[SS 1] ..fi epodoc

Database: EPODOC

[EPODOC: SS 1] (beam or colum+)

Results in EPODOC **1.614.934**

[SS 2] ..er

[SS 1] (beam+ or colum+) and formwork

Results in EPODOC **4.564**

[SS 2] * and PD<2013-07-29

Results in EPODOC **2.193**

[SS 3] * and (hook+ or claw+)

Results in EPODOC **57**

[SS 4] * and (bolt or peg)

Results in EPODOC **7**

[SS 5] ..li

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PN - **CN202467169U** U 20121003

PR - CN2012277523U 20120305

AP - CN2012277523U 20120305

DT - I

PA - JIANGXI FADA CONSTRUCTION GROUP CO LTD

TI - **Formwork** structure for reinforced masonry

AB - The utility model discloses a **formwork** structure for a reinforced masonry. The **formwork** structure comprises a template which is designed according to the section of a constructional **column** or a ring **beam** and a steel pipe or a wood support, a **bolt**, a steel gasket and an iron **hook** hoop, wherein the **bolt** penetrates through the construction body and is matched with the steel gasket, and the steel pipe or the wood support is fastened by the nut; and after the iron **hook** hoop penetrates through the construction body, a corresponding steel pipe or wood support is hooped under impact

of external force. The utility model has the advantages that according to frame eye-free construction of the masonry, because the masonry is built at a time, the phenomenon that the masonry mortar at the frame eye is not full is reduced, and the construction quality of the masonry and the appearance are guaranteed; the phenomenon that the reserved frame eye is not tightly filled so as to cause hollowing of the plaster wall surface and leakage of the outer wall is avoided; the engineering cost can be reduced, and the manual investment is reduced; the screw is used for pulling, so that the working efficiency is improved; and the structural strength is improved, and the shock resistance is improved.

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PN - **CN202380736U** U 20120815

PR - CN20112484804U 20111129

AP - CN20112484804U 20111129

DT - I

PA - DALIAN BRANCH OF CHINA CONSTRUCTION ENGINEERING DIVISION CORP LTD

TI - Recyclable pre-buried box of curtain wall

AB - The utility model relates to a **formwork** used in a construction process of a curtain wall. A recyclable pre-buried box of the curtain wall comprises two angle single bodies, wherein each single body comprises a side template, a fixedly connecting plate and an edge-sealing plate; the side templates are L-shaped templates and fixedly connected with the fixedly connecting plates; external edges of the side templates and the fixedly connecting plates are fixedly connected to the edge-sealing plates; and the fixedly connecting plates are provided with **bolt**-fixing holes. The recyclable pre-buried box of the curtain wall, disclosed by the utility model, has a simple structure; a shaping template with a box-shaped structure is adopted and preserved holes of a pre-buried member on side **beams** are utilized; the bolts and the **bolt**-fixing holes are installed conveniently and rapidly in a matching manner; anti-falling holes can be used for **hooking** the pre-buried box and preventing falling when the **formwork** is dismounted; the recyclable pre-buried box of the curtain wall is safe and reliable; and the **bolt** holes are fixed, so that the accuracy of preserving holes is guaranteed. The pre-buried box-shaped shaping **formwork** can be used repeatedly, so that the material and cost are saved effectively. With adoption of full-steel materials, the machining size in a factory easily remains the same; the **formwork** can be used repeatedly till the structure is capped; and the appearance quality of concrete is good.

3/7 © EPODOC / EPO

PN - **JPH05256022** A 19931005

PR - JP19920108116 19920313

AP - JP19920108116 19920313

DT - I

FI - E04G17/06&101A;
E04G17/065&A; E04G17/065&D

FT - 2E150/BA12; 2E150/EB05;
2E150/FA04; 2E150/FA21;
2E150/FA22; 2E150/LA35;

2E171/CC01; 2E171/CC08; 2E171/CD03; 2E177/KC01; 2E177/KC08; 2E177/KD03

AB - PURPOSE:To raise the efficiency of construction by a method in which a **formwork**-holding separator consisting of a **hook bolt** and a bar **bolt** is coupled with a pair of cap nuts having left and right screws, fixed to the **formwork**, and the separator is turned in a turnbuckle way to adjust the interval between the formworks. CONSTITUTION:A separator to keep the interval between formworks 1 for **beam** is made up of a **hook bolt** 6 having left screw 8 and a bar **bolt** 7 whose one end is bent into **hook** form. A cap nut 10 with left screw and a cap nut 9 with right screw are fixed to the inside of the **formwork** 1 in a mutually facing manner. A reinforcing bar cage 4 is set in the **formwork** 1, and the bolts 7 extruded from the aperture of the cage 4 are connected with the bolts 6 and both ends are connected to the nuts 9 and 10. The bolts 6 are turned in a turnbuckle way to adjust the interval between the formworks 1. The separator can thus be absorbed even when the axes of the nuts 9 and 10 on both sides are out of the center. The construction time can thus be shortened.

