

Search query (31): PN=(US7513480 or WO2017086704 or DE3844977 or US6557817 or CN207582916 or KR200478605 or EP0418173 or GB729125 or CN110388041 or CN109898819 or CN208918240 or DE102009021371 or WO20200342 or US2020240155 or BE1023499 or KR101621868 or WO20101490 or GB2577863 or GB2565057 or ES1177734 or DK177113 or BRPI0504794 or DE19636550 or WO17178459)

Results: 24

Search history

Search PN=(US7513480 or WO2017086704 or DE3844977 or US6557817) (Results 4)

1:

Search TAC=(scaffold and vertical railing) and IC=(E04G1/15 or E04G1/38 or E04G3/20 or E04G5/08) (Results 2)

2:

Search TAC=(vertical rail*) and IC=(E04G1/15 or E04G1/38 or E04G3/20 or E04G5/08) (Results 9)

3:

Search TAC=(scaffold and vertical and rail* and frame and platform) (Results 200)

4:

Search TAC=(scaffold and vertical and frame and platform and cantilev*) (Results 51)

5:

Search TAC=(scaffold and vertical and frame and cantilev*) (Results 180)

6:

Search TAC=(scaffold and vertical railing* and frame and support) (Results 0)

7:

Search TAC=(scaffold and vertical railing* and frame and support) (Results 1)

8:

Search PN=(JP2001288883 A2 OR FR2988414 A1 OR DE102018105660 A1 OR EP3540148 A1 OR CN110259108 A) (Results 3)

9:

Search fn=(81235612^50 or 81117026^50 or 81014054^50 or 78538559^50 or 75829934^50 or 62231898^50 or 58799579^50 or 58732022^50 or 56338564^50 or 53978773^50 or 49449879^50 or 48429387^50 or 47624572^50 or 47204164^50 or 44208129^50 or 42174124^50 or 31030055^50 or 9337834^50 or 8046857^50 or 3597161^50 or 81312988^40 or 80180155^40 or 57713222^40 or 55969828^40 or 53006954^40 or 52359996^40 or 43642285^40 or 34532708^40 or 15733064^40 or 82827447^30 or 82390919^30 or 81372399^30 or 81241114^30 or 81235606^30 or 80800031^30 or 80676075^30 or 80178977^30 or 80007308^30 or 79078313^30 or 78067701^30 or 77591662^30 or 76959369^30 or 76959037^30 or 76463746^30 or 76147135^30 or 75436964^30 or 74511902^30 or 74340109^30 or 74169445^30 or 74169000^30 or 74024915^30 or 73575043^30 or 71970722^30 or 70940536^30 or 70940466^30 or 70333251^30 or 68415753^30 or 67173947^30 or 67010757^30 or 66668813^30 or 66371720^30 or 66371719^30 or 66371717^30 or 63735268^30 or 63681956^30 or 62912542^30 or 62363489^30 or 62327007^30 or 62231883^30 or 62180720^30 or 62045478^30 or 61845104^30 or 61609741^30 or 60285722^30 or 59780985^30 or 59520723^30 or 59380222^30 or 59002820^30 or 58903759^30 or 58732016^30 or 58694144^30 or 58288211^30 or 57926284^30 or 55144381^30 or 55117378^30 or 54900705^30 or 54900702^30 or 53751091^30 or 53651152^30 or 53651150^30 or 53191061^30 or 52658369^30 or 52530856^30 or 52436151^30 or 52067187^30 or 51886295^30 or 51634076^30 or 51095765^30 or 50919066^30 or 50899563^30) (Results 100)

Search PN=(US7513480 or WO2017086704 or DE3844977 or US6557817 or CN207582916 or KR200478605 or EP0418173 or GB729125 or CN110388041 or CN109898819 or CN208918240 or DE102009021371 or WO20200342 or US2020240155 or BE1023499 or KR101621868) (Results 16)

Search TAC=(scaffold and railing and quick and assemb*) (Results 5)

12:

Search TAC=(scaffold and railing) (Results 469)

13:

Search TAC=(scaffold and railing) and FT=(quick assemb*) (Results 2)

14:

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15:

Search TAC=(scaffold and creeping) (Results 38)

16:

Search TAC=(scaffold and frame and platform) (Results 2059)

17:

Search TAC=(scaffold and frame and platform) and FT=(rail*) (Results 575)

18:

Search TAC=(scaffold and frame and platform) and FT=(vertical rail*) (Results 13)

19:

Search FT=(quick assemb* and scaffold and frame and platform) (Results 27)

20:

Search FT=(extern* wall and scaffold and frame and platform) (Results 46)

21:

Search FT=(facade and scaffold and platform and rail*) (Results 149)

22:

Search PN=(US7513480 or WO2017086704 or DE3844977 or US6557817 or CN207582916 or KR200478605 or EP0418173 or GB729125 or CN110388041 or CN109898819 or CN208918240 or DE102009021371 or WO20200342 or US2020240155 or BE1023499 or KR101621868 or WO20101490 or GB2577863 or GB2565057) (Results 19)

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24:

Search PN=(US7513480 or WO2017086704 or DE3844977 or US6557817 or CN207582916 or KR200478605 or EP0418173 or GB729125 or CN110388041 or CN109898819 or CN208918240 or DE102009021371 or WO20200342 or US2020240155 or BE1023499 or KR101621868 or WO20101490 or GB2577863 or GB2565057 or ES1177734 or DK177113 or BRPI0504794 or DE19636550) (Results 23)

Search PN=(CA2020201 AA OR FR2987857 A1 OR EP2757212 A1 OR WO17178459 A1) (Results 4)

26:

Search PN=(DE4404042 C1 OR FR2781515 A1 OR EP0308882 A2 OR EP2789767 A1 OR CN205857682 U) (Results 5)

27:

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Search PN=(FR2336532 A1 OR JP2004190247 A2 OR JP3004217 U OR JP2008255586 A2 OR WO09114912 A1 OR JP2011132779 A2) (Results 6) 29:

Search PN=(EP0468907 A1 OR FR2596442 A1 OR EP0632171 A1 OR EP0512428 A1 OR DE4410626 A1 OR DE9112488 U1 OR FR2956424 A1) (Results 7) 30:

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1) Family number: 46823252 (DK177113 B1)

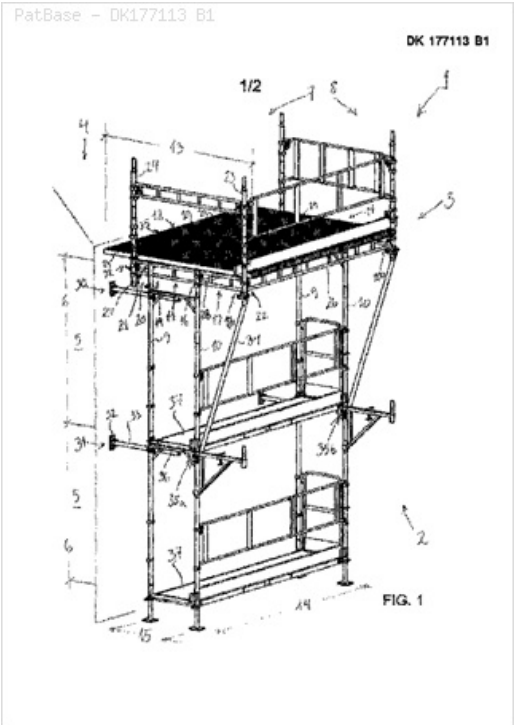
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Title: SCAFFOLD SYSTEM WITH EXTENDED WIDTH PA UPPER WORK PLATFORM (Machine translation)

Abstract: Source: DK177113 B1 Machine translation: The present invention angar a scaffolding system that is distinctive know that the upper platform width is greater than the width modulation distance and that each of the at least two upper cross beams at its first endedel is extended by at least the projection of a first understoetningsdel for supporting the at least one upper working platform where the first understoetningsdel is with a free endedel. This opnas a narrow scaffolding system that can daime a secure under design for a wider working plat form at the apex pa scaffolding system. The work platform is expanded in width to two pages, that is to say against the outermost or the inner part of the scaffolding system. Opnas elapsing the price and space benefits of a narrow scaffolding below, as well as a efficiency enhancing extension of the upper working platform.

Classifications:

International (IPC 8-9): E04G1/00 E04G1/15 E04G1/18 E04G1/20



Family:

Publication number	Publication date	Application number	Application date
DK177113 B1	20111017	DK20090000227	20090218
DK200900227 A5	20100819	DK20090000227	20090218

Priority:

DK20090000227 20090218

Probable Assignee: BARBERENS STILLADSER AS

Assignee(s): (std): BARBERENS STILLADSER AS

Inventor(s): (std): OLSEN LEIF LAURIS SOFUS ; SOFUS OLSEN LEIF LAURIS

2) Family number: 76338705 (CN110388041 A)

© PatBase

Title: FLOWER BASKET PULL ROD TYPE CANTILEVER FRAME

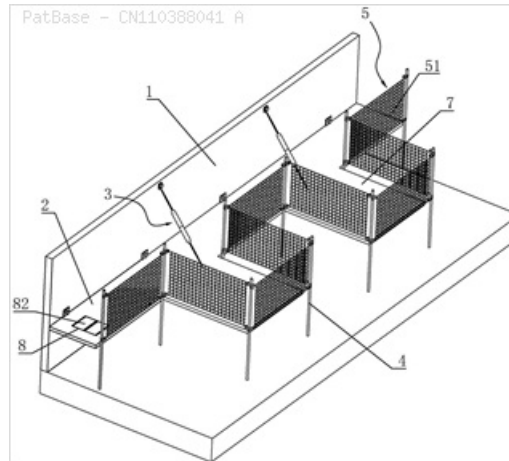
Abstract: The invention discloses a flower basket pull rod type cantilever frame applied to the field of cantilever frames. The technical scheme is characterized by comprising a shape steel cantilever beam, diagonal members and outer wall scaffolds, wherein the shape steel cantilever beam, the diagonal members and the outer wall scaffolds are connected to a wall; one end of each diagonal member is connected to the shape steel cantilever beam, the other end of each diagonal member is connected to the wall, and the outer wall scaffolds are located at the end, away from the wall body, of the shape steel cantilever beam; and a protection mechanism is arranged between two adjacent vertical rods of the corresponding outer wall scaffold. Each protection mechanism comprises a protective screen, a bottom rod and first fixing clamps, wherein the bottom rod is connected to the bottom

of the protection net, the two first fixing clamps are hinged to two ends of the bottom rod respectively, the two first fixing clamps are clamped to the two adjacent vertical rods respectively, two ends of the top of the protection net in the length direction are connected with second fixing clamps respectively, and the two second fixing clamps are clamped on the two adjacent vertical rods of the corresponding outer wall scaffold respectively. The cantilever frame has the technical effects that the protective nets can be quickly and conveniently expanded and installed on the outer wall, and the installation time of the flower basket pull rod type cantilever frame is greatly shortened.

