

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO	
RAD: 15-262478- -5	FECHA: 2016-05-18 10:38:36
DEP: 2020 DIRECCION DE NUEVAS CREACIONES	EVE: 1 REGISTRO/DEPOSITO/CONCESION/DEPOSITO
TRA: 3 PATENTES DE MODELO DE UTILIDAD	FOLIOS: 7
ACT: 519 TRASLADOINFORME	

DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado(a)/Señor(a)
JOHAN SEBASTIAN GÓMEZ VILLA

Asunto: Radicación: 15-262478- -5
Trámite: 3
Evento: 1
Actuación: 519
Oficio: 5842
Folios: 7

Patente de Invención				Patente de Modelo de Utilidad	X
Vía Nacional	X				
Vía PCT (Fase Nacional)		Capítulo I		Capítulo II	
No. Solicitud Internacional					
Fecha de Presentación Internacional					

Como resultado del Examen de Fondo realizado, con fundamento en el artículo 85 y en concordancia con el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados

Descripción:	Radicado N° 15-262478-0000-0000	04/Noviembre/2015
Reivindicaciones:	Radicado N° 15-262478-0000-0000	04/Noviembre/2015
	Radicado N° 15-262478-0003-0000	27/Noviembre/2015
Dibujos:	Radicado N° 15-262478-0000-0000	04/Noviembre/2015

2. Objeto de la invención

De acuerdo con lo establecido en el numeral 1.2.2.2 del capítulo primero del Título X de la Circular Única para efectos del examen de patentabilidad, se tendrá en cuenta la tasa pagada por la solicitante al momento de comenzar el examen para las reivindicaciones adicionales; esto es que cuando la solicitud contenga más de diez (10) reivindicaciones y no se haya pagado la tasa complementaria, sólo se estudiarán las cubiertas por la tasa pagada. En el presente caso se estudiarán las reivindicaciones 1 a 6 del capítulo reivindicatorio (Radicado N° 15-262478-00003-0000).

Título de la solicitud: “Tornillo nivelador con acople para cimbras” (Radicado N° 15-

262478-00000-0000).

El problema planteado en esta solicitud consiste en la necesidad de introducir un accesorio empleado en la construcción de obras de infraestructura civiles, que se encargue de dar capacidad de carga y la altura a la estructura de armado de cimbras y/o andamios, que binde la capacidad de intercambiar un sistema de soporte y ajuste para recibir, ya sea, una cercha estándar, un perfil estructural, una viga de carga o una viga en madera que finalmente reciba la carga de la losa o la carga de la viga fundida en el sitio.

Para resolver este problema técnico, la solicitud en estudio proporciona un accesorio usado en la construcción de obras de infraestructura, en el armado de cimbras y adaptable a andamios y soportes tubulares, que utiliza diferentes sistemas de apuntalamiento para soportar losas o vigas usadas en el armado de estructuras de una forma estandarizada, simple y eficiente con el ajuste de un solo tornillo nivelador independiente o con cabezales intercambiables en su propia boca receptora de pivotes, donde el extremo cilíndrico de ajuste de un cabezal se inserta en la boca de manera que el cabezal gira con respecto al centro de la boca.

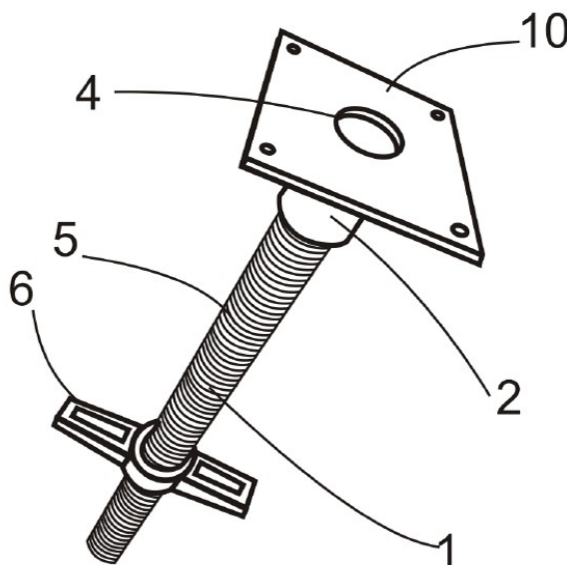


FIG. 1

El objeto de la presente solicitud se relaciona con la Clasificación Internacional de Patentes (CIP): E 04 G 5/02.

3. De la solicitud de patente

Reivindicaciones (Art 30 D 486, Art 22 PCT)

Las reivindicaciones 1 a 6 no son claras porque:

- Las expresiones: “(...) en la que se rosca una tuerca (6) niveladora” (Reiv. 2); “(...) se ensamblan los pivotes (3) de los cabezales (8)” (Reiv 3); “(...) para ensamblar” (Reiv. 4), mencionan acciones o etapas de un proceso de ensamblaje, las cuales no definen las características estructurales de la materia a proteger.
- Se sugiere sustituir los términos: “...en la que se rosca”, por: “en la que va enroscada” y “...se ensamblan los”, por: “van los”. De igual forma, el término: “...para ensamblar”, por: “...en la unión de”. (Reiv. 3). Lo anterior debido a que

dichas expresiones objetadas sugieren acciones de proceso de ensamblaje, lo cual no es permitido en el contexto del art. 81 de la Decisión 486.

- La expresión: “(...) se ubica en la parte superior de andamos de carga, andamio multidireccional o tubería estructural mientras que la boca (2) se sitúa en la parte superior” (Reiv. 4), sugiere la forma de uso del tornillo nivelador, lo cual no es permitido puesto que, no divulga alguna característica técnica esencial del aparato.
- Las expresiones: “(...) se deja libre para ensamblar la cimbra (9)” (Reiv. 3), “(...) se sitúa en la parte superior para ensamblar los cabezales (8)” (Reiv. 4), corresponden a características funcionales, las cuales aunque explican la relación que hay entre diversas características estructurales y pueden estar incluidas en las reivindicaciones, no definen la invención; de tal manera no se tienen en cuenta para el estudio de patentabilidad.

4. Determinación del Estado de la Técnica

El estado de la técnica se determinó con base en la fecha de presentación de la solicitud de patente nacional: noviembre 04 de 2015, y se encontraron los siguientes documentos que anticipan el objeto de esta solicitud:

Ítem	Documento	Título	Fecha de Publicación
D1	US3797793	“Shoring scaffold and formwork support”	19/Marzo/1974
D2	JPH08165796A	“Sole plate for scaffold”	25/Junio/1996
D3	Enlace Web	“Scaffold Parts”	2014

El documento D1¹ divulga un rodillo ajustable y soporte rígido para encofrados y andamios verticalmente orientados, conjuntos de tornillo dispuestos ya sea en la parte superior o inferior de un miembro de la orilla que son ajustables para variar la altura permitida y la posición del miembro de la orilla, ya sea con un rodillo o de contacto rígido, o ambos, con respecto a un área de trabajo o una carga de peso en superficie horizontal o inclinada. El soporte es también por medio de rodillos situados en los extremos de trabajo de los tornillos de gato que operan de forma automática con su ajuste de nivel para mantener los rodillos contra la rotación en peso de la relación de carga, mientras que el encofrado está en su posición elevada. (Resumen).

El documento D2² divulga una placa de soporte, que tiene una estructura simple, con un tornillo de gato fácilmente desmontable, que permite su uso en varias aplicaciones para construcción (Resumen).

El documento D2³ divulga un catálogo de partes y accesorios para andamios. (Título).

5. Examen de Patentabilidad (Art 14 D486)

Novedad (Art 16 D486)

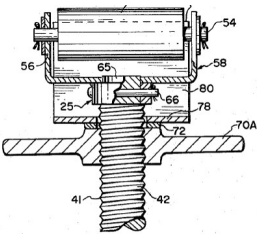
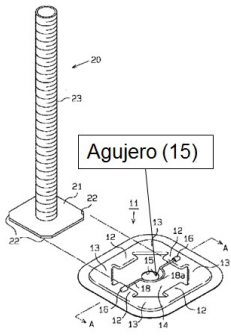
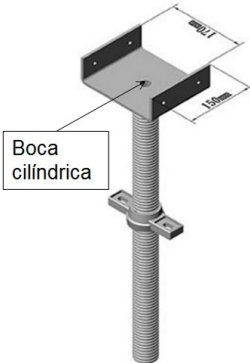
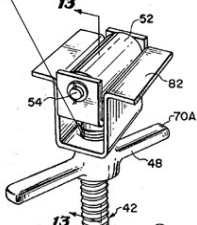
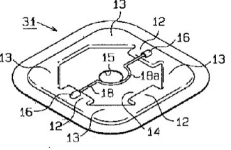
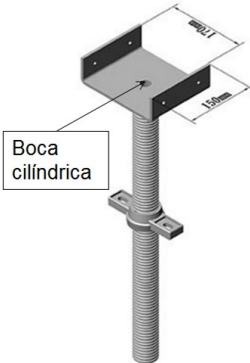
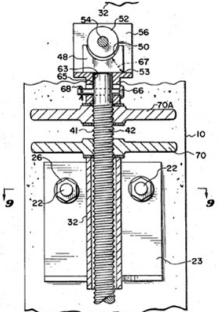
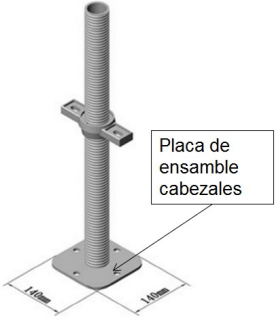
La reivindicación 1 consiste en: “Tornillo nivelador caracterizado por...” (Ver pág. 3 del Radicado N° 15-262478-00003-0000).

1http://worldwide.espacenet.com/publicationDetails/originalDocument?CC=US&NR=3797793A&KC=A&FT=D&ND=3&date=19740319&DB=&locale=en_EP

2http://worldwide.espacenet.com/publicationDetails/originalDocument?CC=JP&NR=H08165796A&KC=A&FT=D&ND=3&date=19960625&DB=&locale=en_EP

3 <http://www.sucoot.com/Jack%EF%BC%8DBase%EF%BC%8DScaffolding%EF%BC%8DParts.html>

Comparación de las características técnicas esenciales, con las del estado de la técnica:

Características esenciales	D1	D2	D3
Una boca (2) cilíndrica	Montaje (25) del soporte (24). (Pág. 9, Col. 1, Líneas 13 a 16)  Figura 13.	Agujero (15). (Parr 14 Pág. 2, Figs. 1 y 3)  Figuras 1 y 3.	 Figura.
Un orificio concéntrico (4) ubicado en la superficie superior plana (10) de contacto con la base de sus cabezales.	Orificio concéntrico, superficie contacto  Figura 12.	 Figuras 1 y 3.	 Figura.
La boca (2) tiene ensamblado un pivote (3) del cabezal (8).	Un eje (54) soportado en sus extremos por los brazos verticales (56) de un miembro en forma de U (58). (Pág. 7, Col. 2, Líneas 40 a 45, Fig. 6)  Figura 6.	Placa de piso (11), desacoplando en el receso conector de carga (14) Se apoya de forma giratoria. (Parr 16, Pág. 2)	 Figura.

De acuerdo con la tabla anterior, las características esenciales del accesorio (tornillo) de la reivindicación a habrían sido divulgadas previamente en los documentos D1 a D3, por lo tanto, la materia reivindicada no es nueva.

Asimismo, el documento D1 divulga las características de las reivindicaciones dependientes así:

- Reivindicación 2: Una tuerca de mariposa en cada elemento roscado de apoyo uno de dichos medios y el otro de dichos medios transportados por dichos elementos roscados. (Reiv. 9)
- Reivindicaciones 3 y 5: Montaje (25) del soporte (24). (Pág. 9, Col. 1, Líneas 13 a 16. Fig. 13).

