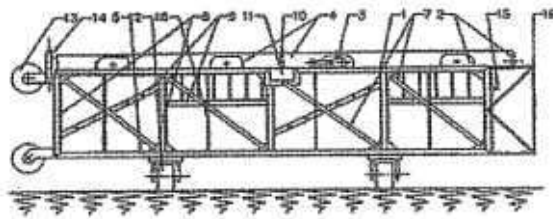
TI - Founding **ladder** system

AB - A founding **ladder** system provides support for a **scaffolding** system mounted inside an enclosed area, such as a boiler. The founding **ladder** system is modular in construction to allow for easy use and is both adjustable and



adaptable to fit the various sizes and shapes of boilers in which it may be used. The founding **ladder** system includes a **truss** which is to be mounted horizontally and which is to be connected to **ladder**-like supports which extend up the inside walls of the boiler. The **ladder**-like supports provide points of contact for the **scaffolding** system to be constructed inside the boiler.

- 14/21** © EPODOC / EPO
- PN - [WO2004090261](#) A1 20041021
- PR - RU20030109680 20030407
- AP - WO2003RU00468 20031104
- DT - \*; Rep
- CT - |RU| ISR (A1)  
[SU708042](#) A1 19800105 [X] (PI PROMSTALKONSTRUKTSIYA GLAVS [SU]);  
[SU1716051](#) A1 19920228 [Y] (VG GOL PT I ORGANIZATSII T STR [SU]);  
[SU1813148](#) A3 00000000 [A];  
[EP0413381](#) A1 19910220 [A] (DUROX GASBETON BV [NL]);  
[US2836054](#) A 19580527 [A] (WALTER BRAUER)
- CCI - [E04G21/161](#)
- PA - GREKOV ALEXANDR VLADIMIROVICH [RU]
- TI - DEVICE FOR ASSEMBLING PANEL BLOCKS
- AB - The invention relates to devices for erecting buildings and constructions and can be mainly used for erecting panel low-rise buildings, for example village buildings. The inventive device is used for assembling panels into blocks, mounting them in buildings and for using said panels in the form of **scaffold** for fixing and finishing blocks. Said device consists of a master frame



provided with elements for fixing panels and assembling them into blocks in the horizontal position thereof. Said master frame is embodied in the form of the part of a three-dimensional **truss** whose parts at least partially can be used in the form of a **scaffold** in the vertical position thereof. The thus block-assembled panels are arranged on the horizontally placed master frame of the device, aligned and connected to each other, the joints therebetween being sealed. Said frame is provided with joint clearances and is disposed above ground at a such height that it is possible to joint the panels and seal the joints simultaneously in the top and lower parts of the block. The device is provided with wheels for transporting it from the assembling place to the erecting place and with elements for positioning it with respect to the foundation of the erecting building. After the panel block assembly, the device together with said block, which is fixed thereto, is arranged in the vertical position and the part of stiffeners thereof which are embodied in the form of stages and **stairs** are used as **scaffolds**.

15/21 © EPODOC / EPO

PN - [JPH0893378](#) A 19960409

PNFP - JP3560000B B2 20040902

PR - JP19940259008 19940929

AP - JP19940259008 19940929

DT - I

FI - E21D7/00

PA - (A)

HAZAMA GUMI; AOYAMA KIKO KK; GIFU KOGYO KK; SATO KOGYO

TI - (A)

TRANSFERABLE LINING FORM FOR VERTICAL SHAFT

AB - (A)

PURPOSE: To secure safety on working and reduce the construction period and carry out an efficient construction work, by arranging a transferable form at the outer periphery of posts erected in a vertical shaft and suspending it by a lifting device and assembling the posts as a **truss** structure to provide **ladders**. CONSTITUTION: When a transferable form 16 is moved, the transferable form 16 is securely suspended by a winch and after temporary fixing by a stay wire or a safety pin has been confirmed, the wall is contracted and the form is removed. Next, all workers move from the **scaffolds** of the transferable form 16 to the post 10 side and the temporary fixing by stay wire and the safety pin is released, Then the winch is remotely operated to lift the transferable form 16 up to a specified height. After that, the transferable form 16 is temporarily fixed again to the posts 10 by the stay wire and the safety pin or the like. Subsequently, the workers move from the post 10 side to the **scaffolds** of the transferable form 16 and then the wall is widened and concrete is placed.

