

1) Family number: 31304525 (US2006053729A)

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Title: SYSTEM, METHOD AND DEVICE FOR PRODUCING A SUPPORTING FRAMEWORK OR RIGID GIRDER

Abstract: Source: US2006053729A [EN] The invention provides a system, a method and a device for manufacturing a **truss** of framework from joined bar-elements and **connection**-elements inserted therebetween at joints, the bar-elements consisting of at least one segment of a material of high-growing plants, and the **connection**-elements consisting of a rigid, regenerative material. The ends of the bar-elements and/or the **connection**-elements are machined to exhibit surfaces of geometrical bodies, such that in the area of the joint, on each of the two bodies there is provided one surface which is a cylinder, cone, prism or pyramid, at least in selected areas, as well as another complementary surface which can be respectively plugged together with adjoining surfaces. The device comprises a cutting tool for machining of at least one **connection**-element and/or of the ends of bar-elements which are to be joined thereto.

Classifications:

International (IPC 8-9): B27C3/06 B27F1/16 B27G15/00 E04B1/18 E04B1/19 E04B1/26 E04B1/48 E04B1/58 E04C3/02 E04C3/12 E04C3/16 E04H12/00 F16B12/12 F16B12/24 (Advanced/Invention); E04B1/18 E04B1/19 E04B1/26 E04B1/58 E04C3/02 (Advanced/Non-invention);

B27C3/00 B27F1/00 B27G15/00 E04B1/48

F16B12/00 (Core/Invention);

E04B1/19 E04B1/26 (Core/Non-invention);

E04B (Subclass/Invention);

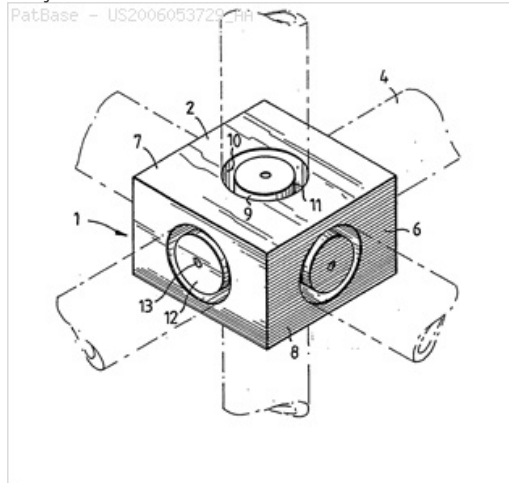
E04B (Subclass/Non-invention)

International (IPC 1-7): E04B1/18 E04B1/19 E04B1/48 E04B1/58 E04C3/02 E04C3/16 E04C3/28 E04C3/46 F16B12/12 F16B12/24 F16B7/00 F16S3/08

CPC: B27C3/06 B27F1/16 E04B1/2604 E04B1/48 E04B2001/1984 E04B2001/2652 F16B12/125 E04B1/1903 E04B1/1909 E04B1/1912 E04B2001/1924 E04B2001/1927 E04B2001/1945 E04B2001/1957 E04B2001/196 E04B2001/1972 E04B2001/1987 E04B2001/2668 E04B1/585 B27G15/00

European: B27C3/06 B27F1/16 B27G15/00 B27M3/00D2 E04B1/19 E04B1/48 E04B1/58C2C F16B12/04 F16B12/12M P04B1/19B P04B1/19B2 P04B1/19B3 P04B1/19C P04B1/19C1 P04B1/19C6 P04B1/19D P04B1/19D1 P04B1/19D4 P04B1/19G2 P04B1/19G3 P04B1/26B P04B1/26B14

US: 52/655.1 52/655.100P



Family:

Publication number	Publication date	Application number	Application date
AP2000 A	20090508	AP20040003171	20030424
AP200403171 A0	20041231	AP20040003171	20030424
AT354001 E	20070315	AT20030747118T	20030424
AU2003232501 AA	20031110	AU20030232501	20030424
AU2003232501 AB	20050106	AU20030232501	20030424
AU2003232501 BB	20080103	AU20030232501	20030424
BRPI0309496 A	20050209	BR2003PI09496	20030424
CA2483531 AA	20041025	CA20032483531	20030424
CA2483531 C	20101130	CA20032483531	20030424
CN1650074 A	20050803	CN20038009216	20030424
CN1650074 B	20100526	CN20038009216	20030424
CO5631468 A2	20060428	CO20040117087	20041122
CU23306 A3	20080819	CU20040000243	20041025
DE10218597 A1	20030327	DE20021018597	20020425
DE10218597 C2	20030731	DE20021018597	20020425
DE20215594 U1	20030102	DE20022015594U	20021010
DE50306507 D1	20070329	DE20035006507	20030424
EA006344 B1	20051229	EA20040001421	20030424
EA200401421 A1	20050630	EA20040001421	20030424
EP1497504 A2	20050119	EP20030747118	20030424
EP1497504 B1	20070214	EP20030747118	20030424
ES2282651 T3	20071016	ES20030747118T	20030424
IN02633CN2004 A	20070921	IN2004CN02633	20041123
IN246534 B	20110311	IN2004CN02633	20041123
JP2005528541 T2	20050922	JP20030588024T	20030424
JP4399274 B2	20100113	JP20030588024T	20030424
KR101012984 B1	20110210	KR20047016872	20030424
KR20050016356 A	20050221	KR20047016872	20030424
MXPA04010588 A1	20050527	MX2004PA10588	20030424
NO20045127 A	20050125	NO20040005127	20041124
NO332216 B1	20120730	NO20040005127	20041124
NZ536705 A	20070531	NZ20030536705	20030424
OA12813 A	20060710	OA20041000292	20030424
PT1497504 T	20070531	PT20030747118T	20030424
US2006053729 AA	20060316	US20050512409	20050701
VN10539 A1	20120925	VN20040001254	20030424
WO03091507 A2	20031106	WO2003EP04264	20030424

WO03091507 A3	20040401	WO2003EP04264	20030424
WO04094842 A1	20041104	WO2004EP04393	20040426
ZA200409432 A	20060329	ZA20040009432	20041123
ZA200409432 A	20060222	ZA20040009432	20041123

Priority:

DE20021008597 20020425 DE20021018597 20020425 DE20022015594U 20021010
WO2003EP04264 20030424 DE20035006507 20030424

Probable Assignee: HEIKE WALLNER AUTOMATION GMBH

Assignee(s): (std): BAMBUTEC INT GMBH ; BAMBUTEC INTERNAT GMBH ; HEIKE WALLNER AUTOMATION GMBH ; WALLNER ULRICH

Assignee(s): HEIKE WALLNER AUTOMATION GMBH percent ; BAMBUTEC INTERNATIONAL GMBH

Inventor(s): (std): ULRICH WALLNER ; WALLNER ULRICH

Agent(s): E F WELLINGTON AND CO; EF WELLINGTON AND CO; MACRAE AND CO; SCOTT R FOSTER, PANDISCIO AND PANDISCIO; SCOTT R FOSTER PANDISCIO AND PANDISCIO

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

2) Family number: 14860720 (GB1374108A)

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Title: BUILDING FRAMEWORK STRUCTURE

Abstract: Source: GB1374108A [EN] 1374108 Structural joints HITACHI ZOSEN KK 17 Dec 1971 [10 Sept 1971 18 Nov 1971 1 Dec 1971] 58746/71 Heading F2M [Also in Division E1] H-section elongate steel column members 1 are interconnected by an H-section **connecting** member 7 having its web engaged in opposed longitudinal slots 4 in the webs 2 and its flanges 8 in slots 3 in the flanges 3, the members being welded together at 9 and 74. The H-section elongate members preferably form the vertical side members of prefabricated room units and horizontal beams of the room units may be welded to the sides or ends of the flanges of the **connecting** member. Two sets of room units may be set up side by side and further **connecting** beams attached to the **connecting** units to increase the building frontage without increasing the size of room unit to be transported Many modifications are disclosed including **connecting** members 7 having flanges with enlarged ends, and H-section elongate members in which the slots in the flanges are merely edge rebates. In forming the room unit metal flooring members may be welded to the beams before they and the **connecting** members are secured to the ports. A modified **connecting** member may be formed by welding two H-section members together in parallel, the column members then having two slots in each end of their webs.