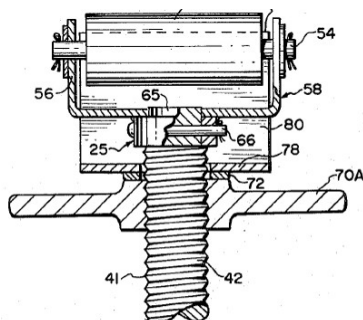


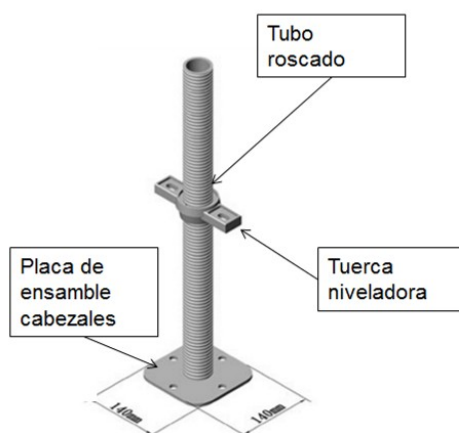
Figura 13.

Asimismo, el documento D2 divulga las características de las reivindicaciones dependientes así:

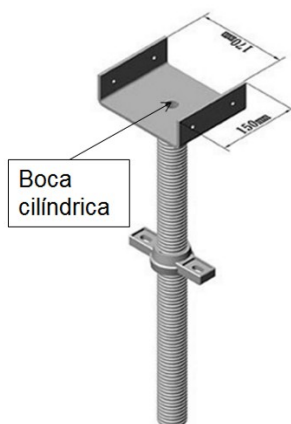
- Reivindicación 2: En el montaje de andamios, manejar parte de varilla (23) del gato (20) (no mostrado) que está equipado, ajuste de la altura o similares del andamio se realiza mediante la rotación de la manija. (Párr. 18, Pág. 2)
- Reivindicaciones 3 y 6: Placa de suelo sustancialmente plana de un andamio, de forma cuadrada hecha de chapa metálica. En esta placa de piso, la pieza de gancho destinada para sostener la superficie de la estructura. (Párr. 3, Pág. 2).

Asimismo, el documento D3 divulga las características de las reivindicaciones dependientes así:

- Reivindicaciones 2, 3 y 6:



- Reivindicación 4:



6. Conclusión

Los requisitos de Patentabilidad de la presente solicitud están afectados así:

Ítem	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	US3797793	1, 2, 3 y 5	Novedad
D2	JPH08165796A	1, 2, 3 y 6	Novedad
D3	Enlace Web	1 a 4 y 6	Novedad

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de treinta (30) días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Si como respuesta a este requerimiento el solicitante llegara a modificar: i) el capítulo reivindicatorio, ii) la descripción de la invención a proteger, iii) o presente un nuevo capítulo reivindicatorio, y desee que se realice un nuevo examen de patentabilidad a esta modificación, no deberá pagar la tasa de modificación voluntaria pero sí la correspondiente a la tasa de examen de patentabilidad. En todo caso, el número de requerimientos por no patentabilidad estará supeditado a que el término del estudio de patentabilidad no sea superior a 9 meses, contados desde la publicación de la solicitud de patente de modelo de utilidad. Adicionalmente, se le recuerda al solicitante que si como respuesta a este requerimiento llegara a modificar el capítulo reivindicatorio y éste contenga más de diez (10) reivindicaciones deberá pagar la tasa por reivindicación adicional.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



JESUS FERNEL GARCÍA GARCÍA
Director de Nuevas Creaciones (E)

El anterior requerimiento fue notificado por fijación en lista, de fecha 2016-05-24

Elaboró: Oscar Ivan Orduz Berdugo
Revisó: Rachid Ponce Vergel

Oscar

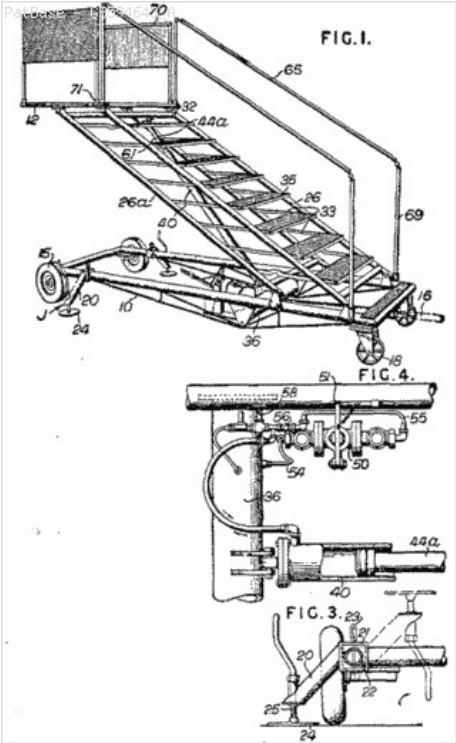
Search history

- Search 1: TA=(screw and scaffold and (beam or platform)) (Results 254)
- Search 2: TA=(screw and jack and scaffold and (beam or platform)) (Results 18)
- Search 3: TA=(screw and jack and scaffold and (base or plate) and support) (Results 15)
- Search 4: TA=(screw and jack and scaffold* and support and adjust) (Results 4)
- Search 5: TAC=(screw and jack and scaffold* and support and adjust) (Results 15)
- Search 6: [SP]: jack base for scaffold problem to be solved: to prevent a hindrance caused by a handle for adjusting the height of a jack base for supporting a scaffold used on a building site and the like. solution: a jack base 10 includes a support 16 with a threaded shaft portion 18, and a support cylinder 20 screw-coupled to the threaded shaft portion 18. a handle 26 is detachably coupled to the support cylinder 20. the support cylinder 20 is rotated by the handle 26 coupled to the support cylinder 20, and the support cylinder 20 is moved along the elongation direction of the support 16 so as to adjust height. after the height is adjusted, the handle 26 being a hindrance to passage and work is detached from the support cylinder 20. (Results 1)
- Search 7: TAC=(screw and jack and scaffold and support) (Results 70)
- Search 8: TAC=(screw and jack and scaffold and support and vertical*) (Results 47)
- Search 9: TAC=(screw and jack and scaffold and support and vertical* and member) (Results 26)

Title: Portable folding **scaffold**

Abstract: Source: GB594643A 10006. [Class 20(ii)] [Also in Group XXX] A stand, for use in servicing aeroplanes, has a platform 12, Fig. 1, adapted to be lowered and raised relative to a rectangular base frame 10 by means of two pairs of **members** 26, 26a, each **member** having one end pivotally connected to the platform and the other end pivoted to the base, and a hydraulic piston and cylinder assembly 44a, 40 pivoted, at one end, to a cross **member** 36 on the base and, at the other end, to a cross **member** 32, the point of attachment of the assembly to the base and of the **members** 26, 26a to the base being adjacent each other, whereby the distance through which the platform is moved is greater than the corresponding relative displacement between the piston and the cylinder. Steps are provided by U-shaped bars 33 pivoted to the **members** 26, 26a and treads 35 welded to the bars 33. The steps remain horizontal in any position of the platform owing to the pivotal connections. Guard rails 65 are pivoted to **supports** 69. The base is mounted on wheels 15, 18 and is provided with a telescopic tow bar 16. To enable the stand to be made rigid when in use, **jacks** J are provided to raise the wheels 15 from the ground. Each **jack** comprises a strut 20, Fig. 3, having a non-circular collar 21 and a plate 24 connected by a ball and socket joint to a **screw member** 25. A corresponding non circular part 22 is formed on the base frame. When the part 21 engages over the part 22, and is also held against axial movement by a pin 23, the **jack** is rigidly fixed. To move the **jack** to the inoperative position (shown dotted) the pin is removed, the part 21 moved off the part 22, turned, and then moved onto the part 22. In a modification (Figs. 6, 7, and 8 not shown), a U-shaped clip is provided, in place of the pin, to prevent axial movement of the two non-circular parts. The hydraulic system comprises the **member** 36, serving as a reservoir, a force pump 50, Fig. 4, actuated by a lever 51, a one-way valve 56 and a hand-operated valve 58. In operation, to raise the platform, the valve 58 is closed and the pump operated, this draws fluid from the reservoir 36 through the tubes 54, 55 and forces it through the valve 56 to the cylinder 40. To lower the platform the valve 58 is opened and the fluid is expelled from the cylinder by the weight of the apparatus acting on the piston 44a. To prevent accidental lowering of the platform a pin is passed through one of several openings 61, Fig. 1, in the piston. The platform is protected by guards 70, removably secured in sockets 71. These guards may be used to extend the platform by inserting them in horizontal sockets secured to the undersides of the platform. Parts of the platform adjacent its edges are cut away to allow additional platforms to be hooked onto the tubular edges of the main platform.

Classifications:
International (IPC 8-9): B64F1/315 E06C5/06 E06C5/40 (Advanced/Invention);
B64F1/00 E06C5/00 (Core/Invention)
International (IPC 1-7): B66F11/04
CPC: B64F1/315 E06C5/06 E06C5/40
European: B64F1/315 E06C5/06 E06C5/40



Family:

Publication number	Publication date	Application number	Application date
GB594643 A	19471117	GB194440010006	19440524

Probable Assignee: RALPH HOWARD SWAISGOOD
Assignee(s): (std): RALPH HOWARD SWAISGOOD

Title: An improved method of, and means for, **supporting** and adjusting movable shuttering for use in the construction of walls or the like from concrete or similar material

Abstract: Source: GB642362A 25549. [Class 20(ii)] A **scaffolding** structure, for casting a concrete wall by a method in which shuttering only a fraction of the height of the wall is progressively raised as the wall is cast, comprises in combination two spaced rows of **vertical** columns 18, 19; a horizontal platform **supported** therefrom and composed of battens 30; shuttering **members** 12 adapted to form one face of the wall and disposed wholly to one side of both the rows of columns and having their wall forming faces directed away from the columns; means for **supporting** the shuttering from the columns and elevating means carried from the columns and adapted simultaneously to raise both the adjacent shuttering **members** carried by the columns and the adjacent part of the platform. The platform rests on the upper horizontal **members** 26 of frame units 23 each of which comprises two **vertical** tubular **members** 24, 25 mounted on the columns 18, 19 and connected by horizontal **members** 26, 27. Clamps 28 incorporated in the frame units secure transverse ledger **members** 29 which maintain the spacing of the frame units as described in Specification 642,367, which also describes the formation of the columns 18, 19 as multiple **screw** threads of very large pitch and the mounting of the frame units thereon. The shuttering is **supported** from the frame units by hooks 32 secured to plates 33 which are clamped to the inner **vertical members** 24 of the frame units, the hooks 32 engaging with horizontal tie-rods 35 which extend along the row of shuttering plates 12 and pass through openings in **vertical** reinforcing strips 14. An inner row of shuttering plates 11 is similarly suspended, but the **supporting** assembly on one side only of the wall is shown, for the sake of clarity. To raise the frame units and shuttering hollow **jack screws** 36 are freely mounted on some of the **vertical** bars 18, 19, a convenient arrangement being to mount them on alternate bars in each row, as shown in Fig. 1. Each **jack screw** is **supported** on its bar by a collar 52, and has an external **screw** thread 37, Fig. 2, which engages with an internal thread in the boss 38 of the bracket 39 so that, when the **jack screw** is rotated, the bracket 39 moves **vertically**. The **jack screw** is rotated by a ratchet pinion 55, Fig. 3, rigid therewith, engaged by a ratchet lever 56 pivoted on a pair of arms 57 mounted rotatably upon a recessed part of the **jack screw** on each side of the pinion, clockwise rotation of the arms 57 raising the bracket 39 on the **jack screw**. A **vertical** staging **supporting** bar 41 is rigidly secured to each end of the bracket 49 by a pair of nuts 42, one having a squared end 42A fitting into a square hole in the bracket. The nuts 42 and the collar 52 are shaped internally to correspond with the twisted form of the bars 41 and 18 (or 19) respectively. The lower ends of the **supporting** bars 41 associated with the outer **vertical** bars 19 are connected in a similar way to another bracket 44, Fig. 2A. The lower end of the outer tubular **member** 25 of the adjacent frame unit 23 rests in a socket 45 in the centre of the bracket 44, immediately beneath which is a clamping nut 46 similar to the nuts 42. The inner tubular **member** 24 of the frame unit 23 rests on a nut 46A similar to the nut 46 but provided with flanges recessed internally to receive the tube end. The lower ends of the inner **supporting** bars 41 are similarly connected to a bracket 47, one edge of which engages beneath a lower aligner bar 16 which is clamped to reinforcing strips on the shuttering plates by clamps 17. Additional **support** for the shuttering from the bars 41 is provided by the pins 51, Fig. 5, which pass through the ears 49 in the bracket 47, one each side of the **member** 24, and through the **vertical** reinforcing strips 14 of the shuttering plates. Concrete is first poured between the shuttering plates 11 and 12 when they are resting on the ground, with the brackets 39 at the lower end of their respective **jack screws** and the nuts 46 and 46A abutting beneath the brackets 44 and the **vertical members** 24 respectively. As soon as the concrete has partly set the ratchet levers 56 are actuated in turn so as gradually to raise the staging and shuttering until the brackets 39 have travelled along the lengths of the **jack screws** through a distance somewhat less than the height of the previously cast concrete, which distance may be the length of the **jack screw**, and the second course of concrete is poured. The nuts 46 and 46A are raised until they are again beneath the brackets 44 and the **members** 24 respectively, and the **jack screws** are positioned for raising the assembly through a further stage by turning them anti-clockwise by means of a tommy-bar inserted in one of the sockets 59, whereby the bracket 39 is brought again to the lower end of the **jack screw**. The collars 52 are then raised to **support** the **jack screw** again, and the staging and shuttering are ready for a further elevation. To cast the walling of the average two storey dwelling house may entail five repetitions of the cycle of operations described. Specifications 570,661, 570,678, 594,666, 604,588 and 642,367 are referred to. Specification 581,429 also is referred to in the Provisional Specification.

