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PN - [CN204722915U](#) U 20151028
PR - CN20152467064U 20150702
AP - CN20152467064U 20150702
DT - I
PA - ZIXI ZHENGDA BAMBOO CO LTD
TI - There is not **bamboo** of glue chopping block
AB - The utility model relates to a there is not **bamboo** of glue chopping block, the multifunctional chopping board comprises a chopping board body, the chopping block main part is connected with the individual **layer bamboo** clapper, and chopping block body and individual **layer bamboo** clapper include all that the **bamboo** strip splices into platelike structure according to the **bamboo** machine direction, and the one side of adj. Tabular main part is equipped with the edge the aqua storage tank that chopping block body circumference distributes, certain distance department in **bamboo** strip both ends has all opened the through -hole, passes through the **bolt** the through -hole will the **bamboo** strip carries out fixed connection, and the both sides face of **bamboo** strip all is equipped with unsmooth alternate first recess and boss, and it has the hole of putting various cutters to open between chopping block main part and the individual **layer bamboo** clapper, and the side of chopping block main part is equipped with the draw -in groove, be equipped with the strengthening rib in the draw -in groove, be equipped with the isolation **bamboo** strip that separates the cutter between chopping block main part and the individual **layer bamboo** clapper, be equipped with in the chopping block main part rather than the splash guard that matches with connect the hopper, the splash guard is fixed in in the chopping block main part not only sound **construction** through the staple, difficult fracture, this in -process does not contain any glue, more environmental protection moreover.

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PN - [CN204690807U](#) U 20151007
PR - CN20152378431U 20150604
AP - CN20152378431U 20150604
DT - I
PA - UNIV SHANDONG SCIENCE & TECH
TI - Detect device of barrel -shaped basic resistance to plucking bearing capacity of suction
AB - The utility model relates to a detect device of barrel -shaped basic resistance to plucking bearing capacity of suction belongs to the ocean engineering test equipment technology field, designs for solving the problem that the device structure is complicated that detects the resistance to plucking bearing capacity. The utility model discloses become by frame **construction** assembly pulley, box, ground, suction bucket and counter weight body group, frame **construction** link through the **bolt** by two a vertical cell type steel and a genshui square shape steel and form, the assembly pulley form by a movable pulley and two fixed pulleys, link together through steel strand wires, the box be the open hollow cuboid in top, form by the steel sheet welding, the ground divide into two -**layer**, the upper strata be the sea water, the lower floor is the sand, fills in the box, the suction bucket open for the bottom, the cylindrical section of thick **bamboo** of hollow steel of bleeder vent is left at the top, the counter weight body form by load bucket, load bucket dado and weight. The utility model discloses but the simple and convenient reuse of simple structure, installation and dismantlement, engineering practicability is strong.

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PN - [CN204664813U](#) U 20150923
PR - CN20152248782U 20150421
AP - CN20152248782U 20150421
DT - I
PA - CONSTR DEV CO LTD CHINA CONSTR SIXTH ENG DIVISION; CHINA CONSTR 6TH ENG DIVISION
TI - Adhere to formula measuring instrument erection platform based on core section of thick **bamboo construction** of superelevation **layer**

AB - The utility model discloses an adhere to formula measuring instrument erection platform based on core section of thick **bamboo construction** of superelevation **layer**, including fixed part, support component and butt joint fastener, fixed part includes the channel -section steel and connects pipe fitting I, the vertical setting of channel -section steel to on the shaped steel post of spiral -lock in vertical structure, the channel -section steel pass through the puller **bolt** with type steel column connection, the puller **bolt** sets up on the interior leg board of channel -section steel on the outer leg board of channel -section steel there be rather than perpendicularly the welding connect pipe fitting I, the support component includes the horizontal support board and rather than one side vertical welding's connection pipe fitting II the central authorities of horizontal support board are equipped with the measuring instrument mounting hole, connect pipe fitting II with pipe fitting I passes through the butt joint fastener is connected. The utility model discloses can avoid personnel to walk, the windrow unloads the interference of foreseeing factors such as mechanical oscillation, stable in structure is reliable, can improve measurement of efficiency, guarantees measurement accuracy.