Classifications:

International (IPC 8-9): E04B1/24 E04B1/348

E04B1/58 (Advanced/Invention);

E04B1/348 (Advanced/Non-invention);

E04B1/24 E04B1/348 E04B1/58 (Core/Invention);

E04B1/348 (Core/Non-invention);

E04G (Subclass/Non-invention)

International (IPC 1-7): E04B1/00 E04B1/18 E04B1/24 E04B1/348

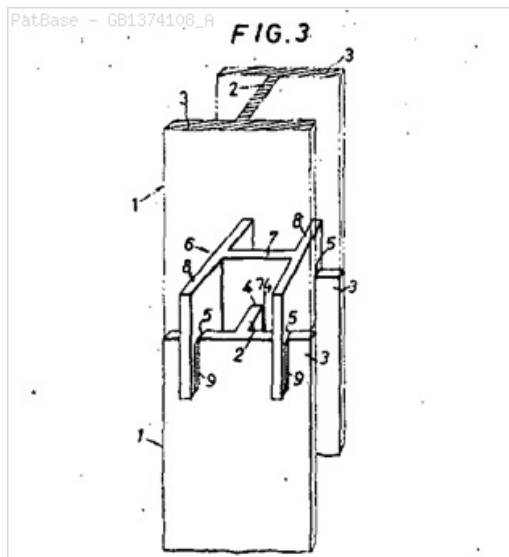
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CPC: E04B1/2403 E04B1/3483 E04B2001/2445 E04B2001/2448

E04B2001/2463 E04B2001/2484

European: E04B1/24B E04B1/348C3 P04B1/24B22 P04B1/24B40

P04B1/24B52 P04B1/24E



Family:

Publication number	Publication date	Application number	Application date
DE2207075 A1	19730322	DE19722207075	19720215
DE2207075 B2	19740919	DE19722207075	19720215
DE2207075 C3	19750430	DE19722207075	19720215
FR2152500 A1	19730427	FR19710047553	19711230
FR2152500 B1	19741220	FR19710047553	19711230
GB1374108 A	19741113	GB19710058746	19711217
IT951675 A	19730710	IT19710054802	19711217
JP48036918 A2	19730531	JP19710070644	19710910
JP48057444 A2	19730811	JP19710092627	19711118
JP48060414 A2	19730824	JP19710097472	19711201
JP52040125 B4	19771011	JP19710070644	19710910

Priority:

JP19710070644 19710910 JP19710092627 19711118 JP19710097472 19711201

Probable Assignee: HITACHI SHIPBUILDING ENG CO

Assignee(s): (std): HITACHI SHIPBUILDING ENG CO

Assignee(s): HITACHI ZOSEN KK ; HITACHI SHIPBUILDING ENG JA ; HITACHI SHIPBUILDING AND ENGINEERING CO LTD ; HITACHI SHIPBUILDING AND ENGINEERING CO LTD OSAKA ; HITACHI SHIPBUILDING AND ENGINEERING CO LTD OSAKA JAPAN ; HITACHI SHIPBUILDING ENG

Inventor(s): (std): KAWABATA UICHIRO ; TSURUMI NARIYOSHI ; URUSHIBATA NORIAKI

Inventor(s): TSURUMI NARIYOSHI TOKIO

3) Family number: 30222074 (US2004055244A)

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Title: FRAMEWORK **CONNECTION** SYSTEM

Abstract: Source: US2004055244A [EN] A display framework **connection** system comprising a plurality of frame members, preferably tubular, a plurality of end flanges, and a hub system. The hub system can comprise a hub plate assembly and/or a hub casting assembly. In addition, at least one clamp assembly, preferably cylindrical, can be included for circumferential attachment to the outer surface of the frame members to provide for selective removable fastening of various attachments and accessories at positions along the length of the frame members. The hub plate assembly and the hub casting assembly can be **connected** individually to the frame members, or in combination, to enable selective angular configuration of the frame members to construct a frame construction, such as those commonly utilized in display frame systems.

Classifications:

International (IPC 8-9): A47B43/00 E04B1/38 E04B1/58 E04C3/02 E04G7/00 E04H1/12 E04H12/00 E04H17/00 F16B7/18 F16B9/02 F16D1/00 G09F15/00 (Advanced/Invention); E04B1/58 F16B21/16 (Advanced/Non-invention); A47B43/00 E04B1/38 E04B1/58 E04C3/02 E04G7/00 E04H1/12 E04H12/00 E04H17/00 F16B7/18 F16B9/00 F16D1/00 G09F15/00 (Core/Invention); E04B1/58 F16B21/00 (Core/Non-invention); E04C (Subclass/Invention)

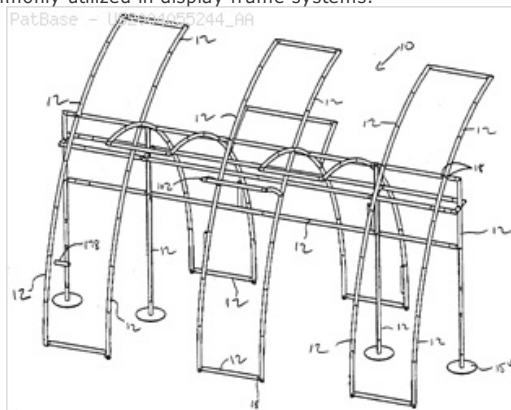
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CPC: Y10T403/341 G09F15/0068 E04B1/5837 E04B2001/5868 E04H1/1272 F16B7/185 F16B9/026 F16B21/16

European: E04H1/12E F16B7/18C F16B9/02C G09F15/00C P04B1/58C2 P04B1/58H R16B21/16

US: 403/170 52/633 52/653.1 52/653.2 52/653.200P 52/655.1 52/655.100S 52/81.3 526/551 D8/382 D8/396

Locarno class: 08/08



Family:

Publication number	Publication date	Application number	Application date
AU2003251599 AA	20040106	AU20030251599	20030623
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EP1534103 A2	20050601	EP20030761265	20030623
EP1534103 A4	20071031	EP20030761265	20030623
US2004055244 AA	20040325	US20030601843	20030623
US2006242923 AA	20061102	US20060396261	20060330
US2009205286 AA	20090820	US20090322715	20090205
US7024834 BB	20060411	US20030601843	20030623
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USD508396 S1	20050816	US20040198145F	20040126
USD516417 S1	20060307	US20030192073F	20031017
USD534064 S1	20061226	US20040214262F	20040930
WO04001152 A2	20031231	WO2003US19755	20030623
WO04001152 A3	20040624	WO2003US19755	20030623
WO04001152 B1	20041021	WO2003US19755	20030623

Priority:

US20020390489F 20020621	US20020390489P 20020621	US20030192073F 20031017
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US20040214262F 20040930	US20030601843F 20030623	US20030601843 20030623
WO2003US19755 20030623	US20090322715 20090205	

Probable Assignee: SKYLINE DISPLAYS LLC

Assignee(s): (std): SKYLINE DISPLAYS INC ; GIMPEL DIXON S ; LINDBLOM CURTIS H

Assignee(s): MB FINANCIAL BANK NA ADMINISTRATIVE AGENT AS ; SKYLINE DISPLAYS LLC ; SKYLINES DISPLAYS INC

Inventor(s): (std): CURTIS H LINDBLOM ; DIXON S GIMPEL ; GIMPEL DIXON S ; LINDBLOM CURTIS H

Inventor(s): LINDBLOM CURTIS ; GIMPEL DIXON

Agent(s): MACPHERSON LESLIE AND TYERMAN LLP; PATTERSON THUENTE SKAAR AND CHRISTENSEN PA; DOUGLAS J CHRISTENSEN PATTERSON THUENTE SKAAR AND CHRISTENSEN PA

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

4) Family number: 31170964 (US2004211140A)

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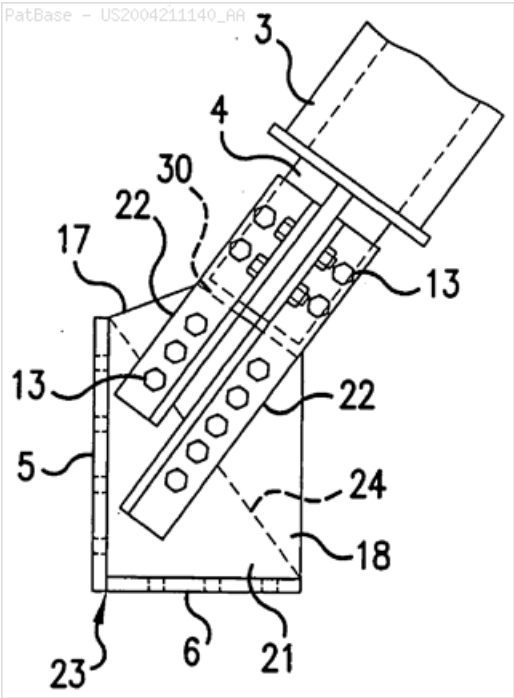
Title: JOINT STRUCTURE USING A GUSSET PLATE, A BUILDING USING THE JOINT STRUCTURE AND A METHOD OF ASSEMBLING OR REINFORCING A BUILDING

Abstract: Source: US2004211140A [EN] A joint structure includes a splice plate and a gusset plate, which can prevent out-of-plane buckling of the gusset plate without the necessity of welding a stiffening rib plate thereon. The joint structure includes a gusset plate and at least one splice plate **connected** to the gusset plate. Each of the splice plates is constructed from section steel having a non-**rectangular** cross-section. The joint structure can be used in a building during assembly of the building or for reinforcement of the building.