Classifications:

International (IPC 8-9): E04G3/20 E04G5/00 E04G5/04

CPC: E04G3/20 E04G5/00 E04G5/001 E04G5/046



Family:

Publication number	Publication date	Application number	Application date
CN110388041 A	20191029	CN201910696551	20190730

Priority:

CN201910696551 20190730

Probable Assignee: HAITONG CONSTRUCTION GROUP CO LTD

Assignee(s): (std): HAITONG CONSTRUCTION GROUP CO LTD

Assignee(s): HAITONG CONSTRUCTION GROUP CO

Inventor(s): (std): DING BOSHENG ; DONG SHANQIN ; LIU MENG ; PAN CHANGGEN ; QIN DING

3) Family number: 19587303 (GB729125 A)

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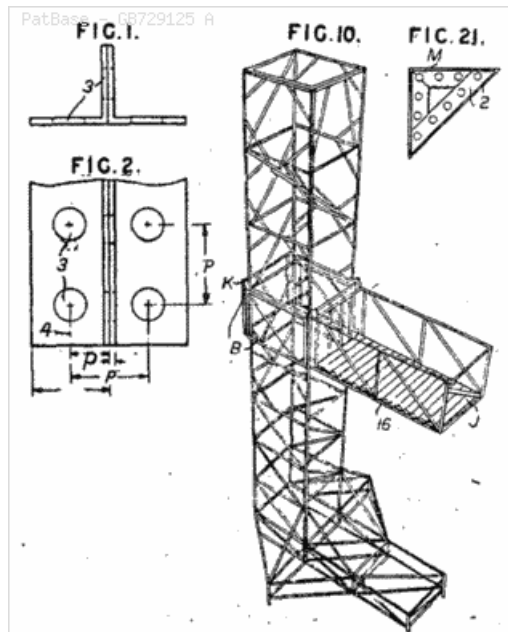
Title: Improvements relating to constructional elements for building frame and other structures

Abstract: 729,125. Metal constructional elements; scaffolding towers; ladders. NATIONAL RESEARCH DEVELOPMENT CORPORATION. Feb. 2, 1953 [Nov. 2, 1951], No. 25723/51. Class 20 (2). Elements for constructing frames for aircraft servicing tower ladders, hangars, c. are of L-section having a longitudinal row of holes 3 Figs. 1 and 2, in one or both flanges for connecting the elements together, the holes being spaced by a distance P equal to or a multiple of twice the distance p between the centre line 4 of a row of holes in one flange and the outer face of the other flange. Thus the distance between the holes in a row on one flange of an element is the same as the distance between rows of holes of adjacent elements bolted together as shown in Figs. 1 and 2. The centre line of the row of holes may be midway between the inner corner of the L-section and the outer edge of its flange. The elements shown comprise open rectangular frames, Fig. 3 (not shown), of L-section material in which the spacing of the rows of holes originate from the point of intersection of the centre lines of the rows at the corners of the frames, also L-section braces, Fig. 4 (not shown), and elements; Fig. 5 (not shown), to be used as horizontals and verticals in a framework. A tower scaffold, Fig. 10, is constructed of an assembly of these elements and comprises a cantilever platform 16 adapted to be raised and lowered by winches and having one end built around the tower by means of open frames B connected together by brackets K, Figs. 8, 13 (not shown) having rollers adapted to run on the flanges of the vertical elements of the tower. The floor of the platform is formed of overlapping corrugated metal or plastic "planks" J. In another tower, Fig. 17 (not shown), a stairway leads up to a platform at the top, each tread of the stairway being secured at each end to an open triangular frame M, Fig. 21, of L-section material having holes arranged at a distance of P from one another. Alternatively the stair treads may be supported on panels each carrying a number of flanged right-angle elements. Fig. 26 (not shown) shows how a number of components may be packed. Further brackets are described in Figs. 1-6 (not shown) of the Complete Specification. According to the Provisional Specification the towers of Figs. 10 and 17 may be provided with combined wheel and jack units to render them mobile.

Classifications:

International (IPC 8-9): E04H12/00 E04H12/10

CPC: E04H12/10



Family:

Publication number	Publication date	Application number	Application date
GB729125 A	19550504	GB19510025723	19511102

Priority:

GB19510025723 19511102

Probable Assignee: NAT RES DEV

Assignee(s): (std): NAT RES DEV

Assignee(s): NATIONAL RESEARCH DEVELOPMENT CORP

Inventor(s): (std): WEBSTER BERNARD

4) Family number: 6241445 (EP0418173 A1)

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Title: TELESCOPING SCAFFOLD FOR ELEVATED LEVEL WORK.

Abstract: This scaffolding is noteworthy in that it comprises a carrying structure (SP) having stabilizer feet (3) and/or rolling means (4), which is constituted by a rigid frame (OR) containing all the elements necessary for the opening up of the scaffolding and having along two opposite sides sliding guide uprights (6) for each element (ET) to be opened up by the agency of suitable driving means disposed on the carrying structure, on guide extension pieces (7) and on the telescoping elements; a guided work platform (PM), having controlled sliding in relation to the telescoping elements, being itself driven by any means.

Classifications:

International (IPC 8-9): E04G1/18 E04G1/20 E04G1/22

International (IPC 1-7): E04G1/18 E04G1/22

CPC: E04G1/18 E04G1/20 E04G1/22

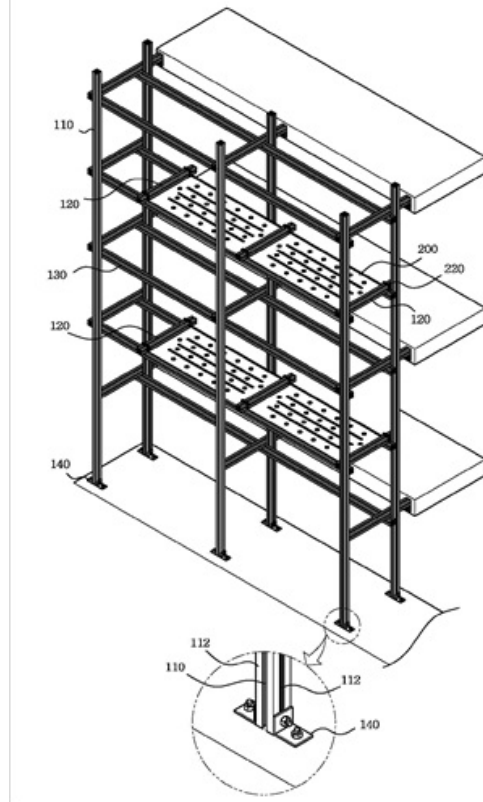
Publication number	Publication date	Application number	Application date
EP0418173 A1	19910320	EP19900420395	19900907
FR2651820 A1	19910315	FR19890012154	19890911
FR2651820 B1	19911227	FR19890012154	19890911

FR19890012154 19890911

Probable Assignee:	BOUDROT CHARLES
Assignee(s): (std):	BOUDROT CHARLES
Inventor(s): (std):	BOUDROT CHARLES ; CHARLES BOUDROT
Designated states:	AT BE CH DE DK ES GB GR IT LI LU NL SE

Abstract: The present invention is characterized by comprising: a plurality of first scaffold frames erected vertically on an outer wall side of a building; second scaffold frames connecting the first scaffold frames and supporting the loads of safety footboards; third scaffold frames configured between the second scaffold frames and preventing workers from falling; fastening means connecting the first through to third scaffold frames; connecting brackets respectively fastened to the fastening means, connecting each of the first through to third scaffold frames, and fixing the first scaffold frames to the ground surface; and safety footboards having fixing hook parts formed on both side ends thereof so as to be coupled to the second scaffold frames.

International (IPC 8-9): E04G1/15 E04G1/38 E04G3/20 E04G5/08
E04G7/02 E04G7/28
CPC: E04G1/15 E04G1/38 E04G3/20 E04G5/08 E04G7/02 E04G7/28



Family:

Publication number	Publication date	Application number	Application date
KR101654483 B1	20160909	KR20150162329	20151119
WO17086704 A1	20170526	WO2016KR13241	20161117

Priority:

KR20150162329 20151119

Probable Assignee: JO SEONG JU

Assignee(s): (std): JO SEONG JU

Assignee(s): COMPOSITION MAIN

Inventor(s): (std): JO SEONG JU

Agent(s): JUNG CHANG SU

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 KM KN KP 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

6) Family number: 33314006 (US2007119116 AA)

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Title: CLIMBING SYSTEM FOR SHUTTERING, SCAFFOLDING AND LOADS IN GENERAL

Abstract: The climbing system comprises an upper head (5) attached to the bracket arrangement (3) and also solidly joined to the body of a hydraulic cylinder (6) the rod whereof is attached to a lower head (7), both heads (5) and (7) having a body (8) with upper (9) and lower (10) wings defining there between guides that encircle the upright (1), each of the heads having a rocker (11) that can act on flanges or blocks (14) distributed along the upright (1). The rocker is mounted on a transversal axis (12), against the action of a spring (13) that permanently acts on the rocker in any of its operating positions, and there is an outer handle (19) solidly joined to the transversal axis (12), which can make said axis (12) rotate to change the position of the rocker in relation to the upright (1). The system also has a safety device that makes it possible to limit the positions of the rocker.

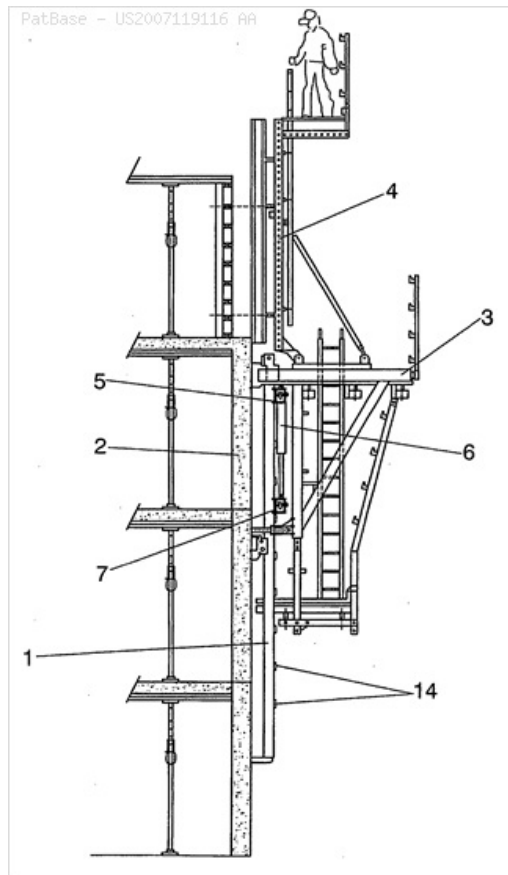
Classifications:

International (IPC 8-9): B28B11/00 B28B11/24 E04C3/02 E04G11/00 E04G11/28

International (IPC 1-7): E04G11/28

CPC: E04G11/28

US: 249/20 425/65 52/633 52/633P



Family:

Publication number	Publication date	Application number	Application date
AR047258 AA	20060111	AR2004P104412	20041126
AT458102 E	20100315	AT20030773745T	20031127
AU2003282129 AA	20050624	AU20030282129	20031127
BRPI0318598 A	20061017	BR2003PI18598	20031127
BRPI0318598 B1	20160322	BR2003PI18598	20031127
CN100416023 C	20080903	CN200380110983	20031127
CN1894478 A	20070110	CN200380110983	20031127
DE60331375 D1	20100401	DE20036031375T	20031127
EP1698746 A1	20060906	EP20030773745	20031127
EP1698746 B1	20100217	EP20030773745	20031127
ES2339442 T3	20100520	ES20030773745T	20031127
IN01373KN2006 A	20070504	IN2006KN01373	20060522
IN253406 B	20120720	IN2006KN01373	20060522
US2007119116 AA	20070531	US20030581129	20031127
US7513480 BB	20090407	US20030581129	20031127
WO05054604 A1	20050616	WO2003ES00605	20031127

Priority:

WO2003ES00605 20031127

Probable Assignee: ULMA C Y E S COOP

Assignee(s): (std): AROZENA BERGARETXE ALBERTO ; IRIZAR MOYUA INAKI ; ULMA C Y E S COOP ; ULMA CYES CORP

Inventor(s): (std): AROZENA BERGARETXE ALBERTO ; BERGARETXE ALBERTO AROZENA ; IRIZAR MOYUA INAKI ; MOYUA A AROZENA BERGARETXE I I ; MOYUA INAKI IRIZAR

Inventor(s): A AROZENA BERGARETXE I IRIZAR MOYUA ; ALBERTO AROZENA BERGARETXE ; INAKI IRIZAR MOYUA

Agent(s): CARPINTERO LOPEZ FRANCISCO; KNOBBE MARTENS OLSON AND BEAR 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 LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ 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

7) Family number: 74741557 (CN109898819 A)

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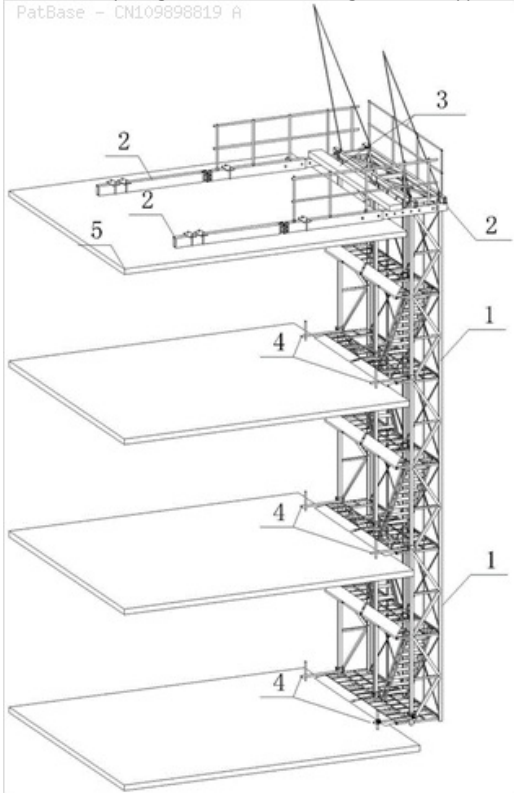
Title: FOLDABLE AND RETRACTABLE CANTILEVER TOOL TYPE SCAFFOLD SYSTEM AND MOUNTING METHOD THEREOF

Abstract: The invention discloses a foldable and retractable cantilever tool type scaffold system and a mounting method thereof. The foldable and retractable cantilever tool type scaffold system comprises a main frame body, adjustable cantilever steel beams, a mounting operating platform, wall connecting pieces and floors, and thus the outer adjacent edge protection requirements

during huge column construction of special-shaped contour line super-high-rise buildings are met; the main frame body comprises a top cross beam, an unloading steel wire rope, vertical rods, inclined strut rods, platform plates, overturning plates, stairs and enclosure structures, and the bottom end of the cross beam is fixedly connected with the cantilever ends of the adjustable cantilever steel beams through bolts; the adjustable cantilever steel beams comprise folding sections, retractable sections, anchoring pieces and folding pieces; and the two ends of the folding pieces are movably connected with the two folding sections, and one ends of the folding sections are movably connected with the retractable sections. The adjustable cantilever steel beams control distance control between the main frame body and a mainbody, thus outer facade protection of the special-shaped outer contour line buildings is achieved, practicality is high, and meanwhile the foldable and retractable cantilever tool type scaffold system can further be suitable for the super-high-rise buildings with the different storey heights and different huge column types.

Classifications:

International (IPC 8-9): E04G3/18 E04G5/00 E04G5/04



Family:

Publication number	Publication date	Application number	Application date
CN109898819 A	20190618	CN201910086572	20190129

Priority:

CN201910086572 20190129

Probable Assignee: CHINA CONSTRUCTION 4TH ENG BUREAU 6TH CO LTD

Assignee(s): (std): CHINA CONSTRUCTION 4TH ENG BUREAU 6TH CO LTD ; CHINA CONSTRUCTION 4TH ENGINEERING BUREAU 6TH CORP LTD

Assignee(s): CHINA CONSTRUCTION 4TH ENGINEERING BUREAU 6TH CO

Inventor(s): (std): CHENG CHANGHONG ; GUAN CONGCONG ; GUO QI ; HUANG SHUO ; SU GUOHUO ; ZHANG YIHAN ; ZHOU ZILU

8) Family number: 18036867 (US5000287 A)

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Title: DISPLACEABLE PLATFORM MOVABLE SECTIONWISE ON A WALL

Abstract: A displaceable platform which can be advanced sectionwise on a wall has support shoes (11) which are securable to the wall (12) at specific intervals in the direction of advance, at least two carrier rails (13) which are arranged spaced apart alongside one another and which extend along the wall (12) between at least two support shoes (11) in each case, and at least one displaceable bracket arrangement (14) which is arranged for displacement in the direction of advance and is fixable on at least two adjacent carrier rails (13), with the carrier rail (13) and the displaceable bracket arrangement (14) being alternately displaced upwardly. A linear drive (15) is associated with each carrier rail (13) which advances the displaceable bracket arrangement (14), in the region of the associated carrier rail, in steps (S) which are so small in comparison to the length (L) of a section that non-uniform displacements of adjacent linear drives (15) by one step (S) can still be accommodated by the elasticity of the cooperating components. All linear drives (15) are driven and jointly controlled from a common drive and control apparatus (22), so that a further working step can first be introduced when all the linear drives (15) have completed the preceding working step.

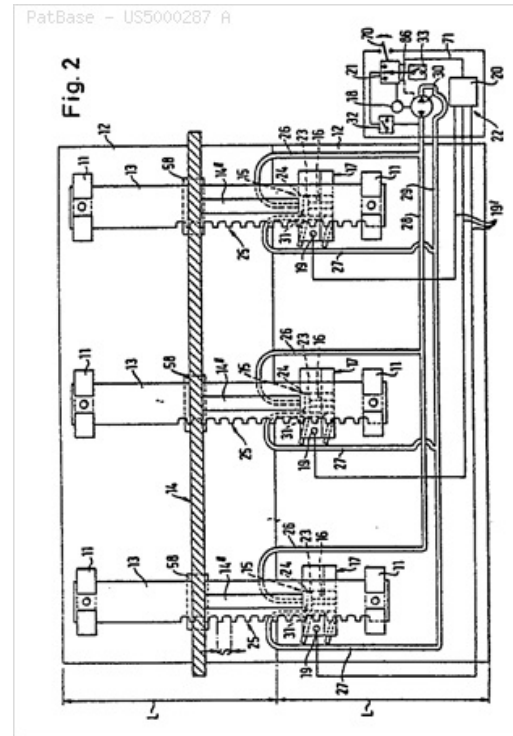
Classifications:

International (IPC 8-9): E04G11/00 E04G11/28

International (IPC 1-7): B66F11/04 E04G11/24 E04G11/28 E04G3/08

CPC: E04G11/28

US: 182/136 182/82

**Family:**

Publication number	Publication date	Application number	Application date
DE8816955 U1	19910905	DE19880016955U	19881214
DE3842094 A1	19900621	DE19883842094	19881214
DE3842094 C2	19970821	DE19883842094	19881214
DE3842094 C3	20000309	DE19883842094	19881214
DE3844977 C2	19971023	DE19883844977	19881214
DE58903732 D1	19930415	DE19895003732T	19891213
EP0373617 A2	19900620	EP19890123029	19891213
EP0373617 A3	19910717	EP19890123029	19891213
EP0373617 B1	19930310	EP19890123029	19891213
ES2038817 T3	19930801	ES19890123029T	19891213
US5000287 A	19910319	US19890450319	19891214

Priority:

DE19883842094 19881214 DE19883844977 19881214 DE19880016955U 19881214
 DE19895003732T 19891213

Probable Assignee: PERI WERK SCHWOERER KG ARTUR

Assignee(s): (std): PERI GMBH ; PERI WERK SCHWOERER ARTUR KG ; PERI WERK SCHWOERER KG ARTUR

Assignee(s): PERI WERK ARTUR SCHWOERER GMBH AND CO 7912 WEISSENHORN DE KG ; PERI WERK ARTUR SCHWOERER GMBH AND CO 89264 WEISSENHORN DE KG ; PERI WERK ARTUR SCHWOERER GMBH AND CO KG ; PERI WERK ARTUR SCHWOERER GMBH AND CO KG 7912 WEIS ; PERI WERK ARTUR SCHWOERER GMBH AND CO KG 7912 WEISSENHORN DE ; PERI WERK ARTUR SCHWOERER GMBH AND CO KG 89264 WEISSENHORN DE ; PERI WERK ARTUR SCHWOERER GMBH AND CO KG 89264 WEISSENHORN DE ; PERI WERK ARTUR SCHWOERER GMBH AND CO KG

Inventor(s): (std): SCHWOERER ARTUR ; SCHWOERER ARTUR DIPL ING ; SCHWOERER ARTUR

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9) Family number: 35572198 (BRPI0504794 A)

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Title: Center table (Machine translation)

Abstract: Source: BRPI0504794 A **Machine translation:** # # * - # »• 1/1 SUMMARY: POWERED SCAFFOLD booster for use in building facades of works in which the objective is to build, to finish, cleaning and move materials and 5 whose system provides a modular assembly as the dimensions of the building and be walked, being endowed with a command system and electric motors thereby providing self and rise or lower If the will of operator security mechanisms of at least three different types of locks, and consists of 10 general input box (1) to distribution network AC single-phase (2) with protection for dijonator (3) which sends power to the cash individual inlet (4) providing the actuation of the motors (5) and (6), being supported together by metallic profiles, installed in a vertical position, forming travel rails (19), in which in its 15 creases brackets are fitted deslisantes (20) containing bearings in their ends, which allow the whole or work platform (18) secured in such supports (20) by screws, sliding the creases pulled by pulleys eletricas (21), which are engaged in current reinforced (22) at both lateral ends of the scaffold 20, and affixed to the top of the slider (19) by coupling end profile (23). 1/9. . ME Slim CENTER AS. The invention of this patent is to objeti vo coffee tables that when necessary, they become to- tally different from ordinary tables, expanding in lot 5 its worth to users. Are divided into several models corresponding to only three interconnected series: . A, B and C, which are - in the

latter two series structured The (basic) These tables associated static to much pratici 10 ity, based on the traditional tables, incredibly low and Pra- cally only ornamental, becoming so cial tables rising on two levels according to the needs of the moment, and Furthermore, with the top being increased in width and length, different sizes conf. the serie 15 comfortably meeting the people accommodated in sofas and armchairs serving up snacks (second level), and me as well as social enterprises (third level) for normal meals and other activities people sitting on chairs, after which retor- nando their initial dimensions (.the level) 20

SERIE A - Coffee Table basic with 5 centime meters of height (in design). in reality 50 cts) and color responds at and gt; 1 degrees level. An armband or ring will be set exata_ 'mind in the center of the lid so that it can be raised to the level 2C (6.4 cts 64 cts -desenho-. Reais) and the third level 25 (8.2 cts. -desenho- 80/82 cts. real) by a sys- tem fully explained later. SERIE B - Sarie A with two tops superpos- tos: top base, normal, fixed on the legs of the table or modu them support; the other top, movable and can move so- bre 30 the base is exposed top surfaces of adding am- bos the tops, which can rise to Io and 2 degrees 3Q level ni. SERIE C - Sarie A with three superimposed tops top base, ditto, ditto; other, furniture, ditto, ditto. 35

