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Search fn=(63211717 or 64852572 or 16559285 or 40831927 or 18438991 or 17983018 or 42165415 or 43717078 or 43603182 or 53032019 or 53671638 or 34394846 or 47901037 or 47675372 or 22485255 or 948258 or 7386384 or 7598400 or 1058447 or 8396532 or 8565628 or 22710848 or 2944723 or 34718103 or 47675372 or 17152334) (Results 25)
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Search [SP]: 1. a joining device between two precast reinforced concrete columns, characterized in that it comprises a first cover and a second cover, parallel to one another, each of which has a plurality of through holes that match up with one another in position, for the ends of the rebars of the columns to pass through, and wherein the covers are joined together by means of, at least, two transverse webs and several stiffener reinforcements, which are arranged in perpendicular to the covers, the device comprising connecting means between the ends of the rebars of the columns. 2. joining device according to claim 1, wherein the top cover and the bottom cover comprise at least one hole per corner and several holes situated between two corner holes, in such a way that all of the holes are at an equal distance from those adjacent to them. 3. joining device according to claim 1, wherein the first cover comprises a central opening. 4. joining device according to claim 3, wherein the second cover comprises a central opening and between the central openings of the first cover and of the second cover an open central space is defined which is filled with a structural filler material. 5. joining device according to claim 1, wherein the holes are slotted. 6. joining device according to claim 1, wherein the connecting means are a coupling nut that can screw onto threaded ends of the rebars of the columns. 7. joining device according to claim 6, comprising torque nuts configured to pretension the coupling nut. 8. joining device according to claim 1, wherein the connecting means are a joining element formed by two tubes welded to two bars forming a double-symmetric bifurcation, in such a way that the ends of the rebars of the columns pass through the inside of the tubes and are tightened with a nut on the other side, completing the junction. 9. joining device according to any of the claim 1, wherein the connecting means are a male-female junction comprising a threaded rod and a coupling nut into which it is screwed. 10. joining device according to any of the claim 1, wherein the connecting means are welds. 11. a process for manufacturing a joining device, characterized in that it comprises the steps of: obtaining a first cover and a second cover, each of which has a plurality of through holeswelding at least two webs to the second cover by means of a continuous fillet on both sides of the webs so that they are substantially perpendicular to the webs and coverswelding stiffener reinforcements to the webs and to the second cover so that they are substantially perpendicular to the webs and coversclosing the assembly by welding the first top cover to the webs and stiffener reinforcements. 12. a use of the joining device of claim 1, wherein the joining device is placed upon the end of an existing column, with the ends of the rebar of the end of the existing column passing through the holes in the second cover of the joining device subsequently, the connecting means are placed in such a way that the end of the next column rests upon the joining device, the ends of the rebar of the next column ending up face-to-face with the ends of the rebars of the existing column by passing through the holes in the first cover of the joining device, the connecting means then being able to join together the two rebars. (Results 0)
18:

Search DRY AND JOINT AND JOINING AND DEVICE AND BETWEEN COLUMNS (Results 1)
19:

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20:

Search Joining AND device AND dry AND joint AND COLUMNS (Results 0)
21:

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22:

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23:

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24: 53671638 or 34394846 or 47901037 or 47675372 or 22485255 or 948258 or 7386384 or 7598400 or 1058447 or 8396532 or 8565628 or
22710848 or 2944723 or 34718103 or 47675372 or 17152334) (Results 25)

Search [SP]: [0001] the object of the present invention is a junction between columns and beams of precast reinforced concrete, with a dry joint,
25: i.e. by means of a joint that on site does not require formwork, pouring fresh concrete, and a period for the concrete to set in order to
acquire its required strength, and which makes it possible to build high-rise buildings with a competitive edge, even in seismic risk areas. to
this end, the present invention proposes a system that is open and universal, and may be adapted to the different possible geometries and
cases, and which has a joint that is dry and makes it easy to join together the different parts, ensuring stability, even with loads that are
dynamic. the present document therefore describes a universal solution carried out with steel and a structural filler material (concrete, resin,
composite, etc.) that is adaptable, easy to implement and durable.state of the art[0002] the technical problem that the present invention
solves is joining together precast concrete beams and columns, which is related to building high-rise buildings, with an economically
competitive edge. to build with a competitive edge, an open and universal system is needed which may be adapted to the different possible
geometries and cases in order to join together the different parts without having to wait for the concrete to set, and without the need for
specialized work guilds on site such as welders or formworkers, which end up making construction more expensive. to build high-rises, and
especially in seismic risk areas, it is necessary to take into account not only weight and overloading, but also horizontal actions, wind and
seisms, in such a way that the joining means ensure stability even when faced with loads that are dynamic.[0003] in the current state of the
art, various solutions have been put forth for column-column connections, and for column-beam connections. among them, one might point
out the korean document kr101260392, which defines junctions for precast columns and beams constituted by three basic elements:
junctions between columns, called dlm, joining nodes, called hm, and beam junctions, called blm.[0004] the portion of said invention that
handles the junction between beams and columns is the one formed by the assembly of the junctions between beams, blm, and the one
corresponding to the joining node, hm.[0005] the joining node, hm, is in turn formed by up to four structural steel cantilevers formed by t
beams, situated every 90 degrees, which act as the springing point of the beams and are joined together in different ways, being either
welded together or connected by means of bolts to a concrete core. the vertical load of the column is transmitted from the top portion of the
node to the bottom portion either by means of a connection carried out with structural steel, which makes it hard for the rebar to pass from
one side to another, both for beams and for columns, or else by leaving the open space, and passing the rebar and concreting in situ.
[0006] moreover, the junction between the cantilever and the beam, blm, is made by connecting, at the point having zero bending
moment, an equal number of structural steel cantilevers with joint covers, connecting the rebars together and concreting the assembly in
situ, forming the beam and the meeting point between column and beam. it is thus ultimately not a precast means of connection between
beam and column, but rather between pre-beam and column.[0007] therefore, the differences between this system and the one being
proposed herein are as listed below:[0008] in the first place, it is not strictly speaking a system for joining between precast concrete beams
and columns, but rather between pre-beams and concrete columns.[0009] in the second place, it does not solve the problem by means of a
single system, but rather two systems that are clearly separate and identified as blm and hm.[0010] in the third place, it is not an open
system, but rather requires specific precast elements, and therefore does not allow for operations to adapt it to the most commonly found
types, since it requires embedded structural steel elements with set characteristics. on and beyond straight, prismatic elements, with set
types of rebar.[0011] in the fourth place, it is not a dry-joint system, as the junction always requires in situ concreting in order to be
durable, which has a negative effect on the construction times of high-rise buildings, since it necessitates waiting through setting times and
so forth.[0012] in the fifth place, it is not an seismic-resistant junction. the reinforcements in some solutions are continuous, but lack
cores capable of transmitting stress, with just a small i beam transmitting compressive and shear stress, which however is centered on the
column, making it totally ineffective to resist bending moments. the springing points of the columns are at points with zero shearing forces
in one direction, but said points will not match up in both directions except in buildings with double symmetry that are totally regular in
terms of both their plan and elevation view, which is a too much specific case. the solution of said column springing points does not connect
the reinforcements together, but passes them through the connection piece since they are always located in places without zero bending
moment, this has a negative effect on structural behavior. lastly, there is likewise not any specific solution to transmit the axial forces of the
beams by shear forces in the columns.[0013] document jp5160907 describes in detail certain connections between the continuous beam
elements with other beams, by means of male-female joints, fasteners and joint covers. however, the means of connection to the precast
columns is similar. in order to avoid making the joint between elements too close to the area with maximum shear stress, and to keep the
reinforcements from working in this way, a column segment and beam cantilevers may be joined in a continuous part. the column segment
has rebars which act as a male end on one side, and has holes in the other end into which the reinforcements of the next segment fit. the
connection is carried out by means of fitting and resins. the cantilevers presented in this system cover half the span of the beams,
connecting at the mid-point, which minimizes shear stresses and maximizes axial stresses. it is a closed system, as it is not intended for
connecting conventional beam and column systems, but rather elements that are already formed by half column sections and half beams.
lastly, the shear and bending diagrams in beams for permanent loads are presented, without taking into account other actions such as
seisms, which involve other factors. patent jp5154962 offers a solution based on the same principle, which is not so much a means of
joining together precast beams and columns, but rather a closed precast beam-column that connects with itself.[0014] the foregoing
systems are wet, as they require in situ concreting or the use of resins, and are closed, meaning they are only valid for use with elements
that have already been designed to act with them. they are not adaptable systems, since variations in geometry, such as column sections
with various heights or beams with various spans, would make these solutions impracticable, as it would be impossible to combine them.
neither are they a single joining means for precast beam and column elements, but rather the same solution divided into two parts or a
distinct precast element, with its corresponding joining means. lastly, they do not consider the effect of horizontal actions such as seisms
and, in some cases, the possible shearing effects on the reinforcements as a result of situating the joint sections at points that could be
subject to significant shear stress. they only present the factors of permanent actions, such as dead weight and dead loads, which goes to
show the lack of consideration for other crucial actions such as wind or seisms.[0015] therefore, these systems require a high
implementation investment, requiring formwork molds and specific proper elements for everything. these systems are not compatible with
other precast systems, and it is not possible to apply them to a wide range of building geometries, nor do they ensure structural safety in
seismic areas, thus limiting their applicability.description of the invention[0016] for the purpose of solving the technical problems described
above, the present invention describes, in a first aspect, a dry joint joining device between columns and beams of precast reinforced
concrete, comprising:[0017] a first group of joining reinforcements arranged on a first plane and in parallel with each other (the joining
reinforcements are oriented on a first plane in such a way that with the device assembled for use thereof the reinforcements are aligned with
the reinforcements of the beams to be joined together), each one of said joining reinforcements comprising one reinforcement and two
threaded ends (the joining reinforcements may constitute reinforcements having threaded studs welded onto the ends thereof, or may be
reinforcements with threaded ends),[0018] first coupling means for coupling to the columns arranged between the joining reinforcements
and perpendicular to the first plane defined by the joining reinforcements (these coupling means are provided in order to be coupled or to
enable the rebars of the columns to pass through),[0019] a plurality of anchoring plates arranged so as to define a closed frame inside of
which the joining reinforcements are arranged, and where the inner space defined by the anchoring plates is filled with a structural filler
material (concrete, resin, composite, etc., carried out in the s (Results 8)