Classifications:

International (IPC 8-9): E04B1/00 E04B1/19 E04B1/24 E04B1/58

E04B1/98 E04H9/02 (Advanced/Invention);
E04B1/19 (Advanced/Non-invention);
E04B1/00 E04B1/19 E04B1/24 E04B1/58 E04B1/98
E04H9/02 (Core/Invention);
E04B1/19 (Core/Non-invention);
E04B (Subclass/Invention)
International (ipc 1-7): E04B1/00 E04B1/19 E04B1/58 E04B1/62
E04H12/00
CPC: Y10T403/34 Y10T403/44 E04B1/24 E04B2001/1918
E04B2001/2406 E04B2001/2415 E04B2001/2451 E04B2001/2454
E04B2001/2496
European: E04B1/24 P04B1/19B4 P04B1/24B2 P04B1/24B4
P04B1/24B41 P04B1/24B42 P04B1/24W
US: 403/169 403/217 52/167.1 52/167.3 52/393 52/395 52/655.1



Family:

Publication number	Publication date	Application number	Application date
■ CN1298944 C	20070207	CN200410036934	20040423
■ CN1607300 A	20050420	CN200410036934	20040423
■ HK1076498 A1	20070601	HK20050108346	20050922
■ HK1076498 A3	20060120	HK20050108346	20050922
■ JP2004324270 A2	20041118	JP20030121839	20030425
■ JP4044483 B2	20080206	JP20030121839	20030425
■ TW200424406 A	20041116	TW20040109944	20040409
■ TWI265993 B	20061111	TW20040109944	20040409
■ US2004211140 AA	20041028	US20040829275	20040422
■ US7703244 BB	20100427	US20040829275	20040422

Priority:

JP20030121839 20030425

Probable Assignee: NIPPON STEEL CORP

Assignee(s): (std): MAEDA YASUSHI ; NIPPON STEEL CORP ; SUZUKI KAZUAKI ; TAKEUCHI TOORU

Inventor(s): (std): KAZUSADA SUZUKI ; SUZUKI KAZUSADA ; TORU TAKEUCHI ; YASUSHI MAEDA ; TORU SUZUKI
KAZUSADA MAEDA YAS ; TAKEUCHI TORU ; TAKEUCHI TOORU ; SUZUKI KAZUAKI ; MAEDA YASUSHI

Inventor(s): KAZUAKI SUZUKI ; SUZUKI KAZUSADA MAEDA YASUSHI TAKEUCHI TORU ; TOORU TAKEUCHI

Agent(s): BIRCH STEWART KOLASCH AND BIRTH LLP

5) Family number: 31304462 (US2007094963A)

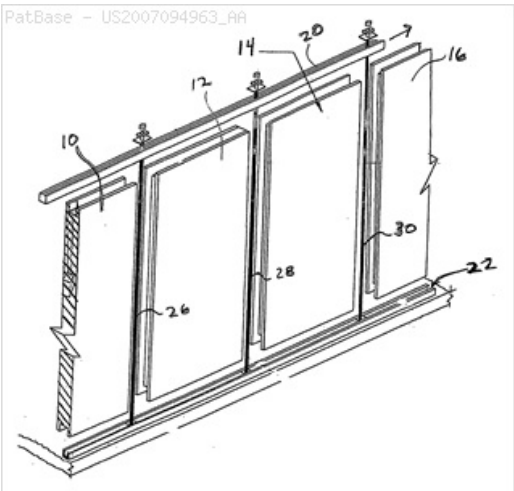
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Title: MODULAR BUILDING PANELS, METHOD OF ASSEMBLY OF BUILDING PANELS AND METHOD OF MAKING BUILDING PANELS

Abstract: Source: US2007094963A [EN] A modular construction system is made of a plurality of panels having peripheral frame elements defining a top channel, a bottom channel, and side channels. An exterior planar sheet and an interior planar sheet element enclose an inner core region that is filled with an adhesive bonding material that attaches the components together.

Classifications:

International (ipc 8-9): E04B1/00 E04B1/14 E04B1/343 E04B1/62
E04B2/00 E04B2/06 E04B2/44 E04B2/46 E04B2/84 E04B7/00
E04C2/20 (Advanced/Invention);
E04B1/35 E04B1/58 F16B37/04 F16B7/18 (Advanced/Non-invention);
E04B1/00 E04B1/02 E04B1/343 E04B7/00 (Core/Invention);
E04B1/35 E04B1/58 F16B37/04 F16B7/18 (Core/Non-invention);
E04B (Subclass/Invention)
International (ipc 1-7): E04B1/00
CPC: E04B1/14 E04B1/34321 E04B1/5806 E04B5/10 E04B5/14
E04B2001/3583 E04B2001/405 E04C2/384 F16B7/187 F16B37/046
European: E04B1/14 E04B1/343C1 E04B5/10 E04B5/14 E04C2/38C
P04B1/35T P04B1/40B P04B1/58B R16B37/04E1 R16B7/18N
US: 52/262 52/270 52/270P 52/281 52/293.3 52/309.7 52/586.1
52/741.4 52/745.1 52/745.19 52/775



Family:

Publication number	Publication date	Application number	Application date
US2007094963 AA	20070503	US20040553172	20040419
US2012247043 AA	20121004	US20110373619	20111122
US8065846 BB	20111129	US20040553172	20040419
WO04094739 A2	20041104	WO2004US12046	20040419
WO04094739 A3	20050324	WO2004US12046	20040419

Priority:

US20030463435P 20030417 US20040553172 20040419 US20060553172 20060808
WO2004US12046 20040419 US20110373619 20111122

Probable Assignee: MCDONALD SUSAN NOVY**Assignee(s):** (std): MCDONALD FRANK ; MCDONALD SUSAN N ; MCDONALD SUSAN NOVY ; MCDONALD SUSANNA NOVY**Inventor(s):** (std): MCDONALD FRANK ; MCDONALD SUSAN N ; MCDONALD SUSAN NOVY ; MCDONALD SUSANNA NOVY**Agent(s):** VENABLE LLP; ANDREW C

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

6) Family number: 31552679 (US2008222989A)

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Title: METAL ROOF **TRUSS CONNECTION**

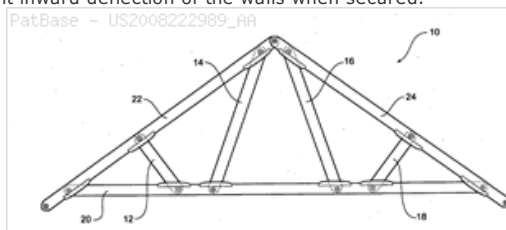
Abstract: Source: US2008222989A [EN] A novel **connection** means between chord members and stiffening members of a metal roof **truss**. Each member includes internally pressed circular sections adapted to engage one another and thereby provide for a joint having greater shear strength than conventional joints. Each member includes two parallel side walls adapted to engage one another, this further strengthening the joint in that there are two **connecting** surfaces, and located between each engaged walls is a cylindrical ferrule adapted to prevent inward deflection of the walls when secured.

Classifications:

International (IPC 8-9): E04B1/38 E04C3/08 E04C3/09 E04C3/10 E04C3/11 F16B9/00 (Advanced/Invention); E04B1/58 E04C3/04 (Advanced/Non-invention); E04B1/38 E04C3/04 F16B9/00 (Core/Invention); E04B1/58 (Core/Non-invention); E04B E04C (Subclass/Invention)

International (IPC 1-7): E04B1/38 E04C3/08 E04C3/09 E04C3/11

CPC: E04C3/11 E04B2001/5868 E04C3/09 E04C2003/0473 Y10T403/3906

European: E04C3/09 E04C3/11 P04B1/58H P04C3/04S3U**US:** 403/188 52/641**Family:**

Publication number	Publication date	Application number	Application date
AP200603538 A0	20060430	AP20060003538	20040806
AU2003904103 A0	20030821	AU20030904103	20030806
AU2004263547 AA	20050217	AU20040263547	20040806
AU2004263547 BB	20090507	AU20040263547	20040806
NZ544855 A	20071130	NZ20040544855	20040806
US2008222989 AA	20080918	US20040567280	20040806
WO05014944 A1	20050217	WO2004AU01045	20040806
ZA200600101 A	20090826	ZA20060000101	20060123

Priority:

AU20030904103 20030806 AU20040263547 20040806 WO2004AU01045 20040806

Probable Assignee: QUICKFRAME TECHNOLOGIES PTY LTD

Assignee(s): (std): GREEFF LEON WILLEM ; PEACOCK GRAHAM JOHN ; QUICK FRAME TECHNOLOGIES PTY L ; QUICK FRAME TECHNOLOGIES PTY LTD ; QUICKFRAME STEEL FRAMES PTY LT ; QUICKFRAME TECHNOLOGIES PTY LT ; QUICKFRAME TECHNOLOGIES PTY LTD

Assignee(s): VLAEBERG PTY LTD ; QUICKFRAME STEEL FRAMES PTY LTD

Inventor(s): (std): PEACOCK GRAHAM JOHN ; WILLEM GREEFF LEON ; JOHN PEACOCK GRAHAM ; GREEFF LEON WILLEM ; GREEFF LEON WILLEM

Inventor(s): LEON WILLEM GREEFF ; GRAHAM JOHN PEACOCK**Agent(s):** PEGASUS IP; IP SOLVED ANZ PTY LTD; RALPH C FRANCIS FRANCIS LAW GROUP

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

7) Family number: 33120987 (EP1681407A2)

© PatBase

Title: A METHOD FOR MANUFACTURING A BUILDING BY USING A FRAME ELEMENT, A FRAME ELEMENT AND TIGHTENING AND LOCKING PIECES FOR A FRAME ELEMENT

Abstract: Source: EP1681407A2 [EN] A method to manufacture a house using a multi-purpose frame element, whereby the frame element is formed of two metal profile joists, at a distance from each other, and of wooden beams (2) placed between them to adjust their distance from installed wooden beams (2). The length the of the frame element is adjusted by means of the length chosen for wooden beams (2) and said wooden beams (2) are bound to the metal profiles by means of a tightening and locking stretching member (3), which is fitted to fitted to twine both around wooden beam (2) in its longitudinal

direction and around attaching part (4) included in the metal profile joist (1) and the formed frame element is used as support frame for the needs of the building industry.