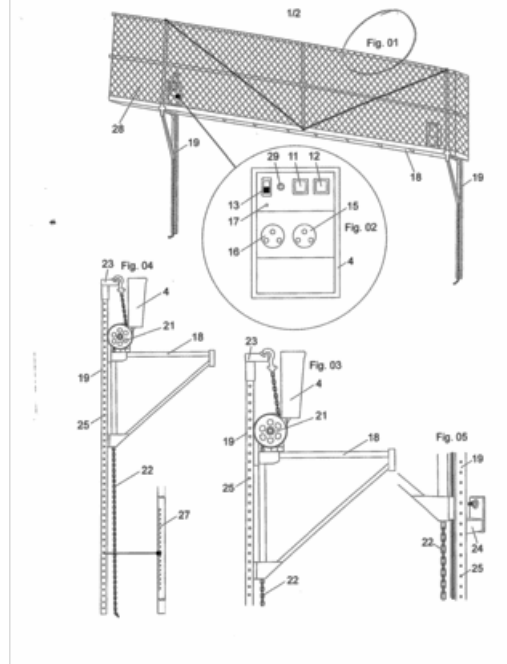
explanation and unfolding of the series A, B and C from Fig. 1 in the report drawings, showing components of all tables as well as their vertical and horizontal process increases the. multiplicity of tam- pos and their varied positions (travel on several senses 2/9) for their best utilization. "All components of the tables may be pre odizados with any viable material, such as: Wood, plastics, aluminum, etc. 5 follows the table Serie A disassembled and its components with properly numbered conf. Figs. 1-2-3-4-4A and 4B. Until Fig. 25 measures listed all reports will represent 1/10 of the actual measures, except a few exceptions that are clearly marked. 10 From Fig. 26. These measures will be re- duced due to the spaces available for the drawings on pgs. officers, no longer behave the measures adopted minutes Fig. 25, due to increase in size thereof Desert nhua.em its consequences. _ _ 15

Fig. 1 - 2 for pin fixation of the junction of the ca- inner leg 3 with the respective outer leg? 6, in the ca- one of three levels, reaching, at least, two leg double leg 3 and 6, for full firmness of the SET (top (s), the four legs 3 internal and four external legs 6) 20 in desired level. Measures to the size NORMAL pin 2: HEAD:.. Two cts, Corpo- length:.. Five cts, diametrically tro: Seven MMS . Fig. 2 - Surface 1 - Seen in perspective - Me- measures: (drawing) Six cts. larg. x 10 cts. lengths of 25 to. FTAa in the center of the top 1 (if single) or in the center of the top head (when there is more than one) alca measures:.. Length one o'clock CT, width: three mms, Height:.. Six mms Fig. 3 - Profile of the top one - always with espes sura two mms . 30 Fig 4 - Four legs 3 with the internal measure of each leg: height four cts. eight mms. - Espes_ sura: Four mms. for each of the four sides. At a CT. the lower end an orifice 4 blush eight mms. of day-meter (actual size), open on the front side of the drawing (cen ter 35). On the left side leg with a shim 5 mm. and less io thick-six mms. partin- vertical length of its upper end at the same level of the hole 4. Four external legs 6 on measures each uma_ altura: Four cts. eight mms, width:.. frontal (design) 5 10 15 20 25 30 35 3/9 gethe mms, width of the left and right sides:.. four m ms. and Midle. At a CT. the lower end of the front side at the center, with an orifice diameter of 8 mms eight. (measure of NORMAL). A ct. five mms. above the hole 8 other hole 9 with identical diameter. A ct. five mms. above this hole, a third ORIF. 10 with the same diameter. Once the SET at level one (see FIG. 5) the hole 4 coincided exactly with eight, and both will be crossed by the pin 2 immobilizando them at that junction. Being ne_ Cessario reach the level 2 (see FIG. 6) will be the SET er guido armband by the top 1 or higher mobile, the ta the ori- fice 4 cross with ORIF. 9, both of which are fixed by pin 2 this junction. It is erected the SET tails ORIF. 4 cross with ORIF. 10'll be attained level 3 (see Figure 7). On the upper end of the leg 6 there will be a gap around the left side of the right leg (drawing FIG. 4) and around the right side of the left leg (ditto) This opening will have seven mms. in the vertical direction in which ra embedded, completely, one calco 7 with larg. four four mms., thickness of two mms. and vertical length seisy mms. et.noventa and cincoF.o outside this calc 7 there will be an integrated plate with the calco as a single PE ca 7. The sheet will have its upper side at the same level 'upper side calc 7, however with a length verti_ cal of a CT. exceeding the calco in a difference of three and a half mms, which will be fixed on the outside of the leg 6, followed gurando the calco7 entirely on the inner side of the leg 6, but without the risk of falling inside the same. ATTENTION - This procedure embed ca 1 co 7 inside the leg 6, only runs after three legs already properly secured in the top 1 basis, have been introduced in the legs 6, under calco 5 fixa- the leg 3 * The exact understanding of these procedures will be perfectly clear by FIGS. 4A and 4B. The 6 legs might be loose when 'fitting, as already may be established by the end 5 10 15 20 25 30 35 40 4/9 Inf. on a plate q uadrada or round in a circle and pub- ro simple or ends of an X, all these ba- ses supported on the floor. Obviously the disposition in which the legs 6 are quoted, the same match in which three legs are attached to the base of the top 1 0 snap leg 3 leg 6 must comply strictly with the provisions in all Figs. both are coupled: the leg 3 should be exactly one mm 'of the left wall of the leg 6:02 mms. the right of pare_ the same leg. This reference ADUP with her legs on the left side of Fig. Regarding the per located on the right side of Fig., The position of the inner leg 3 will be two mms. Wall Esq. d is the outer leg 6 and a mm. the right wall of the same leg. Fig. 4a - SET Profile presenting legs 3 already embedded in the legs 6, and the calc 7 ready to be introduced in the vain sup end. Leg 6. The explanations properly detailed in the text of the link. 4 Fig 4b - Ibid., With calco 7 already embedded devidamen you idem. Ibid. Fig. 5 - ASSEMBLY profile with your inner legs 3 ORIF. 4 and 5 calco, the outer legs 6 with their orifs. 8 9 10 m, the calco 7 and pin fixation 2 through the orifs. 4:08 immobilizing the SET at level 1 (center table -. 50 cts high). Fig. 6-0 SET with all the details appointed in Fig 5, poram with Pin 2 crossing the orifs, 4:09, immobilizing the SET at level 2 (Table e- tender 'bs people accommodated in sofas and armchairs. - Six cts.-four mms. - Sixty-four cts reais) .. Fig. 7 - Ditto, ditto 4:10, immobilizing the SET at level 3 (table for meals and other activ des being the people sitting on chairs - Eight ctsr- Eighty real cts.) . . Figure 8 - pipe connection 18 - Length:.. Five cts. in the next. Fig. JLo-five cts. and two mms. in the next Figs. 11 to 19, representing tops fixed on internal support modules 12, 14 and 16, substitutes 5 10 15 20 25 30 35 5/9 going legs 3, inserted into external modules 13, 15 and 17 which replace the legs 6. - In conclusion, Tu- bo measurements of Conexao 18 - single Diameter: one CT. - (measured NORMAL) Purpose pipe. 18 - 10 in FIG When used together the hole 4 of each leg 3 with the same hole of the leg post. Not being used in this Fig., Will be employed Pi 2 in each leg separately. In Figs. 11, 13 and If the connecting pipe will be used whenever, joining the hole 4 to the corresponding hole in the opposite wall, Fig 9 - Long pin 19 - Length:.. Six cts. and two mms, HEAD:.. three mms, diameter: nine mms . (measured NORMAL). To be applied to the pipe connection 18, so invez pin 2 when the ORIF. 4 is in line with the orifs. 8, 9 and 10. Fig. 10 - Table with four legs 3 fixed at the top 1, poram when the legs 6, optionally, are replaced by a support module. 'height with d-four cts. four mms. and the holes 8, 9 and 10 a- ered on the side edges in the same localization corresponding legs 6. 0 calco 7 shall be fixed in the support module 11 following the same localization that you ~ laugh leg 6 and 5 calco the leg 3. Fig. 11 - Surface 1 supported by a module internal support with four 12 cts. eight mms. of al- ture and length / width of five cts. ORIF. 4 in the center of the front wall (drawing) at a ct '. lower than the end corresponding to another hole in the opposite wall and with the same location. Both orifs? connected by a bo tu connection 18 for the penetration of the Long Pin 19. U calco 5 m at the right end of the wall, to a CT. the former lower extremity with six mms. vertical length and two mms. thick. Fig. 12 - Modulo 13 with external length and breadth five cts. five mms. and height of four 'cts. and three mms., for receiving the internal module 12 (Fig. 11). Three orifs. in vertical order, the center of the front pa- network, in the same disposition and numbering of orifs. 'External legs 6, corresponding to three other orifs. exactly the same disposition open on the opposite wall. 6/9 5 10 15 20 25 30 35 These orifices open at the front and the opposite walls, the orifice being crossed by modulo 4 of procedure 12 (FIG. 11) connected to ORIF. the opposite wall pel the pipe connection 18, will be crossed by the Long Pin 19 immobilizing the internal module 12, the desired level.. FIGS. 13 and 14, 15 and 16 - and obeying the same arrangement of FIGS. 11 and 12, which perfectly mind is shown in Figs. 17, 18 and 19 (degrees level 1). For other levels the rise of procedure SET crossing the ORIF. internal 4 of each internal module with the respective pipe connection 18 properly set in ORIF. correspondent opposite wall, with ORIF. 9 (second level) and ORIF. 10 (3 degrees level), applying in each this gio the Long Pin 19 through the pipe connection 18, handsome rando is expendable to representation in the report of senhos, of figs, referring to 2Q and third levels. SERIE "B" Fig. 20 - pin-Bolt 37 - Measures - It cote: three mms. -Corpc- Screw: Four mms. Pin: four mms. FIG. 21 - Profile of two tops superpos- tos - Superior 38 (mobile) Lower 1 (fixed) ca measures of one - Length: 10 cts. - Thickness: two mms. - To a CT. the left end, a ORIF. threaded 39 with two mms. in diameter across the two tops. In me will of the length two orifs. Threaded 40 and 41 side by side across the two tops. At a CT. the extremity of the right, a ORIF. 42 in position identical to the NQ 39, with two mms. in diameter. FIG. 22 - The tops 1 and 38 overlapping, vis_ to6 in perspective, showing the four orifs. described in FIG.. 21. 0-pin screw 37 inserted into any of orifs (. In this example in ORIF 42) reaching the two tam- pos-; the screw will keep the top 38, motionless; if the pi in (always in two tops) the top 38 will be able to turn in any direction. FIG. 23 - An example of turning the top 38. 0 Pin-p. By pin 37 inserted in ORIF. 42, reaching both tops, allows the rotation of the top 38 on the top 5 10 15 20 25 30 35 7/9 1 fixed. Fig. 24 - Describing ura working 180e, the tare po 38 completes the movement, seeing the ORIF, 39 bottom head 1 at the left end and the same ORIF. 39 of the top 38 at the far right. Thus the tops' superimposed on the initial size of 10 cts., Reach the first final length of eighteen cts.a ties mms.aumento d? 83 percent. To remain fixed in this position, the Bino-p. 37 will be apa rafusado. Fig. 25 - Showing the pin-p37inserido in the rficio 40, the mobile top 38 had moved at an angle of 906, always aiming comfortably meet people as your accomodation in armchairs and sofas (2 level degrees) or on chairs (3e level). SERIE "C" - TRES tops - A PIN-BOLT Serie A with three superimposed tops being "a normal, fixed 1 or support module. The other, furniture, stuck by a pin-