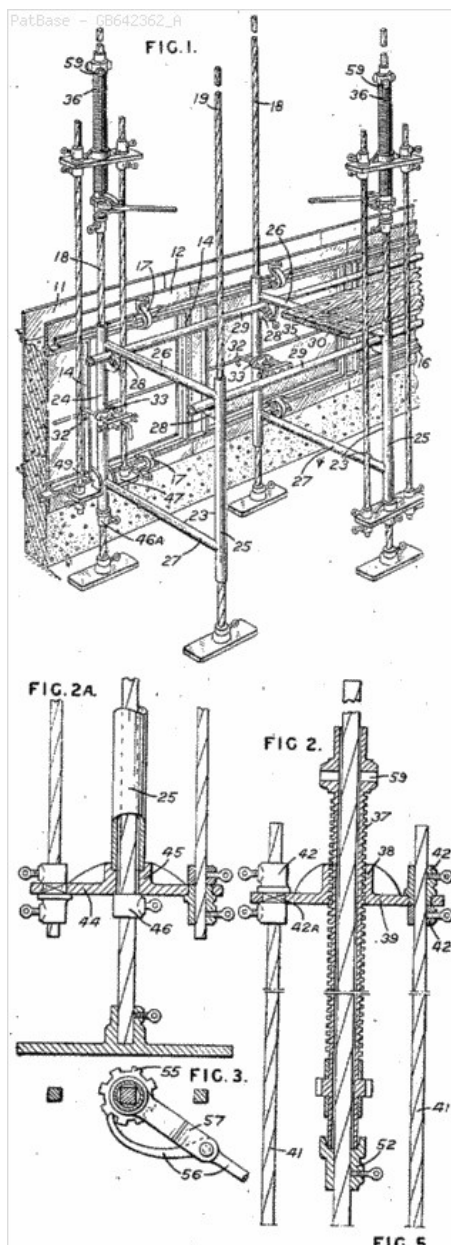
Classifications:

International (IPC 8-9): E04G11/22 (Advanced/Invention);
E04G11/00 (Core/Invention)

International (IPC 1-7): E04G11/22

CPC: E04G11/22

European: E04G11/22





Family:

Publication number	Publication date	Application number	Application date
GB642362 A	19500830	GB19450025549	19451002

Priority:

GB19450025549 19451002

Probable Assignee: KWIKFORM LTD

Assignee(s): (std): KWIKFORM LTD

Assignee(s): KWIKFORM LIMITED

Inventor(s): (std): HAWES ALBERT HENRY

Title: Improvements in or relating to extensible beams for use in supporting shuttering for floors and the like

Abstract: Source: GB678979A 678,979. Telescopic beams for supporting floor and c. shuttering. KWIKFORM, Ltd. May 7, 1951 [May 8, 1950], No. 11334/50. Class 20(ii) A telescopic beam 10, Fig. 1, for supporting floor and c. shuttering, e.g. as described in Specification 574,457, and adapted to be supported at its ends on walls 17, is collapsed after setting of the concrete by means of screw jacks 20 secured to the ends of the beam and adapted to be extended to abut against the walls and force the ends of the beams away from the walls. Each jack 20 comprises a screw threaded member 31 disposed in a tube 22, Fig. 4, to which is welded a channel section member 23 closed at one end by an abutment plate 24 which bears against an abutment face 19 in the beam. The jack 20 may be secured to the beam by frictional engagement or, as shown, by a pin 27 engaging registering holes in the member 23 and beam 10. A nut 33 is provided with a cylindrical portion 34 which is freely rotatable within the tube 22 and is secured against axial movement by pins 35 engaging a groove 36 in the portion 34. The screw threaded member 31 is prevented from rotating by means of a lug 39 which slidably engages in a longitudinal slot 40 in the tube 22.

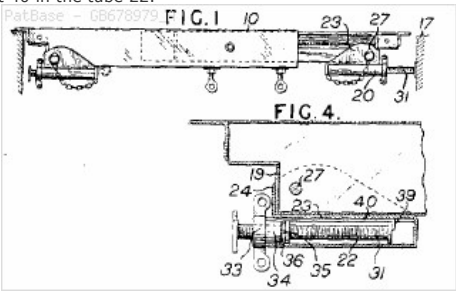
Classifications:

International (IPC 8-9): E04G11/56 E04G17/16 (Advanced/Invention); E04G11/00 E04G17/16 (Core/Invention)

International (IPC 1-7): E04G11/56 E04G17/16

CPC: E04G11/56 E04G17/16

European: E04G11/56 E04G17/16



Family:

Publication number	Publication date	Application number	Application date
GB678979 A	19520910	GB19500011334	19500508

Priority:

GB19500011334 19500508

Probable Assignee: KWTKFORM LTD

Assignee(s): (std): KWTKFORM LTD

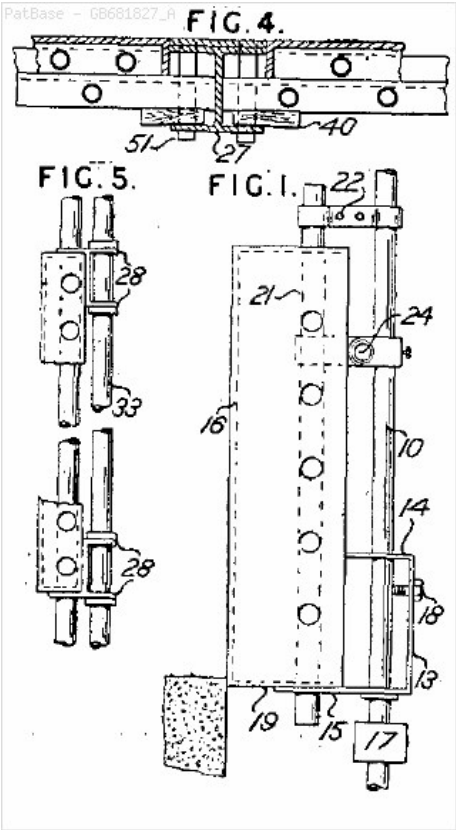
Assignee(s): KWTKFORM LIMITED

Inventor(s): (std): HAWES ALBERT HENRY

Title: Improvements in or relating to shuttering for casting concrete structures

Abstract: Source: GB681827A 681,827. Shuttering for concrete. JOHNSTON BROS. (CONTRACTORS), Ltd., and BONE, A. B. Jan. 31, 1951 [Jan. 31, 1950], No. 2541/50. Class 20(ii) Shuttering for casting structures comprises panels 16, Fig. 1, aligned on a cross member 13 adapted to be raised on fixed uprights 10. The crossmembers 13 have holes through which the uprights 10 extend and are raised by jacks 15 indicated at 17 and vertically adjustably mounted on the uprights. The panels 16 which have flanges 19 rest on the extended lower flange 15 of the cross-member and are held thereon by members 21 passing through apertures in the flanges of the cross-members and of the panels and having their upper ends held by a bracket 22 to the upright member 10. The panels are aligned by the upper flange 14 of the cross-member. The members 21 and uprights 10 are connected by a crossmember 24. The holes in the cross-member 14 through which the uprights 10 extend are enlarged to allow a screw 18 to adjust the panels to and from the structure being cast. In a modification two crossmembers 28, Fig. 5, of H-section with one flange removed and spaced apart by scaffold members 33 support the panels at both top and bottom edges and the uprights 27, Fig. 4, are of channel or Hsection between the flanges of which the cross-members are secured by wedges 40 and short tubes 51 passing through holes in the members and the flanges of the uprights. In a further modification the crossmembers are of channel form and the members connecting them pass through the flanges of the channels and through the flanges of the shutter panels. An arrangement is shown in which a tackle raises the shutters on each side of a wall and a crossmember connects the uprights so that a crane may lift the shuttering away from the wall. Fig. 8 (not shown), shows an arrangement for casting a tank. Specifications 640,589, 659,833 and 680,725 are referred to.

Classifications:
International (IPC 8-9): E04G11/12 (Advanced/Invention);
E04G11/00 (Core/Invention)
International (IPC 1-7): E04G11/12
CPC: E04G11/12
European: E04G11/12



Family:

Publication number	Publication date	Application number	Application date
GB681827 A	19521029	GB19500002541	19500131

Priority:

GB19500002541 19500131

Probable Assignee: JOHNSTON BROTHERS CONTRACTORS

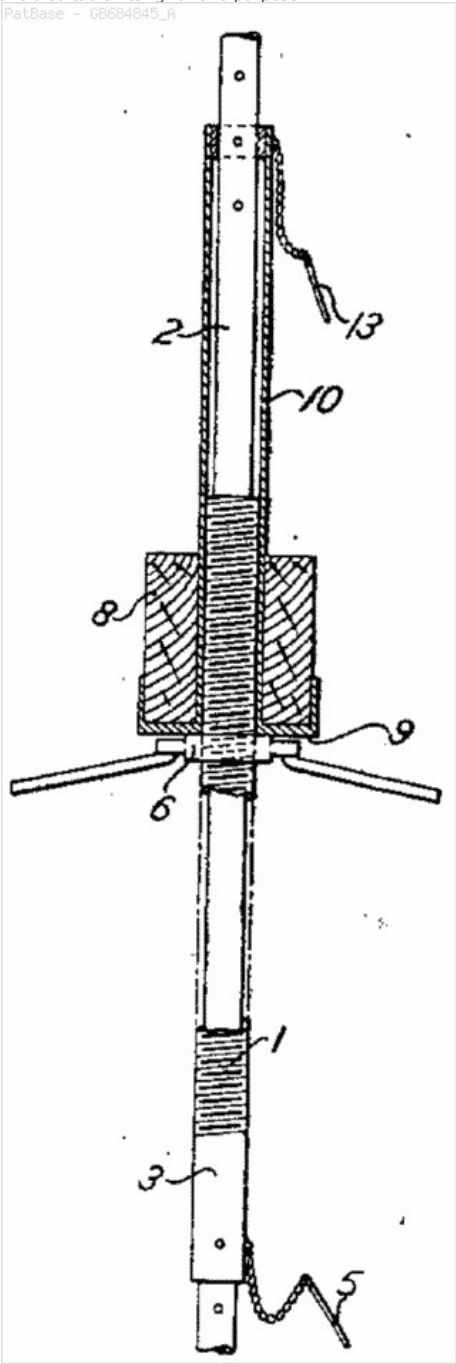
Assignee(s): (std): ARTHUR BERNARD BONE ; JOHNSTON BROTHERS CONTRACTORS

Assignee(s): JOHNSTON BROTHERS CONTRACTORS LIMITED ; JOHNSTON BROTHERS CONTRACTORS LTD

Title: Means intended primarily for raising and repositioning shuttering during the casting of concrete structures

Abstract: Source: GB684845A 684,845. Wall shuttering **supports**; shores. MASSEY, W. B. Jan. 19, 1951 [Oct. 19, 1949]. No. 26842/49. Class 20 (ii). Wall shuttering is raised step by step on the main shuttering **support** posts 2 by means of an externally threaded sleeve 1 which is anchored to the post 2 by a pin 5 passing through holes in the two parts and on which is **screwed** a nut 6 adapted to raise by means of an external sleeve 10 and plate 9 a joist 8 carrying the wall shuttering. A pin 13 passed through holes in the sleeve 10 and the post 2 secures the sleeve and the shuttering in a new position when the sleeve 1 can be raised to a higher 6 has been slackened back, and secured there by the pin 5. The apparatus may be used as a raking shore by threading the top of the sleeve 10 to take a suitable fitting for this purpose.

