



New connection on: : 02-03-2018 : 17:28:11 - Last disconnection on: : 02-03-2018 : 17:26:55

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 21] ..fi EPODOC



Database: EPODOC

[EPODOC: SS 21] scaffold+ and (deck+ or plank or platform+ or walkway')

Results in EPODOC **4.172**

EPODOC: term 'WALKWAY' not found in index 'BI'. *WARNING(1)*

[SS 22] scaffold+ and (deck+ or plank or platform+ or walkway)

Results in EPODOC **4.238**

[SS 23] scaffold+ and (deck+ or plank or platform+ or walkway or footboard)

Results in EPODOC **4.411**

[SS 24] ..v

[EPODOC: SS 24] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)

Results in EPODOC **6.575**

[SS 25] ..v

[EPODOC: SS 25] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)and(hook+ and anti 1d(slide+))

Different expressions or operators have been used without brackets. *ERROR(-50002)*

[SS 25] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)and(hook+ and (anti 1d slide+))

Results in EPODOC 0

[SS 26] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)and(hook+ and (anti 1d slide+))

Results in EPODOC 0

[SS 27] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)

Results in EPODOC 6.575

[SS 28] (hook+ and (anti 1d slide+))

Results in EPODOC 65

[SS 29] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)and(anti 1d slide+)

Results in EPODOC 2

[SS 30] ..v

[EPODOC: SS 30] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)

Results in EPODOC 6.575

[SS 31] ..v

[EPODOC: SS 31] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)and(slide+ or hol+)

Results in EPODOC 1.622

[SS 32] ..v

[EPODOC: SS 32] scaffold+ and (deck+ or plank or platform+ or walkway or footboard or board)and(slide+)

Results in EPODOC 278

[SS 33] ..v

[EPODOC: SS 33] ..li



1/278 © EPODOC / EPO

- PN - [CN206397102U](#) U 20170811
- PR - CN201621472708U 20161230
- AP - CN201621472708U 20161230
- DT - I
- PA - SHENZHEN DAWEI CONSTRUCTION CO LTD
- TI - Building construction **scaffold**
- AB - The utility model discloses a building construction **scaffold**, including four spinal branch vaulting pole and footboards, four spinal branch vaulting poles are rectangle the structure and distribute, the **footboard** sets up in the middle of four spinal branch vaulting poles, the bracing piece both sides all are equipped with a spout perpendicularly, the bracing piece is located and all is equipped with the first screw hole of more than one on the bottom surface of spout, an equal fixed mounting **slider** on four angles of **footboard**, slidable mounting is in corresponding spout for **slider** one end difference, all be equipped with a second screw hole on the **slider**, the second screw hole is all controlled and is run through the **slider**, all be equipped with a fixing bolt in the second screw hole, fixing bolt one end is all passed corresponding second screw hole and is extended to in the corresponding first screw hole, and be connected with the thread engagement in the first screw hole. The utility model discloses simple structure, convenient to use need not to demolish the height that **scaffold** put up adjustment **footboard** that just can be quick, has made things convenient for workman's construction, and passes through the effectual guarantor nursing worker people of guardrail ability of both sides, has increased the security of construction.

2/278 © EPODOC / EPO

- PN - [CN206392739U](#) U 20170811
- PR - CN201621324406U 20161205
- AP - CN201621324406U 20161205
- DT - I
- PA - SHANGHAIGUOKANG STEEL STRUCTURE ENG CO LTD
- TI - Feed arrangement of straightening machine
- AB - The utility model discloses a feed arrangement of straightening machine, including the frame, the frame both ends all are equipped with door-like **scaffold**, the last backup pad that all is equipped with of door-like **scaffold**, and the last drive arrangement of being equipped with of door-like **scaffold** drive backup pad is **slided** on door-like **scaffold**, installs tilting mechanism in the backup pad, and tilting mechanism includes centre gripping subassembly that is used for holding workpiece and the rotor arm that links to each other with the centre gripping subassembly, and the rotor arm rotates with the backup pad to be connected, and is equipped with its rotation of driving piece drive in the backup pad. Carry out the centre gripping with steel through the centre gripping subassembly, and then overturn through the rotor arm to can let the **board** both sides of H shaped steel both sides carry out the alignment respectively, when letting it overturn, pulling about carrying out H shaped steel through drive arrangement drive backup pad, thus make things convenient for the upset of H shaped steel.

3/278 © EPODOC / EPO

- PN - [CN206376503U](#) U 20170804
- PR - CN201621431276U 20161223
- AP - CN201621431276U 20161223
- DT - I
- PA - SUZHOU PICA ALUMINUM IND CO LTD
- TI - Combined mold massing **scaffold** frame for heavy construction
- AB - The utility model provides a combined mold massing **scaffold** frame for heavy construction, includes lateral part framework, horizontal guardrail and **footboard**, the lateral part framework includes a coexistence pole and an at least horizontal pole, the bottom of pole setting is a grafting foot, and there is a reed location in the body of grafting foot, and the lower extreme of reed is hugged closely the body and is equipped with a spring bolt, and the spring bolt stretches out a first through -hole on the body, the top of pole setting is the hollow tube, and the hollow tube corresponds the spring bolt and has offered a locating hole for fixed go up, the composite state of the lateral part framework on layer, the both sides of **footboard** plate body link respectively and are equipped with at least a pair of locking pothook, and the locking pothook includes the form portion of colluding has still offered a spout on the locking pothook, and it is provided with a locking lever to **slide** in the spout, and when the spout is stretched out to the outer end of locking lever, the cooperation is colluded the buckle of form portion about going on to the horizontal pole and is locked, still include a spring, in one end was positioned the spout, the other end was positioned the locking lever, still include many swash bracket. The utility model discloses the concatenation equipment is more convenient, and has promoted the reliability and the security of **scaffold** frame.

4/278 © EPODOC / EPO

- PN - [CN206376514U](#) U 20170804
- PR - CN2017212280U 20170106
- AP - CN2017212280U 20170106
- DT - I
- PA - CHINA CONSTRUCTION ALUMINUM NEW MAT CO LTD
- TI - Instrumentization **scaffold** frame that climbs
- AB - The utility model provides an instrumentization **scaffold** frame that climbs, including a plurality of **scaffold** of concatenation each other frame unit, **scaffold** frame unit includes: attaches wall bracing pole setting piece, attach to be equipped with on the wall bracing pole setting piece and attach the wall **slide** rail, multilayer **scaffold board** is fixed in attach on the wall bracing pole setting piece, the **scaffold board** has with adjacent the concatenation end that **scaffold** frame unit splices mutually. The utility model provides a traditional **scaffold** frame use steel tubes clamps to carry out the scene to set up, waste time and energy, mechanization level is low, the quality differs the accuse moreover, the problem of having relatively high expectations to the technical ability of setting up the workman.

5/278 © EPODOC / EPO

PN - [CN206341289U](#) U 20170718

PR - CN2017250753U 20170113

AP - CN2017250753U 20170113

DT - I

PA - DONGGUAN CITY ZHIJUE ELECTRONIC TECH CO LTD

TI - Take version machine of copying of portal frame

AB - The utility model relates to a copy an edition technical field, more specifically relates to a take version machine of copying of portal frame, including an imperial door - like **scaffold**, dragon door -like **scaffold** includes the coexistence post and connects the crossbeam of coexistence capital end, coexistence toe end is provided with the gyro wheel, crossbeam below is provided with the image acquisition unit of liftable, and image acquisition unit upside is connected with the guide pillar of two vertical settings, be provided with two sleeves that match with two guide pillars on the crossbeam, the guide pillar **slides** and sets up in the sleeve, be provided with the sharp rack with the image acquisition unit connection between two guide pillars, be provided with rotatable transmission shaft in the crossbeam, the transmission shaft with straight line rack quadrature department be provided with with straight line rack toothing's gear, transmission shaft one end has linked firmly the adjusting handle. Its simple structure self does not take the workstation, the cost is reduced, and the simultaneous altitude can be adjusted, can adapt to the work **platform** of multiple not co -altitude.