p.13que when it introduced pe_ pin allows these tops rotate on the fixed top, if necessary each in a different direction; adding -. be free from the three tops surfaces, increasing significantly the service people stay around either in nivel2ou at level 3 Fig. 26 - pin-Bolt 13 - Measures - Com- length: fifteen mms (total) head being: three mms, Screw, six mms.. and Pino, six mms.- Diameter: one CT. - (This last measure NORMAL) . Fig. 27 - ATTENTION - In this fig. on 'ata the end of the report drawings, measures of tam- posreduzem to six cts. in length and four in width due to the increased size of drawings, where limited space available in the pgs. official conf. Regulation of the INPI. Fig. 27 - Table tops with three clusters, each with six cts. long and four cts. wide, with the fixed base 1 to which are attached top the four inner legs 3. The other movable lids 11 and 12, the latter equipped with handle, are connected to the fixed top first by pin-bolt 13. . 15 20 5 10 25 30 35 8/9 In the pair of legs located on the side to say, front, see Fig this the following details: 3 to inner leg in a CT. the lower end of an ori- fice 4 to receive the pin 2 (Fig. 01) since the TO CON is in level 1. On the left side of the same leg 3 a shim with five 5 mms. vertical length, with the superior end of the same level ORIF. 4. and two mms. thick. In the outer leg 6, the same localization of ORIF. 4 is a ORIF. 8, both crossed by the pin 2. The 'two cts. five mms. the lower end encontra- the ORIF. 9:01 CT. five mms. orif.encon is above this counter-n9 10. At the upper end of this leg 6 on the left side, there is an opening to six mms. of vertical length, chin in which it will be embedded under pressure, one calco 7 whose details are duly detailed in the Fig. 4 - fourth paragraph, and Figs. 4A and 4B. Fig. 28 - Exactly identical to Figure 27, a former keto the level that the nc 2 and is crossed by the Pino2 orifs.. 4 (pin 3) and 9 (leg 6). Fig. 29 - Ditto, ditto nc 3, ditto 4:10 . Fig. 30 - All contained details of Figs, 27, 28 and 29, with the top 12 after a spin '180 degrees and the top 11 to 90s, both tops rotated around the pin-p. (by pin) 13, and still nesta- Fig. apa_ already rufusado to fix the tops nesta- position. Fig. 31 - A view of the tops displaced ed acc. Fig. 30. ATENCIO - In Figs. 27 28'e 29 Pin-p.13 designed this on the left and in Figs. 30 and 31, n the right side. Each manufacturer had decided on the side that will be placed pin-screw 13 * SERIE "C" superimposed tops -Three-TWO-PIN SCREW Fig. 32 - Sarie A with three tops superpos- tos, 1 bottom head, fixed in the nernas 3 or module 'support. The other 11:12, furniture,.Both with cin- co cts. long and four cts. wide, stuck' to the top by two pins 1-bolts 13:14 (Fig, 33), the 5 10 15 20 25 30 9/9 which, as always, is entered by pins, proportional rao to furniture tops 11 and 12, the condition of spin independently in any direction; however, if connected pe- them screws, fixed shall remain in the desired formation in- creasing in the minutes 110 percent the total area on the top one, considering the three tops As for the other details heal all identical to those of Fig 27. (Atencaxi -. the height of level 1 and 5.2 cts in the design -. 52 cts a re al height) .. Fig. 33 - Two Pin-bolts 13 and 14 and 'that will be applied to threaded holes, c / eleven mms.de diameter. The measures of the two pin-ps. are identical to s pin-p., 13 to Fig. 26. 0 Pin-p. 13 (this fig.) Will be applied to the tops 11 / 1. 0 Pin-p. 14 will be applied to the tops 12/1. Fig. 34 - This Mosaic is at level 2, whose height and six cts. six mms. (drawing) and sessen- ta-six cts. (real), so the hole 4 (leg 3) 'finds itself flush with ORIF. 9 (6 leg). The tops 11 and '12 attached to top 1 by pins Pin-ps. 13:14, a- if presentam-rotated in opposite directions, and fixed by screws in Fig. 35. Other details have already been duly explained in Figs, earlier. Fig. 35 - Ibid level 3, the normal height hi to cts. (drawing) and eighty cts. (real). Orifs. 4 and 10 'folded at pin 2, which crosses orifs tambam, 4 and 8 (Fl_ figure 32) and 4, and 9 (Fig. 34.). Fig. 36 Perspective view of Figa.34 and 35. Figs. 37 and 38 - Views in or- perspective ters positions of tops 11:12 . 5 10 15 20 25 30 35 1/1 • • Claims 1- "CENTER NESINHA" set of component poltr ones and sofas, little one, with maximum height of five cts. in the design, fifty cts. real, this project characterized by the elevation of the top (I), starting five cts. (le level to six cts-four mms (25 level - to meet the persons accommodated in the armchairs and sofas) and eight minutes cts and 1 two mms (3e level - social table);... for both the table tera eight legs, four fixed (3) at the base of the top (I) and four legs (6) hollow, loose, where the legs (3) will fit exe_ Cutando a vertical movement raising and lowering the top (1) stopping at the desired height; for this will have a hole (4 a ct base and legs (6) will have three holes: 1 degrees (8) to a CT base 2 degrees (9) two cts.e five mms...and 3 degrees (10) to four cts.; level (4/8) 1 degrees level, the orifices (4/9) second level, and holes (4/10) 3S level; imobi- to the table Lizar the pinol2) fig. (I) shall be inserted in duly leveled desired holes. 2- "coffee table", the inveza rizada top and char to have three minutes tops (01/11/12) overlapping, each with a threaded hole, five mms. from left end; the top (I) fixed and heads (11/12) furniture, increasing the usable surface. . 3- "coffee table" with a piece to allow mo vimentacao of tops (11/12) called PIMO-BOLT (Pi_ in the p.) (13) characterized by a head with three mms.mais six mms. (screw) and six mms. (flat pin), all with two mms diameter. and total length of 15 mms., and we entered the three tops (01.11.12), the threaded hole if the pin, the furniture tops (11/12) will turn in various di recoes in which will be fixed by the screw and - pos again by the pin, will turn back the position over- put on the top (I) and the table will be able to be lowered daughter the first level degrees (center table); one second hole in extre_ ance right, had requested another pin-p. (14) allowing tops 11/12 opposite spins increasing increasing the area dis_ ble of three tops (01.11.12). bb and oV- percent and 4: and gt; B v M | Vt 4 "f * A- and £ 9 - / -fy'Sid 5 b and lt; rf 'ZXS' r V and X b- # 0Y the \ th / * and lt; * and gt; not equal to) dh CT and lt; V] * Z \ SA ft 3 '5 // and lt; F' f and gt; / z / -0 'f € and gt; /: = / ii / i 2/11 t 3 / n ' / (S and lt; f / vG I *. and lt;? 1 4/11 5/11 FFG -2jd 37 i 2 and gt;. g / / 4 and 39 and 42. The? 6/11 7/11 II / 8 9/11 F'i 9 -3 the 10/11 6. 33 'OY' 4 V and lt;. 5:34, tv * II / II SUMMARY "coffee table" Patent Invention for coffee tables - Series A, B and C. Each table consists of a panel 1 (Fig, 2) a pin 2 (Fig. 1) four legs 3 and 6 in four per- (hollow), flat leg 3 in each corner of the base of tampol and apes, embedded in the legs 6, keeping a vertical movement by raising and lowering the top 1 Serie A - Table with five cts height (le level);.. raised the top 1 for six cts and... 'four mms (second level degrees) and eight cts and two mms (39 level social table); for both legs 3 will have an orifice 4 to one o'clock CT of the base, the legs 6 will have three holes: 8 with the 'same height as the hole 4, both the table level in 19 ni- level; 9 hole crossed by 4, the table in the 2 degrees level and 35 level crossing the first hole 4 with the third hole 10 of the legs 6. The table will be immobilized to travessando up the pin 2 in leveled holes. Serie B - The table will have two tops 1 and 11. Serie C - Tres tops 01.11.12, overlapping, (top 1 -fixo- furniture 11/12) tod the two threaded holes, 15 mms. end, which will be inserted in one or two pins, screws 13/14, that if the pin, allowed turnover tops 11/12 in different directions increasing its area utili Zavel, and the immobilization screw this disposition if the appli ed two pin-p. 13/14, 11/12 will turn on the tops taken opposite sen increasing the magnification of the total area avail-1 level.

Classifications:

International (IPC 8-9): A47B11/00 A47B9/00 A47B9/18

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BRPI0504794 A	20070814	BR2005PI04794	20051019

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Probable Assignee:

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Inventor(s): (std):

COSTA JOSE ROBERTO

Inventor(s):

JOSE ROBERTO COSTA

10) Family number: 70376199 (CN207582916 U)

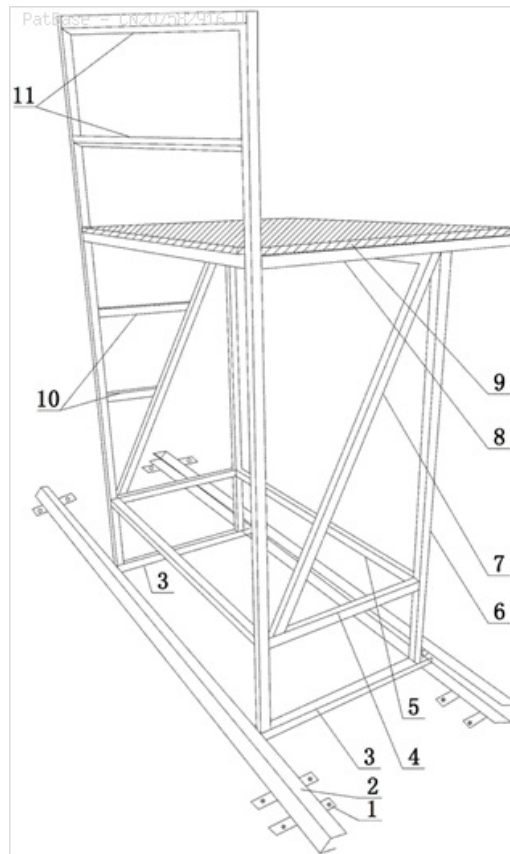
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Title: NON - STANDARD LAYER SHEAR FORCE WALL CONSTRUCTION OPERATION PLATFORM

Abstract: The utility model discloses a non - standard layer shear force wall construction operation platform, its characterized in that: including a set of flat moving walkways rail, set up a set of and flat moving walkways rail location side's pipe on agreeing the horizontal plane and bottom the track vertically between the track, bottom location side pipe go up the welding and have four vertical vertically longitudinal support side pipes, longitudinal support side pipe middle part between adjacent the welding have square support side pipe support, the pipe top welding of vertical longitudinal supportside has rectangle operation platform support frame, and rectangle operation platform support frame top is provided with the support template, it is provided with the rail guard to support between template rear one side longitudinal support side pipe extension. The utility model discloses compare in the construction of scaffold frame operation platform is simple, the dismantlement is convenient, stability is good, almost need not to increase the engineering time, accord with the safe operation requirement, has improved the construction security greatly, and has reduced construction cost, has improved the construction progress, has improved market competitiveness of enterprise greatly.