Classifications:
International (IPC 8-9): E04G11/24 (Advanced/Invention);
E04G11/00 (Core/Invention)
International (IPC 1-7): E04G11/24
CPC: E04G11/24
European: E04G11/24



Family:

Publication number	Publication date	Application number	Application date
GB684845 A	19521224	GB19490026842	19491019

Priority:

GB19490026842 19491019

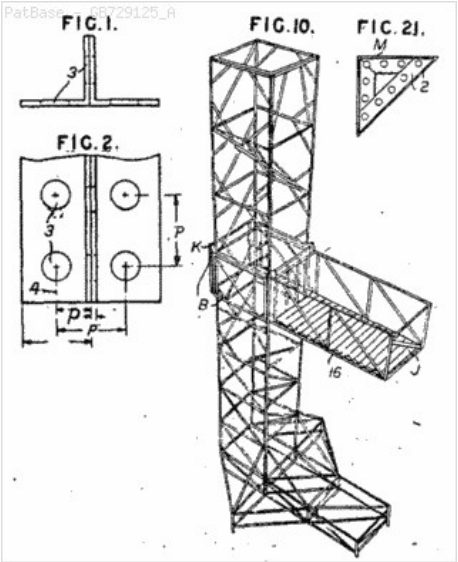
Probable Assignee: WILLIAM BURGESS MASSEY

Assignee(s): (std): WILLIAM BURGESS MASSEY

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

Abstract: Source: GB729125A 729,125. Metal constructional elements; **scaffolding** towers; ladders. NATIONAL RESEARCH DEVELOPMENT CORPORATION. Feb. 2, 1953 [Nov. 2. 1951], No. 25723/51. Class 20 (2). Elements for constructing frames for aircraft servicing tower ladders, hangars, c. are of L-section having a longitudinal row of holes 3 Figs. 1 and 2, in one or both flanges for connecting the elements together, the holes being spaced by a distance P equal to or a multiple of twice the distance p between the centre line 4 of a row of holes in one flange and the outer face of the other flange. Thus the distance between the holes in a row on one flange of an element is the same as the distance between rows of holes of adjacent elements bolted together as shown in Figs. 1 and 2. The centre line of the row of holes may be midway between the inner corner of the L-section and the outer edge of its flange. The elements shown comprise open rectangular frames, Fig. 3 (not shown), of L-section material in which the spacing of the rows of holes originate from the point of intersection of the centre lines of the rows at the corners of the frames, also L-section braces, Fig. 4 (not shown), and elements; Fig. 5 (not shown), to be used as horizontals and **verticals** in a framework. A tower **scaffold**, Fig. 10, is constructed of an assembly of these elements and comprises a cantilever platform 16 adapted to be raised and lowered by winches and having one end built around the tower by means of open frames B connected together by brackets K, Figs. 8, 13 (not shown) having rollers adapted to run on the flanges of the **vertical** elements of the tower. The floor of the platform is formed of overlapping corrugated metal or plastic " planks " J. In another tower, Fig. 17 (not shown), a stairway leads up to a platform at the top, each tread of the stairway being secured at each end to an open triangular frame M, Fig. 21, of L-section material having holes arranged at a distance of P from one another. Alternatively the stair treads may be **supported** on panels each carrying a number of flanged right-angle elements. Fig. 26 (not shown) shows how a number of components may be packed. Further brackets are described in Figs. 1-6 (not shown) of the Complete Specification. According to the Provisional Specification the towers of Figs. 10 and 17 may be provided with combined wheel and **jack** units to render them mobile.

Classifications:
International (IPC 8-9): E04H12/10 (Advanced/Invention);
E04H12/00 (Core/Invention)
CPC: E04H12/10
European: E04H12/10



Family:

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

Priority:
GB19510025723 19511102
Probable Assignee: NAT RES DEV
Assignee(s): (std): NAT RES DEV
Assignee(s): NATIONAL RESEARCH DEVELOPMENT CORP
Inventor(s): (std): WEBSTER BERNARD

Title: Improved adjustable yoke for use in sliding formwork

Abstract: Source: GB1091433A 1,091,433. Shuttering for casting concrete. MILLS SCAFFOLD CO. Ltd. July 15, 1965 [July 17, 1964], No. 30062/65. Heading E1S. A yoke for supporting spaced shuttering panels 46 particularly for vertically sliding shuttering, comprises side members 12 adjustably mounted to vary the distance between them on a beam 10 by holes 14 and carrying brackets 36 for supporting wales 44 carrying the shuttering panels 46 and screw adjustable seats 42 for the wales 44 which are retained thereon by hook bolts 40. The beam is two channel members between which the side members which are triangular frames are carried. In a modification each side member is a single channel, the brackets 36 are adjustable and the hook bolts are replaced by screw clamps on the seats 42.

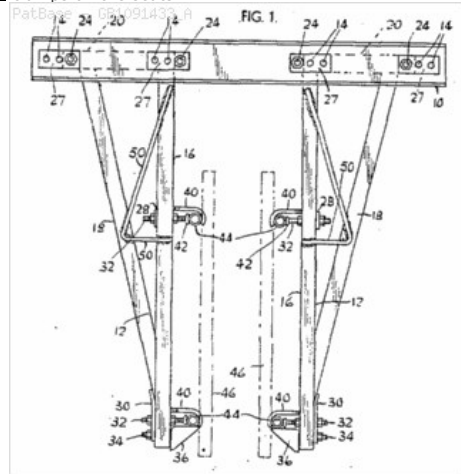
Classifications:

International (IPC 8-9): E04G11/22 (Advanced/Invention);
E04G11/00 (Core/Invention)

International (IPC 1-7): E04G11/22

CPC: E04G11/22

European: E04G11/22



Family:

Publication number	Publication date	Application number	Application date
GB1091433 A	19671115	GB19650030062	19650715

Priority:

ZA19640003381 19640717

Probable Assignee: MILLS SCAFFOLD COMPANY LTD

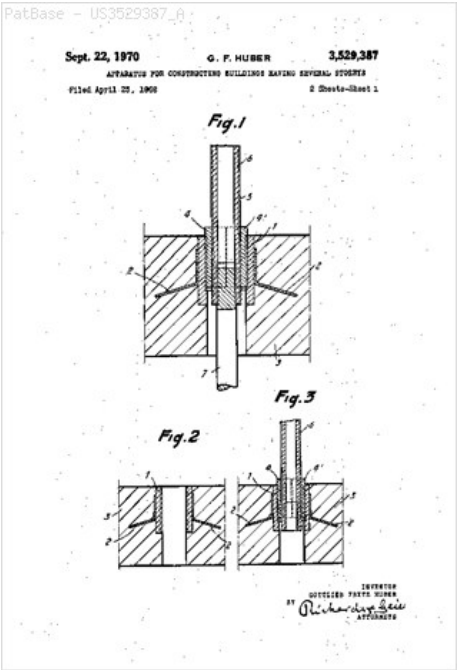
Assignee(s): (std): MILLS SCAFFOLD COMPANY LTD

Assignee(s): MILLS SCAFFOLD CO LTD ; MILLS SCAFFOLD COMPANY LIMITED

Title: APPARATUS FOR CONSTRUCTING BUILDINGS HAVING SEVERAL STOREYS

Abstract: Source: US3529387A ABSTRACT OF THE DISCLOSURE
A construction process wherein slabs of concrete forming the floors of the building to be erected are piled at the base of each section formed within a previously provided framework, and are then raised individually to the levels of the different floors to be attached to the framework, beginning with the highest slab. The process is particularly characterized in that several openings (for example, four) are provided in each slab and are adapted to receive a **scaffolding** part connected to a rising device (such as a **jack**, puller or the like), by means of which the slab can be raised and lowered at will into a specific enclosure of the framework which has been previously provided. Each slab is raised to a level about two meters above the upper surface of the slab placed on top of a **pile** of prefabricated slabs or above the ground when it is the last slab of the pile. Suspension parts or slings are fixed to the above-mentioned **scaffolding** parts under the slab. These suspension elements are fixed to a movable **scaffolding** which is thus connected to the slab and which will permit operators to work above or below the slab toy passing through openings provided during the casting of the slab and supplied with chains, staircases and the like. Then the slab and the **scaffolding** which is connected therewith are raised to a level located about one meter above the lever at which the slab must be definitely fixed. The elements necessary to **support** the slab and **supported** by the framework of the construction are placed in their proper locations or brought to effective condition. Then the slab is lowered to its definite level. All connections and replacements of the slab are carried out. The connecting elements are removed from the slab. Then the **scaffolding** is moved to a lower level, is dismantled and ss5 separated from these connecting elements. The connecting elements are then adapted to an upper slab, whereupon all the operations are repeated until all the slabs are placed in their definitive positions in the specific cells of the framework.

Classifications:
International (IPC 8-9): E04B1/35 E04G21/14 (Advanced/Invention); E04B1/35 E04G21/14 (Core/Invention)
International (IPC 1-7): B66C1/54 E04B1/34 E04B1/35 E04C E04G21/14 E04G23/06
CPC: E04B1/35 E04B1/3511 E04G21/142
European: E04B1/35 E04B1/35B E04G21/14B
US: 52/125.1 52/125.5 521/260



Family:

Publication number	Publication date	Application number	Application date
AT306988 B	19730510	AT19680003997	19680424
BE714052 A	19680916		19680422
CH473284 A	19690531	CH19680005879	19680419
DE1759316 A1	19710603	DE19681759316	19680419
ES353156 A1	19691001	ES19680353156	19680425
FR1540381 A	19680927	FR19670104144	19670425
GB1199372 A	19700722	GB19680019407	19680424
GB1199373 A	19700722	GB19690038494	19680424
GB1199374 A	19700722	GB19690038495	19680424
JP51016690 B4	19760526	JP19680027970	19680425
NL6805914 A	19681028	NL19680005914	19680425
US3529387 A	19700922	US19680724014	19680425

Priority:

FR19670104144 19670425

Probable Assignee: GOTTLIEB FRITZ HUBER ING

Assignee(s): (std): GOTTLIEB FRITZ HUBER ; GOTTLIEB FRITZ HUBER ING ; HUBER GOTTLIEB FRITZ ; HUBER GOTTLIEB FRITZ ING

Assignee(s): ING GOTTLIEB FRITZ HUBER

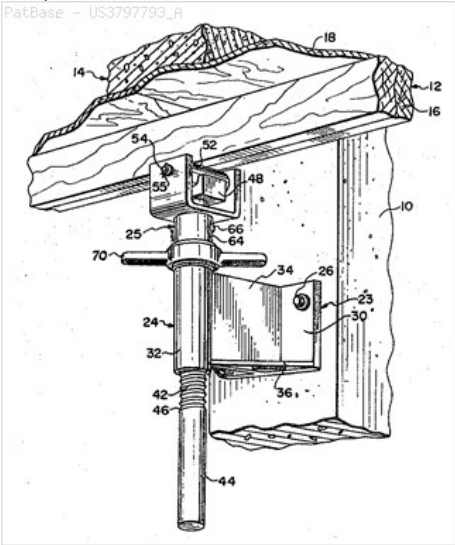
Inventor(s): (std): FRITZ HUBER GOTTLIEB ; GOTTLIEB FRITZ HUBER ; HUBER GOTTLIEB FRITZ

Title: SHORING **SCAFFOLD** AND FORMWORK **SUPPORT**

Abstract: Source: US3797793A Relative adjustable roller and rigid **support** for formwork and **scaffolding** in which **vertically** oriented **jack screw** assemblies disposed either at the top or bottom of a shore **member** are adjustable to vary the **supported** height and position of the shore **member** with either a rolling or rigid contact, or both, with respect to a work area or a weight bearing horizontal or inclined surface. Engagement is also by roller means located at the working ends of **jack screws** which operate automatically with their level adjustment to hold the rollers against rotation in weight carrying relationship while the formwork is in its elevated position.