6/278 © EPODOC / EPO

PN - [CN206308998U](#) U 20170707

PR - CN201621423028U 20161223

AP - CN201621423028U 20161223

DT - I

PA - TIANJIN SENYUAN CONSTRUCTION CO LTD

TI - No **scaffold** puts up hanging flower basket

AB - The utility model discloses a no **scaffold** puts up hanging flower basket, its technical scheme main points have set firmly two at least wire rope between the support body, and the last operation **platform** that is provided with of wire rope is provided with between and the wire rope and supplies operation **platform** along the wire rope subassembly that **slides**, is provided with the haulage rope parallel with wire rope between the support body, is provided with traction block on the haulage rope, is provided with the subassembly that **slides** between traction block and the haulage rope, the subassembly that **slides** has set firmly **slider** including setting firmly on traction block, the last **slide** holes who supplies the haulage rope to **slide** that is provided with of **slider**, rigid coupling borehole jack in the **slide** holes, the length of borehole jack is greater than **slide** holes's the degree of depth, and two axial terminal surfaces of borehole jack stretch out **slide** holes, are provided with the locking subassembly on the subassembly that **slides**, have reached convenient to use's effect.

7/278 © EPODOC / EPO

PN - [CN206299108U](#) U 20170704

PR - CN201621442514U 20161226
 AP - CN201621442514U 20161226
 DT - I
 PA - TIANJIN BOSITE FILM DECORATION ENG CO LTD
 TI - No **scaffold** puts up hanging flower basket
 AB - The utility model discloses a no **scaffold** puts up hanging flower basket, its technical scheme main points set firmly two at least wire rope that are parallel to each other stretching tight between the membrane steel pipe, and the last operation **platform** that is provided with of wire rope supplies operation **platform** along the subassembly that **slides** that wire rope **slided** between and the wire rope, and it is provided with the fixed subassembly of fixed operation **platform** position to **slide** between subassembly and the wire rope, reached the effect of guaranteeing workman's stable construction on operation **platform**.

8/278 © EPODOC / EPO

PN - [CN206299107U](#) U 20170704
 PR - CN201621439891U 20161226
 AP - CN201621439891U 20161226
 DT - I
 PA - TIANJIN BOSITE FILM DECORATION ENG CO LTD
 TI - No **scaffold** puts up hanging flower basket
 AB - The utility model discloses a no **scaffold** puts up hanging flower basket, its technical scheme main points set firmly two at least wire rope that are parallel to each other stretching tight between the membrane steel pipe, the last operation **platform** that is provided with of wire rope, the subassembly that **slides** that supplies operation **platform** to **slide** along wire rope between operation **platform** and the wire rope is provided with the hoop component of fixed operation **platform** position between operation **platform** and the wire rope, reached the effect of guaranteeing workman's stable construction on operation **platform**.

9/278 © EPODOC / EPO

PN - [CN106855358](#) A 20170616
 PR - CN20151899406 20151209
 AP - CN20151899406 20151209
 DT - I
 CNOI - [F27D1/1621](#)
 PA - CHINA MCC20 GROUP CORP LTD
 TI - Fixing method of stainless steel protective plates for annealing furnace lining
 AB - The invention relates to an annealing furnace lining, in particular to a stainless steel protective plates for the annealing furnace lining. A fixing method comprises the steps of according to a furnace lining structure and a using temperature, firstly determining a positioning hole mode, a laying position and a prepressing mode and sizes of the stainless steel protective plates, and then conducting processing and manufacturing; during installation, a mantanghong **scaffoldingplatform** is utilized to conduct precise

measurement and paying off and welding anchoring bolts from bottom to top, then executing modes of laying ceramic fiber carpets layer by layer and installing stainless steel protective plates layer by layer, the work is finished at one time, and the furnace lining installation is safely and efficiently finished. According to the fixing method of stainless steel protective plates for the annealing furnace lining, manual waste is reduced, the installation cycle is shortened, the situation that the stainless steel protective plate **slides** directionally and in the long using process is effectively controlled, the deformation is reduced, and the band steel surface quality influenced by pollution inside a furnace caused by shedding of fireproof material particles in the furnace lining is prevented.

10/278 © EPODOC / EPO

- PN - [CN206267542U](#) U 20170620
- PR - CN201621294231U 20161129
- AP - CN201621294231U 20161129
- DT - I
- PA - GUOSHENG
- TI - Construction appurtenance **platform**
- AB - The utility model discloses a construction appurtenance **platform**, it includes and sets up a backup pad on the upper end side of base perpendicularly by a base, running through the monoblock backup pad in the backup pad and setting up a pivot, it is rotatory that the base is encircled through the pivot to the backup pad, all is provided with two perpendicular to water graphic settings's **slide** rail on the both sides terminal surface of backup pad, sets up more than one longitudinal arrangement's constant head tank on one of them side end face, sliding sleeve of outside suit of backup pad, just be provided with corresponding **slider** to the **slide** rail on the sliding sleeve, the **slider** embedding sets up in the **slide** rail, and all is provided with the pulley on the **slider**, pulley and the contact of **slide** rail bottom surface, the utility model discloses simple structure, mainly used cooperation **scaffold** uses, and article do not have the problem that the department placed when solving the construction, and this appurtenance **platform** can be realized rising and descend according to the **scaffold** to but automatic positioning in any position, angle and highly all adjustable is put with hanging to putting of the article of can realizing being under construction.

11/278 © EPODOC / EPO

- PN - [CN206233249U](#) U 20170609
- PR - CN20162702352U 20160701
- AP - CN20162702352U 20160701
- DT - I
- CCA - [Y02A10/24](#)
- PA - SHENZHEN GOLDEN CENTURY ENG IND CO LTD; SHENZHEN FOUND ENG CO LTD
- TI - Supporting construction is synthesized to dark side slope of complicated precipitous precipice
- AB - The utility model relates to a supporting construction is synthesized to dark side slope of complicated precipitous precipice mainly includes miniature stake, prestressed

anchorage pole, prestressed anchorage cable, concrete bank protection, operation **platform**. Miniature stake sets up in the precipice inboardly, the operation **platform scaffold** frame is set up along the precipice successive layer, the shaped steel anchor of frame pole setting of part **scaffold** and anchor rock -entering wall, the shaped steel inslot sets up grouting segment, the shaped steel lower part sets up the bearing diagonal, the wall spare welded connection of company of the bearing diagonal and the below anchor rock -entering body, part **scaffold** cross rod is fixed through being connected the fastener with company's wall spare of the anchor rock -entering body, the last equipment **slide** rail that is provided with of operation **platform**, the domatic prestressed anchorage pole that is provided with, prestressed anchorage cable and concrete bank protection, and be provided with grouting segment in the domatic crushed zone. The utility model discloses effectively solving propping up of the dark side slope operation **platform** of complicated precipitous precipice and establishing the difficult point, adopt multiple structure composition to strut simultaneously, effectively prevent the side slope falling rocks, technological economic benefits is outstanding.

