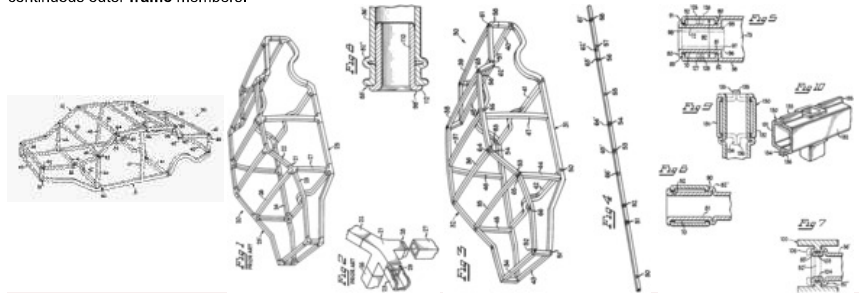


623735 results for ((structure)/TI/AB/IW/CLMS/DESC/ODES/OBJ AND (space)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (frame)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (square)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX) - Collection: FAMPAT

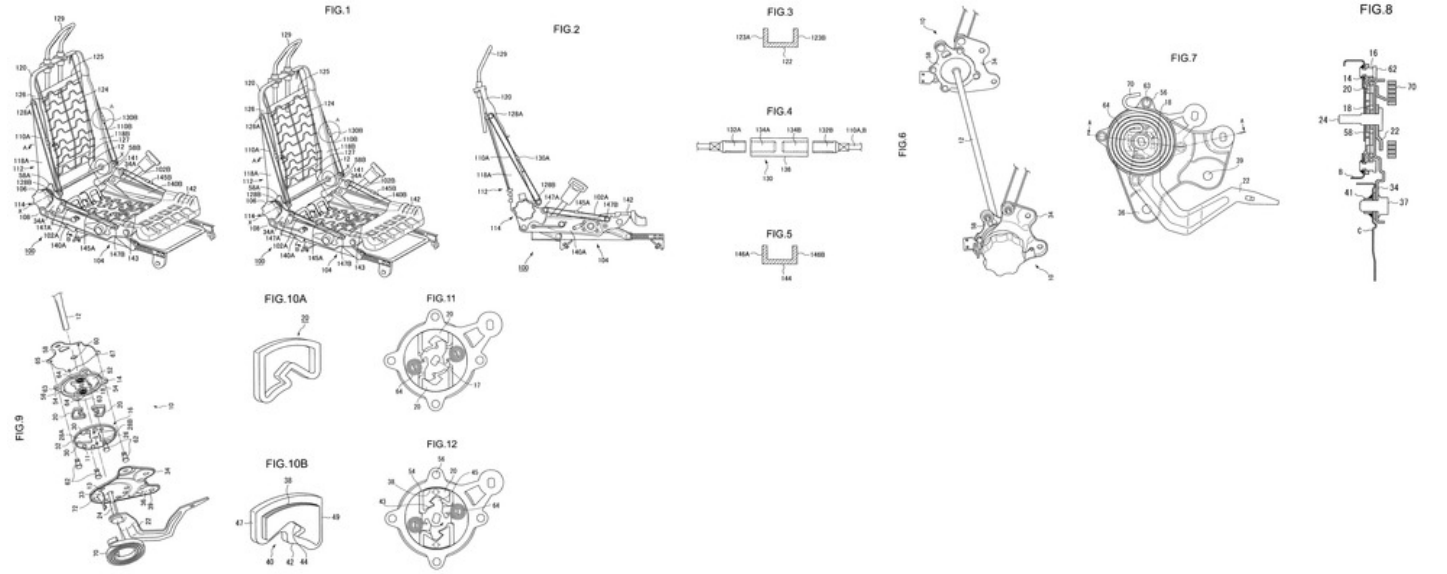
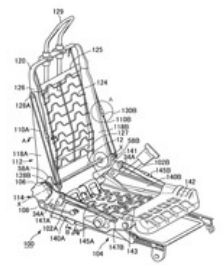
#	Title	Publication number	1st App. date	Applicant/Assignee	1st Publ. date	Publ. date
1.	Space frame apparatus and process for the manufacture of same	WO9504616	1993-08-11	ALCOA ALUMAX EXTRUSIONS* ALUMINUM	1995-02-16	1995-02-16

A **space frame** apparatus (30), and process for constructing same, for use in the construction of various vehicles. The apparatus comprises one or more continuous outer **frame** members (31, 32), each fabricated from a single longitudinal extrusion, and one or more cross-members (34-48). The extrusions include a predetermined number of slots (50-58) for operable acceptance of the ends of the corresponding cross-members, as well as a predetermined number of regions (61'-66') softened through a localized heat induction process. The softened regions are bent to varying radii in predetermined directions relative to the profile of a specific vehicle configuration and then allowed to harden back toward their pre-softened hardness. The ends of the cross-members are also softened through a localized heat induction process, and then deformed so as to create a collar (82) and flange portion (83) operably positioned on opposite sides of each respective slot for securely maintaining the cross-members to the one or more continuous outer **frame** members.

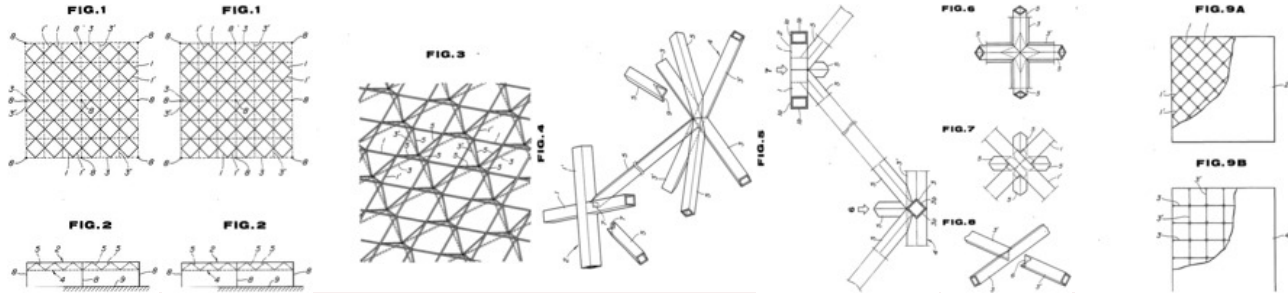
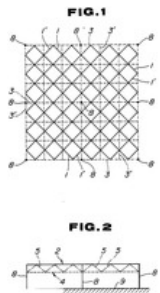