**16/21** © EPODOC / EPO

PN - [JPH10339042](#) A 19981222

PR - JP19970149764 19970606

AP - JP19970149764 19970606

DT - I

FI - E02D29/04&Z; E02D29/05&Z; E04G27/00; E21D1/00&Z

FT - 2D047/AB01; 2D047/AB04; 2D147/AB01; 2D147/AB04

PA - SHIMIZU CONSTRUCTION CO LTD

TI - WORKING PLATFORM FOR RIDING AND CONSTRUCTION METHOD THEREFOR

AB - PROBLEM TO BE SOLVED: To simplify and rationalize the construction of a working platform for riding at the time of the erection thereof. SOLUTION: A working platform for riding is formed out of posts 11 and beams 12 and 13 as main structural members and as a whole, forms a rigid- frame structure. The beams 12 and 13 are made of **ladder** type or **truss** type unit members, and rigidly connected to the posts 11 via metal fixture using weld. In this case, a **ladder** type structure in such a status as having a pair of upper and lower horizontal materials 16 jointed via vertical materials 17 is preferable as the unit members. Regarding a construction method for the working platform, the support piles 11 as the posts are driven into the subsoil and then, the unit members as the beams 12 and 13 for each stage are sequentially fixed to the exposed parts of the support piles 1, with the subsoil excavated step by step. At the time of implementing an excavation work for each stage, the position of the excavation subsoil is kept slightly lower than the fitting positions of the beams 12 and 13 for each stage, and the excavation subsoil is used as a **scaffolding** for a work.

**17/21** © EPODOC / EPO

PN - [GB2292583](#) A 19960228

PNFP - GB2292583 B 19961106

PR - WO1994GB01130  
19940524; GB19930010848  
19930526; GB19930014280  
19930710

AP - GB19950023340 19940524

DT - \*\*

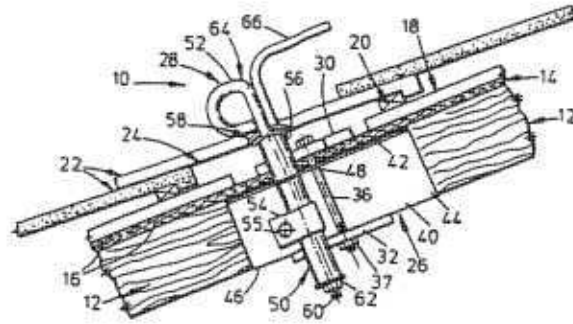
CT - || STSE (A B)  
[GB2251020](#) A 19920624 [  
] (CRAWFORD HENRY);  
[GB2259527](#) A 19930317 [  
] (CRAWFORD HENRY [GB], et al);  
[DE3306701](#) A1 19840830 [  
] (BADISCHE EISEN &  
BLECHWAREN [DE]);  
[FR1271683](#) A 19610915 [ ];  
[FR2048091](#) A5 19710319 [  
] (CASAGRANDEEMMANUEL);  
[FR2544367](#) A1 19841019 [  
] (VANACKER YVES [FR])

CCI - [E04G5/041](#) ; [E04G21/3214](#) ;  
[E04G21/3261](#) ; [E04G21/3276](#) ;  
[E04D13/12](#)

PA - (A B)  
DUNN & COWE LTD [GB];  
CRAWFORD HENRY [GB]