Classifications:

International (IPC 8-9): E04G1/15 E04G1/18 E04G5/00 E04G5/08
E04G5/14



Family:

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CN207582916 U	20180706	CN201721646823U	20171201

Priority:

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Inventor(s): (std): DING ENLIANG ; SHEN YULONG ; YANG TONGYUAN

11) Family number: 62363489 (KR101621868 B1)

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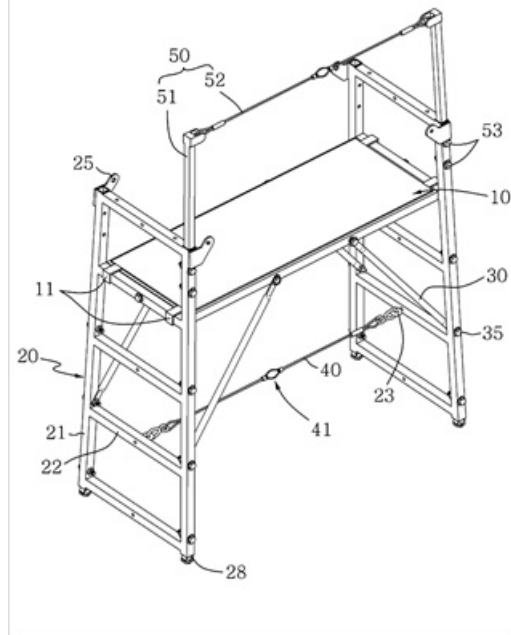
Title: A WORKING DESK FOR BUILDING

Abstract: The present invention relates to a work desk for a construction work. More specifically, the work desk for a construction work stably supports a foothold to maintain the balance of the work desk. The present invention comprises: the foothold (10) where metal latches (11) are formed in both end part; a pair of support units (20) provided to support the foothold to both sides of the foothold (10); and a plurality of fixing frames (20) of which both ends are coupled to the circumference of the foothold (10) and a side surface of the support unit (20) to fixate the foothold (10).

Classifications:

International (IPC 8-9): E04G1/02 E04G1/30 E04G1/34 E04G1/36 E04G5/08 E04G5/14

CPC: E04G1/02 E04G1/14 E04G1/20 E04G1/30 E04G1/34 E04G1/36 E04G2001/305 E04G5/08 E04G5/14 E04G7/04

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KR101621868 B1	20160517	KR20140155588	20141110

Priority:

KR20140155588 20141110

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Inventor(s): (std):

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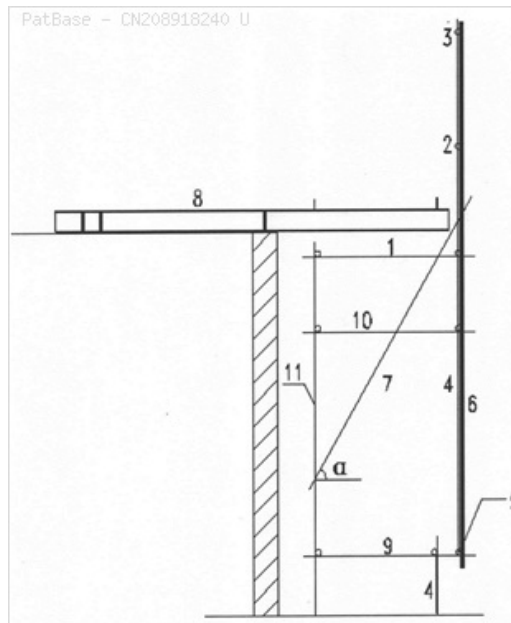
12) Family number: 74526154 (CN208918240 U)

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Title: OVERHANGING LAYER SAFETY PROTECTION PLUG OF EXTERNAL SCAFFOLD

Abstract: The utility model discloses an overhanging layer safety protection plug of an external scaffold. characterized in that it is characterized in that it comprises; the protective device comprises a plurality of protective vertical rods arranged on the outer sides of inner vertical rods of the outer scaffold. wherein a sealing longitudinal rod is arranged at the top of the protective vertical rod, a bottom supporting longitudinal rod and a bottom supporting transverse rod are arranged at the bottom of the protective vertical rod, at least three inter-step longitudinal rods are arranged between the sealing longitudinal rod and the bottom supporting longitudinal rod, the sealing longitudinal rod and the uppermost inter-step longitudinal rod are located above the cantilever main beam, and the other inter-step longitudinal rods are located below the cantilever main beam; a sealing transverse rod, at least one step transverse rod and a bottom supporting transverse rod are sequentially arranged between the inner vertical rod and the protective vertical rod from top to bottom, and the sealing transverse rod is arranged below the cantilever main beam. According to the utility model, the safety protection problem of the gap between the outer frame and the structure operation surface is solved, the mounting and dismounting are very convenient, the traditional flush type dangerous operation mode is avoided, and the occurrence of safety accidents is effectively restrained. The safety construction cost is low, the safety production efficiency is improved, and attractiveness, safety and reliability are achieved.

Classifications:**International (IPC 8-9):** E04G21/32 E04G5/00



Family:

Publication number	Publication date	Application number	Application date
CN208918240 U	20190531	CN201821182912U	20180724

Priority:

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Probable Assignee: SHANGHAI GREENLAND CONSTRUCTION GROUP CO LTD

Assignee(s): (std): SHANGHAI GREENLAND CONSTRUCTION GROUP CO LTD

Assignee(s): SHANGHAI GREENLAND CONSTRUCTION GROUP CO

Inventor(s): (std): LI HUALIANG ; LI YONGSHENG ; WANG QI

13) Family number: 81241114 (WO20200342 A1)

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Title: RAILING DEVICE, NAMELY A LEADING RAILING FOR A SCAFFOLD, AND METHOD FOR MOUNTING A RAILING DEVICE

Abstract: A railing device (10) for a scaffold (50) having scaffold levels (52, 54) with standards (58), wherein the railing device (10) has at least a first railing member (12) and a right and left railing upright (16, 18), wherein the right railing upright (16) has a first connection device (20) and a second connection device (22), each for releasable connection to a standard (58) of a scaffold (50), and the left railing upright (18) has a third connection device (24) and fourth connection device (26), each for releasable connection to a standard (58) of a scaffold (50), characterized in that, in the mounted state, the second connection device (22) and the fourth connection device (26) are suspended, from both sides in the width direction (B), on a standard (58) in an existing component of the scaffold (50), the first connection device (20), in the mounted state on the standard (58), positively engages around the latter at least in certain regions and is arranged below a component of the scaffold (50), and the third connection device (24), in the mounted state on the standard (58), is arranged below an already connected first connection unit (20) and positively surrounds the standard (58) at least in certain regions.

Classifications:

International (IPC 8-9): E04G5/14

CPC: E04G5/142 E04G5/147

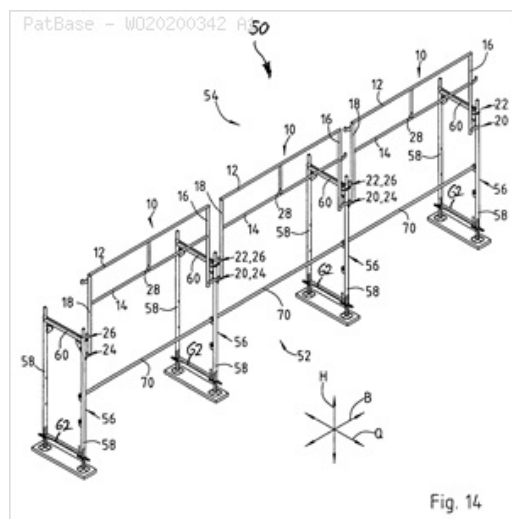


Fig. 14

Family:

Publication number	Publication date	Application number	Application date
DE102019002287 A1	20201001	DE201910002287	20190329

Priority:

DE201910002287 20190329

Probable Assignee: LAYHER VERWALTUNGS GMBH WILHELM

Assignee(s): (std): LAYHER VERWALTUNGS GMBH WILHELM

Assignee(s): WILHELM LAYHER VERWALTUNGS GMBH

Inventor(s): (std): BEHRBOHM WOLF CHRISTIAN

Agent(s): CLEMENS GERHARD ET AL; MUELLER CLEMENS AND HACH

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 WS ZA ZM ZW

14) Family number: 71970722 (GB2577863 A1)

© PatBase

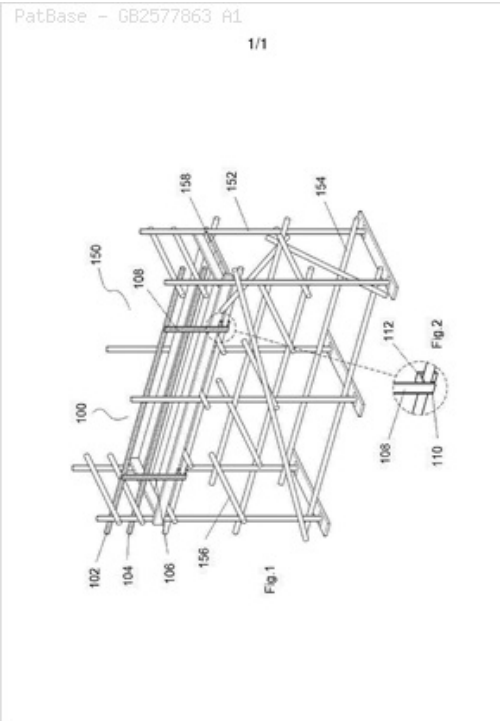
Title: A SCAFFOLD BARRIER

Abstract: A guardrail 100 for a scaffold 150 comprises a pair of spaced apart and elongate support members 106,108 and at least one elongate rail member 102,104 coupled to the support members and oriented substantially perpendicularly thereto; wherein each support member comprises a foot portion 110 which defines a channel for receiving a ledger of a scaffold. Preferably each channel comprises a substantially curved inner surface. A system comprising a plurality of these guardrails is also disclosed.

Classifications:

International (IPC 8-9): E04G5/14

CPC: E04G5/14 E04G5/147



Family:

Publication number	Publication date	Application number	Application date
GB201815330 A0	20181107	GB20180015330	20180920
GB2577863 A1	20200415	GB20180015330	20180920

Priority:

GB20180015330 20180920

Probable Assignee: SHERWOOD SAMUEL

Assignee(s): (std): SAMUEL SHERWOOD ; SHERWOOD SAMUEL

Inventor(s): (std): SAMUEL SHERWOOD

15) Family number: 80178977 (US2020240155 AA)

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Title: PERIMETER PROTECTION SYSTEM FOR A HORIZONTAL FORMWORK SYSTEM, AND METHOD OF ASSEMBLY OF A PERIMETER PROTECTION SYSTEM

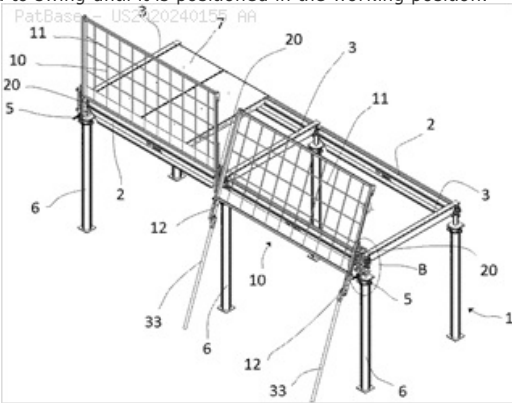
Abstract: A perimeter protection system for protecting operators against lateral falling when installing formwork panels in a horizontal formwork system. According to one embodiment the perimeter protection system includes a perimeter protection structure configured for being fixed, in a working position, to the horizontal formwork system, and at least one auxiliary device configured for being fixed to the horizontal formwork system and for fixing the perimeter protection structure to the horizontal

formwork system. The auxiliary device includes guiding means collaborating with a guide of the perimeter protection structure for positioning the perimeter protection structure in an initial assembly position. In the initial assembly position the structure is configured to be raised up to an intermediate position where it is permitted to swing until it is positioned in the working position.