2.	Seat back frame structure of seat for vehicle and seat for vehicle with seat back frame structure	EP2177396	2008-10-20	NHK SPRING*	2010-04-21	2010-04-21
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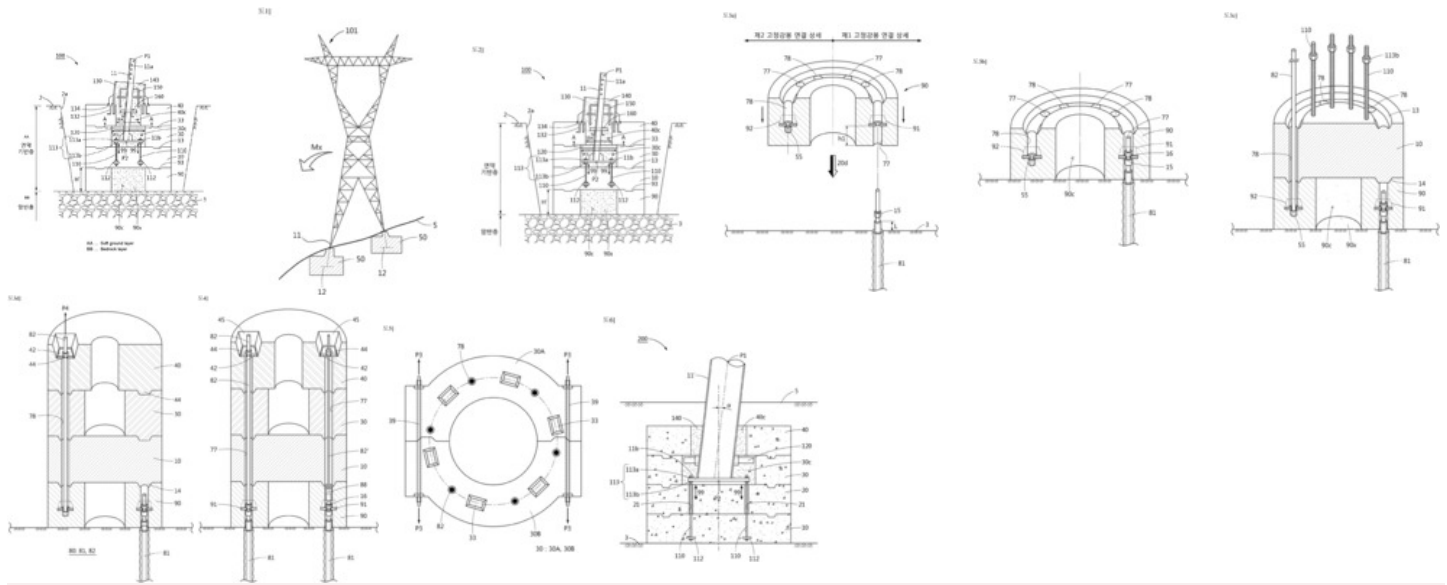
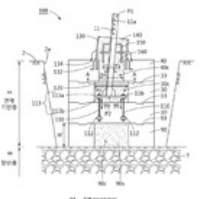
An object of the present invention is to provide a seat back **frame structure** for a vehicle and a seat for a vehicle with such a seat back **frame structure** which are capable of securing a necessary strength or rigidity, while at the same time attaining the decrease of its weight and its cost. There is provided a seat back **frame structure** of a seat for a vehicle comprising a seat back **frame structure** a lower end of which is connected to a rear end of a seat cushion **frame structure** in such a way that the seat back **frame structure** can be inclined relative to the seat cushion **frame structure**, said seat back **frame structure** includes a pair of side frames each of which extends in a vertical direction of the vehicle, and an oblique wire on at least one of said pair of side frames an upper end of which is fixed to a side portion of said at least one of the pair of side frames and a lower end of which is fixed to said seat back **frame structure** at a position forward of a rotational center of said seat back **frame structure**, said oblique wire includes a characteristics in such a way that, in a case where a load toward a rear side of the vehicle is loaded on said seat back **frame structure**, it has a compressive force exert on said seat back **frame structure** so as to alleviate a moment acting on said seat back **frame structure** caused by said load, while it does not resist a



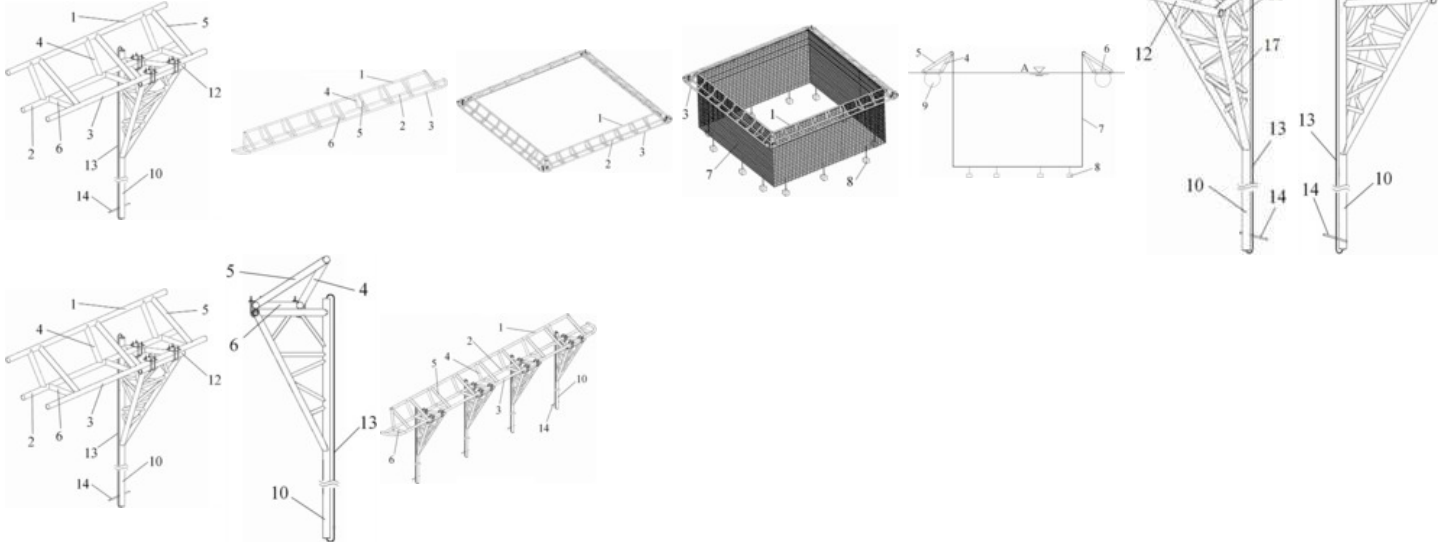
A flat solid truss consists of an upper **frame** body (2) and a lower **frame** body (4) both constructed with **square** steel pipes, and diagonal members (5) joining the upper **frame** body to the lower **frame** body. Each pair of perpendicular two sides (3a,3b) of each of the **square** steel pipes, forming the lower **frame** body, are arranged to make an angle of about 45 degrees to the plane of the lower **frame** body. The diagonal members are arranged to cross at an angle of about 45 degrees to bar members both of the upper and lower **frame** bodies. The flat solid truss provides increased buckling strength because the bar members and the diagonal members may be entirely joined by welding.



The present invention relates to a **structure** for supporting **square** bars of a tower **structure** and a construction method thereof. Provided are the **structure** for supporting **square** bars of a tower **structure**, as a supporting **structure** for a tower **structure** supported by at least two **square** bars, and the construction method thereof, the supporting **structure** comprising: a first precast block integrally coupled with a supporting member to which the **square** bars are fixed; a third precast block, which has a first through-part formed at the center portion thereof and accommodating the lower end portion of the **square** bar coupled to the supporting member, and is disposed to be stacked on the first precast block; at least two fixing steel rods for fixing the first precast block and the third precast block from the ground; and a filler filled in the first through-part in a state in which the lower end portion of the **square** bar is accommodated in the first through-part, thereby simply adjusting the installation heights of the **square** bars at the site even though the installation heights of the **square** bars of the tower **structure** are different from each other, securing the supporting capacity of uniform quality, simplifying construction, minimizing intensive stress applied to a concrete **structure**, and shortening a construction period.