12/278 © EPODOC / EPO

PN - [CN106671406](#) A 20170517

PR - CN201611223047 20161227

AP - CN201611223047 20161227

DT - I

CNOI - [A61F2/00](#) ; [A61F2/105](#) ; [B29C35/16](#)

CNOA - [B29L2031/753](#) ; [A61F2240/001](#) ; [B29C2035/1616](#)

PA - UNIVYANGZHOU

TI - 3D printing device applicable to pneumatic extruding low-temperature **platform** control

AB - The invention provides a 3D printing device applicable to pneumatic extruding low-temperature **platform** control, and belongs to the field of tissue engineering technology and biological 3D printing technology. The 3D printing device comprises a bottom plate, a side plate, a nozzle device, a three-dimensional moving mechanism, a forming **platform** cooling device and a forming **platform** control mechanism, wherein the nozzle device is mounted on a Z-axis **slide** block in a thread connection manner; the forming **platform** cooling device is fixedly mounted on a **slide** block in the forming **platform** control mechanism through a cap; the three-dimensional moving mechanism can realize moving in X, Y and Z directions; the forming **platform** cooling device can be controlled through the forming **platform** control mechanism to move in the X direction; and a water inlet and a water outlet are formed in the bottom part of the forming **platform** control mechanism. According to the 3D printing device, an extruding forming technological system is adopted; the temperature of a forming **platform** is controlled so as to print a **scaffold** tissue with high mechanical property; a method for cooling the forming **platform** through water circulating is carried out to ensure a low-temperature working environment for the extruding of biologic materials, and thus a solution is promoted to crosslink to form hydrogel, and as a result, the mechanical property and the integrity of a **scaffold** can be improved.

13/278 © EPODOC / EPO

- PN - [CN206174557U](#) U 20170517
- PR - CN20162417707U 20160505
- AP - CN20162417707U 20160505
- DT - I
- PA - ZHANG FUBAO
- TI - Full -automatic three -dimensional lift parking equipment that removes of goods shelves formula hydraulic pressure
- AB - The utility model discloses a full -automatic three -dimensional lift parking equipment that removes of goods shelves formula hydraulic pressure, include: stand, support, crossbeam, ka dao, **slide**, lift **platform** and displacement ware, stand and crossbeam mutually perpendicular constitute goods shelves formula sky parking **platform** structure, **scaffold** weldment in the junction of stand and crossbeam, lift **platform** install in one side of parking **platform**, its by lifting hydraulic cylinder, play lifting rope, fixed pulley, control room, displacement ware **slide** and vehicle movement folding leg and form, lifting hydraulic cylinder install respectively in lift **platform**'s four corners department, decide the both sides of pulley mounting at the crossbeam to with a hanging rope connected, the vehicle movement folding leg articulate and get into the lift **platform** entrance at the vehicle. This kind of structural style's sky parking field, it designs the automatic operation that can make perfect to all sorts of problems that traditional sky parking place exists, realizes the structure of depositing, getting the action of vehicle quick, smoothly.

14/278 © EPODOC / EPO

- PN - [CN206153771U](#) U 20170510
- PR - CN201621082187U 20160927
- AP - CN201621082187U 20160927
- DT - I
- PA - SHANGHAI SHISHU AUTOMOTIVE ENG TECH CO LTD
- TI - A support for car plate laser cutting
- AB - The utility model discloses a support for car plate laser cutting, including the flexible **board**, the flexible **board** upper surface is equipped with a plurality of bed hedgehopping pieces, the flexible **board** lower surface is equipped with a plurality of " L " type supporting legs all around, wherein, be equipped with the mounting hole that is the matrix arrangement on the flexible **board**, flexible **board** apex angle department is equipped with the lifting eye, be equipped with four mounting holes on the bed hedgehopping piece, clamping components is connected to bed hedgehopping piece top, clamping components includes clamping components fixing base, clamping **slide**, presss from both sides tight screw rod and locating pin, the clamping components fixing base is equipped with three installation face, is equipped with four screw holes and six pinholes on the installation face altogether, second installation face and third installation face mutually perpendicular in the clamping components fixing base. The utility model provides a support for car plate laser cutting has reduced **scaffold** weldment's work load, has released the shared space of laser cutting support, uses the escapable cost for a long time, effectively improves production efficiency.

15/278 © EPODOC / EPO

- PN - [CN206144124U](#) U 20170503
- PR - CN20162622753U 20160623
- AP - CN20162622753U 20160623
- DT - I
- PA - ZHEJIANG SENSHEG CONSTRUCTION CO LTD
- TI - A **scaffold** for construction of tall and big space
- AB - The utility model relates to a **scaffold** for construction of tall and big space, including truss mechanism and electric lift **platform**, the centre of electric lift **platform** is provided with construction **platform**, and construction **platform**'s top is provided with the **scaffold** frame that the top has the step, and truss mechanism's top is equipped with **slide** rail, many connecting rods and duo gen second and attaches the wall pole, and the below of **slide** rail is equipped with the safety rope with **slider** matched with. Usefulness was put up to the **scaffold** steel pipe and steel sheet quantity are few, with low costs, set up fastly, and the time of putting up is short, and **scaffold** stability can be good, installation, when dismantling convenient, safe and reliable devoid of risk, and wherein the **scaffold** frame still can be used to the construction of ordinary building, and reuse rate is high, practices thrift the cost, compares with a method of putting up the full hall frame **scaffold** frame of tradition, reduces work load that constructor built a framework and transportation building material's work load, and the efficiency of construction is showing and is improving.

16/278 © EPODOC / EPO

- PN - [CN206128599U](#) U 20170426
- PR - CN20162932214U 20160824
- AP - CN20162932214U 20160824
- DT - I
- PA - JIANGSU YUANCHEN INSTALLATION GROUP CO LTD; JIANGSU LECHUANG BUILDING TECH CO LTD
- TI - Console mode hydraulic pressure lifting foot hand rack system
- AB - The utility model relates to a console mode hydraulic pressure lifting foot hand rack system locates one side that the building was personally experienced sth. Part of the body with leaving the interval, including climbing **platform**, guide rail frame, anti - falling device, iron chain and hydraulic jack, the guide rail frame stands on on the quick basic **platform** on ground, the iron chain hangs on the guide rail frame, the hydraulic jack transmission is connected in the iron chain and can be followed the iron chain and **slide** from top to bottom, and guide rail frame slip ground sliding connection in guide rail frame from top to bottom can be followed to the **platform** that climbs, and hydraulic jack is respectively through one the anti -falling device transmission connect in the **platform** that climbs, drive climb the **platform** and **slide** about the guide rail frame. Beneficial effect does: guide rail frame through the adoption console mode bears the **scaffold** frame, raises the **scaffold** frame to higher height, and the technical staff of being convenient for is under construction to the roof of the building body. Adopt the traditional gear drive mode of hydraulic jack

replacement, improve the load of **platform** that climbs, and then can improve the number of piles of **scaffold** frame, improve the efficiency of construction through constructor operation simultaneously.

17/278 © EPODOC / EPO

- PN - [CN106567533](#) A 20170419
- PR - CN20161720330 20160824
- AP - CN20161720330 20160824
- DT - I
- PA - JIANGSU YUANCHEN INSTALLATION GROUP CO LTD; JIANGSU LECHUANG BUILDING TECH CO LTD
- TI - Floor type hydraulic lifting **scaffold** system
- AB - The invention relates to a floor type hydraulic lifting **scaffold** system. The floor type hydraulic lifting **scaffold** system is arranged at one side of a building with a certain gap, and includes a climbing **platform**, a guide rail rack, anti-fall devices, an iron chain and a hydraulic jack, wherein the guide rail rack stands on a quick basic **platform** on the ground; the iron chain is suspended on the guide rail rack; the hydraulic jack is in transmission connection with the iron chain, and can **slide** along the iron chain up and down; the climbing **platform** can be connected with the guide rail rack in a sliding way up and down along the guide rail rack; and the hydraulic jack is in transmission connection with the climbing **platform** through the anti-fall devices so as to drive the climbing **platform** to **slide** along the guide rail rack up and down. The floor type hydraulic lifting **scaffold** system has the advantages that a floor type guide rail rack is used to support a **scaffold** to push the **scaffold** to a higher position, so that a technician can construct on the top of a building conveniently; a hydraulic jack instead of a traditional gear drive mode is used to improve the load of the climbing **platform** so as to improve the number of layers of the **scaffold**, so that constructors can work at the same time and the construction efficiency is improved.