Search [SP]: [0001] the object of the present invention is a junction between precast reinforced concrete columns with a dry joint, i.e. by means of
26: a joint that does not require formwork prior to pouring fresh concrete, nor setting and form removal times, etc., which makes it possible to
build high-rise buildings with a competitive edge, even in seismic risk areas. to this end, the present invention proposes a system that is
open and universal, to adapt to the different possible geometries and cases, and has a joint that is dry and makes it easy to join together
the different parts, ensuring stability, even with loads that are dynamic. the present document therefore describes a universal solution
carried out in steel, which is adaptable, easy to implement, and durable.state of the art[0002] the technical problem that the present
invention solves is related to the joining together of precast reinforced concrete column elements and to building high-rise buildings, even in
seismic risk areas, with an economically competitive edge. to build in such a way, an open and universal system is needed which may be
adapted to the different possible geometries and cases in order to join together the different parts without having to wait for the concrete to
set, and without the compulsory need for specialized guild works on site such as welders or formworkers, which end up making construction
more expensive. to build high-rises in seismic risk areas, it is necessary to take into account not only weight and overloading, but also
horizontal actions, wind and seism, in such a way that the joining means ensure stability even when faced with loads that are dynamic.
[0003] in the current state of the art, various solutions have been put forth for column-column connections. among them, one might point
out the korean document kr101260392, which defines junctions for precast columns and beams constituted by three basic elements:
junctions between columns, called dlm, joining nodes, called hm, and beam junctions, called blm.[0004] the junctions between columns are
divided into two, the so-called dlm, and the portion connecting consecutive column elements in the so-called hm.[0005] on the one hand,
the dlm junctions constitute two parallel plates with welded webs therebetween, forming a symmetrical piece. said junctions are placed
specifically at points in the column that are expected to have zero shear force. the rebars pass through the plates and are fixed by means
of nuts on the other side. lastly, in order to acquire its compression strength, it must be concreted in situ.[0006] on the other hand, the
force transmission in the part called hm takes place by means of either an in situ concrete core without a shear force transmitter, or by
means of a profile embedded in a concrete core poured in situ. the column rebars in this section maintain continuity, but only at the
corners, and may require more rebar on the sides of the column.[0007] therefore, the differences between this system and the one being
proposed herein are as listed below:[0008] in the first place, it does not solve the problem by means of a single system, but rather two
systems that are clearly separate and identified as dlm and hm.[0009] in the second place, it is not an open system, but rather requires
specific precast elements, and therefore does not allow for operations to adapt it to the most commonly found types, since it requires
embedded structural steel elements with set characteristics. on and beyond straight, prismatic elements, with set types of rebar.[0010] in
the third place, it is not a dry-joint system, as the junction always requires in situ concreting in order to be durable, which has a negative
effect on the construction times of high-rise buildings, since it necessitates waiting through setting times and so forth.[0011] in the fourth
place, it is not an seismic-resistant junction, as the junctions called dlm are intended to be located at points of the column with zero shear
force, whereas zero shear force in two directions only matches up in very specific cases of buildings with double symmetry in their plan view
and total regularity in terms of both their plan and elevation views. moreover, the transmission of bending forces is inefficient, since the
rebar forces are passed through the structural steel element, instead of connecting the rebars of both sides directly. in the hm junctions the