Classifications:

International (IPC 8-9): E04B2/86 E04C3/292 E04C3/38 E04G11/12 E04G17/04 (Advanced/Invention); E04B2/86 (Advanced/Non-invention); E04C3/29 E04C3/38 E04G17/04 (Core/Invention); E04B2/86 (Core/Non-invention); E04C (Subclass/Invention)
International (IPC 1-7): E04C
CPC: E04C3/292 E04B2/8647 E04B2002/8688 E04C3/38 E04G17/042 E04G17/045
European: E04C3/292 E04C3/38 E04G17/04B E04G17/04C P04B2/86H P04B2/86S

PatBase - EP1681407_A2

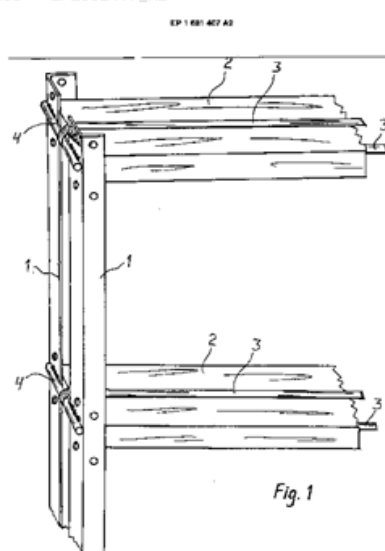


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
EP1681407 A2	20060719	EP20060396002	20060113
EP1681407 A3	20130626	EP20060396002	20060113
EP1681407 B1	20160720	EP20060396002	20060113
FI117299 B	20060831	FI20050000042	20050114
FI200500042 A	20060715	FI20050000042	20050114
FI200500042 A0	20050114	FI20050000042	20050114

Priority:

FI20050000042 20050114

Probable Assignee: SALONEN TOMMI

Assignee(s): (std): SALONEN TOMMI

Inventor(s): (std): SALONEN TOMMI

Agent(s): NIEMINEN TAISTO TAPANI; KOLSTER OY AB

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

8) Family number: 44662377 (US2011173907A)

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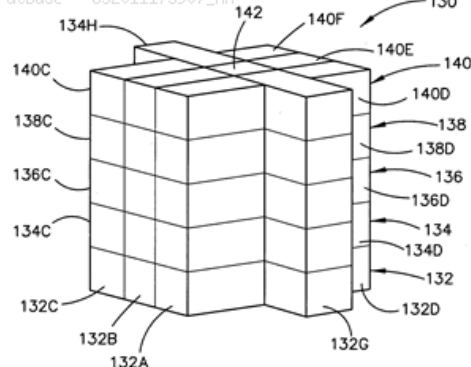
Title: UNITISED BUILDING SYSTEM

Abstract: Source: US2011173907A [EN] The invention provides a method of building a building having a plurality of levels using. The building includes a plurality of building unit assemblies (2) wherein each building unit assembly is structurally self supporting and has at least one sidewall (4), a floor (8) and a roof (10), the method including the steps of: lifting the building unit assemblies (2) into position in the building so that each level of the building includes a predetermined number of units (2); **connecting** adjacent units (2) to one another in each level; and **connecting** units (2) in one level to corresponding units in at least one adjacent level that is vertically above or below the one level. In one form the building unit assembly (2) includes a building unit including two sidewalls (4) and (6) floor (8) and roof (10) with structural frame segments (16, 18, 20, 22) attached thereto.

Classifications:

International (IPC 8-9): E04B E04B1/00 E04B1/02 E04B1/18 E04B1/19 E04B1/343 E04B1/348 E04C E04C3/00 E04C3/30 E04G21/14 E04H E04H1/04 (Advanced/Invention); E04B1/18 E04B1/343 E04B1/348 E04H1/04 (Advanced/Non-invention); E04B1/18 E04B1/343 E04B1/348 E04C3/30 E04H1/04 (Core/Invention); E04B1/18 E04B1/343 E04B1/348 E04H1/04 (Core/Non-invention); E04B E04C E04H (Subclass/Invention)
International (IPC 1-7): E04B1/18 E04B1/343 E04B1/348 E04C3/30 E04H1/04
CPC: E04B1/3483 E04B1/34869 E04B2001/34892 E04C3/30 E04H1/04
European: E04B1/348C3 E04B1/348D E04C3/30 E04H1/04 P04B1/348S
US: 52/236.3 52/236.300P 52/653.1 52/653.100S 52/741.1 52/741.100S 52/745.05 52/745.050S 52/745.2 52/745.200S 52/831 52/831S

PatBase - US2011173907_AA



Family:

Publication number	Publication date	Application number	Application date
AP201105661 A0	20110430	AP20110005661	20090918

AR073616 AA	20101117	AR2009P103601	20090918
AU2009295271 AA	20100325	AU20090295271	20090918
AU2016206222 AA	20160804	AU20160206222	20160718
BRPI0918934 A2	20160719	BR2009PI18934	20090918
CA2737725 AA	20100325	CA20092737725	20090918
CL2011000546 A1	20110916	CL20110000546	20110315
CN102216539 A	20111012	CN200980146142	20090918
CN102216539 B	20141217	CN200980146142	20090918
EG26544 A	20140210	EG20110030424	20110317
EP2329083 A1	20110608	EP20090813896	20090918
EP2329083 A4	20160406	EP20090813896	20090918
IL211773 A0	20110630	IL20090211773	20090918
IL211773 A1	20150730	IL20090211773	20090918
IN02078CN2011 A	20120203	IN2011CN02078	20110325
JP2012503116 T2	20120202	JP20110527154T	20090918
JP5643205 B2	20141217	JP20110527154T	20090918
KR20110079882 A	20110711	KR20117008757	20090918
MX2011003007 A1	20110627	MX20110003007	20090918
RU2011115137 A	20121027	RU20110115137	20090918
RU2518580 C2	20140610	RU20110115137	20090918
TH105639 A	20101230	TH20091004238	20090918
TW201022503 A	20100616	TW20090131709	20090918
US2011173907 AA	20110721	US20090119710	20090918
WO10031129 A1	20100325	WO2009AU01236	20090918
ZA201102039 A	20120530	ZA20110002039	20090918

Priority:

AU20080904874 20080918 AU20090295271 20090918 AU20090901219 20090320
WO2009AU01236 20090918 AU20160206222 20160718

Probable Assignee: EKCO PATENT AND IP HOLDINGS PTY LTD

Assignee(s): (std): EHKO PEHTENT AND AJPI KHOLDINGZ PITIUAJ EHLTIDI ; EKCO PATENT AND AMP IP HOLDINGS PTY LTD ; EKCO PATENT AND IP HOLDINGS PTY ; EKCO PATENT AND IP HOLDINGS PTY LTD ; KATSALIDIS EPAMINONDAS

Assignee(s): EKCO PATENT AND IP HOLDINGS PTY LTDAU

Inventor(s): (std): EPAMINONDAS KATSALIDIS ; KATSALIDIS EHPAMINONDAS ; KATSALIDIS EPAMINONDAS

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FPA PATENT ATTORNEYS PTY LTD; BLAKE CASSELS AND GRAYDON LLP; HARNECKER; PECKMANN RALF; REINHOLD COHN AND PARTNERS

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 CL 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 PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

9) Family number: 8894394 (WO9117331A1)

© PatBase

Title: STRUCTURE CONSISTING OF PRIMARY AND SECONDARY STRUCTURES

Abstract: A free construction system consisting of secondary structures (B) as modifiable portions such as outer walls, inter-walls, partitions, posts, beams, etc., and primary structures (A) consisting of posts (1), beams (2), walls (3), slabs (4), etc., for supporting the secondary structures. The primary structure (A) is composed of reinforced concrete, structural steel, structural steel concrete or structural steel reinforced concrete, and anchors (6) are disposed at predetermined positions of the upper and lower ends or side surfaces of the posts (1), beams (2), walls (3), slabs (4), etc., of the primary structure (A) determined at the beginning or after construction. Secondary members (B-1, B-2, B-3) as the structural members of the secondary structure (B) are supported by and joined to the anchors (6) of the primary structure (A) either directly or indirectly through receptacles (12), intermediate structures, intermediate support fitting members (13), or the like.