TI - (A B)  
Anchoring device for use on a  
roof

AB - (A)  
An anchoring device (10; 110) for  
use on a roof having a plurality  
of trusses (12) with external  
covering means (14; 16; 22) is  
described. The anchoring device  
(10; 110) includes **truss**  
attachment means (26) for  
securing the anchor to a **truss**  
(12) and a roof anchor (28)  
which is coupled to the **truss**  
attachment means (26) and  
which passes through the roof  
covering (14; 16; 22) to provide  
an anchor point. The **truss**  
attachment means (26) has  
upper and lower plates (30: 32)



for engaging with respective upper and lower faces of the **truss** (12). The plates are connected by side members (34; 36) for location to respective sides of the **truss** (12), the spacing between the side members (34; 36) being adjustable to accommodate trusses of different widths. The anchor point can be provided by an eye (52) or a hook (66) or both and a **ladder** or crawler board (116) or **scaffolding** frame (202; 218) can be secured to the anchoring device by the eye or hook to facilitate a safer working environment. Embodiments of the invention are described.

<IMAGE>

**18/21** © EPODOC / EPO

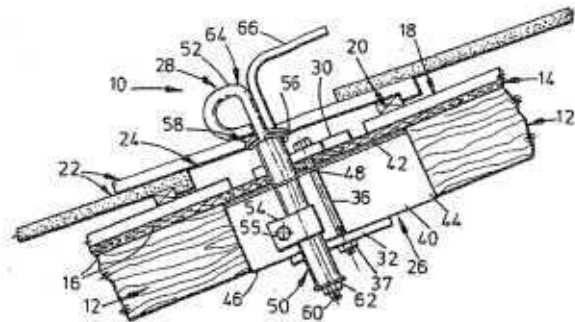
PN - [WO9428268](#) A1 19941208

PR - GB19930010848  
19930526; GB19930014280  
19930710

AP - WO1994GB01130 19940524

DT - \*; Rep

CT - [EP] ISR (A1)  
[FR1271683](#) A 19610915  
[XY] (BOUYER)  
[X] 1,2,4,6,20  
\* the whole document \*  
[Y] 3,5,7-19;  
[GB2259527](#) A 19930317  
[YD] (CRAWFORD HENRY [GB], et al)  
[YD] 3,12  
\* page 7, paragraph 3 - page 8, line 1 \*  
\* figures 3-6 \*;  
[DE3306701](#) A1 19840830  
[Y] (BADISCHE EISEN & BLECHWAREN [DE])  
[Y] 5  
\* page 6, line 9 - page 6, line 17 \*  
\* figures 1-6 \*;



[FR2544367](#) A1 19841019

[XY] (VANACKER YVES [FR])

[X] 20,21,24,25

\* page 4, line 7 - page 4,  
line 12 \*

\* page 5, line 28 - page 6,  
line 4 \*

\* page 6, line 17 - page 6,  
line 28 \*

\* figures 1-7 \*

[Y] 7-11,22,23;

[GB2251020](#) A 19920624

[YD] (CRAWFORD HENRY)

[YD] 12-19

\* page 6, paragraph 3 - page 7,  
paragraph 1 \*

\* figures 1-3 \*;

[FR2048091](#) A5 19710319

[Y] (CASAGRANDEEMMANUEL)

[Y] 22,23

\* page 3, line 15 - page 3,  
line 21 \*

\* figures 1-3 \*

CCI - [E04G5/041](#) ; [E04G21/3214](#) ;  
[E04G21/3261](#) ; [E04G21/3276](#) ;  
[E04D13/12](#)

PA - DUNN & COWE LTD [GB];  
CRAWFORD HENRY [GB]; COWE  
DEREK ROY [GB]