continuous rebar is found only at the corners, which is insufficient in most cases. lastly, the shearing and bending diagrams in beams and columns in for non-seismic actions are presented, verifying the lack of consideration.[0012] documents jp20080233079, jp5154962 and jp5160907 describe prefabricated column elements containing beam cantilevers. the element has holes that are reinforced with a steel spring, through which the rebar reinforcements of the front and rear column segments pass. the connection is made by simply fitting the elements together and fixing them with resins. this element does not, strictly speaking, define a connection between column elements, but rather a mixed precast column and beam solution that may be assembled with similar precast elements. only permanent actions are studied to identify zero bending moment and zero shearing force points at which the connections are to be made, without taking into consideration the stress factors caused by possible seisms.[0013] the three systems above are not, strictly speaking, systems for connecting precast columns, but rather are a closed system wherein the precast element is something else, and therefore are not open and able to be adapted, through small operations, to the most common existing precast elements. furthermore, they are connected with resins, and thus are not disassemblable dry-joint systems. lastly, they do not take seisms into account in their strategy or in their ways of connecting, only taking into account the fraction of actions that are permanent in nature.[0014] therefore, these systems require a high implementation investment, requiring formwork molds and proper specific pieces and elements for everything. these systems are not compatible with other precast systems, and it is not possible to apply them to a wide range of building geometries, nor do they ensure structural safety in seismic areas, thus limiting their applicability.description of the invention[0015] for the purpose of solving the technical problems indicated above, in a first aspect of the invention, the joining device between two precast reinforced concrete columns comprises a first cover (for example a cover on top when in assembled position) and a second cover (for example a cover on the bottom when in assembled position), parallel to one another, each of which has a plurality of through holes (distributed around the perimeter of the covers) that match up with one another in position, for the ends of the rebars of the columns to pass through. the covers are joined together by means of at least two transverse webs and several stiffener reinforcements, which are arranged in perpendicular to the covers (wherein joining will be carried out by joining together the elements of a single type, i.e. covers, webs or stiffeners, in parallel to one another and perpendicular to the rest in other words, the webs and stiffeners are perpendicular to one another, and webs and stiffeners are in turn perpendicular to the covers, whereas the first cover is parallel to the second cover).[0016] once the joining device has been assembled, the second, bottom cover is supported upon the end of the existing column, while the end of the next column is supported upon the first, top cover of the device. in this way, the device of the invention supports the axial force of the columns. the device of the invention further comprises connecting means between the ends of the of both columns rebars, in order to transmit tensile forces between the two columns. [0017] the invention is formed by joining the two webs to one of the covers so that the webs are held on two planes perpendicular to the plane of the cover and parallel to one another, aligned with two of the edges of the cover and equidistant from the center. to said webs, two inner stiffeners are joined, situated in the space between the webs, in perpendicular to both the webs and the cover, and joined to both webs and to the cover, situated on two parallel planes that are equidistant from the center thereof. on the other side of the webs and on the same plane as the inner stiffeners, outer stiffeners are joined to the webs and to the cover. lastly, the second cover is situated in parallel to the first one, and in the same position, and is joined to the stiffeners to form a solution that is symmetrical with respect to the intermediate plane between the covers.[0018] in a particular embodiment, the first cover and the second cover comprise, at least, one hole per corner and several (for example between one and three) holes situated between two corner holes, in such a way that all of the holes are at an equal distance from those adjacent to them (the holes are to be situated on the periphery of the covers in a position corresponding to the position of the column rebars).[0019] in further particular embodiment, the holes are slotted.[0020] in one embodiment, the first cover comprises a central opening that makes it possible to weld the webs and stiffeners from the inside during the building phase. furthermore, once in service, the load will mainly pass through the sides of the opening, causing the concrete of the column to bulge, thus facilitating the work done by friction of the joining device. obviously, it also reduces the amount of steel needed to manufacture the device.[0021] in a further particular (Results 26)

Search DRY AND JOINING AND PRECAST AND COLUMN (Results 12)
27:

Search fn=(68485769) (Results 1)
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29: US6141928 OR US1906634 OR US3311333 OR US4793111 OR US6643982 OR US3630474 OR US2009022545 OR US4063422) (Results 15)

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Search 33 AND 5 (Results 22)
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Search PN=(US4295308) or 34 (Results 23)
35:

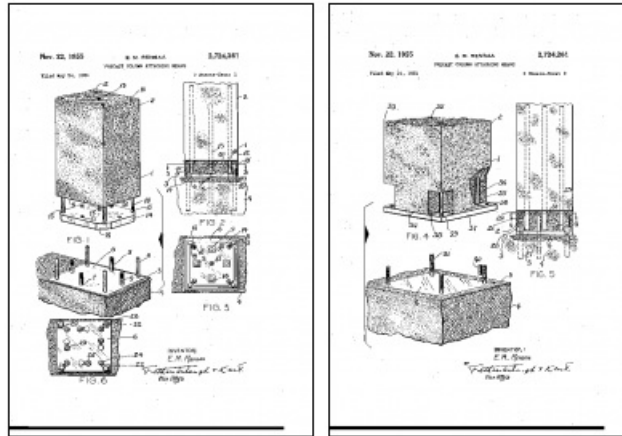
Title:
PRECAST COLUMN ATTACHING
MEANS

Abstract:

Source: US2724261A (Claim 1)
What I claim as my invention is: 1. In the art of precast concrete construction which includes a vertical precast concrete column and a horizontal supporting surface therefor; means attaching said vertical precast concrete column to said horizontal supporting surface, said means comprising in combination a set of surface-members secured to and extending upwardly from said supporting surface, a set of column-members secured to and extending downwardly from the foot of said column, a bonding plate secured to the distal ends of one of said sets, the distal ends of ...

Probable Assignee:
RENSAA EGIL M

Assignee(s):(std):
RENSAA EGIL M



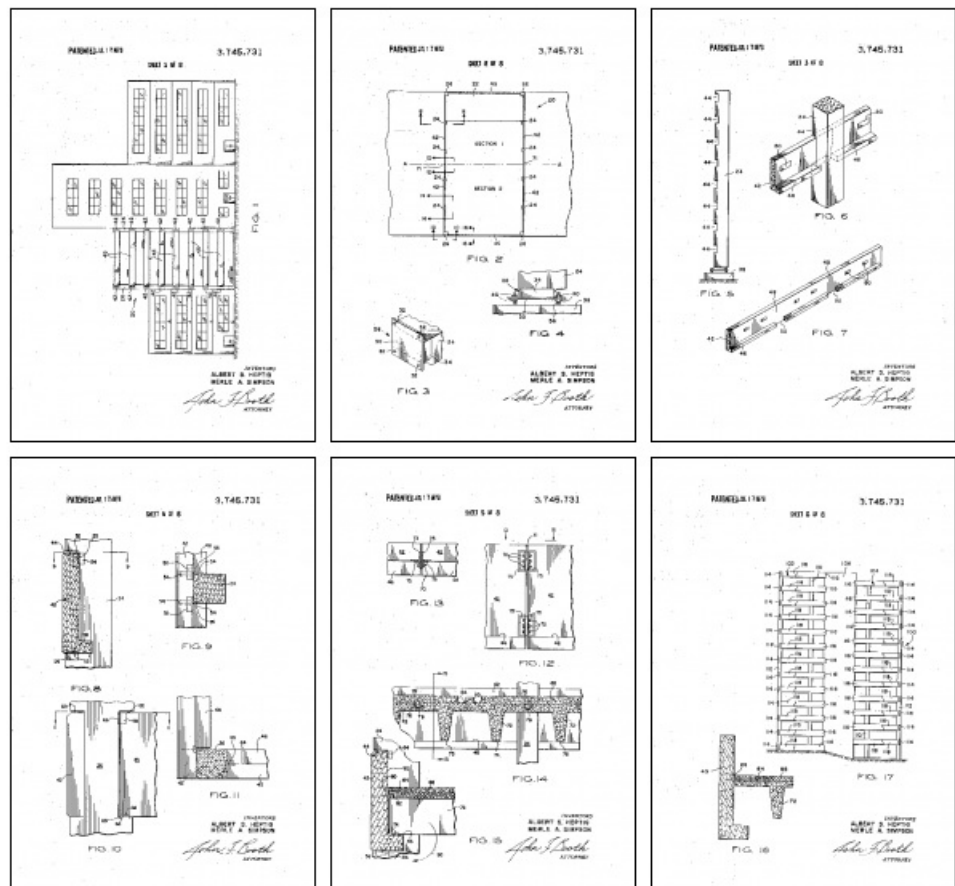
Title:
INTERLOCKING BUILDING
CONSTRUCTION**Abstract:**

Source: US3745731A 1. A combination of elements for assembling a rigid multiple level structure comprising: a. a plurality of unitary columns fixed in a vertically extending orientation, each of said columns having a plurality of notches in one side, said notches extending transverse to the length of said columns and defining a first horizontal supporting surface and a second supporting surface; b. a plurality of unitary spandrel members attached to said columns, said spandrel members having a plurality of notch portions spaced along the length of each spandrel member, said notches defining ...