A technical drawing of a crane hook assembly, showing various components labeled with numbers 1 through 14. The drawing illustrates the structural details of the hook, including the main body, the throat, the shank, and the base. The components are labeled as follows: 1. Main body of the hook; 2. Throat; 3. Shank; 4. Base; 5. Lifting eye; 6. Lifting eye pin; 7. Lifting eye nut; 8. Lifting eye washer; 9. Lifting eye bolt; 10. Lifting eye pin; 11. Lifting eye nut; 12. Lifting eye washer; 13. Lifting eye bolt; 14. Lifting eye pin.

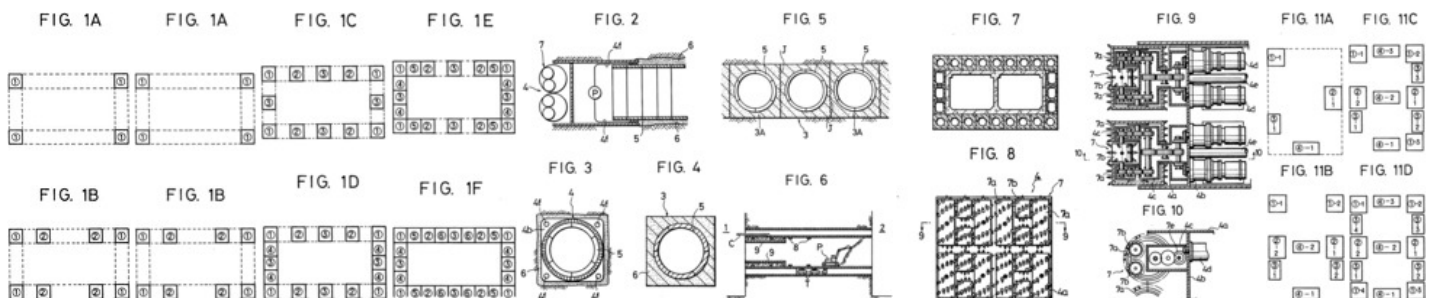
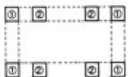


1992-10-07 1992-10-07

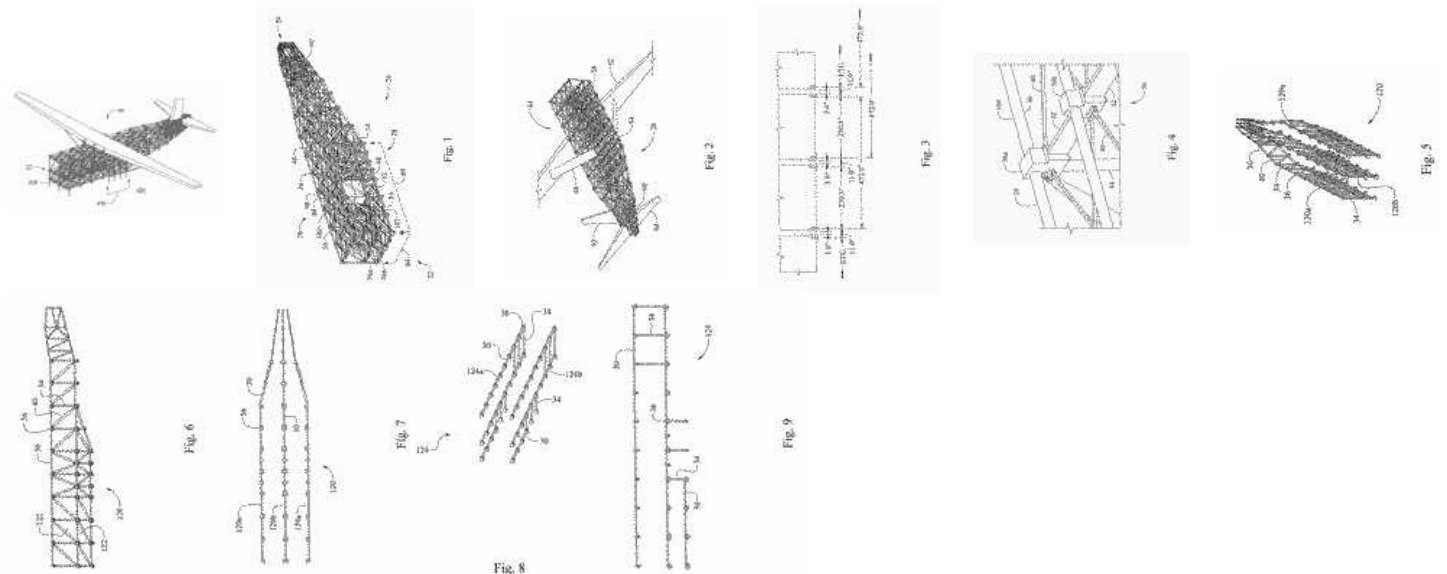
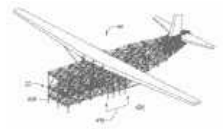
FIG. 1A



FIG. 1B



A method and apparatus for transporting containers in an aircraft. A number of containers is loaded into the aircraft. The aircraft is comprised of first and second outer planar structures, a number of planar structures located between the first outer planar structure and the second outer planar structure, a wing, and a support structure. The first outer planar structure, the second outer planar structure, and the number of planar structures are substantially parallel to each other, are coupled to each other to form a fuselage structure, and are configured to receive the number of containers. The support structure connects the wing to a first bottom end of the first outer planar structure, a second bottom end of the second outer planar structure, and a number of bottom ends of the number of planar structures. The aircraft is operated to transport the number of containers to a destination.



8.

Space frame apparatus and a space frame employing such apparatus

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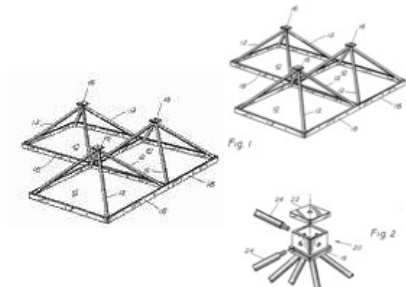
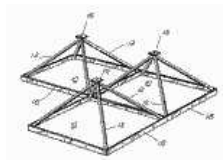
1985-05-22

NOBLE ALFRED H;NOBLE ALFRED HENRY

1985-06-26

1985-06-26

A space frame unit comprises a square tray 10 with elongate members 12 extending from the corners of the tray 10 to be joined at an apex 14 where a plate 16 is fixed. The tray 10 is provided with apertures for bolts which secure adjacent trays 10 in a space frame assembly together.



9.