Classifications:

International (IPC 8-9): E04G11/48 E04G11/50 E04G17/00 E04G21/32 E04G5/14

CPC: E04G11/483 E04G17/002 E04G2005/148 E04G21/3204 E04G21/3223 E04G5/14 E04G5/147



Family:

Publication number	Publication date	Application number	Application date
CA3069466 AA	20200724	CA20203069466	20200123
EP3686375 A1	20200729	EP20190382050	20190124
US2020240155 AA	20200730	US20200751325	20200124

Priority:

EP20190382050 20190124

Probable Assignee: ULMA C Y E S COOP

Assignee(s): (std): ULMA C Y E S COOP

Assignee(s): EROGLU YILDIRAY ; SOBRAL VILLANUEVA ROBERTO

Inventor(s): (std): EROGLU YILDIRAY ; EROGLU YILDRAY ; SOBRAL VILLANUEVA ROBERTO

Agent(s): IGARTUA ISMAEL; MARKS AND CLERK

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

16) Family number: 60646609 (KR200478605 Y1)

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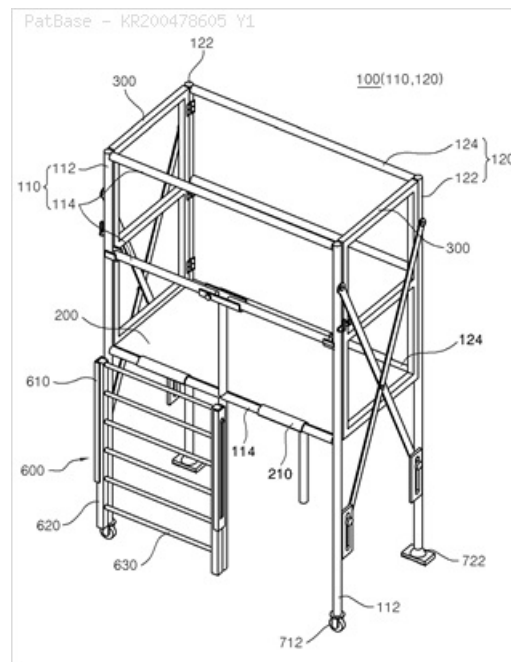
Title: FOLDABLE WORKING PLATFORM

Abstract: Source: KR200478605 Y1 **Machine translation:** Folding work bench according to the subject innovation is the front horizontal bars having two or more than two forward vertical front bar juteul and two or more rear vertical main frame consisting of a rear transverse bar juteul having two or more rear bars; Can be formed into a flat plate shape, one that is jam-stage scaffold is provided that the front horizontal bar across the rear transverse bar is coupled to the other end of the rotatable structure; Width direction side are combined in a structure rotatable in any one of the rear vertical bar as the front vertical, the width direction of the other side frame is coupled to the railing structure detachable in the other of the rear vertical bar as the front vertical; And the top and the front vertical first brace that is hinged to the bar top and bottom combined with vertical sliding possible structure for the rear vertical bar bottom, top is hinged to the upper part of the rear vertical bar at the bottom is the front vertical bar comprises a second brace, vertically slidable structure coupled to the lower jidoe, break of the first brace and the second brace is configured so that the cross-hinged new; includes .

Classifications:

International (IPC 8-9): E04G1/34 E04G5/00 E04G5/10

CPC: E04G1/34 E04G5/001 E04G5/10



Family:

Publication number	Publication date	Application number	Application date
KR200478605 Y1	20151026	KR20150003621U	20150605

Priority:

KR20150003621U 20150605

Probable Assignee:

LEE MI KYUNG

Assignee(s):

LEE MI KYUNG

17) Family number: 79078313 (WO20101490 A1)

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Title: SCAFFOLDING

Abstract: A scaffolding comprises a system of uprights (10) which are mutually connected by ledgers (20) with enclosing of scaffold sections (1,2). Successive scaffold sections (1,2) within a level are provided with an at least substantially continuous scaffold floor (30,40). A first floor part (30) spans a first scaffold section (1) within the level and a second floor part (40) spans a second scaffold section (2). The first floor part (30) makes an angle with the second floor part (40). Resting therebetween on a support (60,90) is a platform (50,70), which platform (50,70) spans at least for the greater part an intermediate space between the first floor part and the second floor part. The platform (50,70) and the support are configured such that an adjustment of the angle between the first and the second scaffold section is allowed.

Classifications:

International (IPC 8-9): E04G1/15 E04G1/36 E04G5/06 E04G5/08 E04G5/14

CPC: E04G1/36 E04G1/362 E04G2005/068 E04G5/061 E04G5/08 E04G5/145 E04G5/147

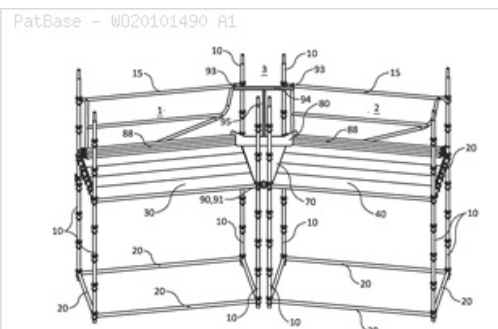


Fig.7

Family:

Publication number	Publication date	Application number	Application date
NL2022012 B1	20200526	NL20182022012	20181116
WO20101490 A1	20200522	WO2019NL50742	20191114

Priority:

NL20182022012 20181116

Probable Assignee: BRAND ENERGY HOLDINGS BV

Assignee(s): (std): BRAND ENERGY HOLDINGS BV

Inventor(s): (std): PETRUS CHRISTIANUS JOHANNA MARIA VAN OERS ; VAN OERS PETRUS CHRISTIANUS JOHANNA MARIA

Agent(s): JILDERDA ANNE AYOLT

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

18) Family number: 67243246 (WO17178459 A1)

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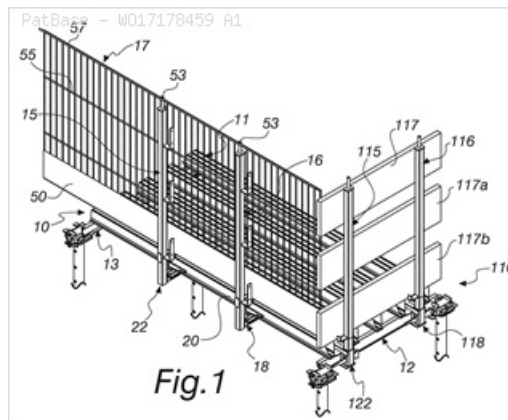
Title: ANTI-FALL SAFETY STRUCTURE FOR FORMWORK WITH LOAD-BEARING PANELS FOR FLOOR SLABS

Abstract: An anti-fall safety structure (10) for formwork with load-bearing panels for floor slabs, comprising: – a load-bearing panel (11), which comprises at least two lateral longitudinal supporting profiles (12, 13), mutually connected by transverse elements (14, 20), – at least two supporting posts (15, 16) for one or more anti-fall protection elements (17), – for each post (15, 16), a post supporting bracket (22, 18), provided with clamp means (19) for reversible engagement either with an external transverse element (20) or with a lateral longitudinal profile (12, 13), – the clamp means (19) having a closure system of the wedge type (21).

Classifications:

International (IPC 8-9): E04G11/50 E04G17/00 E04G21/32

CPC: E04G11/50 E04G17/002 E04G2005/148 E04G21/3223



Family:

Publication number	Publication date	Application number	Application date
EP3443181 A1	20190220	EP20170716542	20170411
ITUA20162458 A1	20171011	IT2016UA02458	20160411
WO17178459 A1	20171019	WO2017EP58621	20170411

Priority:

IT2016UA02458 20160411 IT201610000036668 20160411 WO2017EP58621 20170411

Probable Assignee: FARESIN BUILDING S P A

Assignee(s): (std): FARESIN BUILDING S P A ; FARESIN FORMWORK S P A

Inventor(s): (std): FARESIN GUIDO

Agent(s): MODIANO MICAELA NADIA; MODIANO NADIA MICAELA

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

19) Family number: 28395462 (US2003052249 AA)

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Title: WALL CLIMBING FORM HOIST

Abstract: A self-climbing concrete wall form hoist for forming a concrete wall section atop a previously formed wall section has a wall mounting releasably secured to the previously formed wall section, a moveable vertical mast, a channel in the wall mounting which guideably receives the moveable mast, a platform alternatively supported on the mast and on the wall mounting, upper and lower dog latch assemblies mounted on the platform and pivotable between a platform raising position when the mast is supported on the wall mounting and a mast raising position when the platform is supported on the wall mounting, and an extensible and retractable linear actuator interconnecting the upper and lower dog latch assemblies for raising the platform relative to the mast when the dog latch assemblies are in the platform raising position and for raising the mast relative to the platform when the dog latch assemblies are in the mast raising position. The self-climbing concrete wall form hoist can descend a wall by effectively reversing the steps required to complete wall climbing.

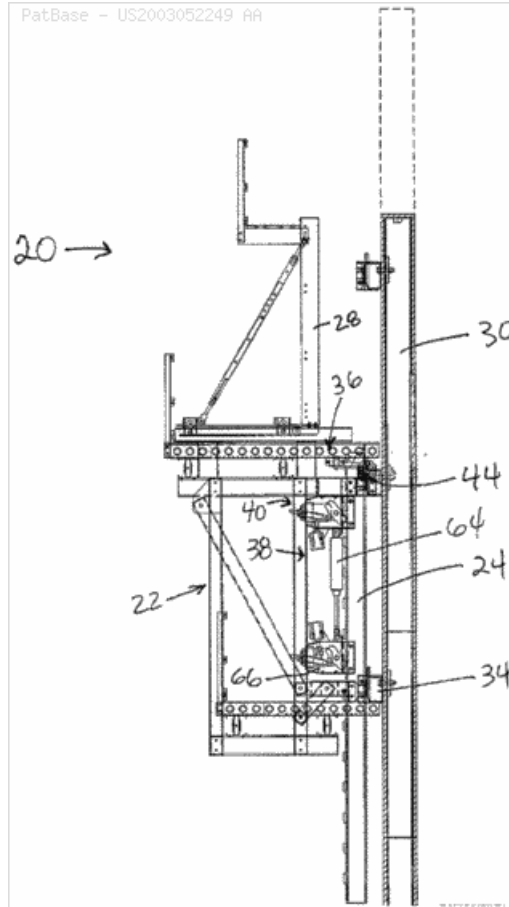
Classifications:

International (IPC 8-9): E04G11/00 E04G11/28

International (IPC 1-7): E04G1/100 E04G11/00 E04G11/20 E04G9/00

CPC: E04G11/28

US: 182/36 182/82 249/19 249/192 249/2 249/20 249/26 264/33 425/65 249/20P



Family:

Publication number	Publication date	Application number	Application date
US2003052249 AA	20030320	US20000484635	20000118
US6557817 BB	20030506	US20000484635	20000118

Priority:

US20000484635 20000118

Probable Assignee: WILIAN HOLDING CO

Assignee(s): (std): PAULEY RANDY ; WALDSCHMITT THOMAS ; WILIAN HOLDING CO

Assignee(s): BANK OF AMERICA NA ; BANK OF AMERICA NA COLLATERAL AGENT AS ; WILIAN HOLDING COMPANY

Inventor(s): (std): PAULEY RANDY ; WALDSCHMITT THOMAS ; WALDSCHMITT THOMAS JOSEPH

Inventor(s): RANDY PAULEY ; THOMAS JOSEPH WALDSCHMITT ; THOMAS WALDSCHMITT

Agent(s): DANIEL A ROSENBERG; DAVIS LAW FIRM; KENT A HERINK

20) Family number: 47624572 (DE102009021371 A1)

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Title: GUARD RAIL-INTEGRATED SCAFFOLD FRAME FOR USE ON OUTER WALL OF BUILDING, HAS LOCK MOVABLY FASTENED TO RAIL SUPPORT FOR BLOCKING FORK OF RAIL SUPPORT, AND LOCKING SURFACE ENGAGED AND CONNECTED WITH CARRIER SECTION BY PIVOTING OR SHIFTING

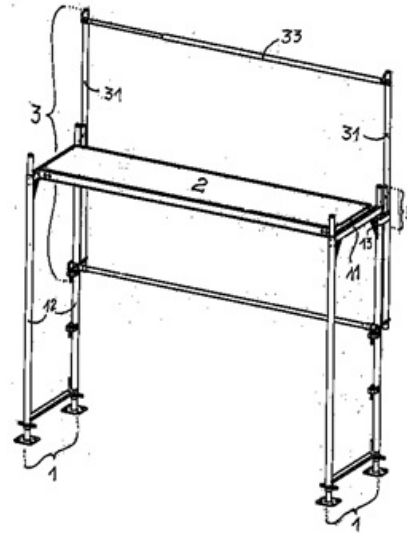
Abstract: The frame has vertical guard rail supports (31) fastened to a vertically aligned adjusting frame (1) and/or a horizontal support (2) by using support arms. The rail supports are upwardly protruded over a highest support and interconnected at its upper end by a horizontal guardrail parapet (33). An anti-lifting lock is movably fastened to the rail supports for blocking a retaining fork of each rail support. A downwardly directed locking surface is engaged and connected with a carrier section by pivoting or shifting. An independent claim is also included for a method for heightening a scaffold frame.

Classifications:

International (IPC 8-9): E04G5/14

CPC: E04G1/14 E04G5/147

Figur 1



13/17

Family:

Publication number	Publication date	Application number	Application date
DE102009021371 A1	20101118	DE200910021371	20090514

Priority:

DE200910021371 20090514

Probable Assignee:

WEIS JOHANNES

Assignee(s): (std):

WEIS JOHANNES

Inventor(s): (std):

WEIS JOHANNES

21) Family number: 16063436 (DE19636550 A1)

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Title: SCAFFOLDING COVERING, ESPECIALLY FOR KNEE-TYPE SCAFFOLDING

Abstract: The scaffolding covering comprises a flat standing surface (16), fastening jaws (26,46) for the bracket (28), and lifting clasps (22). The fastening jaws and lifting clasps are arranged such that they do not project over the plane of top standing surface and bottom surface. The lifting clasps may be hinged in recesses at the top standing surface. A railing may be hinged to the scaffolding covering.

Classifications:

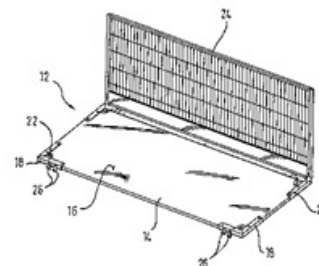
International (IPC 8-9): E04G5/00 E04G5/06

International (IPC 1-7): E04G1/15 E04G3/04 E04G3/08 E04G5/06 E04G5/08

CPC: E04G5/06 E04G5/062

Nummer: DE 19636550 A1
Int. Cl. 8: E04 G 5/06
Offenlegungsdatum: 12. März 1998

Fig. 1



19636550

Family:

Publication number	Publication date	Application number	Application date
AT130297 A	20020915	AT19970001302	19970731
AT410459 B	20030526	AT19970001302	19970731
AT2263 U2	19980727	AT19980008028U	19980417
DE19636550 A1	19980312	DE19961036550	19960909
DE19636550 C2	19980917	DE19961036550	19960909
DE29623342 U1	19980520	DE19962023342U	19960909

Priority:

DE19961036550 19960909 DE19962023342U 19960909 AT19970001302 19970731
AT19980000292 19980218 AT19980008028U 19980417

Probable Assignee: DOKA IND GMBH

Assignee(s): (std): DOKA IND GMBH

Assignee(s): DOKA INDUSTRIE GMBH ; DOKA INDUSTRIE GMBH AMSTETTEN AT

22) Family number: 74024915 (BE1023499 BB)

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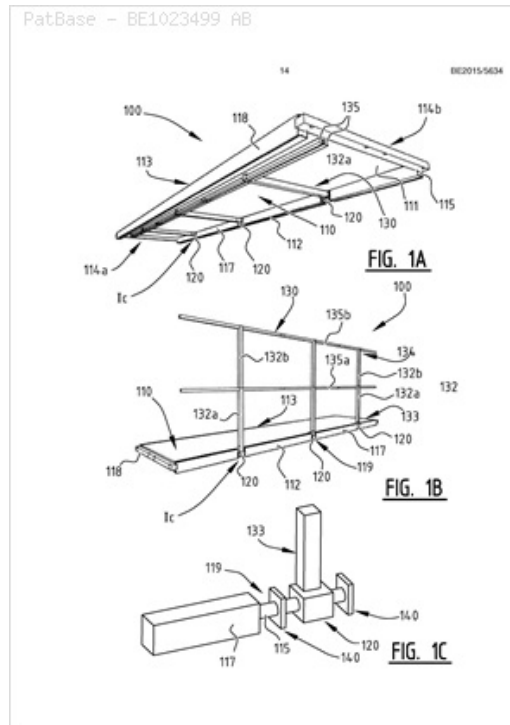
Title: Scaffolding FLOOR AND METHOD FOR BUILDING UP AND BREAKING DOWN OF A SCAFFOLD SAFELY (Machine translation)

Abstract: Source: BE1023499 BB **Machine translation:** Scaffolding floor for safe building or aborting a scaffold comprising a floor part and a railing portion; wherein the railing portion by means of at least one hinge piece is pivotally connected to a front side of the floor portion; wherein the railing portion, the hinge piece and the floor part are arranged such that the railing portion is positionable in a first position on the underside of scaffolding floor, and in a second position perpendicular to the floor part.

Classifications:

International (IPC 8-9): E04G5/14

CPC: E04G5/147

**Family:**

Publication number	Publication date	Application number	Application date
BE1023499 AB	20170407	BE20150005634	20151007
BE1023499 BB	20170407	BE20150005634	20151007

Priority:

BE20150005634 20151007

Probable Assignee: VCS SYSTEMS BVBA

Assignee(s): (std): STEIGERS ALMECO NV ; VCS SYSTEMS BVBA

Inventor(s): (std): VAN DEN BRANDE BART PAUL ADOLF

23) Family number: 65091050 (ES1177734 UA)

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Title: FACADE SCAFFOLDING. (MACHINE-TRANSLATION BY GOOGLE TRANSLATE, NOT LEGALLY BINDING)

Abstract: Facade scaffolding, comprising: - a series of pieces (1), embedded, or anchored by means of studs (7), on the facade (f) of the work, which has a suitable termination to anchor in each of them a horizontal support (2); arranged in horizontal alignment, at the height at which it is desired to fix a horizontal scaffolding; - horizontal supports (2) that are inserted and/or anchored in each of the pieces (1) fixed to the facade (f), horizontally and perpendicularly to the plane of the facade; - supports (3), of configuration in "L", which are coupled at the end of each of the horizontal supports (2), which are placed with their wing vertically forming a support strut of a fence (5) or railing; - a fence (5) or rails, which form an outer protective fencing useful scaffold surface located therebetween and the facade (f); - platforms (4), which support and/or are fixed between two consecutive horizontal supports (2), in horizontal position, covering the scaffold hollow in that plane to define the useful surface thereof at this level; - at least one hook or ring (13) fixed inferiorly in each of the horizontal supports (2), suitable to support in at least two of them a hanging scaffolding. (Machine-translation by Google Translate, not legally binding)

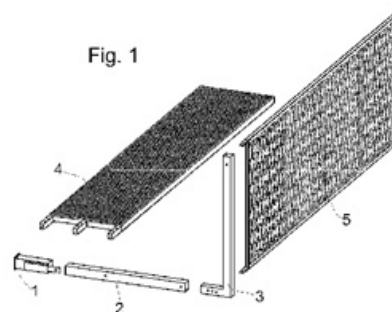
Classifications:

International (IPC 8-9): E04G3/00 E04G5/00

PatBase - ES1177734 UA

ES 1 177 734 U

Fig. 1



Family:

Publication number	Publication date	Application number	Application date
ES1177734 UA	20170302	ES20170030133U	20170213
ES1177734 Y1	20170524	ES20170030133U	20170213

Priority:

ES20170030133U 20170213

Probable Assignee: GRUPO CATROMAR S L
Assignee(s): (std): GRUPO CATROMAR S L
Inventor(s): (std): MARTINEZ BARREIRO JOSE MIGUEL
Inventor(s): JOSE MIGUEL MARTINEZ BARREIRO
Agent(s): URIZAR JESUS MARIA

24) Family number: 67010757 (GB2565057 A1)

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Title: ADVANCED GUARDRAIL COUPLING SYSTEM AND ITS METHOD OF USE

Abstract: A coupling system for detachably coupling a guardrail 30 on a lift above a boarded lift 24 between the standards of a scaffolding structure 100. The coupling system comprises a pair of elongate arms 10a, 10b each having a first end 34 for coupling the guardrail 30, and having an opposite second end 38 for connecting the arms to a pre-attached guardrail 26 on the boarded lift 24. The coupling system also includes a ledger securing means (42, Fig 3) positioned between the first and second ends of the arms for securing each of the elevating arms to the ledger 14a on the lift above. Also defined are methods for detachably coupling and dismantling a guardrail on a lift above a boarded lift. A tool for positioning a guardrail is also claimed.

Classifications:

International (IPC 8-9): E04G5/00 E04G5/14

CPC: E04G5/147 E04G5/00 E04G5/14

1/12

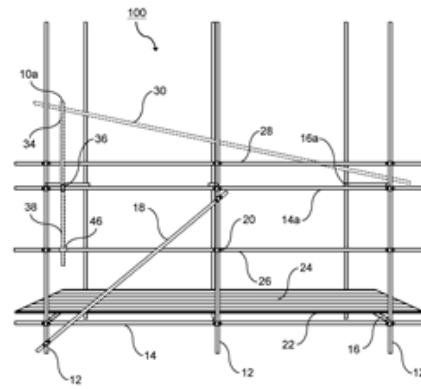


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
GB201712157 A0	20170913	GB20170012157	20170728
GB2565057 A1	20190206	GB20170012157	20170728

Priority:

GB20170012157 20170728

Probable Assignee: TAG IND SCAFFOLDING LTD**Assignee(s):** (std): TAG IND SCAFFOLDING LTD ; TAG INDUSTRIAL SCAFFOLDING LTD**Inventor(s):** (std): JEFFREY DUNCAN ARNOLD