Probable Assignee:
HEPTIG A

Assignee(s):(std):
HEPTIG A ; SIMPSON M

Assignee(s):
SIMPSON M US ; HEPTIG A US



2 more images available

Title:

Modular piling system

Abstract:

Source: US4009550A A precast modular piling system of square-sectioned reinforced concrete sections of standard interchangeable lengths are capable of being connected by a joint constituted by a steel jointing piece appearing at either end of the pile sections for purposes of enabling any length of pile to be constructed. Each jointing piece includes a shaped plate secured to the end of a pile section with a framing sleeve extending laterally from each plate. A recess extends inwardly from each corner of the jointing piece through the plate, adjacent parts of the framing sleeve and concrete ...

Probable Assignee:

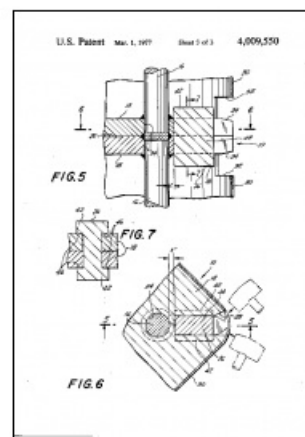
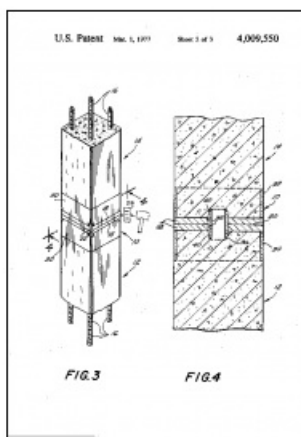
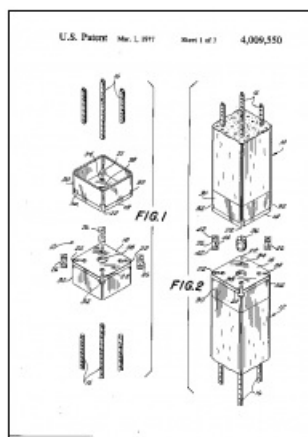
WESTS PILING CONSTRUCT

Assignee(s):(std):

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Assignee(s):

YOUNG FRANK E ; WEST S
PILING AND CONSTR CO LTD ;
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CONSTRUCTION CO ; WEST S
PILING AND CONSTRUCTION
CO LIMITED ; WEST S PILING
AND CONSTRUCTION CO LTD ;
WEST S PILING AND
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HORTON RO ; WEST S PILING
AND CONSTRUCTION
COMPANY LIMITED ; WEST S
PILING CONSTRUCTION CO
LTD ; WEST'S PILING AND
CONSTRUCTION CO LTD OF
HORTON ROAD



Title:

DISPOSITIF D'ACCOUPLEMENT
POUR ELEMENT EN BETON
ARME OU PRECONTRAIT
DEVICE FOR COUPLING
ELEMENT OR PRESTRESSED
CONCRETE (Machine
translation)

Abstract:

Source: FR2367158A

L'invention se rapporte a des structures en beton arme. Elle concerne un dispositif d'accouplement pour element en beton arme ou precontraint qui comporte, noye dans la masse de beton, au moins une douille filetee, reliee a l'extremite libre d'une armature de l'element, cette douille affleurant la surface libre de cet element devant etre accouple.

Machine translation: Invention relates to reinforced concrete structures. It relates to a device for coupling element in reinforced or prestressed concrete that has embedded in the concrete, at least one threaded ...

Probable Assignee:

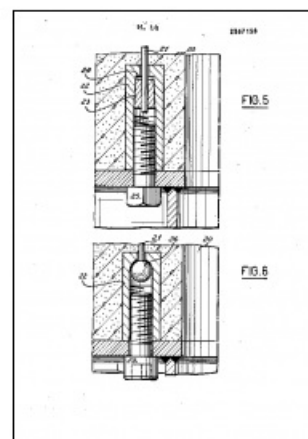
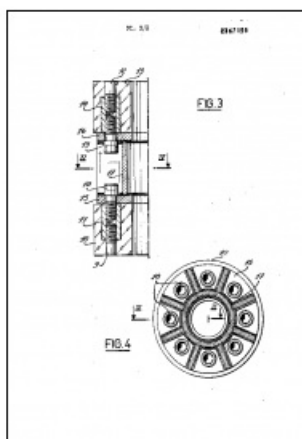
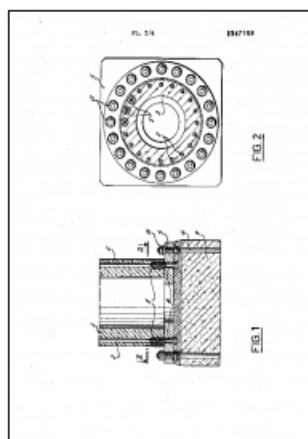
GRAM SA

Assignee(s):(std):

GRAM SA

Assignee(s):

GRAM S A ; GRAM S A
VILLENUEVE FREIBURG
SCHWEIZ



Title:

DISPOSITIF POUR LE RACCORDEMENT BOUT A BOUT D'ELEMENTS ALLONGES EN BETON, DE PREFERENCE DES PILES OU PIEUX EN BETON DESTINE AU RENFORCEMENT DES SOLS

Abstract:

Source: FR2417592A Le dispositif est caracterise par le fait que les tiges de renforcement sont pourvues a chaque extremite d'un element d'accouplement, et par le fait que chaque element de raccordement est prevu pour joindre ensemble les elements d'accouplement de deux tiges de renforcement qui sont disposees en alignement avec leurs faces d'extremite disposees face a face, le raccordement etant realise de facon a ce que toutes forces de tension se manifestant dans les elements en beton soient transferees directement de la tige de renforcement dans un element en beton, a la tige de ...