Assembly structure of square pipe for prefab building

KR20070030013

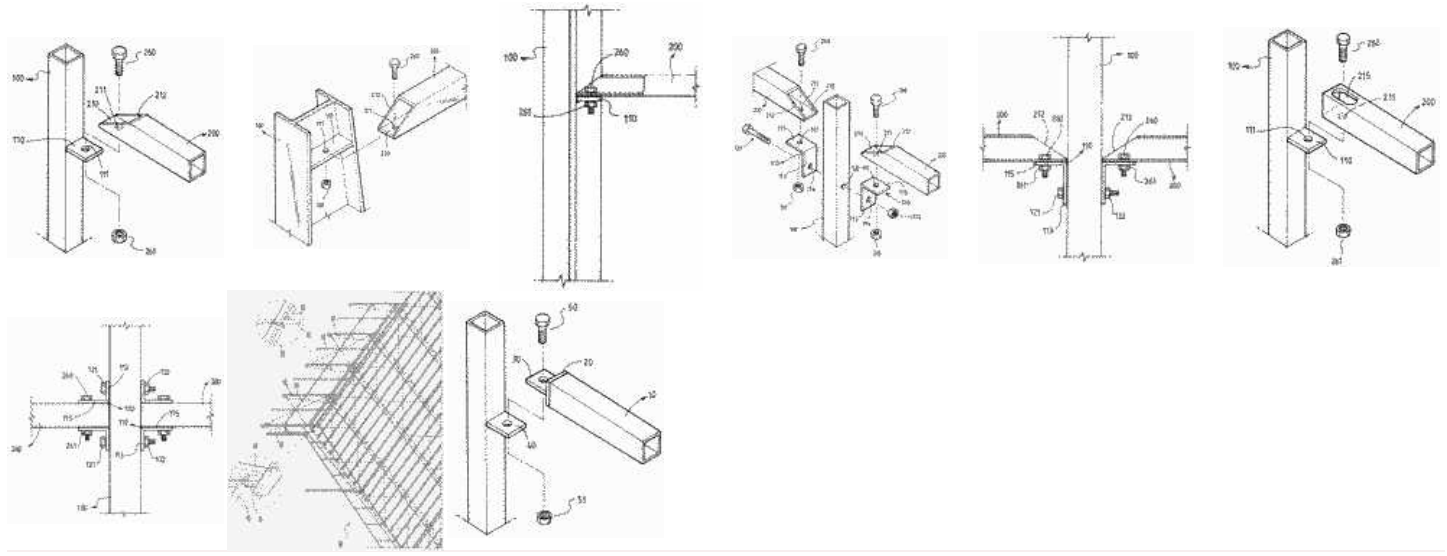
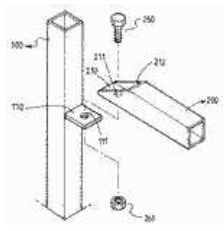
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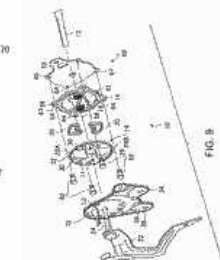
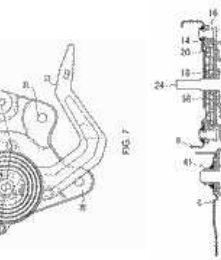
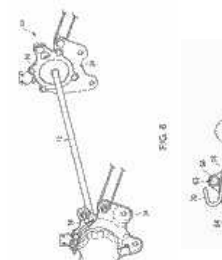
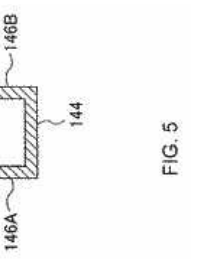
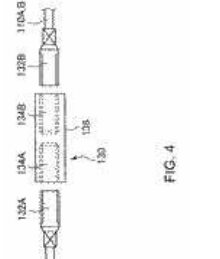
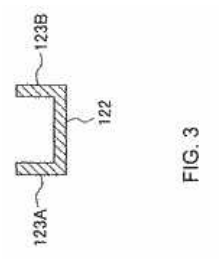
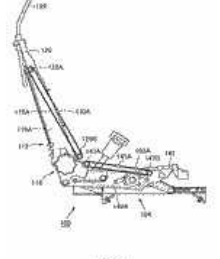
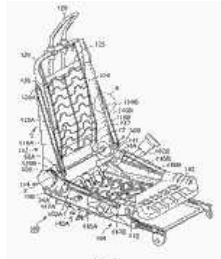
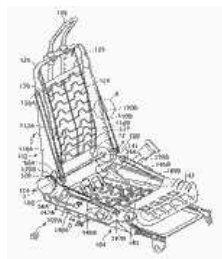
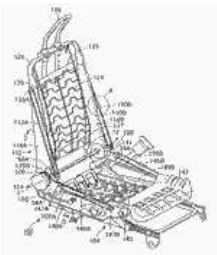
2007-03-15

2007-03-15

An assembly structure of a square pipe for a prefabricated building is provided to ease a construction of a building by installing a fixing piece at the side part of the column like a H-beam, a welding shape steel, a P.E.B system, or a square frame structure and by easily combining with the square pipe at the fixing piece. An assembly structure of a square pipe for a prefabricated building comprises a slant cutting part(212) formed by slantly cutting the end of a square pipe(200); a combining hole(211) perforated to a body(210), opened through the slant cutting part; a bolt(260) and a nut(261) fixed through the slant cutting part; a spreading hole and the combining hole perforated at the body formed on the end of the square pipe; the combining hole opened through the spreading hole; and the bolt and the nut fixed through the spreading hole.



An object of the present invention is to provide a seat cushion **frame structure** (104) of a seat for a vehicle and a seat for a vehicle with such a seat cushion **frame structure** (104) which are capable of securing a necessary strength or rigidity, while at the same time attaining the decrease of a weight and a cost of a seat. There is provided a seat cushion **frame structure** (104) of a seat (100) for a vehicle comprising a seat cushion **frame structure** (104) a rear end of which is connected to a lower end (147A) of a seat back **frame structure** (12) in such a way that the seat back **frame structure** (112) can be inclined relative to the seat cushion **frame structure** (104), said seat cushion **frame structure** (104) includes a pair of side frames (140A,140B) each of which extends in a longitudinal direction of the vehicle, and an oblique wire (102A,102B) on at least one of said pair of side frames (140A,140B) an upper end of which is fixed to a side portion of said at least one of pair of side frames (140A,140B) and a lower end (106) of which is fixed to said seat cushion **frame structure** (104) at a position forward of said upper end, said oblique wire (102A,102B) includes a characteristics in such a way that, in a case where a load toward a rear side of the vehicle is loaded on said seat cushion **frame structure** (104), it has a tension force exert on said seat cushion **frame structure** (104) so as to alleviate a moment acting on said seat cushion **frame structure** (104) caused by said load, while it does not resist a compressive force from outside thereof.



11.

Paper pallet with supported structure utilizing quadrilateral frame

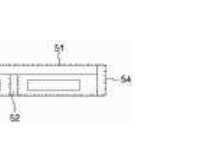
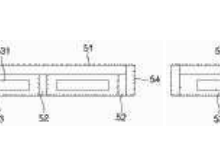
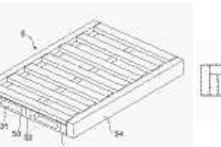
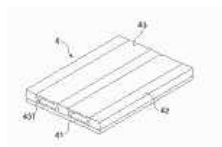
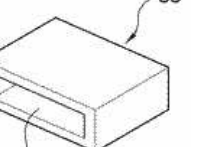
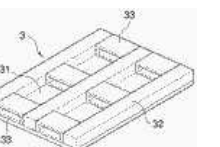
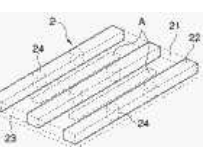
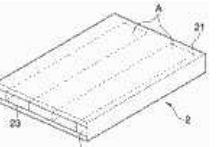
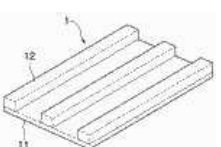
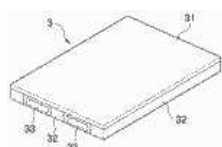
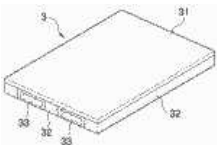
KR20070024184