18/278 © EPODOC / EPO

- PN - [CN206110640U](#) U 20170419
- PR - CN201621029178U 20160831
- AP - CN201621029178U 20160831
- DT - I
- PA - WTI BUILDING PRODUCTS (JIANGSU) CO LTD
- TI - A scalable **scaffold** frame plate for **scaffold** frame
- AB - The utility model provides a scalable **scaffold** frame plate for **scaffold** frame, constitute by two blocks of the same length rack stake boards, the rack stake of first grid railing **board** distributes and **slides** mutually with the rack stake of second rack stake **board** is crisscross, wherein a spacer pin is all installed with the position of the centre of a certain rack stake of second rack stake **board** to first grid railing **board**, the both ends of first grid railing **board** and second rack stake **board** all are equipped with the end plate of perpendicular to rack stake, scalable **scaffold** plate's the state that shortens during the pressing close to with the one end end plate of first grid railing **board** and second rack stake **board**, first grid railing **board** is the solid matter

state with the rack stake of the crisscross distribution of second rack stake **board**, the tail end **board** of first grid railing **board** and the head end **board** of second rack stake **board** are scalable **scaffold** plate's extension states when pressing close to most, during the extension state be based on a spacer pin of the tail end **board** of the first grid railing **board** installation on by second rack stake **board** inject, a spacer pin of the head end **board** of the second rack stake **board** installation on by first grid railing **board** injects.

19/278 © EPODOC / EPO

- PN - [CN206091335U](#) U 20170412
- PR - CN201621006798U 20160830
- AP - CN201621006798U 20160830
- DT - I
- PA - CHINA FIRST METALLURGICAL GROUP CO LTD
- TI - Gate -type **scaffold** frame lift material loading **platform**
- AB - The utility model discloses a gate -type **scaffold** frame lift material loading **platform**, include: at the slip track of perpendicular two parallels that set up in gate -type **scaffold** frame side, at the gate -type **scaffold** rest base fixed motor casing who sets up of portion, be provided with detachable material **platform** on the slip track, material **platform** can follow the slip track and **slide** from top to bottom, article two, the orbital bottom of slip all is provided with down the fixed pulley, and the top all is provided with the fixed pulley, around being equipped with wire rope on fixed pulley and the last fixed pulley, wire rope one end is connected with motor casing down, and the other end is connected with material **platform**, motor casing provides power pulling wire rope and moves round lower fixed pulley and last fixed pulley, and then it is ascending to drive material **platform**. The utility model discloses simple structure, low in manufacturing cost, through the mechanized manual transportation material that replaces, construction operator person's working strength has been alleviated to the incident that has probably taken place when having reduced the construction operation.

20/278 © EPODOC / EPO

- PN - [CN206071015U](#) U 20170405
- PR - CN201621123630U 20161015
- AP - CN201621123630U 20161015
- DT - I
- PA - XIANG RONG
- TI - Take construction **scaffolding** of elevating **platform**
- AB - The utility model discloses a take construction **scaffolding** of elevating **platform** contains a **platform**, the below of **platform** be equipped with the shear arm of one " X " font, the bottom of shear arm be equipped with a driving oil cylinder, the bottom of shear arm be equipped with the base that a level set up, one side of base be equipped with a driving motor, the base contain the direction horizontal bar of a pair of vertical setting and the slip horizontal bar of a pair of horizontal setting, the both ends of slip horizontal bar be equipped with a slip gyro wheel and a locking ware respectively.

During the use, utilize driving motor and driving oil cylinder, the user can easily drive the shear arm of " X " font for the **platform** freely rises or descends. Utilize the slip gyro wheel, user can relax whole shear arm of lateral shifting and **platform** to the locking handle of screwing makes the locking last item support the gyro wheel that firmly **slides**, and the horizontal bar that effectively prevents to **slide** is unexpected to **slide**, the security that has improved construction **scaffolding** greatly.

21/278 © EPODOC / EPO

PN - [CN106522835](#) A 20170322

PR - CN201611180709 20161220

AP - CN201611180709 20161220

DT - I

CNOI - [E21B7/024](#) ; [E21B7/026](#) ; [E21B7/04](#) ; [E21B15/003](#) ; [E21B15/04](#)

PA - CCCC SECOND HIGHWAY FOURTH ENG CO LTD

TI - Mobile sliding rail pushing type automatic side slope drilling device

AB - The invention discloses a mobile sliding rail pushing type automatic side slope drilling device which comprises a drilling machine, wherein the drilling machine drives a drilling rod to rotate through a drilling motor to realize perforation; the drilling motor is fixedly mounted on a sliding plate; the sliding plate is a flat plate with a sliding chute; the sliding plate is mounted on a rail plate vertically arranged on the lower side; the rail plate is formed by welding four vertical flat plates distributed in a rectangular manner; sliding rails matched with the sliding plate are arranged on the rail plate; the sliding plate is connected with a pushing mechanism; the pushing mechanism can push the sliding plate to **slide** left and right along the rail plate; the lower end of the rail plate is fixed on a **platform**; two wheels are respectively arranged on the upper and lower sides of the left end of the **platform**; the wheels are mounted on the **platform** through rotating shafts and bearings. When a side slope is drilled, the drilling machine can be conveniently perpendicular to the side slope and positions can be changed freely, so that the waste of resources due to operation via installation of a **scaffold** is avoided.

22/278 © EPODOC / EPO

PN - [CN106437126](#) A 20170222

PR - CN20161720213 20160824

AP - CN20161720213 20160824

DT - I

PA - JIANGSU LECHUANG CONSTRUCTION TECH CO LTD

TI - Guiding and force bearing device of floor type hydraulic lifting **scaffold** and detaching method

AB - The invention relates to a guiding and force bearing device of a floor type hydraulic lifting **scaffold**. The guiding and force bearing device of the floor type hydraulic lifting **scaffold** is arranged on one side of a building in a spaced mode and comprises a climbing **platform**, a guide rail bracket, an iron chain and a hydraulic jack. The guide rail bracket is erected on a fast foundation **platform** on the ground. The iron chain is suspended on the guide rail bracket. The hydraulic jack is in transmission connection

with the iron chain and can **slide** up and down along the iron chain. The climbing **platform** is slidably connected to the guide rail bracket in the mode of being capable of sliding up and down along the guide rail bracket. The hydraulic jack is in transmission connection with the climbing **platform** and drives the climbing **platform** to **slide** up and down along the guide rail bracket. The guide rail bracket is formed by assembling a plurality of guide rail supports. The guiding and force bearing device has the beneficial effects that the floor type guide rail bracket is adopted to bear the **scaffold**, the **scaffold** can be pushed to a higher height, and technicians can construct the roof of the building conveniently; and a traditional gear transmission mode is replaced with the hydraulic jack, the loads of the climbing **platform** are increased, then the number of layers of the **scaffold** can be increased, and constructors can operate simultaneously, so that the construction efficiency is improved.

23/278 © EPODOC / EPO

- PN - [CN106401162](#) A 20170215
- PR - CN201611063175 20161125
- AP - CN201611063175 20161125
- DT - I
- CNOI - [E04G1/15](#) ; [E04G5/00](#) ; [E04G5/14](#)
- PA - YANCHENG INST TECHNOLOGY
- TI - Adjustable operation **platform** used for **scaffold**
- AB - The invention relates to the technical field of building equipment **platforms**, in particular to an adjustable operation **platform** used for a **scaffold**. The adjustable operation **platform** comprises a top supporting plate. The position, located at the front end edge, of the lower surface of the top supporting plate is fixedly connected with a front-placed bottom connecting and fixing bracket protruding downward, and the position, located on the rear end edge, of the lower surface of the top supporting plate is fixedly connected with a rear-placed bottom connecting and fixing bracket protruding downward. According to the adjustable operation **platform** used for the **scaffold**, the inner side faces of a front-placed fixed guardrail and a rear-placed fixed guardrail at the upper end of the top supporting plate are provided with connecting **slide** grooves with limiting openings, connecting shafts on a left-placed movable guardrail and a right-placed movable guardrail are inserted into the connecting **slide** grooves to be movably connected with the fixed guardrails, and the movable guardrails are fixed by inserting limiting blocks on the movable guardrails into the limiting openings, so that the positions and the structures of the guardrails on the operation **platform** are made adjustable, the operation mode is simple and fast, and constructors can conveniently get on and off the **platform**, conduct multi-**platform** splicing operation and construct on the edge of the **platform**.