Classifications:

International (IPC 8-9): A47F5/10 A47H33/00 A47H99/00 E04G17/16 (Advanced/Invention); A47F5/10 A47H33/00 A47H99/00 E04G17/16 (Core/Invention)
International (IPC 1-7): A47F5/10 A47H33/00 E04G17/16
CPC: E04G17/16
European: E04G17/16
US: 248/295 248/295.11 248/354.1 249/219.1



Family:

Publication number	Publication date	Application number	Application date
CA989375 A1	19760518	CA19730173861	19730612
US3797793 A	19740319	US19720264274	19720619

Priority:

US19720264274 19720619

Probable Assignee: WACO INT

Assignee(s): (std): BLISS AND LAUGHLIN IND ; WACO SCAFFOLD AND SHORING CO ; WACO SCAFFOLD AND SHORING CO A ; WACO SCAFFOLD AND SHORING CO A D
Assignee(s): WACO SCAFFOLD AND SHORING CO A DIVISION OF BLISS AND LAUGHLIN INDUST ; WACO SCAFFOLD AND SHORING CO A DIVISION OF BLISS AND LAUGHLIN INDUSTRI ES INC ; WILSON DAVID O ; UNITED STATES WACO CORP INC ; WACO FORM SCAFF INC ; WACO INT ; WACO SCAFFOLD AND SHORING CO US ; WACO SCAFFOLD AND SHORING CO A DIVISION OF BLISS ; BLISS AND LAUGHLIN IND INC US ; MORITZ DONALD B ; MUELLER FRANCIS B ; STEEPLEJACK WACO INC
Inventor(s): (std): MORITZ D ; MORITZ DONALD B ; MUELLER F ; MUELLER FRANCIS B ; WILSON D ; WILSON DAVID O
Inventor(s): WILSON D US ; MUELLER F US ; MORITZ D US

Title: SHORING **SCAFFOLD** CONSTRUCTION

Abstract: Source: US4026079A A skeletonized, adjustable, high-rise **scaffold** assembly employs stacked sections, each made-up of a pair of opposed end frames or panels. The end frames of cooperating upper and lower sections are each provided with a pair of main or outer, **supporting** side legs and retained latching pin means for **vertically** adjustably connecting the sections together. Side legs of each end frame have a pin connector extending inwardly within a plane of the frame to removably receive ends of cross brace **members** that are mounted to extend from an end frame of one section diagonally across in a connected relation with an opposed end frame of the other section. The cross brace **members** have spaced-apart latching hole portions at at least one of their ends to enable a selection of a proper hole portion that is related to or compatible with an up or down adjustment of the frames of an upper section with respect to frames of a cooperating lower section. In one embodiment, the section bracing connections are made between inner or secondary leg **members** of the opposed frames, and in another embodiment, the connections are between main or outer leg **members** of the opposed frames.

Classifications:

International (IPC 8-9): E04G1/14 E04G1/18 E04G11/48

E04G25/06 (Advanced/Invention);

E04G1/00 E04G11/00 E04G25/00 (Core/Invention)

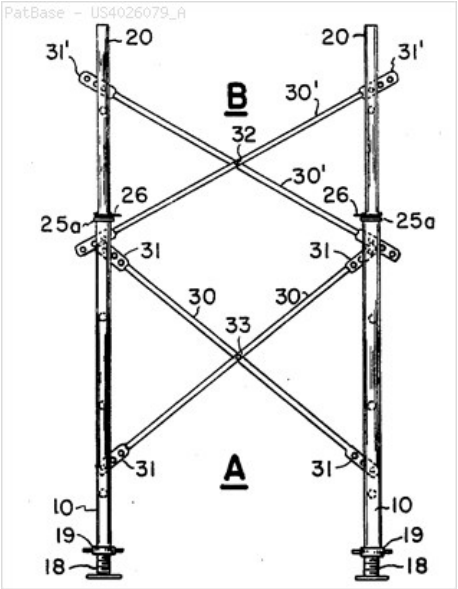
International (IPC 1-7): E04G1/18 E04H12/18

CPC: Y10T403/1683 Y10T403/30 Y10T403/32491 Y10T403/7084 E04G1/14 E04G11/48

E04G25/06

European: E04G1/14 E04G11/48 E04G25/06

US: 182/180.1 248/354.3 403/109.4 403/21 403/379.3 403/49 411/511 52/122 52/126.7 52/646



Family:

Publication number	Publication date	Application number	Application date
CA1128584 A1	19820727	CA19760259290	19760817
US4026079 A	19770531	US19750619529	19751003

Priority:

US19750619529 19751003 CA19760259290 19760817

Probable Assignee: BEAVER ADVANCE CORP

Assignee(s): (std): ANTHES INC ; BEAVER ADVANCE CORP

Assignee(s): MORRIS RONALD G

Inventor(s): (std): MORRIS RONALD G

Agent(s): MOFFAT AND CO

Title: Scaffold apparatus

Abstract: Source: US4257491A An enclosed scaffold is suspended from a plurality of wire lines attached near the apex of a hemispheric dome surmounting the cylindrical sides of a containment structure, e.g. a tank. The scaffold is attached to the wire lines by hydraulically actuated cable gripping and climbing devices which may be manually or automatically controlled to raise and lower the scaffold. A wheel mounted car rides on the face of a buttress on the exterior of the containment structure wall. A boom mounted on the car is pivotally attached to the top of the scaffold. By means of a hydraulic thruster mounted on the car, the points of attachment of the scaffold to the boom can be moved away from or toward the buttress and wall as needed to provide room for the scaffold to hang level when it moves over the curved part of the structure. To balance torques on the scaffold tending to keep it from hanging level, guide channels carried by the lower part of the car engage rollers carried by the lower part of the scaffold, the roller position with respect to the guide channels being adjustable by screw jacks. The radial component of the force exerted on the scaffold by the wire lines keeps the car wheels in positive engagement with the buttress at all points above the springline. Below the springline, guide rails temporarily bolted to the buttress hold the car wheels against the buttress, thereby to maintain the scaffold level. The scaffold may be adapted to different buttress configurations and may be adapted to receive and suspend pup scaffolds for operating over the vertical part of the structure wall.

Classifications:

International (IPC 8-9): E04G3/22 E04G3/24 E04G3/28

E04G3/30 (Advanced/Invention);

E04G3/22 E04G3/24 E04G3/28 (Core/Invention)

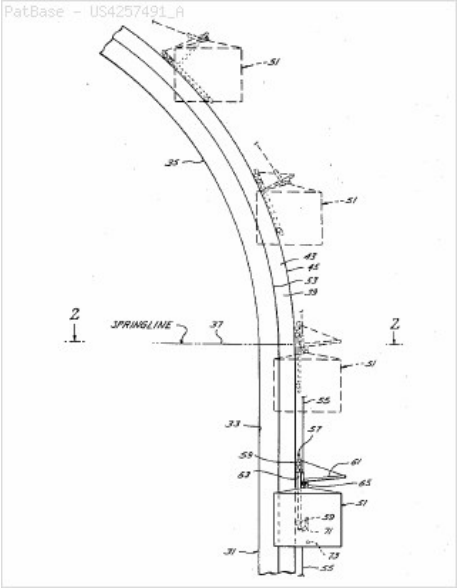
International (IPC 1-7): E04G3/10 E04G3/12 E04G3/16

CPC: E04G3/22 E04G3/24 E04G3/28 E04G3/30

European: E04G3/00E E04G3/00G E04G3/00G2 E04G3/22 E04G3/24 E04G3/28

E04G3/30

US: 182/142 182/187



Family:

Publication number	Publication date	Application number	Application date
US4257491 A	19810324	US19790007417	19790129

Priority:

US19790007417 19790129

Probable Assignee: PRESCON CORP

Assignee(s): (std): PRESCON CORP

Inventor(s): (std): CUTLER EARL G ; PRESNALL JR HOMER H

Title: Mobile outrigger for suspending scaffold

Abstract: Source: US4496027A A portable motor outrigger for suspending scaffolding in which there are a pair of spaced generally parallel, substantially A-frame-shaped supports (30, 32), having a beam (26) extending therebetween. Each A-frame has two plates (100, 108), one adjacent the lower end of one leg (76) and the other adjacent the lower end of the other leg (78). The plates are adapted to be positioned on a surface (12) to support the beam (26) through the A-frame supports. A wheel (104) is mounted for rotation in a lower part of the A-frame and is positioned to be substantially in vertical alignment with the center of gravity of the weight on the support. A caster (98) depends from an end (86) of each A-frame, the wheel and caster being above a roof surface when the plates (100, 108) support the A-frames on the roof surface. A jackscrew (92) is mounted on one end of each A-frame adjacent the caster and is adapted to raise and lower plate (100) adjacent the caster with respect to the A-frame and the caster. When the jackscrew is rotated to move the plate on its end toward the A-frame, the wheel and caster are lowered toward the roof surface. When the caster touches the roof surface and the plate (100) is lifted from the roof surface, the A-frame tilts so that the plate (108) is raised and so that the A-frames with the caster and wheel on the roof surface can be moved by exerting a horizontal force on the beam and can be rotated around a building corner by exerting horizontal forces on the beam at the end of adjacent the corner. The method for positioning a mobile scaffold suspending outrigger for horizontal movement, including rotation by a single person.

Classifications:

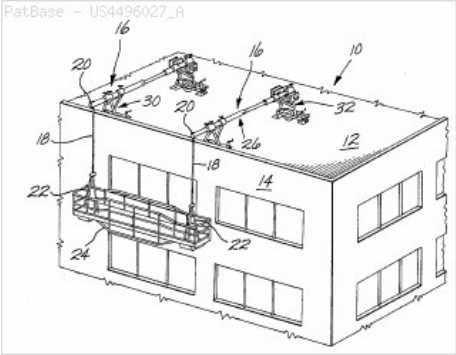
International (IPC 8-9): E04G3/34 (Advanced/Invention); E04G3/28 (Core/Invention)

International (IPC 1-7): E04G3/10

CPC: E04G3/34

European: E04G3/00G4 E04G3/34

US: 182/142 182/150 248/237



Family:

Publication number	Publication date	Application number	Application date
US4496027 A	19850129	US19830462303	19830131

Priority:

US19830462303 19830131

Probable Assignee: SPIDER STAGING INC

Assignee(s): (std): SPIDER STAGING INC

Assignee(s): US BANK OF WASHINGTON NATIONAL ASSOCIATION

Inventor(s): (std): FISHER HARRY S

Title: Concrete forming system

Abstract: Source: US4585204A A concrete forming system includes telescoping **jacks**, bottom chords and top chords. The bottom and top chords separate the telescoping **jacks** into spaced, parallel rows. Diagonal struts extend between the bottom chords and the top chords within each row. Cross braces extend between corresponding telescoping **jacks** of adjacent rows. Joists are **supported** on the top chords and/or on beams **supported** by the telescoping **jacks**, and in turn **support** forming **members**. The component parts of the system may be used to make flying truss forms, flying pan forms, structural beam forms, rolling deck **scaffold** forms, column hung forms and wall forms.