2005-08-26

HYUNDAI PAPER BOARD & PAKAING*

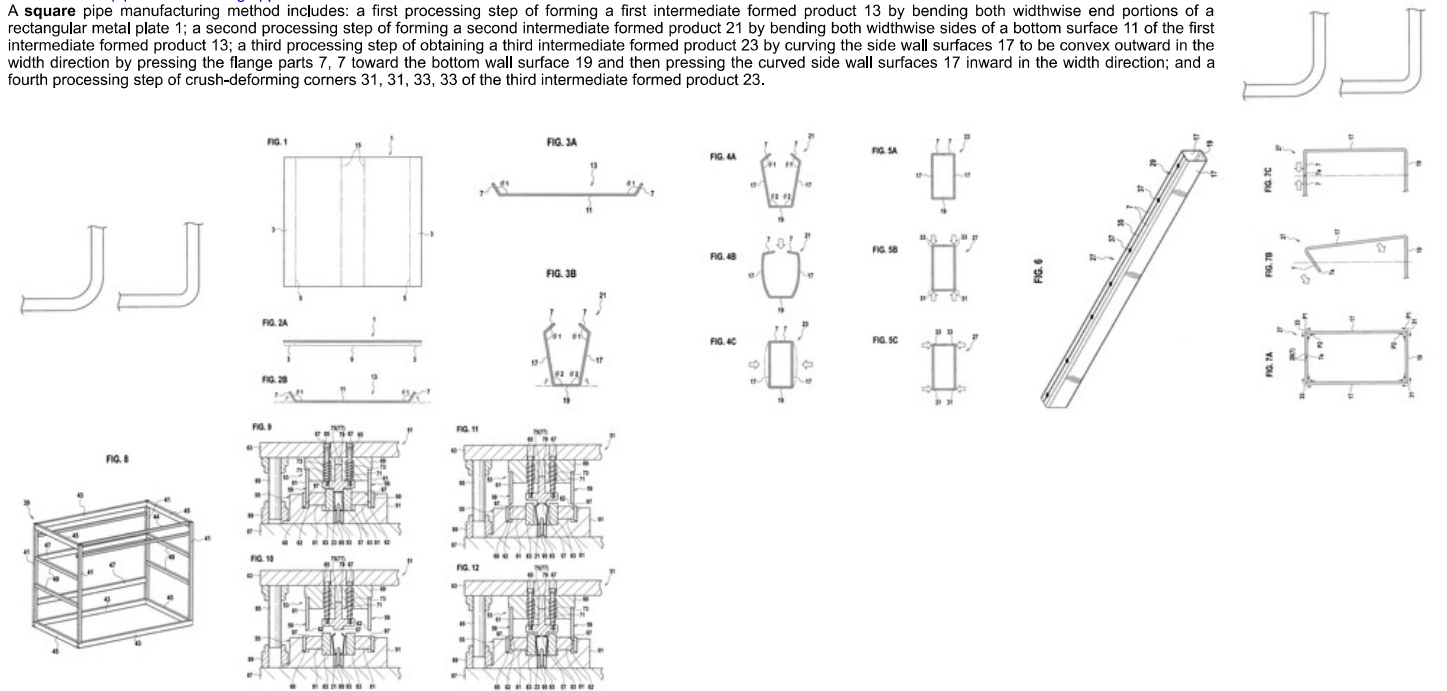
2007-03-02 2007-03-02

A paper pallet having a support **structure** using a **square frame** is provided to prevent marks of an article box placed on an upper plate or deformation of the upper plate and a support bar by entirely supporting the upper plate and enduring high compressive load through installing the **square frame** between the support bars. The paper pallet(3) having a support **structure** using a **square frame**(33) is composed of an upper plate(31) formed like a plane with predetermined width and area so as to place an article box on the upper side; a plurality of support bars(32) arranged and bonded at regular intervals under the upper plate in a vertical direction to prop up the upper plate; and the **square frame** fixed between the support bars.



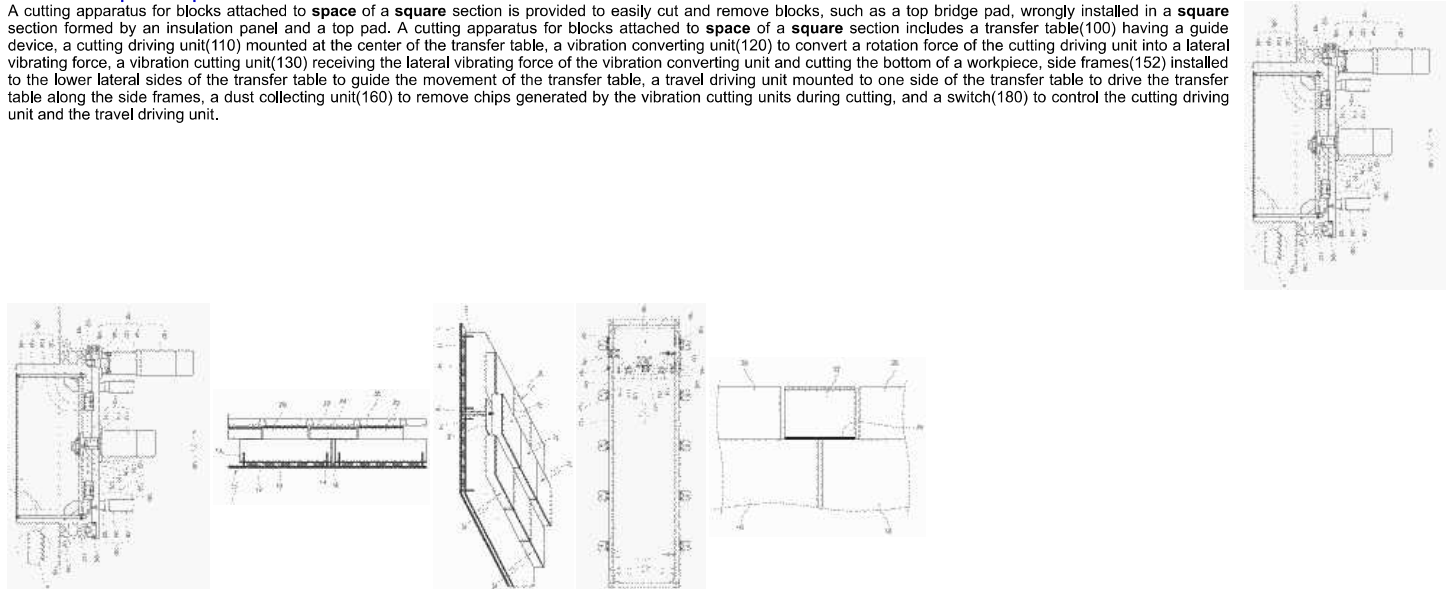
12.	Square pipe, frame structure, square pipe manufacturing method, and square pipe manufacturing apparatus	US2010193064	2009-02-05	TOPRE*	2010-08-05 2010-08-05
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A **square** pipe manufacturing method includes: a first processing step of forming a first intermediate formed product 13 by bending both widthwise end portions of a rectangular metal plate 1; a second processing step of forming a second intermediate formed product 21 by bending both widthwise sides of a bottom surface 11 of the first intermediate formed product 13; a third processing step of obtaining a third intermediate formed product 23 by curving the side wall surfaces 17 to be convex outward in the width direction by pressing the flange parts 7, 7 toward the bottom wall surface 19 and then pressing the curved side wall surfaces 17 inward in the width direction; and a fourth processing step of crush-deforming corners 31, 31, 33, 33 of the third intermediate formed product 23.