24/278 © EPODOC / EPO

- PN - [CN205976373U](#) U 20170222
- PR - CN20162736339U 20160704
- AP - CN20162736339U 20160704
- DT - I

PA - UNIV WUHAN SCIENCE & TECH

TI - Gate -type **scaffold** frame with material lifting equipment

AB - The utility model relates to a gate -type **scaffold** frame with material lifting equipment, it comprises its characterized in that spout pole, **slider**, instrument **platform**, **scaffold** frame outside horizon bar, the left side pole setting of **scaffold** frame, horizontal fixing rod, drum bracing piece, adjust knob, telescopic link, horizontal fixing rod have two, fixed linking to each other of lower extreme of left end and **scaffold** left side frame pole setting, the lower extreme of right -hand member and drum bracing piece is fixed continuous, the upper end of lower extreme and drum bracing piece of telescopic link pass through that adjust knob is fixed to link to each other, the bottom of upper end and instrument **platform** is fixed continuous, right -hand member and the instrument **platform** of **slider** link to each other with fixed, the left end is in the spout pole to can follow the spout pole **slides** from top to bottom, upper end and the **scaffold** frame outside fixed linking to each other of horizon bar of spout pole, the utility model discloses can effectual completion instrument and the perpendicular transportation of material to the security of the instrument of guaranteeing in the construction operation and material transport transmission.

25/278 © EPODOC / EPO

PN - [CN205950383U](#) U 20170215

PR - CN20162904096U 20160819

AP - CN20162904096U 20160819

DT - I

PA - HEFEI YIFU AUTOMATION TECH CO LTD

TI - Automobile assembly line waits to maintain part management device

AB - The utility model provides an automobile assembly line waits to maintain part management device, the loach carrying **platform** comprises a supporting fram, drive arrangement and conveyer belt, it is equipped with a plurality of door -like **scaffold** to lie in the conveyer belt top on the support frame, door -like **scaffold** is last to carry the adjacent one side of initiating terminal to be equipped with signal receiver with the conveyer belt, the opposite side is equipped with movable sliding block, signal receiver is equipped with a plurality of signalling cards, the signalling cartoon is crossed magnet and is fixed on waiting to maintain the part, movable sliding block passes through the **slide** rail setting on the door -like **scaffold** crossbeam, the movable sliding block below is connected with feeding mechanical arm through upper and lower extending structure. The utility model overcomes prior art's is not enough, sets up bluetooth signalling card on waiting to maintain the part, predetermines failure cause in the signalling card, signalling card repeatedly usable, and fix and take off convenient and fast, realized full automatic classification simultaneously, reduce manual operation, efficient, application scope is wide.

26/278 © EPODOC / EPO

PN - [CN205928149U](#) U 20170208

PR - CN20162804142U 20160728

AP - CN20162804142U 20160728

DT - I

PA - FOSHAN GAOMING LONGYUE PACKING CO LTD

TI - Fiber container cutting polisher

AB - The utility model discloses a fiber container cutting polisher, it includes quick -witted case, pipe cutting mechanism and grinding device, the top surface of machine case is equipped with a work **platform**, and shown pipe cutting mechanism installs the upper surface at work **platform**, grinding device installs the one side at quick -witted case, grinding device is including polishing support, sliding bracket, cylinder and bistrique, the one side at driving motor is installed to the bistrique, the **scaffold** weldment one side in quick -witted case upper end of polishing, sliding bracket installs on the track of support of polishing, the cylinder is installed at sliding bracket's top, and meets with sliding bracket, promotes the sliding bracket side -to -side movement through the cylinder. The utility model discloses a meet bistrique and driving motor, will polish the support mounting simultaneously in one side of quick -witted case, and sliding bracket installs on the **slide** rail of support of polishing for sliding bracket can drive the fiber container and polish, and whole **platform** is established and bie both can be carried out the fly -cutting fiber container, also the incision of the army's of polishing fiber container in step.

27/278 © EPODOC / EPO

PN - [CN205909226U](#) U 20170125

PR - CN20162918558U 20160823

AP - CN20162918558U 20160823

DT - I

PA - POWERCHINA NUCLEAR ENG CO

TI - Linkage for ballast

AB - The utility model discloses a linkage for ballast, including the link plate, arranged a plurality of couples on the link plate, run through the link plate is equipped with the **slide** opening, the **slide** opening downside slidable mounting has two at least sliding sleeves on the link plate, the sliding sleeve with be equipped with the antifriction device between the link plate, each the sliding sleeve is connected to the frame of hanging that is used for bearing the ballast respectively, it is equipped with the insulation **board** on diapire and the all lateral walls of frame respectively to hang, the downside of link plate is equipped with the enhancement extension **board**, strengthen the extension **board** through a plurality of S -shaped coupler bodies articulate in on the link plate, hang the frame with strengthen being equipped with spacing strutting arrangement between the extension **board**, the utility model discloses during the use, hang the dress with the link plate and on the **scaffold** frame, utilize the sliding sleeve can adjust the position that hangs the frame, and then according to using the position of adjusting the ballast, strengthen extension **board** and spacing strutting arrangement's cooperation in addition, can strengthen the support of hanging frame and ballast and spacing, uses safer, convenient removal.

28/278 © EPODOC / EPO

PN - [CN205894640U](#) U 20170118

PR - CN20162872579U 20160812

AP - CN20162872579U 20160812

DT - I

PA - HEBEI CONSTRUCTION GROUP CO LTD

TI - A safety protection and construction **platform** for construction of elevator well

AB - The utility model provides a safety protection and construction **platform** for construction of elevator well, including support frame and construction **platform**, the support frame is right angle triangular prism structure in a plurality of diagonal bracing steel pipes, the longitudinal support steel pipe that set up side by side and transversely support the steel pipe, diagonal bracing steel pipe stand on the elevator well to one side, its upper end lie in on the elevator well inner wall and with horizontal supports steel pipe overlap joint, the lower extreme place in the lift -cabin door **slide** and with longitudinal support steel pipe overlap joint, steel pipe between respectively be equipped with connection steel pipe reaching transversely to support between the diagonal bracing steel pipe, between the longitudinal support steel pipe, overlap joint position at each steel pipe all is equipped with the fastener, construction **platform** is the cube framework structure, set up in on the support frame, the both ends of the horizontal steel pipe in bottom and bottom are connected the both ends of steel pipe and are installed a support respectively, are equipped with the **scaffold** frame on bottom plane upper berth, be provided with rings on the horizontal steel pipe in top. The utility model discloses collect safety protection and construction **platform** in an organic whole, the structure is firm, and the security performance is high.

29/278 © EPODOC / EPO

PN - [CN205887265U](#) U 20170118

PR - CN20162606564U 20160621

AP - CN20162606564U 20160621

DT - I

PA - CHONGQING JIESHOU TECH CO LTD

TI - Hardware paint spraying device

AB - The utility model discloses a hardware paint spraying device, including support, air compressor, extension **board**, pneumatics jar, pressure pan and accent paint can, **scaffold** weldment is at the upper surface of bottom plate, transfer the paint can to install in the upper portion of bottom plate right -hand member position, the left side position of transferring the paint can is provided with paint pump, the pressure pan sets up in bottom plate upside middle part position, the top of pressure pan is connected with the fluid hose, air compressor installs the right -hand member at the extension **board**, air compressor's left end and pneumatics jar are connected, the left end and the hybrid tube of pneumatics jar are connected, the left end of hybrid tube is connected with high pressure spray pipe, high pressure spray pipe's left side position is provided with the shower nozzle support, the crossbeam sets up the top at the support, the downside of crossbeam is provided with the guide rail, the downside of guide rail is provided with the **slider**, the utility model discloses the spraying is efficient, the spraying is even, and the operation of being convenient for reduces workman's the amount of labour.