Classifications:

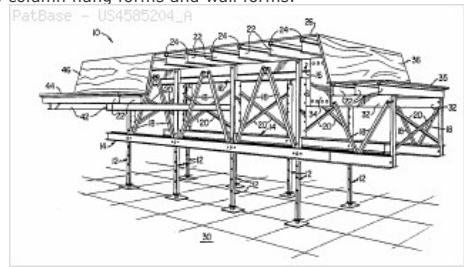
International (IPC 8-9): E04G11/38 E04G11/40 (Advanced/Invention); E04G11/00 (Core/Invention)

International (IPC 1-7): E04G11/36

CPC: E04G11/38 E04G11/40

European: E04G11/38 E04G11/40

US: 249/27 249/28 425/62 52/646



Family:

Publication number	Publication date	Application number	Application date
US4585204 A	19860429	US19840609831	19840514

Priority:

US19840609831 19840514

Probable Assignee: FLEXIFORMS CO INC

Assignee(s): (std): KEETER JAMES W ; PARKER LAWRENCE A ; ROBLES ARTURO C

Assignee(s): FLEXIFORMS CO INC

Inventor(s): (std): KEETER JAMES W ; PARKER LAWRENCE A ; ROBLES ARTURO C

Title: **Scaffolding** system

Abstract: Source: US4598794A A side rail system for interconnecting layered sections of elongated **scaffold** staging with the sections respectively spanning pairs of opposing upper and lower **support** arms of pump **jacks** which respectively ride on spaced apart pump **jack** poles. The side rail system includes upright posts which are spaced along the staging. A pair of rods are associated with each of the posts. The rods confrontingly project from the respective staging sections. The posts are pivotally coupled to the rods and are secured to the rods by quick adjust pins to prevent separation of the rods and posts. A mid-rail as well as a toe board can be interconnected between the rails. An end rail system can also be included. The **scaffolding** arrangement can be used exteriorly with a brace onto a wall. It can also be used interiorly between roof and floor with appropriate height adjustment arrangement provided.

Classifications:

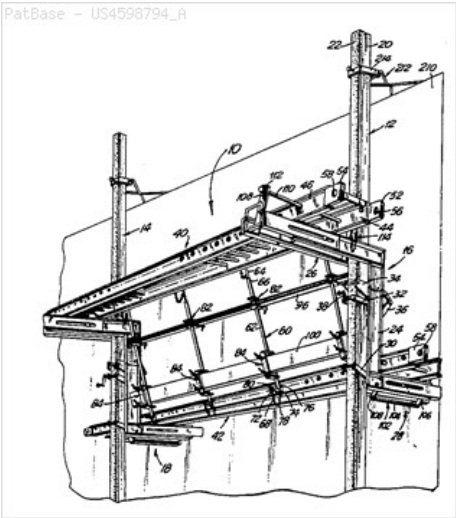
International (IPC 8-9): E04G1/20 E04G5/06 E04G7/28 (Advanced/Invention); E04G1/18 E04G5/00 E04G7/00 (Core/Invention)

International (IPC 1-7): E04G1/20 E04G25/00 E04G5/08

CPC: E04G1/20 E04G5/06 E04G7/28

European: E04G1/20 E04G5/06 E04G7/28

US: 182/113 182/119 182/131 182/132 182/136 182/145 182/223 248/246 248/354.3 248/357



Family:

Publication number	Publication date	Application number	Application date
CA1262161 A1	19891003	CA19860504602	19860320
US4598794 A	19860708	US19850714931	19850322
US4624342 A	19861125	US19860847211	19860402
US4741505 A	19880503	US19860847210	19860402

Priority:

US19850714931 19850322 US19850714931 19850327 US19860847211 19860402
US19860847210 19860402 CA19860504602 19860320

Probable Assignee: ANDERSON CARL

Assignee(s): (std): ANDERSON CARL ; ANDERSON CARL E

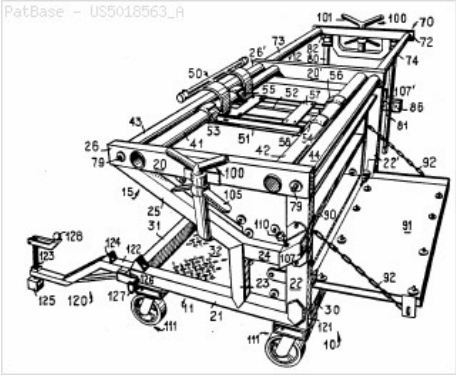
Inventor(s): (std): ANDERSON CARL E ; ANDERSON CARL

Agent(s): SIM AND MCBURNEY

Title: Mobile, extendible table with tool mount and carrier

Abstract: Source: US5018563A A mobile table having a variety of tool mounts that also serves as a carrier for workpieces. The table includes an offset frame having four fixed tubes and a pair of asymmetrical end pieces which support them. The four fixed tubes, which are parallel to each other, form the top of the table and serve as housing for four movable tubes. The two outer fixed tubes house movable tubes which are rigidly connected to a support structure. The remaining two movable tubes are pivotally connected to the support structure and, once withdrawn from the fixed tubes, can be rotated into a vertical position. So rotated, they form legs for the support structure. One end of each of the two outer movable tubes, even during full extension, is retained within a fixed tube. The movable tubes and the support structure comprise an extension for the table which can be used to double its length. Moreover, each of the asymmetrical endpieces includes two horizontal bars of equal length, two vertical columns of unequal length, and a brace. The longer vertical column is rigidly connected to the horizontal bars near the outside edge of the table. The shorter vertical column is situated near the middle of the table. Anchored by a short cross member to the longer vertical column, the brace extends upwardly from the second vertical column and forms a cantilever beam to support the upper horizontal bar. The asymmetrical endpieces themselves are so positioned that a large unobstructed space, useful for storing workpieces, is created on one side of the table.

Classifications:
International (IPC 8-9): B25H1/04 B25H1/10 B25H1/12 (Advanced/Invention); B25H1/00 (Core/Invention)
International (IPC 1-7): B25H1/00
CPC: B25H1/04 B25H1/10 B25H1/12
European: B25H1/04 B25H1/10 B25H1/12
US: 144/1.1 144/1R 144/286.1 144/286.5 144/286A 144/286R 144/287 269/296



Family:

Publication number	Publication date	Application number	Application date
US5018563 A	19910528	US19890422525	19891017

Priority:
US19890422525 19891017

Probable Assignee: YODER THOMAS P
Assignee(s): (std): YODER THOMAS P
Inventor(s): (std): YODER THOMAS P

Title: MOBILE OUTRIGGER FOR SUSPENDING **SCAFFOLD**

Abstract: Source: CA1296372A An outrigger for suspending **scaffolding** (24) alongside a building (14) is composed of an elongated beam (26) and a pair of spaced apart A-frame **supports** (30, 32) for the beam (26). Each A-frame **support** (30, 32) includes a main wheel (104) and a caster wheel (90) which is used for moving the outrigger. Each A-frame (30, 32) includes a **screw jack** adjacent the caster usable for raising both the main wheel (104) and a caster wheel (90) up off the **support** surface, and at the same time placing a pair of spaced apart **support** feet (100, 108) in contact with the **support** surface. The outrigger can be moved by a single person and can be rotated in position about the center of the beam (26).
Classifications:
International (IPC 1-7): E04G3/10

Family:

Publication number	Publication date	Application number	Application date
CA1296372 A1	19920225	CA19840452093	19840416

Priority:
CA19840452093 19840416

Probable Assignee: SPIDER STAGING INC
Assignee(s): (std): SPIDER STAGING INC
Assignee(s): WINDSWEPT CORP ; FISHER HARRY S ; SPIDER STAGING CORP
Inventor(s): (std): FISHER HARRY S
Agent(s): GOWLING LAFLEUR HENDERSON LLP

Title: QUICKLY MOVABLE ELASTICALLY ENGAGING **SCREW**-AND-NUT MECHANISM

Abstract: Source: US5970812A A **screw**-and-nut mechanism comprises a **supporting** seat, one or more semi-nuts and the actuating **member** thereof, characterized in that the engagement of internal thread on the semi-nut with external threa on the **screw** is started elastically, then completed and locked by a positive element, and that the disengagement thereafter of the related elements is accomplished positively. Such a mechanism can be used in various kinds **jacks**, vices, sliding tables of machine tools, as well as other devices which is driven by a **screw** and desired to pas through its return travel quickly.

Classifications:

International (IPC 8-9): B23Q5/40 B25B1/12 B66F3/08 B66F3/12 F16H25/20 F16H25/24 (Advanced/Invention);

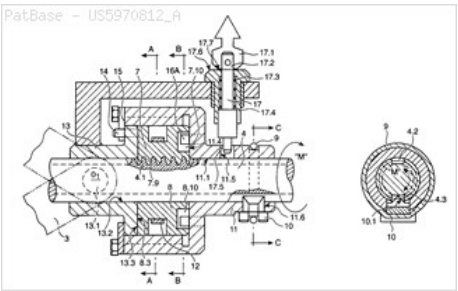
F16H25/20 F16H25/24 (Advanced/Non-invention); B23Q5/22 B25B1/00 B66F3/00 F16H25/20 F16H25/24 (Core/Invention)

International (IPC 1-7): B23Q5/40 B25B1/12 B60S9/06 B66F3/08 B66F3/12 F16H1/18 F16H25/20 F16H25/24

CPC: Y10T74/19735 Y10T74/19805 B66F3/12 B23Q5/408 B25B1/125 F16H25/2025

European: B23Q5/40F B25B1/12B B66F3/12 F16H25/20G

US: 269/181 74/424.78 74/424.8A 74/424.94



Family:

Publication number	Publication date	Application number	Application date
AT210789 E	20011215	AT19950928941T	19950818
AU199532516 A1	19960314	AU19950032516	19950818
AU704054 B2	19990415	AU19950032516	19950818
BRPI9509067 A	19981103	BR1995PI09067	19950818
CA2198244 AA	19970221	CA19952198244	19950818
CA2198244 C	20020521	CA19952198244	19950818
CN1117018 A	19960221	CN19941014934	19940818
CN2238823 Y	19961030	CN19942018458U	19940818
DE69524603 D1	20020124	DE19956024603	19950818
DE69524603 T2	20020912	DE19956024603T	19950818
EP0774599 A1	19970521	EP19950928941	19950818
EP0774599 A4	20000503	EP19950928941	19950818
EP0774599 B1	20011212	EP19950928941	19950818
JP10504374 T2	19980428	JP19960507682T	19950818
JP3510895 B2	20040329	JP19960507682T	19950818
KR100390382 B1	20031023	KR19970701069	19970218
KR19970705714 A	19971009	KR19970701069	19970218
PL179442 B1	20000929	PL19950318678	19950818
PL318678 A1	19970707	PL19950318678	19950818
RU2140591 C1	19991027	RU19970104020	19950818
RU97104020 A	19990327	RU19970104020	19970318
US5970812 A	19991026	US19970801216	19970218
WO9606292 A1	19960229	WO1995CN00068	19950818

Priority:

CN19941014934 19940818 CN19942018458U 19940818 WO1995CN00068 19950818

Probable Assignee: BEIJING FAN CHAOLAI INT HARDWARE TOOLS TECHNOLOGY CO LTD

Assignee(s): (std): AKADEMII NAUK ; CHAN CHUN SKIJ INST OPTIKI I T ; FAN CHAOLAI ; CHAOLAI FAN ; FEHN CHAOLAJ

Assignee(s): CHAN'CHUN'SKIJ INSTITUT OPTIKI I TOCHNOJ MEKHANIKI AKADEMII NAUK ; FAN CHAOLAI C O CHANGCHUN INST ; CHAN CHUN SKIJ INST OPTIKI I TOCHNOJ MEKHANIKI ; BEIJING FAN CHAOLAI INT ; BEIJING FAN CHAOLAI INT HARDWARE TOOLS TECHNOLOGY ; BEIJING FAN CHAOLAI INT HARDWARE TOOLS TECHNOLOGY CO LTD

Inventor(s): (std): CHAOLAI FAN ; FAN CHAOLAI ; FAN YONGJIE ; FEHN CHAOLAJ ; YONGJIE FAN

Agent(s): PHILLIPS ORMONDE FITZPATRICK; ADE AND CO

Designated states: AM AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IS IT JP KE KG KP KR KZ LI LK LR LT LU LV MC MD MG ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TT UA UG US UZ VN

Title: Modified tailgate

Abstract: Source: US2001042985A A panel or cutting table which is preferably substituted for the tailgate for holding a cuttable item to be worked on and for mounting a tool having a blade and for supporting a cuttable item said device being attachable to a vehicle resting on the ground with an extendable central frame which may be reduced in size to be approximately the size of the panel or tailgate replaced and defining a holding mechanism for holding a saw and other tools so that the tools may be rotated to give the proper cut and also having an aligning rule to control the angle of the blade relative to a second aligning rule which holds the item to be cut square. In addition, the panel has a pair of legs capable of receiving two by fours so that a saw horse is provided. Finally, a scaffolding framework is described so that the panel may be used on hot days with a covering.

Classifications:

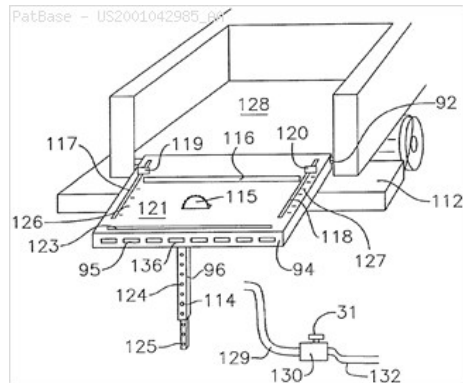
International (IPC 8-9): B60P3/14 (Advanced/Invention);
B60P3/14 (Core/Invention)

International (IPC 1-7): B60P3/00 B62D33/03 B62D33/08

CPC: Y10S83/928 B60P3/14

European: B60P3/14

US: 108/44 182/150 248/235 248/244 296/26.08 296/26.11 296/50 296/57.1 296/571 83/928



Family:

Publication number	Publication date	Application number	Application date
AU199869393 A1	19981022	AU19980069393	19980313
US2001042985 AA	20011122	US20010840319	20010423
US6224127 BA	20010501	US19990304184	19990503
US6824183 BA	20041130	US20030361958	20030210
WO9843869 A1	19981008	WO1998US05296	19980313

Priority:

US19970042867P 19970328	US19970049985P 19970611	US19980041070 19980310
WO1998US05296 19980313	US20010840319 20010423	US20030361958 20030210
US19990304184 19990503	US19980089797P 19980618	

Probable Assignee: WILLIAM HODGE

Assignee(s): (std): HODGE WILLIAM O ; WILLIAM HODGE ; WILLIAM O HODGE

Inventor(s): (std): HODGE WILLIAM O ; WILLIAM O HODGE

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GM GN GR HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TR TT UA UG US UZ VN WZ

Title: **SCAFFOLDING** AND SHORING CONNECTOR

Abstract: Source: GB2326208A A connecting element comprises a central connecting section 35 interconnected to first and second end portions 31,33. The central section 35 includes a rosette or circular disc 73 with a series of connecting ports 75 for connection with elements transverse to the connecting element. The end portions 31,33 have X-shaped cross sectional spigots for connection with non-circular shoring legs 51, and end plates 37 for engaging the ends 53 of the legs 51. Locking pins 61 pass through apertures in the end portions 31,33 and the legs 51. Alternatively, one end of the connecting element can be provided with a removable spigot (33a, Fig 4) for inserting in a **scaffold** tube. The connecting element may also be connected to a telescopic **screw jack** (10, Fig 6).

Classifications:

International (IPC 8-9): E04G5/02 E04G7/20 E04G7/24

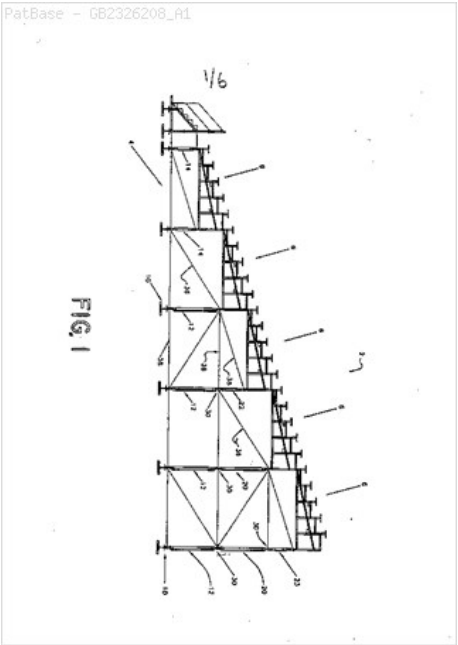
E04G7/30 (Advanced/Invention);

E04G5/00 E04G7/00 (Core/Invention)

International (IPC 1-7): E04G7/20 E04G7/26

CPC: E04G5/02 E04G7/20 E04G7/24 E04G7/301 E04G7/302

European: E04G5/02 E04G7/20 E04G7/24 E04G7/30B E04G7/30C



Family:

Publication number	Publication date	Application number	Application date
CA2205154 AA	19981116	CA19972205154	19970516
CA2205154 C	20020702	CA19972205154	19970516
GB2326208 A1	19981216	GB19980010385	19980515
GB2326208 B2	20010516	GB19980010385	19980515
GB9810385 A0	19980715	GB19980010385	19980515

Priority:

CA19972205154 19970516

Probable Assignee: ALUMA ENTERPRISES INC

Assignee(s): (std): ALUMA ENTERPRISES INC ; ALUMA ENTPR INC

Assignee(s): ALUMA SYSTEMS INC ; HANNIGAN PAUL J ; ROGERS PETER J

Inventor(s): (std): HANNIGAN PAUL J ; ROGERS PETER J

Inventor(s): PAUL J HANNIGAN ; PETER J ROGERS

Agent(s): DENNISON ASSOCIATES

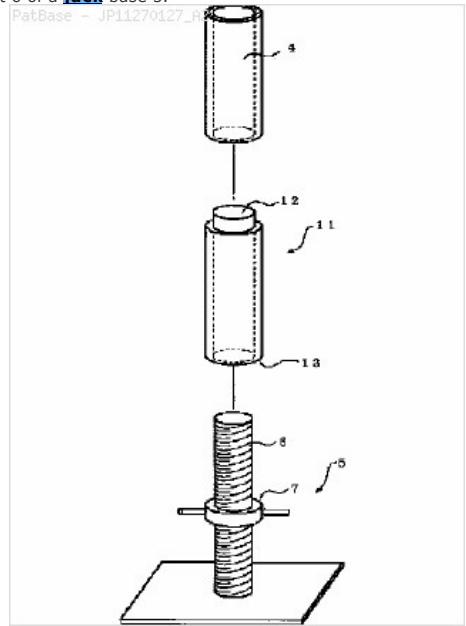
Title: CONNECTING TOOL FOR SCAFFOLD LEG PART

Abstract: Source: JP11270127A PROBLEM TO BE SOLVED: To easily detach a jack base mounted on a roof of a building. SOLUTION: A connecting tool 11 for a scaffold leg part comprises a nearly hollow cylindrical connecting member constituted by a steel pipe, lightweight aluminum pipe, or the like, and the upper end of the connecting member is provided with a fitting projection 12 for fitting into the lower end of a vertical frame pipe 4 constituting a scaffold and for connecting both of them. The lower end 13 of the connecting tool 11 is abutted on the upper surface of a height adjusting support cylinder 7 screwed in the male screw part 6 of a jack base 5.

Classifications:

International (IPC 8-9): E04G3/00 E04G5/02 (Advanced/Invention);
E04G3/00 E04G5/00 (Core/Invention)

International (IPC 1-7): E04G3/12 E04G5/02



Family:

Publication number	Publication date	Application number	Application date
JP11270127 A2	19991005	JP19980098536	19980326

Priority:

JP19980098536 19980326

Probable Assignee: SUMITOMO FORESTRY

Assignee(s): (std): SUMITOMO FORESTRY

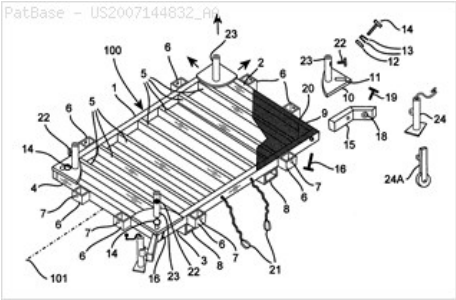
Assignee(s): SUMITOMO FORESTRY CO LTD

Inventor(s): (std): ISHIKAWA ATSUSHI ; SASAKI KOJI

Title: MULTIPLE TASK WORKING PLATFORM

Abstract: Source: US2007144832A A multiple task mobile working platform having a generally rectangular platform frame is provided. An adjustable scaffold leg member support allows for attachment of a variety of scaffolds of different dimensions. An angled tubular bracket allows for attachment of legs members in different positions to allow for maximum stability where there is sufficient space and for a more compact foot print when the working platform must be placed close to a building or object. Precise leveling of the working platform, removable safety side rails and an optional trailer are also disclosed.

Classifications:
International (IPC 8-9): E04C1/00 E04C5/00 (Advanced/Invention); E04C1/00 E04C5/00 (Core/Invention)
CPC: E04G2001/242 E04G1/24 E04G1/28
European: E04G1/24 E04G1/28
US: 182/127 182/63.1



Family:

Publication number	Publication date	Application number	Application date
US2007144832 AA	20070628	US20050319863	20051227
US7624843 BB	20091201	US20050319863	20051227

Priority:

US20050319863 20051227

Probable Assignee: INNOVATIVE SPECIALTIES INC

Assignee(s): (std): CRESSWELL TED A

Assignee(s): INNOVATIVE SPECIALTIES INC

Inventor(s): (std): CRESSWELL TED A

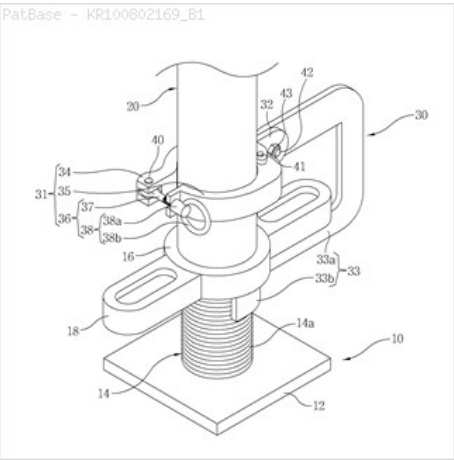
Inventor(s): CRESSWELL TED

Agent(s): THOMAS R SHAFFER 5 EAST THIRD STREET; THOMAS R

Title: FIXING STRUCTURE OF JACK BASE AND SUPPORT

Abstract: Source: KR100802169B A fixing structure of a jack base and a support is provided to carry a scaffold easily by connecting and fixing a jack base and a support strongly using a clamp and keeping the jack base not to be separated from the support when moving a support in an upward direction. A fixing structure of a jack base and a support comprises a jack base(10), a support(20) moved vertically by the jack base, and a clamp(30) connecting and fixing the jack base and the support. The jack base is composed of a square base(12) mounted on the bottom, a cylindrical screw shaft formed vertically on the top of the base and provided with a thread(14a) at the outer circumferential surface, a bearing boss(16) provided with a thread at the inner circumferential surface to engage with the thread of the screw shaft, to rotate and to move vertically and handles(18) formed on two sides of the bearing boss to move the bearing boss vertically on the screw shafts, and the support is fitted with the screw shaft and placed on the bearing boss to move vertically according to the movement of the bearing boss moving vertically on the screw shaft, and the clamp is composed of a support binding unit(31) coupled to the outer circumferential surface of the support, a connecting piece(32) formed on one side of the support binding unit and a jack base holding unit(33) connected to the connecting piece by a fastening member to move vertically.