4/7

PN - JPH06294210 A 19941021

PNFP - JPH0757988B B2 19950621

PR - JP19930106174 19930408

AP - JP19930106174 19930408

DT - I

FI - E04G11/48; E04G11/50; E04G25/00&A

FT - 2E150/HB31; 2E150/HB39; 2E150/JA01; 2E150/JC01; 2E150/JD01; 2E150/MA46Z; 2E169/DA01; 2E169/DB03; 2E169/DC05; 2E177/AA02; 2E177/CB04; 2E177/GA01; 2E177/GB03; 2E177/GC05

PA - (A)
SUGAWARA TADAYOSHI

TI - (A)
CONNECTING DEVICE OF **BEAMS** FOR CONCRETE **FORMWORK**

AB - (A)
PURPOSE:To improve workability by fitting the upper end parts and the lower end parts of a pair of **beams** to the narrow width grooves or the wide width grooves of a pair of connecting tools, upper and lower, connecting the **beams** to each other, and connecting supports to the connecting tools. CONSTITUTION:The lower end parts of a pair of **beams** 2 are respectively fitted to the narrow width groove 15 of a connecting tool (a), and the upper end part of one **beam** 2 is fitted to a connecting tool (a) up and down reversed. Next the **beams** 2 are confronted with each other, the **hook** piece 3 of a connecting **bolt** 6 is pressed in the through hole 1 of the other **beam** 2, and the **bolt** 6 is fixed to the **beam** 2 by screwing a nut 7. Next the upper and lower connecting tools (a) are fitted extendingly over the **beams** 2, nails 25 are passed through the nail holes 23 of the connecting tools (a), the square timbers 22 of the **beams** 2 is driven in, and the **beams** 2 are connectingly fixed with the connecting tools (a). The connecting shafts 19 of the connecting tools (a) are respectively fitted to the holes 18 of supports 17, and the **beams** 2 are supported with the supports 17. Further joists are assembled on the **beams** 2, and a floor sheathing board is laid on the joists, and hence a **formwork** is constituted.

PN - **GB358708** A 19311015

PR - GB19300028830 19300926

AP - GB19300028830 19300926

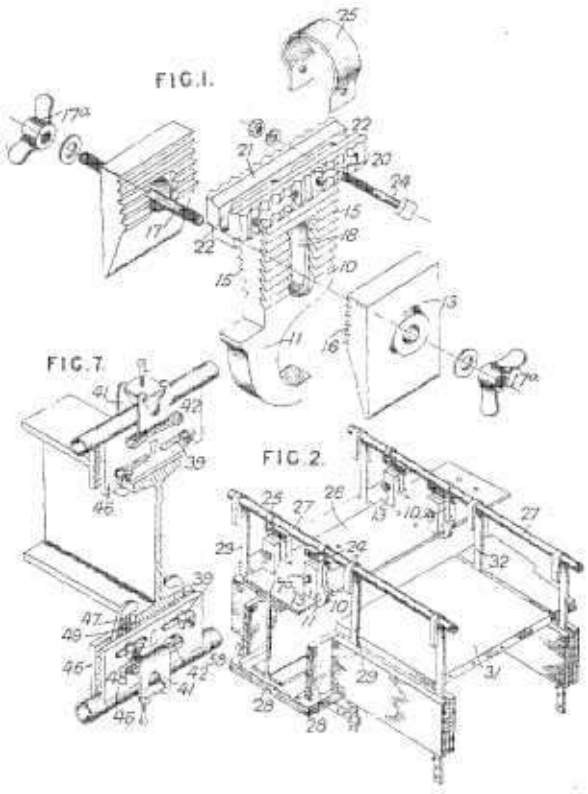
DT - *

CCI - **E04G17/18**

PA - JAMESHENRYBENNETTS

TI - An improved clamping device for use in building construction and for similar purposes

AB - 358,708. Casting floors and walls in situ. BENNETTS, J. H., Carisbrooke, The Grove, Finchley, London. Sept. 26, 1930, Nos. 28830/30 and 11827/31. [Class 20 (ii).] A clamping device for use in supporting **formwork**, centring, runways, working platforms, &c., comprises a **hooked** mem. ber which engages beneath a **beam** flange or like metal plate and a second member disposed above the flange, the two members having mutually engaging serrated faces which are held in contact by a **bolt**. According to one construction, the clamp comprises a main member 10, Figs. 1 and 2, the **hooked** serrated lower end 11 of which engages beneath the flange or a plate 26 secured to the flange of a girder. The upper surface of the plate is engaged by two strut members 13 arranged one on each side of the member 10 and secured thereto by a **bolt** 17 and nuts 17a. The **bolt** passes through a vertical slot 18 in the member 10, which slot permits of relative adjustment between the members 10 and 13, in a vertical direction. Ratchet teeth 16 on the members 13 engage with ratchet teeth 15 on the member 10 when the parts are assembled. The member 10 is