30/278 © EPODOC / EPO

- PN - [CN106320724](#) A 20170111
- PR - CN20151386693 20150703
- AP - CN20151386693 20150703
- DT - I
- PA - SHENZHEN TECHEN TECH CO LTD
- TI - Automatic deformation construction protection **platform** robot and moveable deformation method of automatic deformation construction protection **platform** robot on curved building
- AB - The invention relates to an automatic deformation construction protection **platform** robot and a movable deformation method of the automatic deformation construction protection **platform** robot on a curved building. The automatic deformation construction protection **platform** robot comprises at least two sets of vertical protection nets, at least two sets of multi-layer **scaffold** boards, a self-adaptive positioning and locating manipulator and a climbing robot position. The two sets of horizontally adjacent vertical protection nets are in rotatable connection through a plurality of sliding hinging pieces which are arranged up and down. The at least two sets of multi-layer **scaffold** boards are connected with the two sets of vertical protection nets correspondingly. The self-adaptive positioning and locking manipulator comprises a first element which is in rotatable connection with one multi-layer **scaffold board**, a second element which is in rotatable connection with the other multi-layer **scaffold board** and can **slide** relative to the first element, and a third element which enables the second element to be locked and unlocked relative to the first element. The climbing robot position is connected with the at least two sets of vertical protection nets and the at least two sets of multi-layer **scaffold** boards. The automatic deformation construction protection **platform** robot can adapt to buildings in different shapes.

31/278 © EPODOC / EPO

- PN - [CN205845408U](#) U 20161228
- PR - CN20162752240U 20160715
- AP - CN20162752240U 20160715
- DT - I
- PA - FIRST CONSTRUCTION CO LTD CHINA CONSTRUCTION 8TH ENG BUREAU
- TI - Signboard is checked and accepted to **scaffold** frame
- AB - The utility model relates to a signboard is checked and accepted to **scaffold** frame, including the tablet body, be equipped with a through -hole on the upper portion of the tablet body, one side through -hole department that personally experiences sth. Part of the body at the tablet is equipped with a sleeve, is equipped with a plurality of screw hole on telescopic lateral wall, is equipped with the record table standing groove that an open -top set up in the opposite side lower part of the tablet body, is equipped with two parallel arrangement's spout on the tablet body above record table standing groove, and a shut clamps in two spouts through the two **slider** activities that set up on it, is equipped with the drain **board** that a slope set up on the shut. The above technical

scheme is adopted in the utility model, structural design is equitable, can be the effectively accurate examination circumstances of showing the **scaffold** frame to people, and the work of giving people brings the facility.

32/278 © EPODOC / EPO

- PN - [CN205822757U](#) U 20161221
- PR - CN20162767612U 20160721
- AP - CN20162767612U 20160721
- DT - I
- PA - JI DEGUI
- TI - **Scaffold** frame is with nonrust steel pipe transposition device
- AB - The utility model discloses a **scaffold** frame is with nonrust steel pipe transposition device, which comprises a fixing mechanism, fixed establishment includes the fixed plate, be equipped with the curb plate on the lateral wall of fixed plate, be equipped with the mounting panel on the fixed plate, the upper portion of mounting panel is connected with extension plate, be equipped with fixed pipe between extension plate and the fixed plate, be equipped with first clamping **board** and second clamping **board** on the mounting panel, be equipped with the clamping groove between first clamping **board** and the second clamping **board**, the clamping trench is put and is equipped with the joint **board**, be equipped with the action bars on the joint **board**, the outer end of action bars is the free end, the inner of action bars is connected with the joint **board**, first clamping **board**, be equipped with the lockpin between second clamping **board** and the joint **board**, be equipped with on the joint **board** and carry the thing **board**, be equipped with on year thing **board** and carry a thing groove. The utility model discloses can can prize the nonrust steel pipe that carries on the thing **board** through the action bars, and **slide** adjusting can also be realized along carrying the thing groove to nonrust steel pipe to the convenience is carried out the flexibility to nonrust steel pipe and is moved the operation.

33/278 © EPODOC / EPO

- PN - [CN106223595](#) A 20161214
- PR - CN20161652063 20160810
- AP - CN20161652063 20160810
- DT - I
- CT - || STSE (A)
[JPH06129045](#) A 19940510 [A] (SHIMIZU CONSTRUCTION CO LTD)
[A] 1-13
* 全文 *;
[CN201411898Y](#) Y 20100224 [A] (HUNAN NO 5 ENGINEERING CO LTD)
[A] 1-13
* 全文 *;
[JP2010121285](#) A 20100603 [A] (TEKKEN CONSTR CO)
[A] 1-13
* 全文 *;
[CN104213706](#) A 20141217 [Y] (JIANGSU HUNING STEEL MECHANISM)

	[Y] 6-7、11 * 说明书第[0018]段 *; CN105064672 A 20151118 [A] (GUANGZHOU NO 1 CONSTRUCTION ENGINEERING CO LTD) [A] 1-13 * 全文 *
CTNP	- STSE (A) [YX] - 王国强, 王维莉, "简述用移动平台安装屋面网架的方法", 《中国科技信息》 [Y] 6-7、11 * "1、引言"、"2、概述"及"3、网架安装"部分 * [X] 1-5、8-10、12-13
CNOI	- E04G3/34
CNOA	- E04G2003/283
PA	- CHINAIPPR INT ENG COMPANY LTD
TI	- Sliding platform and construction method for separately mounting grid structures on high altitudes
AB	- The invention discloses a sliding platform and a construction method for separately mounting grid structures on high altitudes. The sliding platform for separately mounting the grid structures on the high altitudes is arranged in an industrial factory building. The industrial factory building is provided with crane beams, and overhead crane tracks are arranged on the crane beams. The sliding platform for separately mounting the grid structures on the high altitudes comprises a grid structure type sliding platform , a scaffold operating platform and pulling equipment. The grid structure type sliding platform is slidably arranged on the overhead crane tracks via a plurality of sliding rollers; the scaffold operating platform is arranged on the upper surface of the grid structure type sliding platform ; the pulling equipment is connected onto the grid structure type sliding platform , so that the grid structure type sliding platform can slide along the overhead crane tracks. The mounting quality of the grid structures, with bolt-sphere joints, of the industrial factory building can be sufficiently guaranteed, the time and labor can be saved, and the safety of staffs for constructing the grid structures on the high altitudes and the safety of construction staffs below the staffs can be guaranteed. The sliding platform and the construction method have the advantages of flexibility, convenience, speediness and low cost. Besides, merits can become obvious along with increase of ratios of the longitudinal lengths to the span of the grid structure.
34/278	© EPODOC / EPO
PN	- CN205673744U U 20161109
PR	- CN20162570953U 20160615
AP	- CN20162570953U 20160615
DT	- I
PA	- RENQIU JINSHI WELDING MACHINE MFG CO LTD
TI	- Take automatic discharge's scaffold frame pole setting dish to buckle artifical spot welding device
AB	- The utility model provides a take automatic discharge's scaffold frame pole setting

dish to buckle artificial spot welding device, includes, the main part support, and its characterized in that: installing in the upper portion of main part support one side and being used for the support of fixed clamp cylinder, die clamping cylinder passes through the connector and is connected with two final drive shaft, installs at least one double -layered disc ware on two final drive shaft, all is equipped with the disc holder in one side of every double -layered disc ware, and two final drive shaft run through the disc holder, **slide** in the disc holder, install the ejector sleeve ware on two final drive shaft, at a main part shelf location locating support, location bolt cartridge is on the locating support, install air source processor and two cylinders of unloading at the back of main part support, be equipped with the extension **board** of unloading of taking inclination on the cylinder of unloading, the hand is pulled the pneumatic valve and is connected air source processor, unload cylinder and die clamping cylinder through the trachea respectively. The utility model discloses have simple structure, reasonable in design has realized automatic discharge, has alleviated workman's intensity of labour, has improved production efficiency.