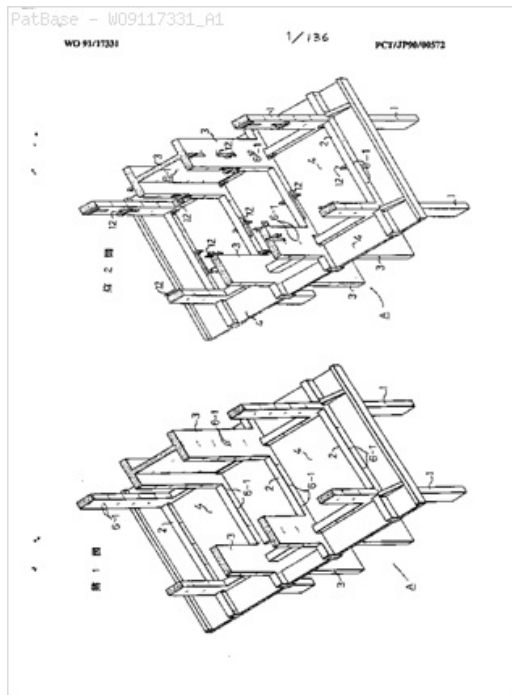
Classifications:

International (IPC 8-9): E04B1/24 E04B1/26 E04B1/30 E04B1/36 E04B2/82 E04H1/00 E04H12/22 (Advanced/Invention); E04B1/41 (Advanced/Non-invention); E04B1/24 E04B1/26 E04B1/30 E04B1/36 E04B2/82 E04H1/00 E04H12/22 (Core/Invention); E04B1/41 (Core/Non-invention); E04H (Subclass/Invention)

International (IPC 1-7): E04B1/24 E04H1/00

CPC: E04B1/24 E04B1/26 E04B1/2612 E04B1/30 E04B1/36 E04B2/825 E04B2001/2415 E04B2001/2448 E04B2001/2457 E04B2001/2463 E04B2001/2481 E04B2001/2484 E04B2001/4192 E04H12/2261 E04H12/2269

European: E04B1/24 E04B1/26 E04B1/26B2 E04B1/30 E04B1/36 E04B2/82C E04H12/22C1 E04H12/22C2 P04B1/24B4 P04B1/24B40 P04B1/24B50 P04B1/24B52 P04B1/24D P04B1/24E P04B1/41R



Family:

Publication number	Publication date	Application number	Application date
AU199054494 A1	19911127	AU19900054494	19900501
AU5449490 A1	19911127	AU19900054494D	19900501
CA2086613 AA	19921231	CA19902086613	19900501
EP0572659 A1	19931208	EP19900906372	19911122
EP0572659 A4	19930816	EP19900906372	19911122
FI924938 A	19921030	FI19920004938	19921030
FI924938 A0	19921030	FI19920004938	19921030
KR19937000748 A	19930316	KR19927002714	19900501
NO924219 A0	19921102	NO19920004219	19921102
WO9117331 A1	19911114	WO1990JP00572	19900501

Priority:

AU19900054494 19900501 WO1990JP00572 19900501

Probable Assignee: AURI KENCHIKU TOSHI KENKYUSHO CO LTD

Assignee(s): (std): AURI KENCHIKU TOSHI KENKYUSHO ; KITAMURA JIRO ; JIRO KITAMURA ; A U R I KENCHIKU TOSHI KENKYUS

Assignee(s): AURI KENCHIKU TOSHI KENKYUSHO CO ; A U R I KENCHIKU TOSHI KENKYUSHO CO ; A U R I KENCHIKU TOSHI KENKYUSHO CO LTD ; AURI KENCHIKU TOSHI KENKYUSHO CO LTD

Inventor(s): (std): KITAMURA JIRO

Inventor(s): JIRO KITAMURA

Agent(s): FB RICE; FB RICE PTY LTD; FETHERSTONHAUGH AND CO

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CM DE DK ES FI FR GA GB HU IT JP KR LI LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG US

10) Family number: 10060126 (EP0624694A2)

© PatBase

Title: PYRAMID SHAPED ROOF **TRUSS** PARTICULARLY FOR A GLAZED ROOF.

Abstract: The **connecting** parts (3) and a union part are interconnected using a basic part (6) cut from a massive bar profile with units outside a vertically running toothed profile (10) for each support (7). The supports are cut away with a width which is equal to the height of the hollow cross-section of the box profile (2). The **connection** parts (3) and/or the union part are cut away from the massive bar profile with such a height that in the area of the toothed profile (10) they have at the bottom and top with applied supports (7) approximately the same height. At the top the union part at least in the area of the toothed profile (10) is inclined in the same angle as the supports (7).

Classifications:

International (IPC 8-9): E04B7/02 E04C3/44 E04D13/03

E04D3/06 (Advanced/Invention);

E04B7/06 E04D3/08 (Advanced/Non-invention);

E04B7/02 E04C3/38 E04D13/03 E04D3/02 (Core/Invention);

E04B7/06 (Core/Non-invention)

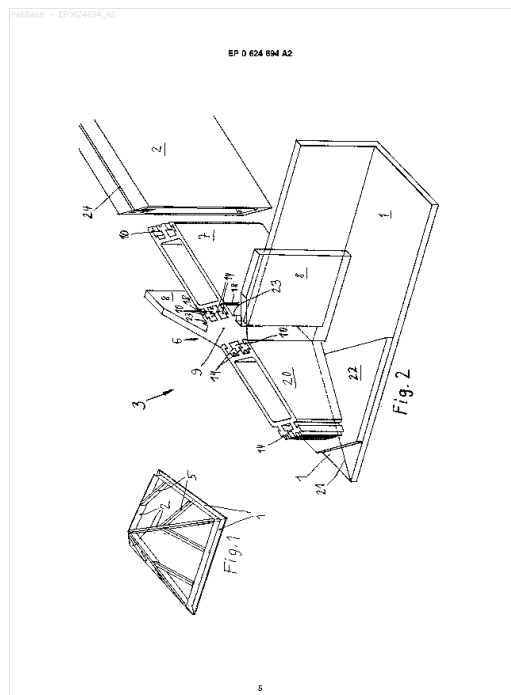
International (IPC 1-7): E04B7/02 E04B7/06 E04D3/06

CPC: E04B7/028 E04B2007/066 E04C3/44 E04D3/06 E04D13/03

E04D2003/0806 E04D2003/0868 E04D2003/0875 E04D2003/0881

European: E04B7/02D E04C3/44 E04D13/03 E04D3/06 P04B7/06A1

P04D3/08P1 P04D3/08S P04D3/08S1 P04D3/08S2



Family:

Publication number	Publication date	Application number	Application date
AT148758 E	19970215	AT19940106630T	19940428
DE4316063 C1	19940818	DE19934316063	19930513
DK0624694 T3	19970811	DK19940106630T	19940428
EP0624694 A2	19941117	EP19940106630	19940428
EP0624694 A3	19950301	EP19940106630	19940428
EP0624694 B1	19970205	EP19940106630	19940428
ES2099504 T3	19970516	ES19940106630T	19940428

Priority:

DE19934316063 19930513

Probable Assignee: PHILIPPI GERD

Assignee(s): (std): PHILIPPI GERD

Assignee(s): PHILIPPI GERD 66793 SAARWELLINGEN DE

Inventor(s): (std): PHILIPPI GERD

Inventor(s): PHILIPPI GERD 66793 SAARWELLINGEN DE

Designated states: AT BE CH DK ES FR GB IT LI LU NL SE

11) Family number: 10191371 (US4733508A)

© PatBase

Title: Multi-sided building construction

Abstract: Source: US4733508A [EN] A multi-sided building construction assembly having a plurality of side wall units, a like plurality of generally triangularly configured roof panels, a like plurality of combination union brackets, and a like plurality of footing brackets, with a roof center hub support having a like number of sides. The combination union bracket is configured for being received and **connected** atop the adjacent edges of adjacent side wall units, and include a pair of upwardly and angularly disposed roof **connecting** brackets. The roof center hub support has a number of side edges, each of which is disposed at the angle necessary for the pitch of the roof panel, which is supported at one end by the brackets of the union bracket member, and at the other end by the roof center hub support. The footing brackets include angularly disposed arms at the appropriate angle for the polygon, and attach beneath adjacent edges of adjacent side wall units and may be attached to a concrete slab. Footing straps are included for attachment to the footing brackets to maintain structure alignment if the structure is not to be erected atop a slab of other foundation.