TI - ANCHORING DEVICE FOR USE ON  
A ROOF

AB - An anchoring device (10; 110) for  
use on a roof having a plurality  
of trusses (12) with external  
covering means (14; 16; 22) is  
described. The anchoring device  
(10; 110) includes **truss**  
attachment means (26) for  
securing the anchor to a **truss**  
(12) and a roof anchor (28)  
which is coupled to the **truss**  
attachment means (26) and  
which passes through the roof  
covering (14; 16; 22) to provide  
an anchor point. The **truss**  
attachment means (26) has  
upper and lower plates (30; 32)  
for engaging with respective

upper and lower faces of the **truss** (12). The plates are connected by side members (34; 36) for location to respective sides of the **truss** (12), the spacing between the side members (34; 36) being adjustable to accommodate trusses of different widths. The anchor point can be provided by an eye (52) or a hook (66) or both and a **ladder** or crawler board (116) or **scaffolding** frame (202; 218) can be secured to the anchoring device by the eye or hook to facilitate a safer working environment. Embodiments of the invention are described.

**19/21** © EPODOC / EPO

- PN - [CN2125685U](#) U 19921223
- PR - CN1992209484U 19920507
- AP - CN1992209484U 19920507
- DT - I
- PA - QUNYING HARDWARE FACTORY SHANG [CN]
- TI - CYCLOTRON CONNECTING MECHANISM FOR STRESSED **TRUSS** STRUCTURE
- AB - The utility model relates to a revolving connecting mechanism for a stressed **truss** structure, which comprises two pairs of ratchet wheels which are arranged in pairs. The ratchet wheels are provided with handle parts, and are provided with a plurality of engaging tooth slots. The two ratchet wheels are respectively and rotatably arranged on the both ends of a short shaft, and two ratchet pawls are respectively and rotatably arranged on the handle of the opposite ratchet. The utility model also comprises an operating cam which is provided with an operating handle. The revolving connecting mechanism for a stressed **truss** structure has the advantages of stable self lock, and convenient change for the working state position. The utility model is used in the stressed **truss** structure which forms the class of the folding **ladder** or the **scaffolding** to be used as the revolving connecting mechanism.

**20/21** © EPODOC / EPO

- PN - [CN2085825U](#) U 19911002
- PR - CN1990225839U 19901207
- AP - CN1990225839U 19901207
- DT - I
- PA - ZHANG HONGQI [CN]
- TI - STRUCTURAL **LADDER SCAFFOLD** FOR CONTRUCTION OF CALOTTE BUILDING
- AB - The utility model relates to a structural **ladder scaffold** for the construction of calotte

buildings, which is mainly composed of an annular **truss** and an arched **staircase**. A row or two rows of cross arched **ladders** are fixed on the annular **truss**, and **ladder** compartments are arranged on the arched **ladder scaffold**; a plurality of rolling wheels are arranged at the lower part of the annular **truss** to make the annular **truss** and an arched **ladder scaffold** on the annular **truss** rotate along a circular orbit which is arranged on the ground under the support of a plurality of rolling wheels. The utility model can be widely used for an astronomy calotte cover, a radar cover, the construction of an astronomical phenomena movie hall building and a truncated spherical calotte building with any diameter.

21/21 © EPODOC / EPO

PN - [CA1230154](#) A 19871208

PR - CA19840451749 19840411

AP - CA19840451749 19840411

DT - I

PA - CHAMPIGNY LUCIEN

TI - FOLDABLE **LADDER SCAFFOLD**

AB - A foldable **scaffold** is disclosed, including a frame and a person-supporting plank. The frame comprises two upwardly-extending end **ladders**. A backwardly-located **truss** pivotally joins the **ladders** together and includes a hinge at the intermediate portion thereof for pivotal forward movement of the latter from a fully-extended **truss** position to a folded **truss** position. The latter movement produces relative lateral movement of the **ladders** from spaced-apart positions, one toward the other, to near-abutting positions. The frame also includes a hinge to releasably immobilize the hinge and maintain the **truss** in fully-extended position. The person-supporting plank is removably fixed to and extends between the **ladders** when the **truss** in its fully-extended position.

[SS 18]