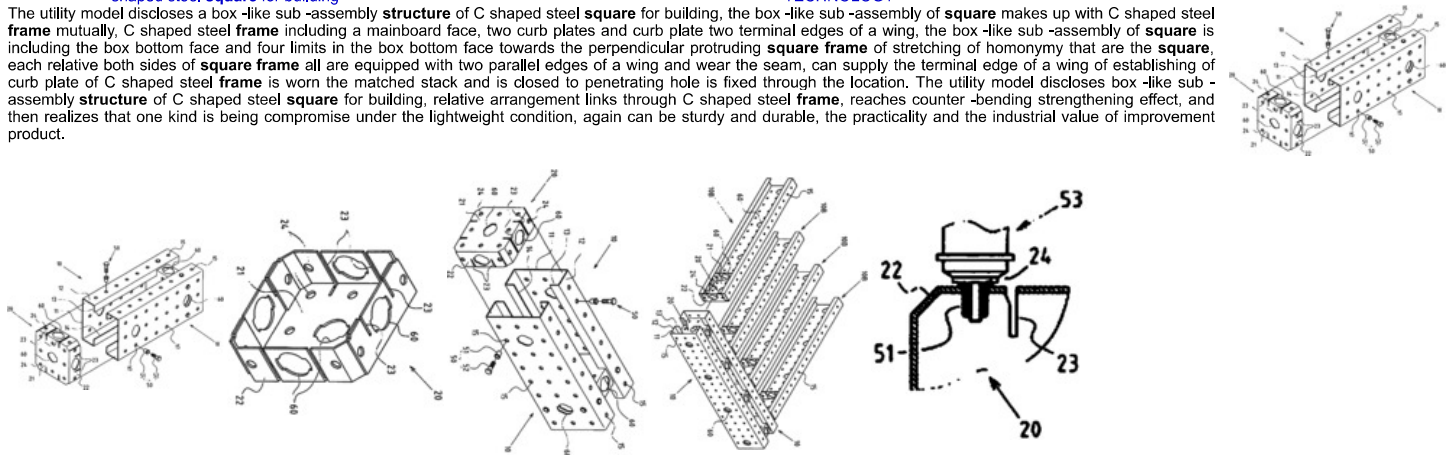
13.	Apparatus for cutting block attached space of square section	KR100695944	2006-02-24	SAMSUNG HEAVY INDUSTRIES*	2007-03-19 2007-03-19
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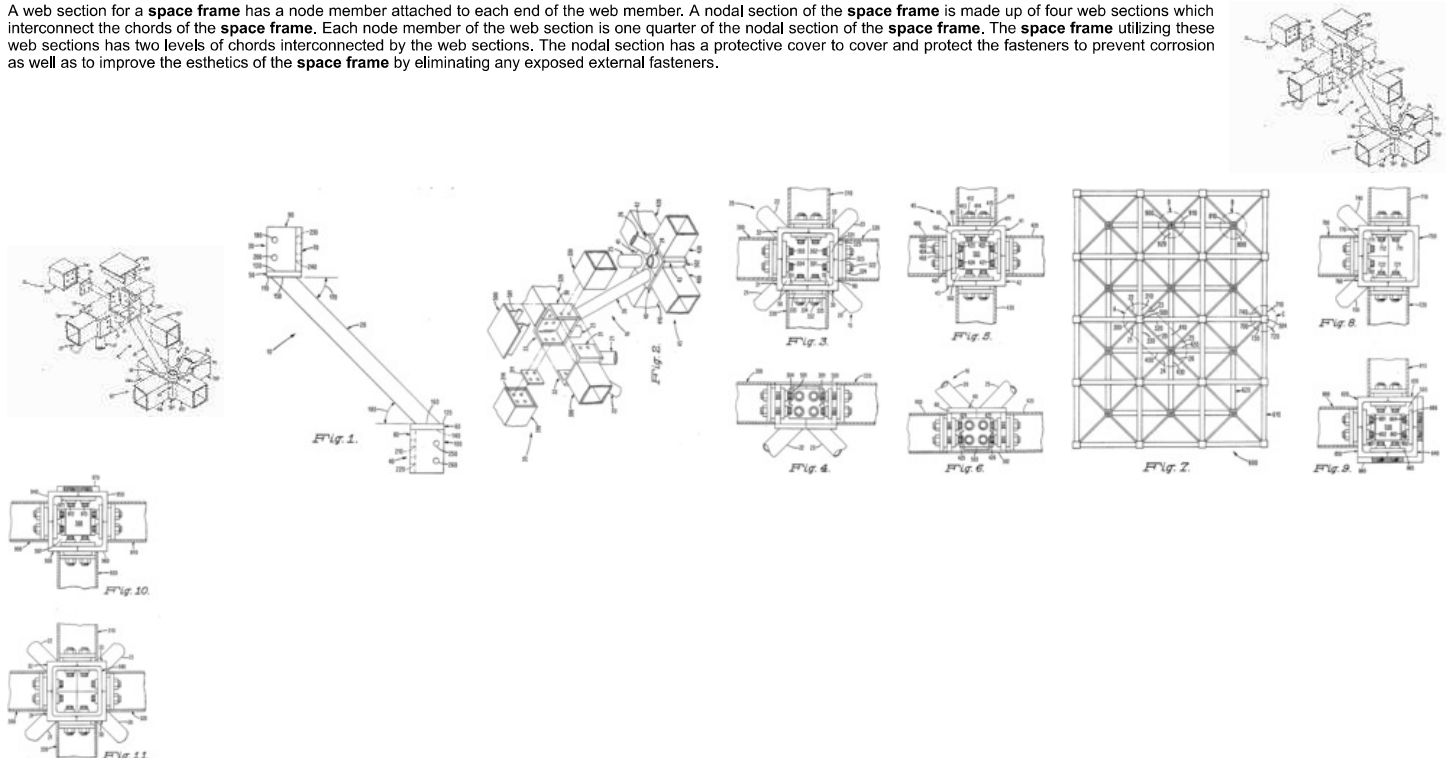
A cutting apparatus for blocks attached to **space** of a **square** section is provided to easily cut and remove blocks, such as a top bridge pad, wrongly installed in a **square** section formed by an insulation panel and a top pad. A cutting apparatus for blocks attached to **space** of a **square** section includes a transfer table(100) having a guide device, a cutting driving unit(110) mounted at the center of the transfer table, a vibration converting unit(120) to convert a rotation force of the cutting driving unit into a lateral vibrating force, a vibration cutting unit(130) receiving the lateral vibrating force of the vibration converting unit and cutting the bottom of a workpiece, side frames(152) installed to the lower lateral sides of the transfer table to guide the movement of the transfer table, a travel driving unit mounted to one side of the transfer table to drive the transfer table along the side frames, a dust collecting unit(160) to remove chips generated by the vibration cutting units during cutting, and a switch(180) to control the cutting driving unit and the travel driving unit.