Classifications:

International (IPC 8-9): E04H1/12 (Advanced/Invention);

E04B1/00 (Advanced/Non-invention);

E04H1/12 (Core/Invention);

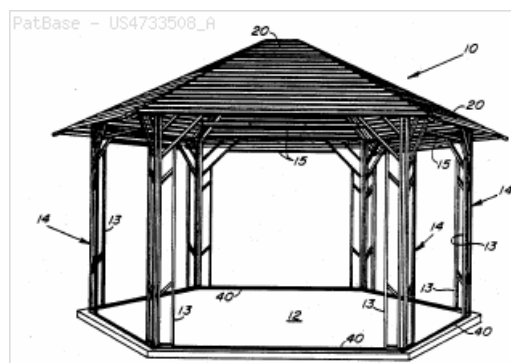
E04B1/00 (Core/Non-invention)

International (IPC 1-7): E04B1/60

CPC: E04B2001/0092 E04H1/1205

European: E04H1/12B P04B1/00S6H

US: 52/236.1 52/90 52/91.1 52/92.2 D25/22 D25/32 D25/56



Family:

Publication number	Publication date	Application number	Application date
US4733508 A	19880329	US19860926099	19861103

Priority:

US19860926099 19861103

Probable Assignee:

GREENBLATT KENNETH A

Assignee(s): (std):

GREENBLATT KENNETH A

Inventor(s): (std):

GREENBLATT KENNETH A

12) Family number: 10208710 (US4742986A)

© PatBase

Title: Apparatus for constructing concrete buildings

Abstract: Source: US4742986A [EN] Apparatus for constructing modular buildings in which a reuseable framing structure is expanded to a shape desired of a building, building material is removably attached to the framing structure, fluent concrete is introduced to the building material, the framing structure is retracted with the building and removed. The framing structure has means for expanding its height and width. It also has means for changing the slope of its roof portion as well as changing the angles of its sides. Thus, many different shaped building can be constructed with the same framing structure.

Classifications:**International (IPC 8-9):** E04B1/35 E04G11/02

E04G11/48 (Advanced/Invention);

E04B2/84 (Advanced/Non-invention);

E04B1/35 E04G11/00 (Core/Invention);

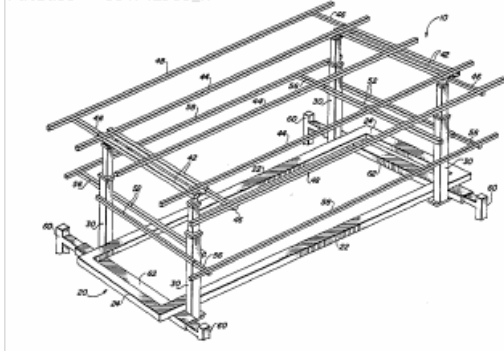
E04B2/84 (Core/Non-invention)

International (IPC 1-7): E04G1/22 E04G17/14**CPC:** E04B1/3505 E04B2/845 E04B2/847 E04B2001/3572 E04G11/02 E04G11/48**European:** E04B1/35A E04G11/02 E04G11/48 P04B1/35N

P04B2/84P2 P04B2/84P3

US: 182/179 182/179.1 182/223 249/13 249/18 249/210 249/27

PatBase - US4742986_A

**Family:**

Publication number	Publication date	Application number	Application date
US4742986 A	19880510	US19850796355	19851107

Priority:

US19850796355 19851107

Probable Assignee:

CSONT ERNEST

Assignee(s): (std):

CSONT ERNEST

Inventor(s): (std):

CSONT ERNEST

13) Family number: 10251098 (US4180232A)

© PatBase

Title: **Truss** panel mold

Abstract: Source: US4180232A [EN] An apparatus is disclosed for forming an integrated **truss** structure wherein the apparatus includes a plurality of male mold members each having a plurality of open grooves formed therein which slope away from the top surface thereof. A plurality of female mold members each have a generally circular recessed cavity with a plurality of open grooves which are orthogonally disposed with regard to one another and which slope away from the plane of the recessed cavity. The male and female members are positioned opposite one another with the grooves in the male and female members being aligned to define strut beam chambers and wherein the top of the male member is aligned with the recessed cavity of the female member to define a junction chamber. Thus, the strut beam chambers slope away from the junction chamber. One of the male members is positioned adjacent each female member, and vice versa, to thereby define alternate symmetrical upper and lower junction chambers interconnected by the strut chambers. Channels are formed, preferably in the female members, for injecting a moldable material such as plastic into the strut beam chambers and the junction chambers. After injection occurs, the molds are separated to thereby form an integrally molded **truss** structure.

Classifications:**International (IPC 8-9):** B22C9/22 B22D17/00 B22D17/22

B29C33/00 B29C45/00 B29C45/26 E04B1/19 E04C2/34 F24J2/20

F24S10/50 (Advanced/Invention);

E04B1/19 (Advanced/Non-invention);

B22C9/22 B22D17/00 B22D17/22 B29C33/00 B29C45/00 B29C45/26

E04B1/19 E04C2/34 F24J2/04 (Core/Invention);

E04B1/19 (Core/Non-invention)

International (IPC 1-7): B22C9/22 B22C9/26 B22D17/00 B22D17/22

B28B7/34 B29C1/14 B29C33/00 B29C45/00 B29D12/00 B29F1/02

B32B3/30 B32B7/14 E04B1/19 E04C2/30 F16S1/00 F16S5/00

F24J3/02

CPC: F24J2/50 F24J2/204 B29C45/26 E04B1/19 E04B2001/1933

E04B2001/1945 E04B2001/1951 E04B2001/1978 E04B2001/1984

E04B2001/199 E04B2001/1993 E04C2/34 Y02E10/44

European: B29C45/26 E04B1/19 E04C2/34 F24J2/20D F24J2/50

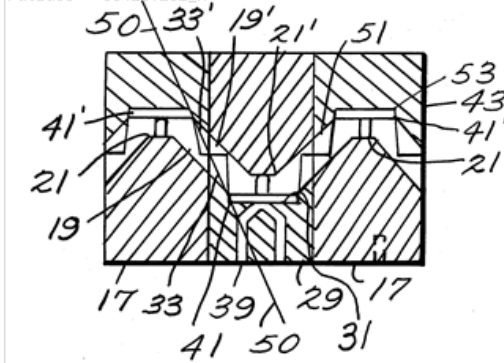
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P04B1/19H P04B1/19K Y02E10/44

US: 249/102 249/109 249/135 249/60 249/80 52/782 52/782.1

52/790.1 52/793

PatBase - US4180232_A

**Family:**

Publication number	Publication date	Application number	Application date
EP0041946 A1	19811223	EP19800900828	19791219
EP0041946 A4	19830131	EP19800900828	19791219
IN162521 A	19880604	IN1983DE00557	19830816

JP2048343 B4	19901024	JP19800500945T	19791219
JP56501715 T2	19811126	JP19800500945T	19791219
US4180232 A	19791225	US19770759233	19770113
US4757665 A	19880719	US19870061037	19870612
WO8101807 A1	19810709	WO1979US01110	19791219

Priority:

US19770759233 19770113 US19810302561 19810819 US19870061037 19870612
WO1979US01110 19791219

Probable Assignee: HARDIGG IND INC

Assignee(s): (std): HARDIGG IND INC ; HARDIGG J ; HARDIGG JAMES S

Inventor(s): (std): HARDIGG J ; HARDIGG JAMES S ; HARDIGG JAMES SUTTON

Inventor(s): HAADEITSUGU JEIMUZU SATSUTON

Designated states: AT BR CH DE FR GB JP LU NL SE US

14) Family number: 10686894 (US5417023A)

© PatBase

Title: Building panel apparatus and method

Abstract: Source: US5417023A [EN] A prefabricated panel is made of a plurality of elongated metal frame members attached together to form a panel framework. At least one stud is attached between two of the panel frame members and has a pair of elongated stud members attached together at each end thereof with a molded polymer composite end member to form a thermal break therein. A metal reinforcing rod is attached to each molded composite end member and extends the length of the stud and may be attached through to the roof rafters or **trusses**. The prefabricated panel may be filled with insulation and have an expanded metal mesh covering on one side to act as a stiffening for the framework and to support a lightweight concrete coating. A method of making a reinforcing stud and panel is provided including molding a pair of end stud members in a predetermined shape and selecting a pair of elongated metal stud members shaped for attachment to the molded end stud members and attaching each stud member at each end to one of the molded end members. An elongated reinforcing metal member is attached through the stud and to each molded end member to provide a reinforcing stud member easily attached to a panel. The method further includes attaching the reinforcing stud into a prefabricated panel.