Probable Assignee:

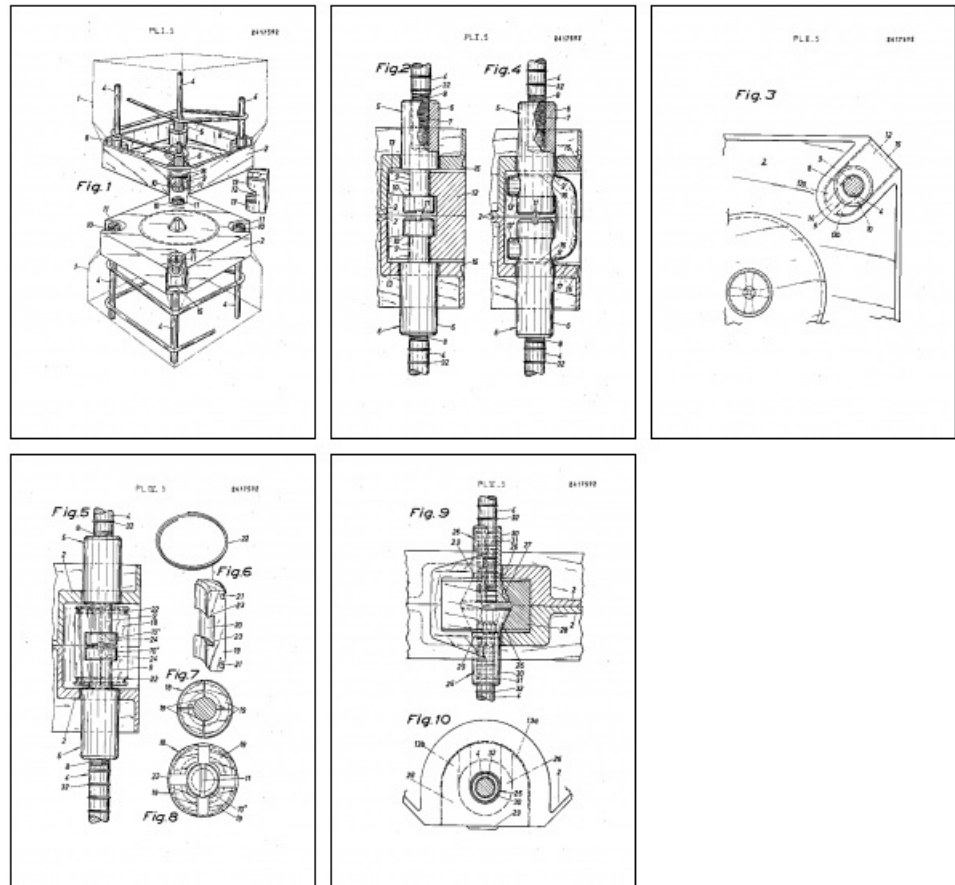
SILVANDER

Assignee(s):(std):

SILVANDER F ; SILVANDER ; SILVANDER FRANK ; FURANKU OTSUTOO SHIRUBANDERU ; SILVANDER F O ; E02D005 52 E02D005 00 E02D005 30 E04B001 40 E0 ; SILVANDER FRANK OTTO ; SILVANDER FRANK O SE

Assignee(s):

SILVANDER FRANK O RICHERTSGATAN 10 S 412 50 GOTEBOG SWEDEN ; E02D005 52 E02D005 00 E02D005 30 E04B001 40 E04C00 ; E02D005 52 E02D005 00 E02D005 30 E04B001 40 E04C005 16 ; FRANK OTTO SILVANDER ; SILVANDER FRANK O RICHERTSGATAN 10 S 412 50 GOTEBO ; SILVANDER FRANK O ; SILVANDER FO



Title:

Pole base assembly, bolt circle adaptor

Abstract:

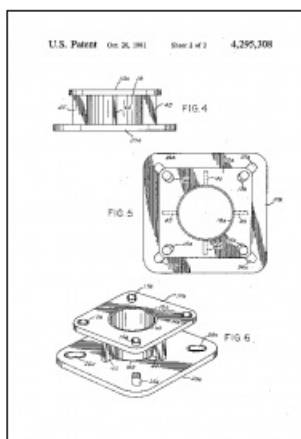
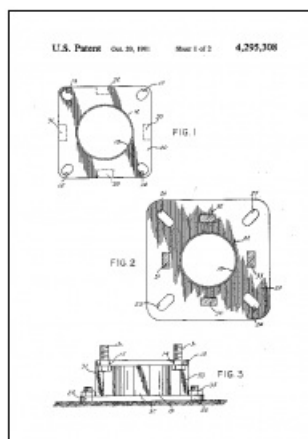
Source: US4295308A An adapter for the concrete foundation mounted bolts to the bolt holes of a pole base of a different configuration, including a lower plate arranged to be secured to bolts on the concrete base, an upper plate arranged to be secured to the pole base and interconnecting braces inclusive of a central electric wire passage and supporting braces between the plates.

Probable Assignee:

K S L CORP

Assignee(s):(std):

K S L CORP



Title:

Building structure and steel parts for same

Abstract:

Source: US4330970A A building structure whose frame, consisting of prefabricated parts or pieces, is formed by a number of elements in the form of slabs (floor or ceiling elements) arranged one above the other and connected to one another by support columns at the corners of the elements, with tubular sections transmitting both the weight of the elements to the columns and the forces exerted by columns aligned with each other, and a steel structure for use in such a building structure.

Probable Assignee:

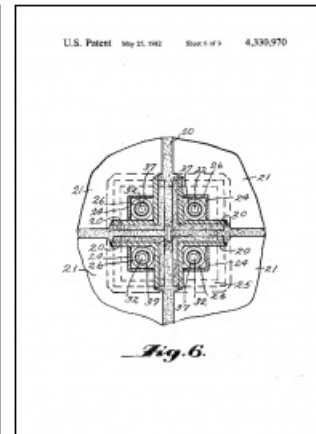
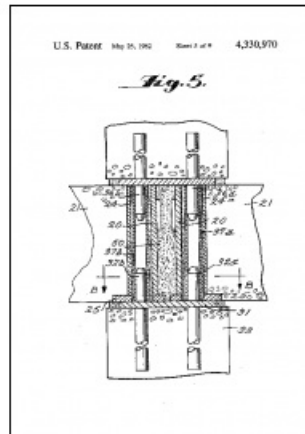
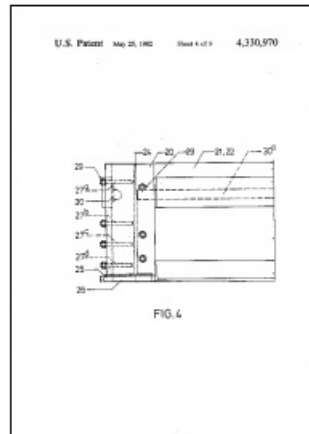
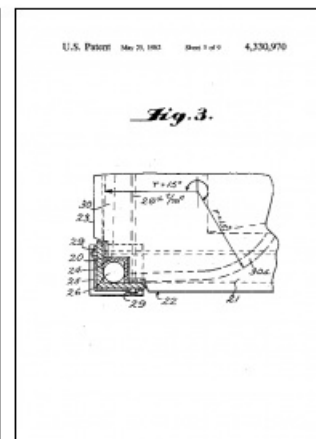
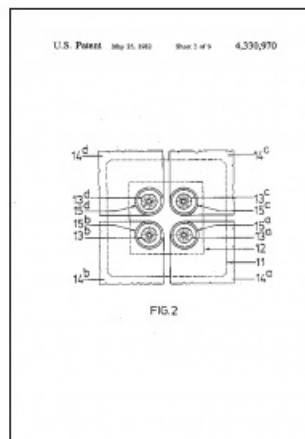
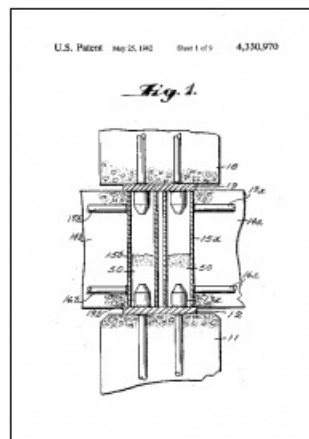
COPREAL SA