35/278 © EPODOC / EPO

- PN - [CN205777409U](#) U 20161207
- PR - CN20162500493U 20160530
- AP - CN20162500493U 20160530
- DT - I
- PA - THE THIRD CONSTRUCTION CO LTD OF CHINA CONSTRUCTION FIFTH ENG BUREAU
- TI - Overlength reinforced concrete bent structure pathway movement formula **scaffold** frame
- AB - The utility model discloses an overlength reinforced concrete bent structure pathway movement formula **scaffold** frame, ground is provided with 2 logical elongated slot rail ways (1), be equipped with on logical elongated slot rail way (1) steel **platform** (2), steel pulley (3) are installed to the bottom of steel **platform** (2), steel **platform** (2) improve level to make a round trip to **slide** in logical elongated slot rail way (1) through steel pulley (3), steel **platform** (2) upper portion is provided with support body connecting rod (6), the side of steel **platform** (2) is provided with unloads support plate (4), unload support (5) on support plate (4) with installing the uninstillation, the both ends of steel **platform** (2) are provided with tie -beam (7), adopt bolted connection through tie -beam (7) between many steel **platform** (2), outer **scaffold** frame system (9) installs on steel **platform** (2) through support body connecting rod (6). The utility model relates to a simple manufacture, dependable performance, installation are convenient, low cost's overlength reinforced concrete bent structure pathway movement formula **scaffold** frame.

36/278 © EPODOC / EPO

- PN - [CN205771952U](#) U 20161207
- PR - CN20162494657U 20160527
- AP - CN20162494657U 20160527
- DT - I
- PA - JIANGSU JINGYI ELECTRIC TECH CO LTD

TI - Switch **board** hem auto sucking machine constructs

AB - The utility model discloses a switch **board** hem auto sucking machine constructs, contain the support, the guide rail, the slip dolly, the pulley, vertical cylinder, the sucking disc, the conveyer belt, the drive wheel, conveyer belt **scaffold**, reduction gear and motor, the setting of guide rail level is and fix in the support upper end, the pulley rotates to set up and **slides** the setting in slip dolly both sides on the track and the slip dolly passes through the pulley, the vertical setting of vertical cylinder is and fix on the slip dolly, the lower end of the piston rod that the sucking disc was fixed at vertical cylinder, the lower end of the piston rod of vertical cylinder opens there is the gas pocket and be connected through hose and vacuum machine, the drive wheel rotates and sets up at the conveyer belt **scaffold** both ends, the conveyer belt sets up on the drive wheel, a drive wheel is driven by the reduction gear with retarder connection, the reduction gear is connected by motor drive with the motor. The utility model discloses a sucking disc is carried after adsorbing to the conveyer belt and is carried out material loading, the complete automatic operation of whole process, convenient operation, simple structure switch **board** raw material plates is automatic.

37/278 © EPODOC / EPO

PN - [CN205713019U](#) U 20161123

PR - CN20162277912U 20160406

AP - CN20162277912U 20160406

DT - I

PA - SHENZHEN TECHEN SCIENCE AND TECH CO LTD

TI - Telescopic **scaffold** frame

AB - The utility model discloses a telescopic **scaffold** frame, include: the support body, locate expansion bracket in the support body, connect the **slide** rail mechanism between support body and expansion bracket. The support body includes: at least one horizontal plate, vertically fix in the pole setting in horizontal plate four corners, locate the protection otter **board** of horizontal plate one side. During the use, be equipped with a plurality of horizontal plates in the support body from top to bottom, all be equipped with an expansion bracket on every horizontal plate, be connected through **slide** rail mechanism between expansion bracket and the horizontal plate. The utility model discloses an in expansion bracket protractile or the withdrawal support body to appearance to the building covers comprehensively.

38/278 © EPODOC / EPO

PN - [CN205688773U](#) U 20161116

PR - CN20162528697U 20160603

AP - CN20162528697U 20160603

DT - I

PA - HEILONGJIANG LIUJIAN CONSTRUCTION ENG CO LTD; CHEN SHENGJUN

TI - From dropproof **scaffold** frame of alarm type

AB - From dropproof **scaffold** frame of alarm type, the head and the tail both ends of every group base are all vertical to be fixed with the pole setting, and the top that is close to the pole setting is connected with the horizontal pole, and the cross arrangement has

the down tube between every group base and the horizontal pole, still is connected with vertical horizontal pole between two sets of pole settings, and vertical horizontal pole at top is less than the horizontal pole apart from the terrain clearance, still being connected with little pole setting between two vertical horizontal poles, being connected with the little horizontal pole of a plurality of between little pole setting, the pole setting, pole setting, vertical horizontal pole and the little horizontal pole of a plurality of pass through the overlap joint and form the ladder structure, two sets of **scaffold** boards pass through a plurality of couple to be fixed on the vertical horizontal pole in top, two sets of **scaffold** backboard faces are provided with gravity sensor respectively, and gravity sensor goes between through wiring hole access, and lead wire one end is connected sensing original paper substrate and is placed in bottom the couple, two sets of **scaffold board** tops parallel respectively are fixed with the guide rail, guide rail and chute match, and the spout **slides** along two guide rails, every group spout is connected with the anchor clamps piece, and the anchor clamps piece links to each other with rope one end, and the rope other end is with human fixed.

39/278 © EPODOC / EPO

- PN - [CN205531256U](#) U 20160831
- PR - CN20162286305U 20160408
- AP - CN20162286305U 20160408
- DT - I
- PA - UNIV CHAO HU
- TI - Automatic climbing formula **scaffold** frame
- AB - The utility model discloses an automatic climbing formula **scaffold** frame, including first lift post, the first control ware, the second controllor, second lift post, a pedal and the 2nd pedal, a pedal's bottom is equipped with four first lift posts, all be equipped with the first control ware in every first lift post, be equipped with four second lift posts between a pedal and the 2nd pedal, all be equipped with the second controllor in every second lift post, be equipped with the control cabinet on the 2nd pedal, be equipped with two direction switch on the control cabinet, through sliding two direction switch left, first lift post risees, thereby make a pedal and the 2nd pedal rise, when highly not enough, **slide** two direction switch right, second lift post risees, thereby make the 2nd pedal rise, thereby make the automatic rising of whole **scaffold** frame, do not need the artificial **plank** that up increases to increase its height, save the use amount of **plank**, the set up time is shortened.

40/278 © EPODOC / EPO

- PN - [CN106013752](#) A 20161012
- PR - CN20161407730 20160608
- AP - CN20161407730 20160608
- DT - I
- CT - || STSE (A)
[JP2005076404](#) A 20050324 [A] (KYODO KENSETSU FUJIMURAGUMI KK)
 [A] 1-3
 * 全文 *;

[CN102400470](#) A 20120404 [A] (CHINA CONSTR 2ND ENG BUREAU)

[A] 1-3

* 全文 *;

[JP2014043713](#) A 20140313 [A] (KAWASE CO LTD)

[A] 1-3

* 全文 *;

[CN204112690U](#) U 20150121 [A] (SUQIAN HUAXIA CONSTR GROUP ENG CO LTD)

[A] 1-3

* 全文 *;

[CN104929352](#) A 20150923 [A] (DENG XUELONG)

[A] 1-3

* 全文 *

- CNOI - [E04G1/24](#)
- CNOA - [E04G2001/242](#)
- PA - SECOND CONSTR ENG CO LTD
- TI - Construction method for movable observation and construction dual-purpose **platform**
- AB - The invention discloses a construction method for a movable observation and construction dual-purpose **platform**. The method includes the steps that a field is leveled, a side slope soil body is cleaned and leveled, loosened stones and protruding lone stones are eliminated, two rows of idler wheel sliding grooves are formed in a pit bottom and the top of a side slope according to the intervals of idler wheels, the two sides and the bottom of each idler wheel sliding groove are leveled and compacted, and it is guaranteed that the movable **platform slides** in the idler wheel sliding grooves without obstacles; a **scaffold** is erected at the pit bottom; a body of the **scaffold** is erected between the pit bottom and the top of the slope; and the **scaffold** is moved for acceptance inspection. By the adoption of the method, a pipe gallery can be dynamically observed in the walking process, the circulation pressure applied by a project to the **scaffold** is relieved, the construction efficiency of an outer wall is improved, and the schedule of the whole project is accelerated; and the technical problems that a traditional fixed **scaffold platform** is long in erection period, inconvenient to use and large in detaching work amount are solved, and a creative solution is provided for erection of the pipe gallery construction **platform**.