Classifications:
International (IPC 8-9): E04G25/00 E04G25/04 (Advanced/Invention);
E04G25/00 E04G25/04 (Advanced/Non-invention)



Family:

Publication number	Publication date	Application number	Application date
KR100802169 B1	20080212	KR20070080915	20070810

Priority:

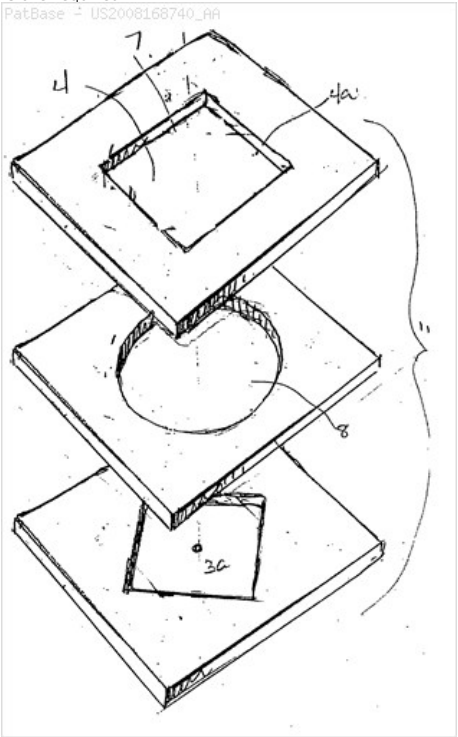
KR20070080915 20070810

Probable Assignee: SEO BO GASEOL IND CO LTD
Assignee(s): (std): SEO BO GASEOL IND CO LTD
Assignee(s): SEO BO GASEOL INDUSTRIAL CO
Inventor(s): (std): LEE BUM SU

Title: MUDSILL

Abstract: Source: US2008168740A An improved mud sill, for use with a generally horizontal baseplate of a base screw jack of a vertical scaffolding member, is taught that is easy to install and remove without tools and with a minimal amount of labor required. The improved mud sill attaches securely to the baseplate of a screw jack or scaffolding assembly without the use of extraneous fasteners, such as nails or screws. A multi-layered recess is provided in the improved mud sill to receive a baseplate axially and then the improved mud sill can be rotated relative to the baseplate to secure it in place. Once installed the improved mud sill of this important invention is restricted three dimensionally to the baseplate and yet it can easily be removed by a counter-rotation. No tools or fasteners are required.

Classifications:
International (IPC 8-9): E04B1/38 E04G1/00 (Advanced/Invention);
E04B1/38 (Core/Invention)
CPC: E04G5/02
European: E04G5/02
US: 182/179.1 248/240.2 52/699 52/699P



Family:

Publication number	Publication date	Application number	Application date
US2008168740 AA	20080717	US20070653117	20070112
US7958967 BB	20110614	US20070653117	20070112

Priority:

US20070653117 20070112

Probable Assignee: LAMBDIN JAMES

Assignee(s): (std): LAMBDIN JAMES

Inventor(s): (std): LAMBDIN JAMES

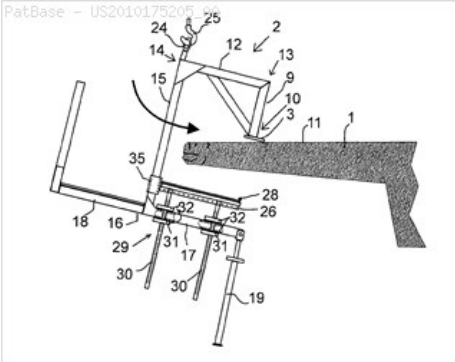
Agent(s): MCKENNA MCGOVERN BURKHART; WOOD PHILLIPS KATZ CLARK AND MORTIMER

Title: **SCAFFOLD** ARRANGEMENT AND METHOD FOR REPAIRING THE EDGE STRUCTURE OF A CONCRETE BRIDGE

Abstract: Source: US2010175205A A **scaffold** arrangement for repairing the edge structure of a concrete bridge. A steel-structured bent comprises a **vertical** beam that can be anchored by **support members** to the upper surface of the bridge. The **vertical** beam extends to a distance above the upper surface of the bridge. An upper horizontal beam is rigidly secured to the upper end of the **vertical** beam and the horizontal beam extends substantially transversely relative to the longitudinal direction of the bridge and over the edge of the bridge. A **vertical** column is secured to the end of the upper horizontal beam. The lower end of the **vertical** column extends down from the edge of the bridge. A lower horizontal beam is secured to the **vertical** column and extends in alignment with the upper horizontal beam. The lower horizontal beam comprises a first beam portion extending from the **vertical** column to a distance below the bridge so that mould walls can be fitted onto the first beam portion, and a second beam portion extending from the **vertical** column to an opposite direction relative to the first beam portion and **supporting** an access bridge. A longitudinally adjustable **support** bar is pivotally connected at one end to the first beam portion and at the other end is **supportable** against the lower surface of the bridge.

Classifications:

International (IPC 8-9): E01D19/10 E01D22/00 E04G3/24 E04G5/04 (Advanced/Invention); E01D19/00 E01D22/00 E04G3/24 E04G5/00 (Core/Invention)
CPC: E04G13/066 E01D22/00 E01D19/106 E01D2101/26 E04G3/24 E04G13/06
European: E01D19/10C E01D22/00 E04G13/06 E04G3/24 P01D101/26
US: 14/77.1 14/77.100P 14/78 182/150 182/150S



Family:

Publication number	Publication date	Application number	Application date
EP2148956 A1	20100203	EP20080761624	20080424
EP2148956 A4	20141022	EP20080761624	20080424
FI20070334 A0	20070427	FI20070000334	20070427
US2010175205 AA	20100715	US20080597622	20080424
US8136191 BB	20120320	US20080597622	20080424
WO08132277 A1	20081106	WO2008FI50221	20080424

Priority:

FI20070000334 20070427 WO2008FI50221 20080424

Probable Assignee: MOLDTECH OY

Assignee(s): (std): AEKRAES TIMO ; DESTIA OY ; DESTIA TIELIKELAITOS ; JORKAMA LOPEZ TOMAS ALBERTO ; VISAMEX OY ; OJANTAUSTA HANNU ; MOLDTECH OY

Inventor(s): (std): AEKRAES TIMO ; JORKAMA LOPEZ TOMAS ALBERTO ; OJANTAUSTA HANNU

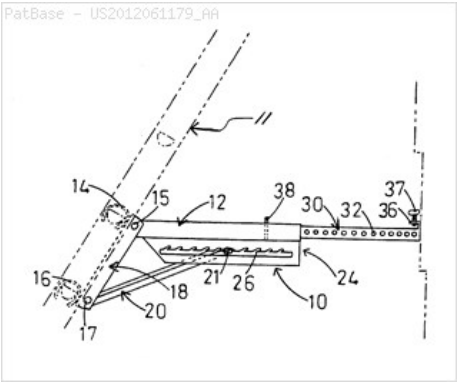
Agent(s): SOEDERMAN PAEIVI KARIN LISBETH; POTOMAC PATENT GROUP PLLC; PAPULA OY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: TELESCOPING LADDER **JACK**

Abstract: Source: US2012061179A A telescoping ladder **jack** includes a housing and telescoping beam matingly inserted into and extracted from the housing such that a first desired effective length of the beam is extracted from the housing. A first locking mechanism fixes the beam at the first length. A bracket defines opposing first and second ends (the first end pivotally attached to an end of the housing) and is mounted to a ladder to mount the **jack** to the ladder. A telescoping tube is mounted to the housing. An adjustable brace is matingly inserted into and extracted from the tube such that a second desired effective length of the brace is extracted from the tube. An end of the brace is pivotally mounted to the second end of the bracket. A second locking mechanism fixes the brace at the second length and housing to a desired angle of incline with respect to the bracket.

Classifications:
International (IPC 8-9): E06C1/04 E06C7/00 (Advanced/Invention)
CPC: E06C7/48
European: E06C7/48
US: 182/117 182/121 182/129 182/129S



Family:

Publication number	Publication date	Application number	Application date
US2012061179 AA	20120315	US20110285130	20111031
US8047330 BA	20111101	US20050321674	20051229

Priority:
US20040640446P 20041230 US20050321674 20051229 US20110285130 20111031

Probable Assignee: ENGLISH JODY JAMES

Assignee(s): (std): ENGLISH JODY JAMES

Inventor(s): (std): ENGLISH JODY JAMES

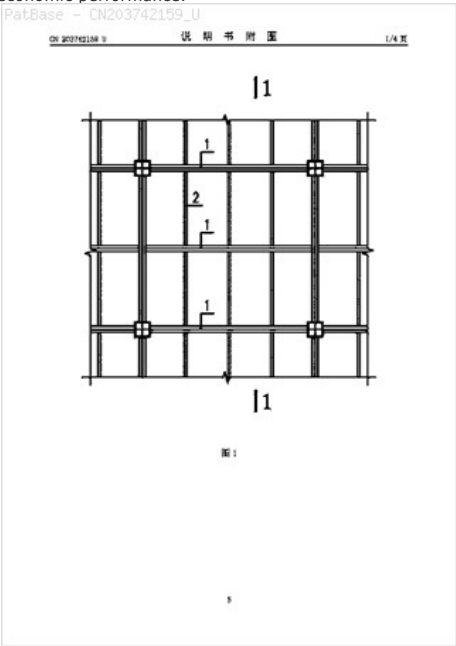
Agent(s): BLISS MCGLYNN PC

Title: STRETCHABLE STEEL TRUSS FORMWORK **SUPPORT**

Abstract: Source: CN203742159U A stretchable steel truss formwork **support** comprises a stretchable steel truss and a wood formwork, wherein the wood formwork is placed on the upper surface of the steel truss, the steel truss is formed by nesting an auxiliary truss body and a main truss body, the auxiliary truss body is a plane truss body in a single-sheet web **member** type, the main truss body is a plane truss body in a double-sheet web **member** type, the end of the auxiliary truss body and the end of the main truss body are respectively provided with a **vertical** rod, the steel truss is **vertical** to building steel beams, one end of each **vertical** rod is provided with an adjusting nut, the other end of each **vertical** rod is provided with a **screw** thread, a round tube is connected with the **vertical** rods through the **screw** threads, and the adjusting nuts and the round tube **jack** the upper wing edges and the lower wing edges of the steel beams respectively. A zinc-plated steel plate bottom die is needless, a wood die serves as a bottom die and can be used repeatedly, and use cost is reduced; a steel tube **scaffold** is not needless, the auxiliary truss body and the main truss body which are of a nested structure are adopted, the nesting depth can be adjusted according to needs, requirements of a floor steel beam cross section and changes of the distance between the steel beams are met, and the formwork **support** is high in adaptability, capable of being repeatedly used and good in economic performance.

Classifications:

International (IPC 8-9): E04G11/36 E04G11/56 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN203742159 U	20140730	CN201420075170U	20140221

Priority:

CN201420075170U 20140221

Probable Assignee: JIN TIANDE

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Assignee(s): LEE LEAVES AGAIN

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