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PN - [CN204510005U](#) U 20150729

PR - CN2015237132U 20150120

AP - CN2015237132U 20150120

DT - I

PA - CHINA CONSTR 7TH ENG DIVISION CORP LTD

TI - Bent cap **construction** operation platform

AB - The utility model relates to a bent cap **construction** operation platform, the scheme is, rectangle pier stud side lateral separation is equipped with the two through-hole, the through-hole internal break is equipped with the rod iron, partial upper **cover** that the rod iron projectes the rectangle pier stud is equipped with the punching cylinder, on the relative two lateral wall of punching cylinder respectively the passing through have and prevent rotating the **bolt**, punching cylinder upper end is fixed with down the steel sheet, lower steel sheet upper end is equipped with irritates a sand section of thick **bamboo**, irritates sand section of thick **bamboo** upper portion and is equipped with the part and places the concrete filling cylinder of irritating in the sand section of thick **bamboo** in, concrete filling cylinder upper end is fixed with the steel sheet, lie in the rectangle pier stud on with the two of one side on the steel sheet common the support have the I-steel crossbeam, a plurality of vertical I-steel have been set up respectively at the both ends between the two I-steel crossbeams, lie in the I-steel crossbeam between vertical I-steel of inboard on the lateral separation be equipped with a plurality of lumps of wood, to having drawn the reinforcing bar between the two I-steel crossbeams outside two rod irons, provide the template on the lumps of wood, the utility model discloses have objective economic benefits, the installation is simple and easy, and is effectual to can the great reduction of erection time.

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PN - [CN104762984](#) A 20150708

PNFP - CN104762984B B 20160330

PR - CN20151204070 20150427

AP - CN20151204070 20150427

DT - I

CT - || STSE (A)
[CN103590416](#) A 20140219 [A] (UNIV ZHEJIANG WATER RESOURCES & ELECTRIC POWER)
 [A] 1-4
 * 全文 *;
[CN202031179U](#) U 20111109 [A] (CHINA SEVENTEEN METALLURG GROUP CO LTD)
 [A] 1-4
 * 全文 *;
[JPS59179937](#) A 19841012 [A] (KUBOTA ISAMU)
 [A] 1-4
 * 全文 *;
[JP2013064264](#) A 20130411 [A] (ENOX CO LTD)

	[A] 1-4 * 全文 *; CN204151820U U 20150211 [A] (CHINA CONSTR 6TH ENG DIVISION)
	[A] 1-4 * 全文 *; CN103437374 A 20131211 [A] (CHINA 19TH METALLURG CORP)
	[A] 1-4 * 全文 *; JP2000008390 A 20000111 [A] (OKABE CO LTD, et al)
	[A] 1-4 * 全文 *
CNOI	- (A) E02D27/00
PA	- (A) GANSU SEVENTH CONSTRUCTION GROUP CO LTD
TI	- (A) Fixing method for multiple foundation bolts with phi 56 diameter
AB	- (A) The invention relates to a fixing method for multiple foundation bolts with a phi 56 diameter. The fixing method comprises the steps that 1 an axis and an elevation are confirmed; 2 a base is installed: four positioning and supporting steel tubes are inserted into a cushion cap foundation pad, concrete pouring is conducted on the cushion cap foundation pad, and lower lattice component is manufactured; 3 a bolt set is installed, and an upper lattice component is manufactured; 4 the upper lattice component is welded to the lower lattice component after being positioned; 5 a die steel plate is taken out, screw threaded portions of a M 56 foundation bolt and a M 32 foundation bolt are bound up with plastic films after being painted with oil; 6 concrete pouring is conducted, tracking measurement and check are conducted on the movement of the foundation bolts arranged everywhere, error is revised in time, and the design requirement is satisfied; 7 secondary check and adjusting on the foundation bolts arranged everywhere are conducted after the finishing of concrete pouring and before the initial set of the concrete until standard requirement is satisfied, and a cover made of a bamboo plywood is covered on a screw cap to conduct protection. The fixing method for multiple foundation bolts with the phi 56 diameter has the advantages that the structure is simple, the cost is low, and the construction speed is high.

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PN	- CN203546901U U 20140416
PR	- CN20132594026U 20130926
AP	- CN20132594026U 20130926
DT	- I
PA	- UNIV NANJING FORESTRY
TI	- Bamboo -structure single- layer spherical reticulated shell
AB	- The utility model relates to a bamboo -structure single- layer spherical reticulated shell. The bamboo -structure single- layer spherical reticulated shell comprises L bamboo rods, M bamboo connectors and N fixing hinge supports. Two ends of each radial bamboo rod, each weft bamboo rod and each diagonal bamboo rod of the L bamboo rods form the single- layer spherical reticulated shell body through the bamboo connectors. Each bamboo connector comprises steel insert pieces, a hollow ball, reinforcing steel pieces and bolts, an arced notch is reserved at one end of each steel insert piece and the steel insert pieces are welded on the hollow ball. A bolt hole is reserved at the other end of each steel insert piece, the bolts are respectively connected to the radial bamboo rods, the weft bamboo rods and the diagonal rods through the bolt holes. The reinforcing steel pieces are welded at the joints of the steel insert piece and the radial bamboo rods as well as the joints of the weft bamboo rods and the diagonal bamboo rods. The upper ends of a plurality of fixed hinge seats are mounted on the hollow balls of the bottom bamboo connectors, and the lower ends thereof are mounted on the top of the lower support structure. The bamboo -structure single- layer spherical reticulated shell has the advantages of light dead weight, convenience in construction , reasonable structural stress, high safety, simplicity and reliability in connection, maintainability and environmental friendliness.