Classifications:

International (IPC 8-9): E04B2/58 E04B2/84 E04C2/38

E04C3/32 (Advanced/Invention);

E04B2/74 E04B2/84 (Advanced/Non-invention);

E04B2/58 E04C2/38 (Core/Invention);

E04B2/74 E04B2/84 (Core/Non-invention)

International (IPC 1-7): E04B2/56 E04C2/06 E04C2/20 E04C3/30

CPC: E04B2/58 E04B2/7412 E04B2/845 E04C2/384 E04C3/32

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European: E04B2/58 E04B2/84P2 E04C2/38C E04C3/32

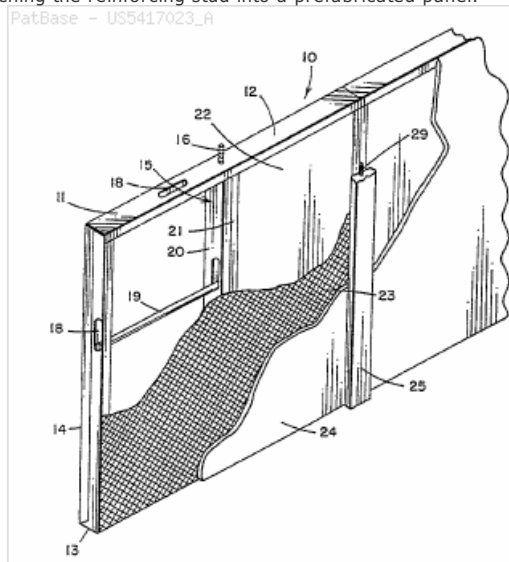
P04B2/74C2P P04B2/84P2

US: 52/144 52/309.13 52/309.14 52/309.17 52/309.8 52/309.9

52/348 52/404.3 52/481.1 52/656.1 52/727 52/731.5 52/731.9

52/732.3 52/733.4 52/745.05 52/745.12 52/745.17 52/DIG.9

523/480 527/451.7



Family:

Publication number	Publication date	Application number	Application date
US5417023 A	19950523	US19930173058	19931227
US5555698 A	19960917	US19950368362	19950104
US5724783 A	19980310	US19960714352	19960916

Priority:

US19930173058 19931227 US19950368362 19950104 US19960714352 19960916

Probable Assignee: MANDISH THEODORE O

Assignee(s): MANDISH THEODORE O

Inventor(s): (std): MANDISH THEODORE O

15) Family number: 1080131 (US3818660A)

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Title: BUILDING FORMED OF CAST VERTICAL AND HORIZONTAL MEMBERS

Abstract: Source: US3818660A [EN] An overall building system consisting of field-assembled, precast components, reinforcing means embedded within site-poured concrete that forms portions of the wall and floor surfaces of the building, with the reinforcing means serving to structurally unite the precast concrete components with the site-poured concrete and support the same against tension forces, shear forces, and lateral shafing forces.

Classifications:

International (IPC 8-9): E04B1/04 E04B1/16

E04B2/86 (Advanced/Invention);

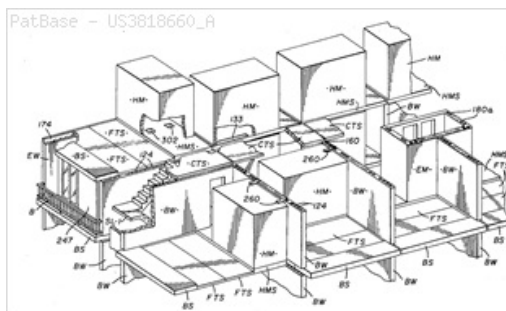
E04B2/86 (Advanced/Non-invention);

E04B1/02 E04B1/16 E04B2/86 (Core/Invention);

E04B2/86 (Core/Non-invention)

International (IPC 1-7): B04B1/00 E04B1/00 E04B1/04 E04B1/16

E04B1/348 E04B1/35 E04B1/38 E04B1/98 E04B2/24 E04B2/56
E04B5/00 E04B5/16 E04B5/17 E04C1/08 E04G21/14 E04G25/06
E04H1/00 E04H1/12
CPC: E04B1/161 E04B2/8629
European: E04B1/16A P04B2/86F1
US: 187/408 52/236.8 52/251 52/259 52/262 52/30 52/602 52/79.11
52/79.13 52/79.14



Family:

Publication number	Publication date	Application number	Application date
AR199928 A1	19741008	AR19730250789	19731031
AU197362033 A1	19750501	AU19730062033	19731031
BG27243 A3	19790914	BG19730024907	19731101
BR7308559 A0	19740905	BR19730008559	19731031
CA1009471 A1	19770503	CA19730184801	19731101
DD111432 C	19750212	DD19730174412	19731101
DE2354316 A1	19740509	DE19732354316	19731030
DE2354316 C2	19840620	DE19732354316	19731030
ES420174 A1	19760501	ES19730420174	19731031
FR2204747 A1	19740524	FR19730038967	19731031
FR2204747 B1	19781020	FR19730038967	19731031
GB1451611 A	19761006	GB19730050444	19731030
HU176390 P	19810228	HU1973FO00686	19731031
IE39416 B	19781011	IE19730001962	19731031
IL43527 A0	19750831	IL19730043527	19731031
IL43527 A1	19760831	IL19730043527	19731031
IN141204 A	19770129	IN1973CA02515	19731115
IT1011014 A	19770120	IT19730053470	19731031
JP50122016 A2	19750925	JP19730123906	19731101
JP53025164 B4	19780725	JP19730123906	19731101
JP946775 C3	19790330	JP19730123906	19731101
NL7315029 A	19740503	NL19730015029	19731101
NO139356 B	19781113	NO19730004166	19731029
NO139356 C	19790221	NO19730004166	19731029
PH10234 A	19761008	PH19730015169	19731031
RO68212 B	19830830	RO19730076499	19731102
RO68212 B1	19830830	RO19730076499	19731102
RO68212 P	19830926	RO19730076499	19731102
US3818660 A	19740625	US19720302678	19721101
US4095380 A	19780620	US19760651460	19760122
YU285073 A	19820630	YU19730002850	19731101
YU40627 B	19860430	YU19730002850	19731101
ZA7308408 A	19741030	ZA19730008408	19731030

Priority:

US19720302678 19721101 US19740482320 19740624

Probable Assignee: FOREST CITY DILLON

Assignee(s): (std): FOREST CITI DILLON INC ; FOREST CITY DILLON ; DILLON T ; FREEMAN J

Assignee(s): DILLON THOMAS J ; FOREST CITY DILLON INC ; FOREST CITY DILLON INC AKRON OHIO US ; FOREST CITY DILLON INC US

Inventor(s): (std): DILLON ; DILLON T ; DILLON T J ; DILLON THOMAS JOSEPH ; DILLON THOMAS J

Inventor(s): DILLON THOMAS J US ; DILLON THOMAS JOSEPH AKRON OHIO US ; JOSEPH DILLON THOMAS ; THOMAS JOSEPH DILLON ; DILLON T US

Agent(s): REINHOLD COHN AND PARTNERS

16) Family number: 10933327 (US6250041B)

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Title: HOLD DOWN BRACKET

Abstract: Source: US6250041B [EN] The present invention relates generally to a bracket (1) which in a preferred embodiment is formed of a single strip of sheet metal comprising an affixture portion or a flat wall frame affixture portion (2) and an anchoring portion or a flat base affixture portion (3) having temporary spacing means in the form of four outwardly protruding teeth (4) projecting from a lower face of the base affixture portion (3). The wall frame affixture portion (2) is secured via affixture fasteners (7) to a structural member of a wall frame in the form of a wall stud (8). The base of affixture portion (3) is secured against the upper surface of a building element or a concrete floor slab (6). In assembly, the teeth (4) provide a temporary gap between the lower face (13) of the base fixture portion (3) and the upper surface of the base or concrete floor slab (6). The bracket (1) is secured to the concrete slab (6) via a bolt or shank (9) pre-anchored to the base (6). A nut (13) is threaded onto the shank (9) whereby tightening of the nut (13) crushes the teeth (4) and tensions the stud (8) via the bracket (1).

Classifications:

International (IPC 8-9): E02D27/00 E04B1/26 E04B1/38 E04B2/56
E04C3/32 (Advanced/Invention);
E04B1/00 F16B9/02 (Advanced/Non-invention);
E02D27/00 E04B1/26 E04B1/38 E04B2/56 E04C3/30 (Core/Invention);
E04B1/00 F16B9/00 (Core/Non-invention)
International (IPC 1-7): E02D27/00 E04B1/38 E04B2/56 E04C5/00

Technical drawing of a door assembly. The drawing shows a cross-section of a door (8) with a lock mechanism (1) mounted on its edge. The lock mechanism includes a handle (15), a lock cylinder (11), and a bolt (13). The handle is connected to the bolt via a linkage (19). The lock is mounted on a base (20) which is secured into the door edge with screws (4). A vertical line (6) indicates the door's edge, and a horizontal line (7) indicates the lock's position. A vertical line (2) indicates the door's edge, and a horizontal line (9) indicates the lock's position.