Assignee(s):(std):

COPREAL SA

Assignee(s):

COPREAL S A



3 more images available

Title:
CONCRETE BEAMS AND
CONNECTING MEANS
THEREFOR

Abstract:

Source: US4938635A PCT No.
PCT/GB86/00769 Sec. 371
Date Oct. 25, 1988 Sec. 102(e)
Date Oct. 25, 1988 PCT Filed
Dec. 17, 1986 PCT Pub. No.
W088/04711 PCT Pub. Date
Jun. 30, 1988. A beam of
concrete has similar end pieces
at each end spaced apart by an
internal reinforcing elongate
cage of rectangular cross-
section formed of four
longitudinals (10) having a
lengthwise series of hoops
therearound. Each end piece
comprises a rectangular plate
(12) transverse of the beam's
longitudinal axis. The plate (12)
has at least four apertures
(14), normally one at each
corner, and similar angular wall
...

Probable Assignee:

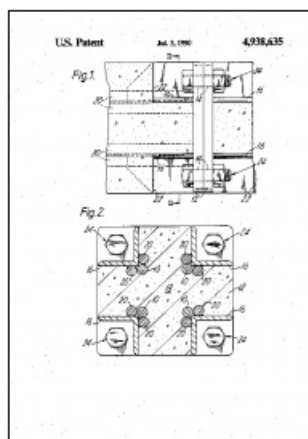
RUSSELL J B

Assignee(s):(std):

BAILIE RUSSEL JAMES ; JAMES
BAILEE RUSSELL ; RUSSELL J B
; RUSSELL JAMES B ; RUSSELL
JAMES BAILIE

Assignee(s):

RUSSELL JAMES BAILIE LARNE
ANTRIM GB ; JAMES BAILIE
RUSSELL ; RUSSEL JAMES
BAILIE



Title:

Bolted chord bar connector for concrete construction

Abstract:

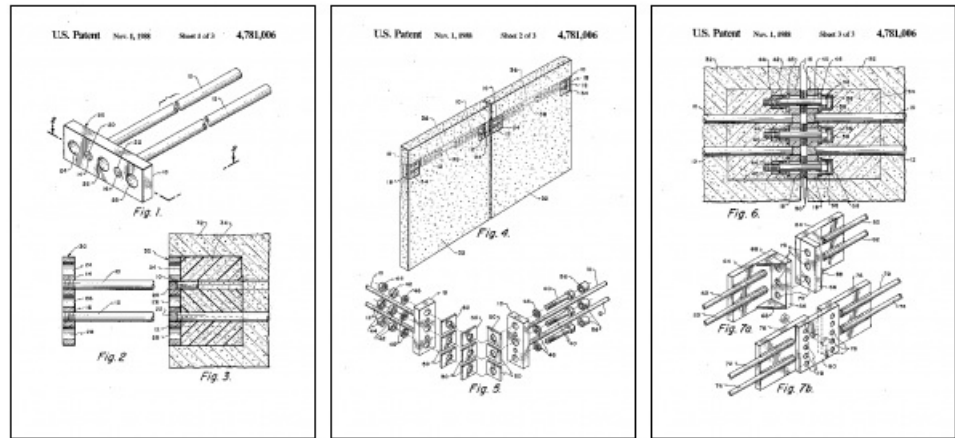
Source: US4781006A A connector arrangement for joining adjacent chord bar reinforcements in wall panels for prefabricated tilt-up concrete buildings. The chord bar connection is comprised of a plurality of chord bars welded to a steel plate cast into the concrete of a prefabricated wall. Adjacent walls are connected by bolts passing through the metal plates attached to the cast in concrete chord bars. The bolting arrangement allows free movement of adjacent panels during dimensional changes caused by temperature and moisture variations in the concrete.

Probable Assignee:

HAYNES HARVEY H

Assignee(s):(std):

HAYNES HARVEY H



Title:
CONNECTING ELEMENT FOR
CONNECTING CONSTRUCTION
UNITS

Abstract:

Source: WO9310314A1 A connecting element for connecting construction elements is permanently fixed to one of the units to be connected and can be detachably fixed to at least one other. The connecting element has bridging elements (15, 16, 17) arranged between and at oblique angles to its top and bottom panels (1, 2). Between these bridging elements there is at least one through-aperture extending between opposite sides of the top and bottom panels (1, 2). The cross-section of the bridging elements is designed to give them a good rigidity, thus making it possible to increase the size of the ...

Probable Assignee:

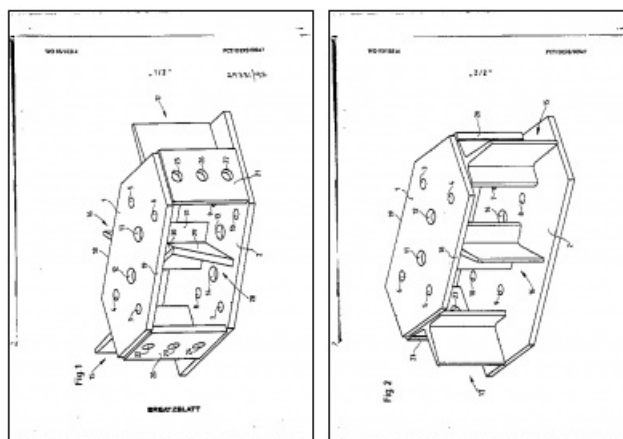
GLEZERMAN JOSEF

Assignee(s):(std):

GLEZERMAN JOSEF ; INTER
POWER CONSTRUCTORS INC ;
INTER POWER CONSTRUCTION
; PAPANIKOLAOU DIMITRIS

Assignee(s):

INTER POWER CONSTRUCTORS
; INTER POWER
CONSTRUCTORS INC US ; IBS
GESELLSCHAFT FUER
INTEGRIERTES BAUEN MBH
4050 MOENCHENGLADBACH DE
; IBS GESELLSCHAFT FUER
INTEGRIERTES BAUEN MBH
4050 ; GLEZERMAN JOSEF
60598 FRANKFURT DE ;
GLEZERMAN JOSEF DE



Title:
L-SHAPED STEEL ELEMENT
JOINT**Abstract:**

Source: US2005097854A An L-shaped steel element joint includes a base plate having a first through hole and multiple second through holes and multiple L-shaped gusset plates each formed on a corresponding one of four corners of the base plate and having a corner facing the corresponding corner of the base plate. A space is defined between a side of each of the L-shaped gusset plates and a peripheral side of the base plate for corresponding to a thickness of the I-shaped steel element.