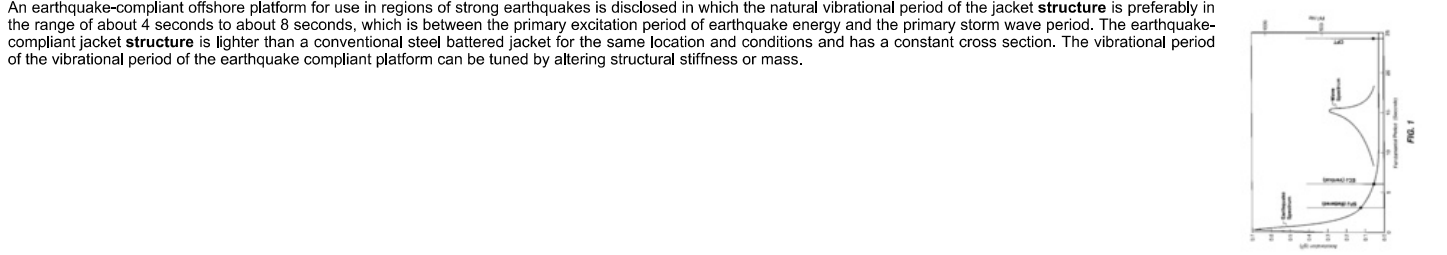
14.	Box-like sub-assembly structure of c shaped steel square for building	CN204781585	2015-05-12	FUJIAN TOAD LVNENG MATERIAL TECHNOLOGY*	2015-11-18 2015-11-18
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The utility model discloses a box-like sub-assembly **structure** of C shaped steel **square** for building, the box-like sub-assembly of **square** makes up with C shaped steel **frame** mutually, C shaped steel **frame** including a mainboard face, two curb plates and curb plate two terminal edges of a wing, the box-like sub-assembly of **square** is including the box bottom face and four limits in the box bottom face towards the perpendicular protruding **square** **frame** of stretching of homonymy that are the **square**, each relative both sides of **square** **frame** all are equipped with two parallel edges of a wing and wear the seam, can supply the terminal edge of a wing of establishing of curb plate of C shaped steel **frame** is worn the matched stack and is closed to penetrating hole is fixed through the location. The utility model discloses box-like sub-assembly **structure** of C shaped steel **square** for building, relative arrangement links through C shaped steel **frame**, reaches counter-bending strengthening effect, and then realizes that one kind is being compromise under the lightweight condition, again can be sturdy and durable, the practicality and the industrial value of improvement product.



15.	Web section for a space frame	GB8526419	1985-02-05	GTE PRODUCTS* UNISTRUT UNISTRUT INTERNATIONAL	1985-11-27 1985-11-27
A web section for a space frame has a node member attached to each end of the web member. A nodal section of the space frame is made up of four web sections which interconnect the chords of the space frame. Each node member of the web section is one quarter of the nodal section of the space frame. The space frame utilizing these web sections has two levels of chords interconnected by the web sections. The nodal section has a protective cover to cover and protect the fasteners to prevent corrosion as well as to improve the esthetics of the space frame by eliminating any exposed external fasteners.					
					
16.	Earthquake-compliant jacket	WO9858129	1998-06-02	EXXON PRODUCTION RESEARCH EXXONMOBIL UPSTREAM RESEARCH*	1998-12-23 1998-12-23

An earthquake-compliant offshore platform for use in regions of strong earthquakes is disclosed in which the natural vibrational period of the jacket **structure** is preferably in the range of about 4 seconds to about 8 seconds, which is between the primary excitation period of earthquake energy and the primary storm wave period. The earthquake-compliant jacket **structure** is lighter than a conventional steel battered jacket for the same location and conditions and has a constant cross section. The vibrational period of the vibrational period of the earthquake compliant platform can be tuned by altering structural stiffness or mass.

					
17.	Wall of building structure by square timber assembly, and manufacture of wall for building structure by square timber assembly	JPH11131635	1997-10-29	HIROTA WOOD WORKING MACH WORKS*	1999-05-18 1999-05-18

PROBLEM TO BE SOLVED: To provide a wall of a building **structure** by **square** timber assembly and a manufacturing method for the wall of a building **structure** by **square** timber assembly by which a building **structure** having good living environment, which is simple and excellent in durability and heat insulation and sound insulation performance can be constructed by laminated wood. SOLUTION: A stacking part of plate pieces of a **square** timber 1 outside the front and the rear is provided with a cavity part 2 and a groove part 3 formed continuously or intermittently in the longitudinal direction of the **square** timber, and a filler is injected in a part of the cavity part 2 or the groove part 3 to form many wall structural materials 5. These wall structural materials 5 are stacked in the vertical direction and connected to each other by a coupling means 7, and then a filler is injected into an area where the filler 4 is not yet filled in the cavity part 3 or the groove part 4, thereby blocking up a joining clearance of the respective wall structural materials 5 to construct an integral wall.

18.	Flat multichip packaging piece with stamping frame with square groove and production method of flat multichip packaging piece	CN103021996	2012-12-28	HUATIAN TECHNOLOGY*	2013-04-03 2013-04-03
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The invention discloses a flat multichip packaging piece with a stamping **frame** with a **square** groove and a production method of the flat multichip packaging piece. The packaging piece mainly comprises a lead **frame**, the **square** groove, a lower chip, an upper chip, a lower surface mount adhesive, an upper surface mount adhesive, a lower bonding wire, a middle bonding wire and a plastic package body, the **square** groove is reserved on the lead **frame** which is adhered with the lower chip through the lower surface mount adhesive, the lower chip is adhered with the upper chip via the upper surface mount adhesive, the lower bonding wire is connected with the lead **frame** and the lower chip, the middle bonding **frame** is connected with the upper surface mount adhesive and the upper surface mount adhesive, the upper bonding wire is connected with the upper surface mount adhesive and the lead **frame**, the plastic package body surrounds the lead **frame**, the lower chip, the upper chip, the lower surface mount adhesive, the upper surface mount adhesive, the lower bonding wire, the middle bonding wire and the upper bonding wire and particularly fills the **square** groove, and the lead **frame**, the lower chip, the upper chip, the lower bonding wire, the middle bonding wire and the upper bonding wire form a power source and a signal channel of a circuit. The plastic package body is combined with the lead **frame** more firmly, and delamination-resisting effect is better.

					
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19.

Reinforcement structure of using square pipe and reinforcement structure of beam and reinforcement structure

JP2014202023

2013-04-09

ARIGA MITSU HARU

2014-10-27 2014-10-27

PROBLEM TO BE SOLVED: To provide a reinforcement structure of using a square pipe and a reinforcement structure of a beam and a structure, capable of inexpensively and further lightly constructing the structure such as a large span beam with excellent rigidity. SOLUTION: Two square pipes 11 and 12 are superposably arranged so that mutual one surfaces of the two square pipes 11 and 12 are opposed in a state of being aligned in the same direction, and an interval setting part 13 of a central part is provided in a central part of superposing the two square pipes 11 and 12 so that the other square pipe 12 is fixed to one square pipe 11 in a state of being held at a required interval, and a fixing part 14 of an end part is provided in respective both end parts of superposing the two square pipes 11 and 12 so that the other square pipe 12 is fixed to the one square pipe 11 in a state of approaching more than an interval of the interval setting part 13 of the central part.

20.

Space frame for a machine

US2016039463

2015-08-03

CATERPILLAR*

2016-02-11 2016-02-11

A space frame (12) for a machine (10) is disclosed. The space frame may have a first end (42) configured to be connected to front wheels (14) of the machine. The space frame may also have a second end (44) configured to be connected to rear wheels (16) of the machine. Further, the space frame may have primary structural members (56) arranged substantially lengthwise between the first end and the second end. In addition, the space frame may have secondary structural members (58) connected between the primary structural members to form substantially triangulated structures (60, 62) allowing the space frame to support a payload to empty vehicle weight ratio ranging from about 1.2:1 to 2:1.

21.