Publication number	Publication date	Application number	Application date
AU919997 A0	19971009	AU1997PO09199	19970915
JP11256728 A2	19990921	JP19980262071	19980916
US6250041 BA	20010626	US19980152257	19980914

Inventor(s): (std): SECCOMBE CAMPBELL JOHN ; CAMPBELL JOHN SECOM

Inventor(s): (std): ABRAMS FREDRIC L ; FREUND ROBERT F ; MOORE DENNIS A

Title: METAL WALL FRAMING SYSTEM

Abstract: Source: US3845601A [EN] A metal wall framing system for residential and commercial building construction. Channel shaped metal studs are secured between top and bottom channel shaped metal tracks without the use of separate fasteners by an arrangement of lugs, tabs and punched slots that hold the studs tightly to the tracks in a predetermined position.

Classifications:

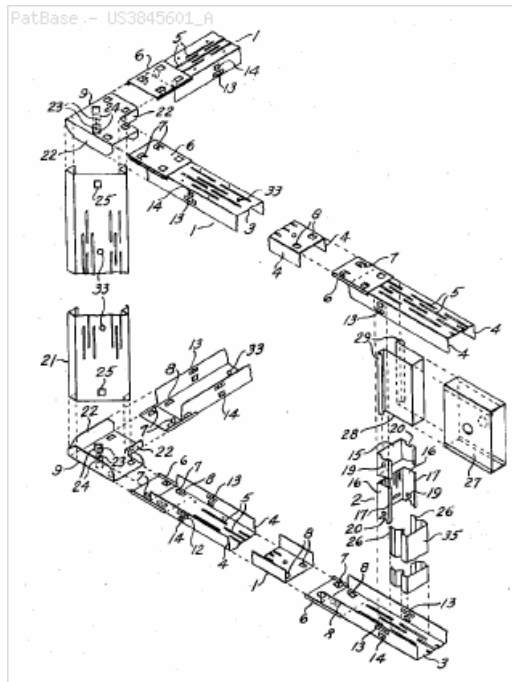
International (IPC 8-9): E04B1/24 E04B2/60 (Advanced/Invention);
E04B2/74 (Advanced/Non-invention);
E04B1/24 E04B2/58 (Core/Invention);
E04B2/74 (Core/Non-invention)

International (IPC 1-7): E04B2/58 E04C2/38

CPC: E04B1/2403 E04B2/60 E04B2/7412 E04B2001/2415
E04B2001/243 E04B2001/2448 E04B2001/2457 Y10T403/4634
Y10T403/60

European: E04B1/24B E04B2/60 P04B1/24B10 P04B1/24B4
P04B1/24B40 P04B1/24B50 P04B2/74C2P

US: 403/242 403/326 52/241 52/29. 52/290 52/656.1 52/690

**Family:**

Publication number	Publication date	Application number	Application date
US3845601 A	19741105	US19730407376	19731017

Priority:

US19730407376 19731017

Probable Assignee:

BETHLEHEM STEEL CORP

Assignee(s): (std):

BETHLEHEM STEEL CORP

Assignee(s):

BETHLEHEM STEEL CORP US

Inventor(s): (std):

KOSTECKY J

Inventor(s):

KOSTECKY J US

Title: Structures having damped floors and a method of damping floors

Abstract: Source: US5875589A [EN] A method of damping floor vibrations and structures having damped floors is provided. Damping article(s) are attached to structural floor (A) (at a floor attachment location) and to at least two anchor attachment locations independently selected from the group consisting of locations on structural beams, structural columns, structural beam(s)/structural column intersection(s); and area(s) of a ground floor/structural floor (which may or may not be the same as structural floor (A)) within about one meter of a column and/or beam.

Classifications:

International (IPC 8-9): E04B1/98 E04B5/43
E04H9/02 (Advanced/Invention);
E04B5/43 E04H9/02 (Advanced/Non-invention);
E04B1/98 E04B5/43 (Core/Invention);
E04H9/02 (Core/Non-invention)

International (IPC 1-7): E04B1/98 E04B5/43

CPC: E04B1/98 E04H9/02S

European: E04B1/98 P04H9/02S

US: 52/1 52/167.1 52/741.1 52/741.3



Fig. 1

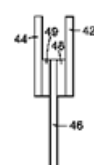


Fig. 2

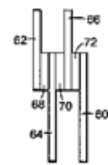


Fig. 3

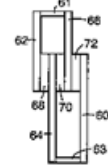


Fig. 4



Fig. 5



Fig. 6

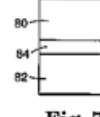


Fig. 7

Family:

Publication number	Publication date	Application number	Application date
AU199878481 A1	19980703	AU19980078481	19971208
CN1102986 C	20030312	CN19971080395	19971208
CN1240012 A	19991229	CN19971080395	19971208
JP2001505972 T2	20010508	JP19980526895T	19971208
US5875589 A	19990302	US19960763272	19961210
WO9826137 A1	19980618	WO1997US22557	19971208

Priority:

US19960763272 19961210 WO1997US22557 19971208

Probable Assignee: MINNESOTA MINNING AND MFG**Assignee(s):** (std): MINNESOTA MINING AND MFG**Assignee(s):** MINNESOTA MINING AND MFG CO ; MINNESOTA MINNING AND MFG ; MINNESOTA MINING AND MANUFACTURING CO ; MINNESOTA MINING AND MANUFACTURING COMPANY**Inventor(s):** (std): GOPALAKRISHNA H S ; GOPALAKRISHNA HAREGOPPA S ; LAI LAI MING ; LAI MING LAI ; MING LAI LAI**Inventor(s):** H S GOPALAKRISHNA**Designated states:** AL AM AT AU AZ BA BB BE BG BR BY CA CH CN CU CZ DE DK EE ES FI FR GB GE GH GR HU ID IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SL SZ TJ TM TR TT UA UG UZ VN YU ZW**20) Family number: 11420201** (WO9945215A1)

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Title: HIGH STRESS RESISTANCE FRAME BUILDINGS AND METHODS AND APPARATUS FOR USE IN CONSTRUCTING THE SAME**Abstract:** An anchor (36, 38, 40, 42) for anchoring an end of at least one flexuous tension member (44, 46) comprising a plurality of substantially rigid wall members (36.3, 36.4, 36.5, 36.6) each of which includes a substantially planar portion, which wall members are joined together along a plurality of common edges to form a unitary anchor body; at least one of said wall members defining a tension member aperture (36.1, 36.2). A building wall section frame and a frame building comprising said anchor.**Classifications:****International (IPC 8-9):** E04B1/00 E04B1/24 E04B1/26

E04B1/35 (Advanced/Invention);

E04B1/00 E04B1/35 (Advanced/Non-invention);

E04B1/24 E04B1/26 (Core/Invention);

E04B1/00 E04B1/35 (Core/Non-invention)

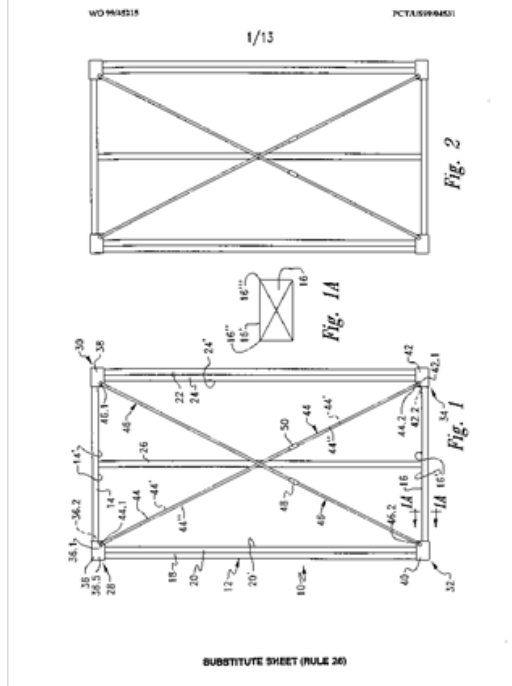
International (IPC 1-7): E04B1/24**CPC:** E04B1/24 E04B1/26 E04B2001/2415 E04B2001/2463

E04B2001/2484 E04B2001/2496 E04B2001/2684 E04B2001/2696

E04B2001/3583

European: E04B1/24 E04B1/26 P04B1/24B4 P04B1/24B52

P04B1/24E P04B1/24W P04B1/26B40A P04B1/35T

**Family:**

Publication number	Publication date	Application number	Application date
AU199928875 A1	19990920	AU19990028875	19990302
WO9945215 A1	19990910	WO1999US04531	19990302

Priority:

US19980034603 19980303 WO1999US04531 19990302

Probable Assignee: DUQUETTE PIERRE E

Assignee(s): (std): DUQUETTE PIERRE E ; PRATT ROBERT F

Assignee(s): ROBERT F PRATT ; PIERRE E DUQUETTE

Inventor(s): (std): DUQUETTE PIERRE E ; PRATT ROBERT F

Inventor(s): ROBERT F PRATT ; PIERRE E DUQUETTE

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU ID IE IL IN 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 SL SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU ZW