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PN - [CN203403423U](#) U 20140122
PR - CN20132472027U 20130802
AP - CN20132472027U 20130802
DT - I
PA - JIANGSU ZHENG FANGYUAN CONSTRUCTION GROUP CO LTD
TI - Composite **bamboo** rib shotcrete rock **bolt** support used for foundation pit support
AB - The utility model relates to a composite **bamboo** rib shotcrete rock **bolt** support used for a foundation pit support, and belongs to the technical field of municipal **construction**. The composite **bamboo** rib shotcrete rock **bolt** support comprises a foundation pit which is composed of a plurality of upper **layer** soil bodies, platforms and lower **layer** soil bodies, and the platforms are located between the upper **layer** soil bodies and the lower **layer** soil bodies. A deep mixed pile is arranged in each platform, and the surface of the foundation pit is covered with a first concrete panel. The composite **bamboo** rib shotcrete rock **bolt** support not only has the advantages of being low in **construction** cost and environmentally friendly, but also is suitable for being used in areas where soil **layer** conditions are poor.

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PN - [CN103469890](#) A 20131225
PNFP - CN103469890B B 20160330
PR - CN20131441574 20130926
AP - CN20131441574 20130926
DT - I
CT - || STSE (A)
[CN103255944](#) A 20130821 [A] (HEFEI GENERAL MACH RES INST)
[A] 1-10
全文
[CN103147532](#) A 20130612 [X] (UNIV SOUTHEAST)
[X] 1-2,4-6,9
说明书第0008,0009,0013, 0026段,附图1-12
[CN203546901U](#) U 20140416 [R] (UNIV NANJING FORESTRY)
[R] 1-4,6-9
权利要求1-3,5-8
[CN103255836](#) A 20130821 [Y] (UNIV TONGJI)
[Y] 3,7-8,10
说明书第0005,0021段,附图1-2
[CN202023258U](#) U 20111102 [A] (UNIV CIVIL AVIAT CHINA)
[A] 1-10
全文
[JP2005337007](#) A 20051208 [A] (ISHIHARA SATOSHI)
[A] 1-10
全文
[CN103147532](#) A 20130612 [Y] (UNIV SOUTHEAST)
[Y] 1-2,4-6,9
说明书第0008,0009,0013, 0026段,附图1-12
PA - (A)
UNIV NANJING FORESTRY
TI - (A)
Bamboo-structure single- **layer** spherical latticed shell and assembling method
AB - (A)
The invention relates to a **bamboo**-structure single- **layer** spherical latticed shell and an assembling method. The **bamboo**-structure single- **layer** spherical latticed shell structurally comprises L **bamboo** rod pieces, M **bamboo** connecting pieces and N fixed hinge supports, wherein a single-**layer** spherical latticed shell main body is formed in a way that two ends of each radial **bamboo** rod, each weft **bamboo** rod and each diagonal **bamboo** rod of the L **bamboo** rod pieces are connected through the **bamboo** connecting pieces; the **bamboo** connecting pieces comprise steel inserting pieces, hollow balls, stiffening steel sheets and bolts; arc-shaped notches are reserved at one

ends of the steel inserting pieces and are welded on the hollow balls; **bolt** holes are reserved at the other ends of the steel inserting pieces, and the bolts are respectively connected to the radial **bamboo** rods, the weft **bamboo** rods and the diagonal **bamboo** rods through the **bolt** holes; the stiffening steel sheets are welded in connecting positions between the steel inserting pieces and the radial **bamboo** rods, the weft **bamboo** rods as well as the diagonal **bamboo** rods; the upper ends of multiple fixed hinge supports are arranged on the hollow balls of the **bamboo** connecting pieces which are arranged at the bottom part, and the lower ends of the multiple fixed hinge supports are arranged at the top part of a supporting structure which is arranged at the lower part. The **bamboo**-structure single- **layer** spherical latticed shell disclosed by the invention has the advantages that the self weight is light, the **construction** is convenient, the structural stress is reasonable, the safety is high, the connecting joint is simple and reliable, the maintenance is easy, and environment-friendly effects are realized.