Take porous pavement structure of square water purification basic unit

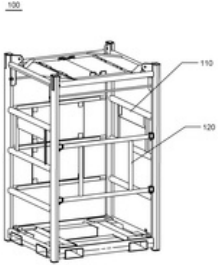
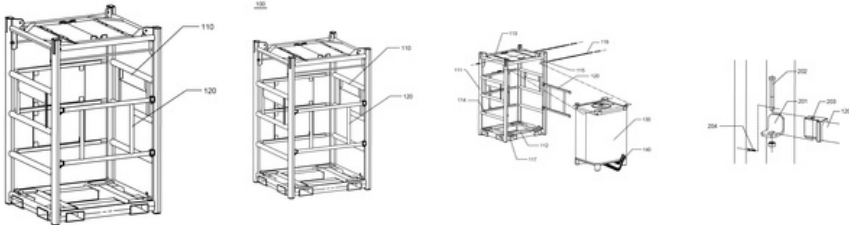
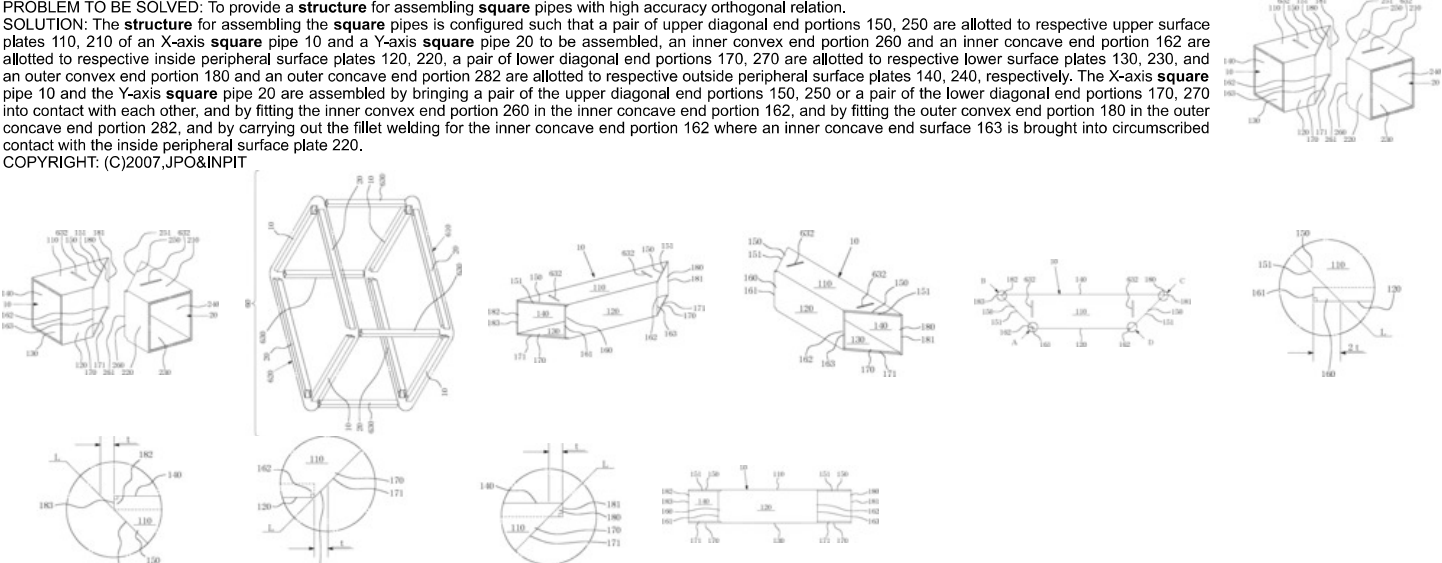
CN204715150

2015-04-17

TONGJI UNIVERSITY*

2015-10-21 2015-10-21

The utility model relates to a take porous pavement structure of square water purification basic unit sets up on the road bed, comprises the surface course that permeates water, square water purification basic unit, bed course that top-down set gradually, and square water purification basic unit comprises the reinforced concrete frame of separating the square structure and the square water purification structure of packing in the frame. Compared with the prior art, the utility model discloses a square reinforced concrete structure passes power, carries out preliminary water treatment through the water purification structure. Can make basic unit's atress directness, the power of biography make clear for other traditional form porous pavements to can realize preliminary rainwater handles.

22.	Frame device for loading and transporting square container	CN202321274	2011-12-09	CHINA INTERNATIONAL MARINE CONTAINERS* DALIAN CIMC LOGISTICS EQUIP*	2012-07-11 2012-07-11
The utility model discloses a frame device for loading and transporting a square container, comprising a frame and a side door, wherein the side door is openably arranged on at least one side surface of the frame; the frame comprises a main body frame, a base plate and a top cover; the base plate is arranged at the bottom of the main body frame, the top cover is arranged at the top of the main body frame, and a side wall is arranged on the side surface of the frame, which is not provided with the side door. According to the frame device disclosed by the utility model, the square container can be exactly arranged in the frame device through the side door, a man-hole cover is arranged at the top of the frame device, and a top cover of the man-hole cover can cover the square container; furthermore, the frame device disclosed by the utility model has the advantages of simple structure, small volume and the like.					
					
23.	Structure for assembling square pipes with high accuracy orthogonal relation	JP2007038231	2005-08-01	KURASHIKI LASER*	2007-02-15 2007-02-15
PROBLEM TO BE SOLVED: To provide a structure for assembling square pipes with high accuracy orthogonal relation. SOLUTION: The structure for assembling the square pipes is configured such that a pair of upper diagonal end portions 150, 250 are allotted to respective upper surface plates 110, 210 of an X-axis square pipe 10 and a Y-axis square pipe 20 to be assembled, an inner convex end portion 260 and an inner concave end portion 162 are allotted to respective inside peripheral surface plates 120, 220, a pair of lower diagonal end portions 170, 270 are allotted to respective lower surface plates 130, 230, and an outer convex end portion 180 and an outer concave end portion 282 are allotted to respective outside peripheral surface plates 140, 240, respectively. The X-axis square pipe 10 and the Y-axis square pipe 20 are assembled by bringing a pair of the upper diagonal end portions 150, 250 or a pair of the lower diagonal end portions 170, 270 into contact with each other, and by fitting the inner convex end portion 260 in the inner concave end portion 162, and by fitting the outer convex end portion 180 in the outer concave end portion 282, and by carrying out the fillet welding for the inner concave end portion 162 where an inner concave end surface 163 is brought into circumscribed contact with the inside peripheral surface plate 220. COPYRIGHT: (C)2007,JPO&INPIT					
					
24.	Method based on groups of mounting structure of the lithium battery module is compact square	CN107994164	2017-11-28	ANHUI OFFENBACH NEW ENERGY*	2018-05-04 2018-05-04
The present invention provides a lithium battery module is compact ganged mounted on the basis of a square structure, relates to prismatic lithium battery mounting structure technology field, includes an upper portion of the box body (12) through the opening structure is provided, and a square-shaped lithium (8) battery is a box body (12) is a square structure, a square lithium (8) battery positioned upright, and along the length and width directions of the array of closely packed within the box body (12); two adjacent rectangular side edges against the first and second electrodes into a plurality of modular structure lithium (8) battery, and the edge frame and the (91) racks (93) from the top downward through a square lithium battery pack mounted to the box body (12); the present invention has simple structure, facilitating the mounting operation, reasonable in design, compact structure, suitable for wide spread.					
					

A **space frame** connector is provided for attaching an oblique strut tube to an axial chord of a **space frame**. The **space frame** connector includes a collar adapted to fit over an axial chord. The collar is equipped with one or more attachment flanges. The **space frame** connector also includes a strut tube having an extrusion flange formed in at least one of its ends. The extrusion flange is made up of two parallel leaves that define a slot between them. The slot is sized and shaped to fit over an attachment flange on the collar that is positioned over the axial chord. The extrusion flange can be formed using simple press and punch tools. **Space frames** used to support solar energy collector arrays can be assembled in the field.