41/278 © EPODOC / EPO

PN - [CN205637528U](#) U 20161012

PR - CN20162500104U 20160530

AP - CN20162500104U 20160530

DT - I

PA - LIUGUANGTAO

TI - **Scaffold** frame that building engineering used

AB - The utility model discloses a **scaffold** frame that building engineering used, including the pneumatic cylinder, bolt and bolt sliding groove sliding connection, the top of sliding stand is equipped with supporting **platform**, supporting **platform's** upper surface is equipped with the spout, the top of spout is equipped with the **slider**, spout and **slider** sliding connection, the top of **slider** is equipped with work **platform**, work **platform's** upper surface is equipped with rubber gasket, both sides all are

equipped with the fixing bolt spout around the supporting **platform**, the outside of fixing bolt spout is equipped with fixing bolt. This **scaffold** frame that building engineering used can adjust holistic height through the pneumatic cylinder, through base and sliding stand sliding connection, can **slide** the sliding stand under the base is highest through not hard up bolt and carry out micro -adjustment, adjusts the state that suitable highly messenger work **platform** and ground keep the level, and through **slider** and spout sliding connection, work **platform** is in the removal of during operation to left and right sides minimum distance.

42/278 © EPODOC / EPO

- PN - [CN205617764U](#) U 20161005
- PR - CN20162192634U 20160314
- AP - CN20162192634U 20160314
- DT - I
- PA - JU GUOBIN
- TI - Folding safe gardens **scaffold** frame of extension work area
- AB - The utility model discloses a folding safe gardens **scaffold** frame of extension work area, including base, fixed establishment, lift **platform** and lifting support, the base is provided with slipmat, bearing, **slide** and stabilizing support, and the **slide** setting is in support and the one end junction of lift **platform** with base and lifting support, the slipmat sets up four bearing belows at the base, fixed establishment is provided with inner support, outer support and fixed pin, the fixed pin is provided with export trade, internal pin and nut, and eight export trades are circular arrangement on the fixed pin, and internal pin is located the fixed pin center, inner support and outer support are provided with the pinhole that corresponds with the fixed pin, the nut sets up on the internal pin of fixed pin, the utility model discloses a when the slipmat makes bottom and the ground contact of base to grab the land fertility better, stabilizing support can pack up and open, convenient collection when packing up, increase base ground contact area when opening to the steadiment, the security that improves the during operation.

43/278 © EPODOC / EPO

- PN - [CN205591529U](#) U 20160921
- PR - CN20162386928U 20160428
- AP - CN20162386928U 20160428
- DT - I
- PA - CONSTRUCTION DEV CO LTD OF CHINA CONSTRUCTION SIXTH ENG DIV; CHINA CONSTR 6TH ENG DIVISION; THE 2ND CONSTRUCTION ENG CO LTD OF CHINA CONSTRUCTION SIXTH ENG DIV
- TI - Attached lifting **scaffold**
- AB - The utility model discloses an attached lifting **scaffold**, including main frame, work **platform**, anchorage device, anti -falling device, electric block and closing plate, through horizontal connection rod and herringbone bridging fixed connection, work **platform** locates between two adjacent main frames between the main frame, and the main frame includes the track, promotes girder steel and X type bracing, is

connected through the leading truck between track and the anchorage device, and the track **slides** on the leading truck, and anti -falling device installs on the leading truck, and the closing plate is laid and is fixed in outside the main frame. The utility model has the advantages of with positive effect be: all construct the accessory has realized batch production processing to this attached lifting **scaffold** to ensure spare part and construction on -site Assembly's quality, owing to standardized product, made the support body packaging efficiency higher, reduced operating personnel intensity of labour, economic benefits is showing, has characteristics such as multi -functional, strong adaptability, high security, can form powerful market competition for the enterprise.

44/278 © EPODOC / EPO

- PN - [CN205571398U](#) U 20160914
- PR - CN20162158965U 20160302
- AP - CN20162158965U 20160302
- DT - I
- PA - FUJIAN QINGTUO NICKEL IND CO LTD
- TI - Quick baking equipment of steel ladle
- AB - The utility model provides a quick baking equipment of steel ladle, includes the support, the support is door -type structure, door -type structure inside about through the **slide** rail be equipped with and toast the cover, toast the cover inner wall and distribute and have the outer wall to toast the pipe, the centre is equipped with tree - like inner wall and toasts the pipe, the outer wall toasts the pipe and toasts guan shangjun with tree -like inner wall and be equipped with a plurality of aperture, toasts side of covering and is equipped with the lead screw, the motor and the gear box of lead screw and door -type structure top coordinate the drive to toast to cover and reciprocate. The utility model overcomes prior art's is not enough, sets up the cover that toasts that can reciprocate in door -like **scaffold**, toasts to be equipped with the inner wall in the cover and to toast the pipe and toast the pipe with the outer wall, utilizes the electromagnetic valves in the intake pipe to come automatic control with the humidity inductor that toasts in the cover, realizes semi -automatic toasting, and slip steel ladle bottom simultaneously sets up two steel ladle spacing grooves on placing the **board**, and the steel ladle is placed and take out fast to the convenience, simple structure, and convenient to use, application scope is wide.

45/278 © EPODOC / EPO

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- PR - CN20161524699 20160701
- AP - CN20161524699 20160701
- DT - I
- CNOI - (A)
[E02D5/76](#) ; [E02D17/20](#) ; [E02D17/207](#)
- PA - (A)
HANGZHOU JIANGRUN TECHNOLOGY LTD CO

- TI - (A)
Comprehensive supporting structure of deep side slope of complex steep cliff and construction method
- AB - (A)
The invention relates to a comprehensive supporting structure of a deep side slope of a complex steep cliff. The comprehensive supporting structure mainly comprises mini piles, prestressed anchoring rods, prestressed anchoring ropes, a concrete protecting slope and an operating **platform**, wherein the mini piles are arranged at the inner side of the cliff; **scaffolds** of the operating **platform** are erected by layers along the cliff; vertical rods of some **scaffolds** are anchored to section steels which are anchored into the rock wall; grouting bodies are arranged in section steel grooves; inclined supports are arranged at the lower parts of the section steels and are welded to wall connectors which are arranged below the inclined supports and anchored into the rock; transverse rods of some **scaffolds** are fixed to the wall connectors which are anchored into the rock through connecting fasteners; equipment **slide** rails are arranged on the operating **platform**; the prestressed anchoring rods, the prestressed anchoring ropes and the concrete protecting slope are arranged on the slope surface; a breaking zone grouting body is arranged into a breaking zone on the slope surface. With the adoption of the comprehensive supporting structure, the difficulty in erecting of the operating **platform** on the deep side slope of the complex steep cliff can be effectively solved; meanwhile, a plurality of structures are utilized to enable comprehensive supporting, so that stone can be effectively prevented from falling from the side slope, and the technical and economic benefits are outstanding. The invention also provides a construction method of the comprehensive supporting structure of the deep side slope of the complex steep cliff.

46/278 © EPODOC / EPO

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