formed with a head 20 having a channel 21 for seating a tubular cantilever 27 which is secured in position thereon by clips 25, and which is adapted to support centring plates for a floor. The clips are secured to the heads 20 by bolts 24. Each head 20 has an additional groove 22 provided for accommodating strip-metal supporting means. The centring plates for the **beam** soffit and the floor plates 31 are carried, as shown, by hangers 29, 32 suspended from the cantilever. The parts forming the head 20 may alternatively be disposed vertically and alongside the ratchet faces of the member 10. In a modification, a clamp comprises two **hooked** members 47, Fig. 7, which engage opposite sides of a **beam** flange and are disposed between two members 46. The securing bolts 48 pass through horizontal slots 39 in the members 46 and through a vertical slot 49 in each member 47. One member 46 is provided with horizontal serrations and the other with vertical serrations or alternatively, as shown, vertical and horizontal serrations are provided on each member. In the latter case, the vertical serrations on one member are arranged to face the horizontal serrations on the other member and vice versa. A horizontal slot 42 in each member 46 is adapted to accommodate a coupler 41 which supports a tubular cantilever 58. In another modification, Figs. 3 and 4 (not shown), the two edges of a **beam** flange are each engaged by two **hooked** members arranged one on each side of a strut

member. The manner of adjusting the relative positions of the members, the disposition of the serrations, and the means for supporting the cantilever are similar to the arrangements shown in Fig. 7. The centring plates may be supported entirely by members carried by clamps secured to the lower flanges of the girder. In a further application, shuttering around vertical **columns** and stanchions may be supported by the clamps. The parts are preferably manufactured from mild steel. Specification 322,832, [Class 89 (i), Bolts &c.], is referred to.

6/7 © EPODOC / EPO

PN - **CN2748572Y** Y 20051228

PR - CN20042115926U 20041129

AP - CN20042115926U 20041129

DT - I

PA - YANG QIULI [CN]

TI - Connecting fastener dedicated for **formwork**

AB - The utility model relates to a connecting fastener dedicated for template which is composed of a fixed jaw and a movable jaw; the jaw **hooks** of the two jaws are opposite; the two jaws are respectively connected with a **beam**; the two jaws are respectively connected with a wedge hole; wherein the **beam** of the fixed jaw is provided with a penetrating cavity, and the outside of the **beam** of the movable jaw is provided with a convex-edge blocking edge; the **beam** of the movable jaw is inserted into the cavity of the fixed jaw so as to cause the **beams** of the two jaws to slide and be sheathed in the direction of opposite superposition; a wedge plate is inserted into the wedge holes which are coincided and opposite on the two **beams**; the small head of the wedge plate is provided with a pier head; a connecting hole is arranged on the fixed jaw, and a screw **bolt** is arranged inside the connecting hole. The utility model solves the problems of low connecting speed and low connecting accuracy in existing template fasteners and solves the problems that after the fixed jaw and the movable jaw are disassembled, the fixed jaw and the movable jaw are easy to lose and damage and are easy to influence construction progress; the utility model has the advantages of simple assembling and connection, homogeneous and reliable force receiving, high connecting accuracy, convenient storage and transportation, fast processing and manufacturing, many turning over and using times, and lower cost.

7/7 © EPODOC / EPO

PN - **CN2517817Y** Y 20021023

PR - CN2001271832U 20011123

AP - CN2001271832U 20011123

DT - I

PA - JIA CHUNSEN [CN]

TI - Simple mould supporting drawbar clamp appts.

AB - The utility model discloses a simple **formwork** rod pulling clamp apparatus, which consists of a clamp apparatus rod, a clamp iron and a **bolt**. An L-shaped curve is forged at one end of the clamp apparatus rod as a clamp apparatus head, a **bolt** hole provided with a screw thread is arranged at the tail end of the other end of the clamp apparatus rod, the clamp iron is a rectangular solid provided with **hook**, a flat rectangular through hole is arranged in the middle of the clamp iron, the length of the flat rectangular through hole is slightly longer than that of the clamp apparatus rod, the width of the flat rectangular through hole is glidingly matched with that of the clamp apparatus rod, the flat rectangular through hole is sleeved with the clamp apparatus rod, thereby leading the **hook** side to face the clamp apparatus head, then the matched **bolt** is screwed in the **bolt** hole, to form an onset simple mold supporting rod pulling clamp apparatus. The utility model has the advantages that the structure is simple, the cost is low, the produce is easy, the use is convenient and the simple **formwork** rod pulling clamp apparatus can be used repeatedly and can be locked; as long as the upper end of the clamp iron is hit with **hook** by hammer, and the **hook** comes into the wood **beam** which is positioned on the back of the **formwork**, the loosening and the delayed buckling do not exist, the working time is saved, the 8# iron wire is saved, the market is wide, and the application is suitable to be popularized.

[SS 5]