Probable Assignee:

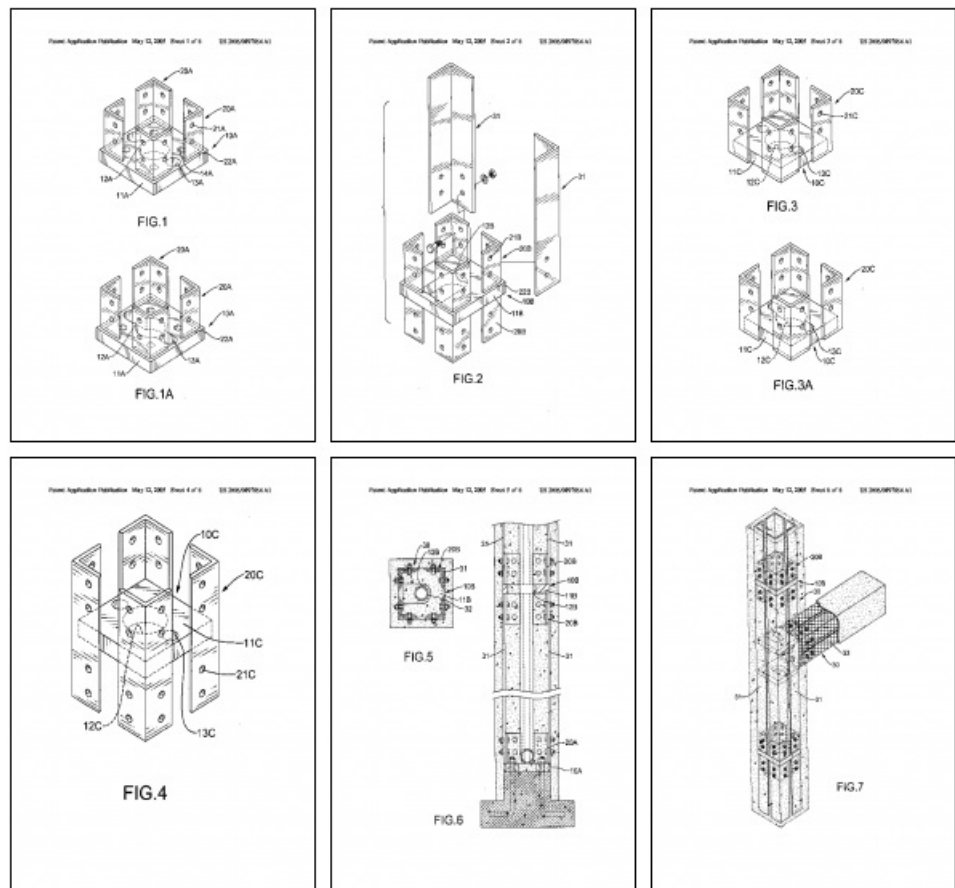
TU NENG YI

Assignee(s):(std):

TU NENG I ; TU NENG YI

Assignee(s):

NENG I TU

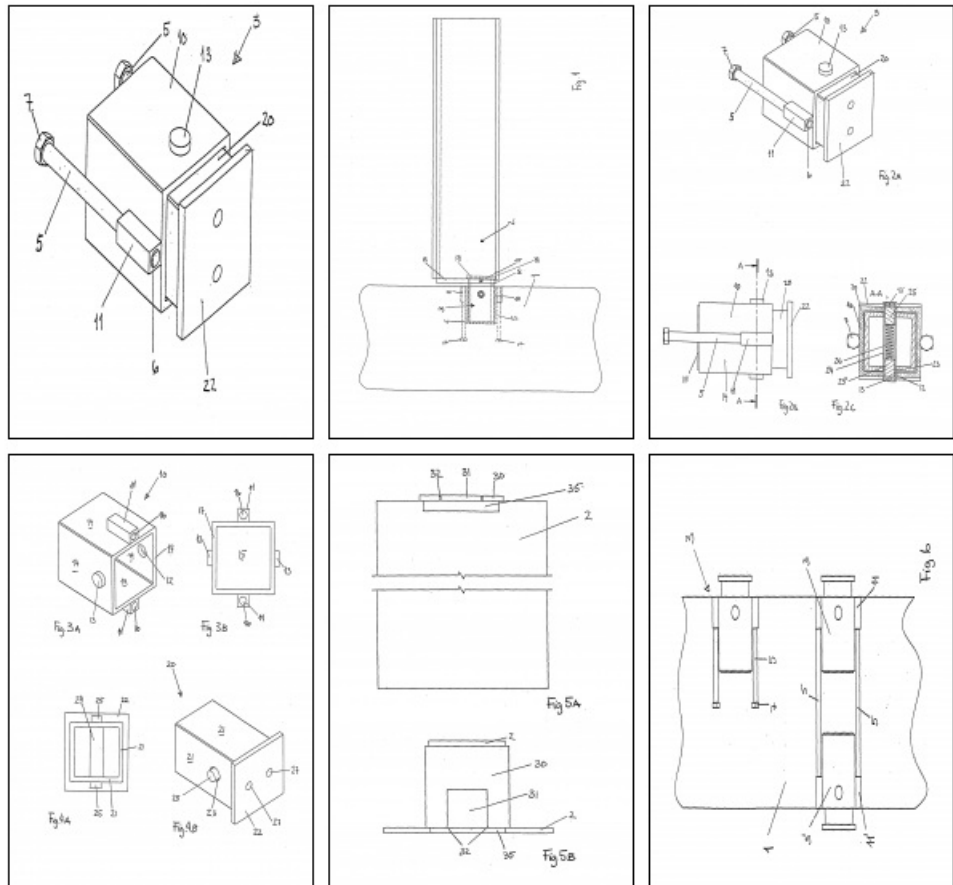


Title:
JOINING SYSTEM AND USE OF
THIS SYSTEM

Abstract:
Source: US2008279620A The present invention relates to a joining system for joining two elements (1, 2), for example a pillar and a beam in a building construction, where a first part (3) of the joining system comprises an outer box element (10) and at least one internal box element (20) for insertion in the outer box element (10) comprising a locking device for locking the internal box element (20) to the outer box element (10) and a joining element (22) for cooperation with a second part (4) of the joining system and where the second part (4) of the joining system can be attached in the ...

Probable Assignee:
SB PRODUKSJON AS

Assignee(s):(std):
BERG SVEIN ; SB
PRODUKSJON AS



Title:

COLUMN SHOE

Abstract:

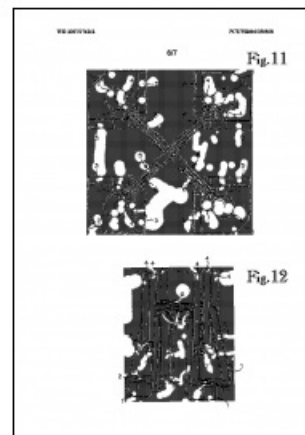
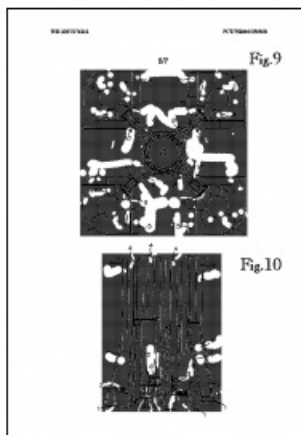
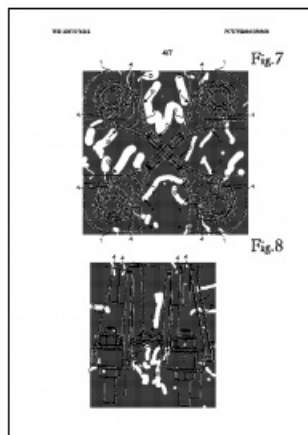
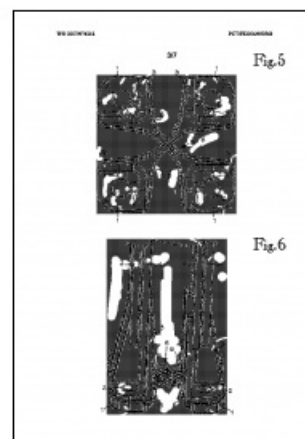
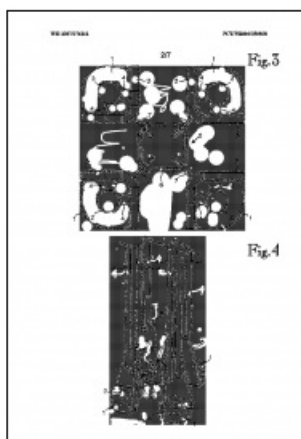
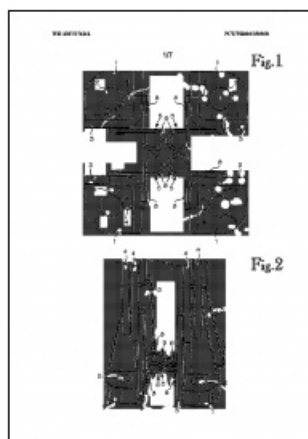
Source: WO07074212A1 The invention relates to a column shoe for fastening reinforced concrete columns to a base. The column shoe comprises a bottom plate (1) provided with a bolt hole (2) and a side plate (3) fastened to the bottom plate for providing a bolt casing, main bonds (4) for fastening the column shoe and the reinforced concrete column to one another, and a back bond (5) for transmitting a lower horizontal force of a horizontal force couple, produced by eccentric positions of the main bonds and the bolt at the bolt hole (2), to concrete. The back bond (5) is arranged to comprise a ...

Probable Assignee:

PEIKKO GROUP OY

Assignee(s):(std):

KINNUNEN JORMA ; PEIKKO
FINLAND OY ; PEIKKO
FINLAND OY ; PEIKKO GROUP
OY



1 more images available

Title:

Foundation, in particular concrete foundation, with a foundation shoe for attaching a concrete pillar
Fundament, insbesondere Betonfundament, mit einem Fundamentschuh zur Befestigung einer Betonstuetze
Foundation, en particulier fondation en beton, avec sabot de fondation pour la fixation d'un montant en beton

Abstract:

Source: EP1857602A3
Gegenstand der Erfindung ist eine Vorrichtung zur Befestigung einer Betonstuetze auf einem Fundament, insbesondere einem Belonfundament, wobei das Fundament mindestens einen Fundamentschuh aufweist, wobei der Fundamentschuh mindestens eine Ankerstrebe aufweist, die in das Fundament hineinragt, wobei der Fundamentschuh mit der Stuetze verbindbar ist.

Probable Assignee:

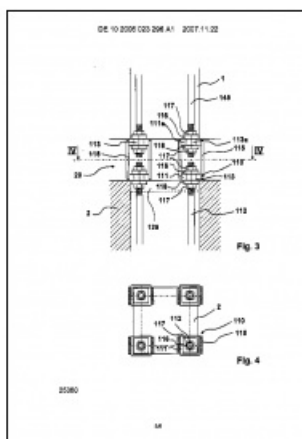
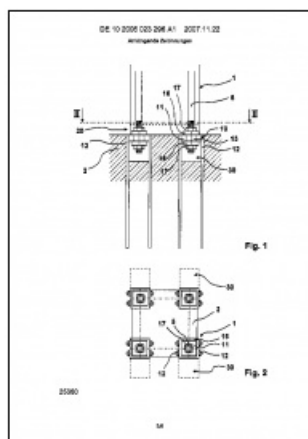
SCHMIDT PATRICK DIPL ING

Assignee(s):(std):

KRUMMEL GERHARD ;
SCHMIDT PATRICK

Assignee(s):

SCHMIDT PATRICK DIPL ING ;
KRUMMEL GERHARD DIPL ING



Title:

JOINT STRUCTURE OF
PRECAST CONCRETE COLUMN-
BEAM MEMBER, BUILDING, AND
CONSTRUCTION METHOD FOR
BUILDING

Abstract:

Source: JP2009162004A

PROBLEM TO BE SOLVED: To provide a joint structure of a precast concrete column-beam member capable of reducing time and labor required by the work for joining beam parts of the precast concrete column-beam members mutually, to provide a building having this joint structure of the precast concrete column-beam member, and to provide a construction method for the building having this joint structure of the precast concrete column-beam member. **SOLUTION:** In this construction method for the building having this joint structure of the precast concrete column-beam member, an ...

Probable Assignee:

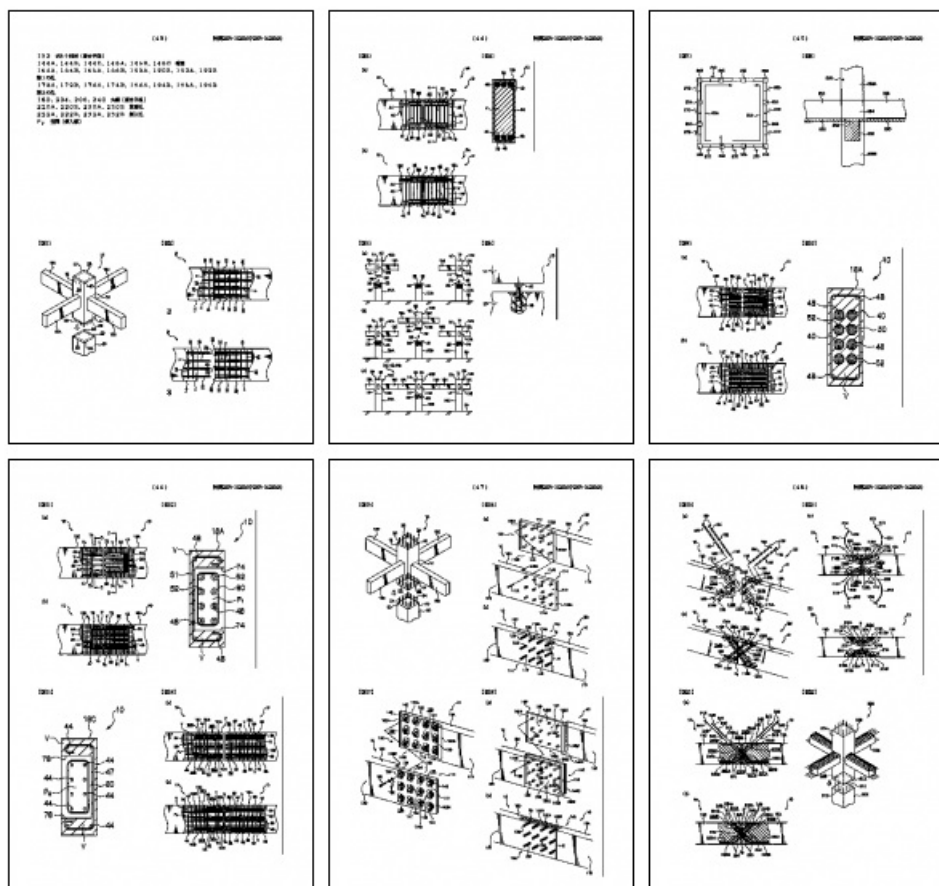
TAKENAKA KOMUTEN CO

Assignee(s):(std):

TAKENAKA KOMUTEN CO

Assignee(s):

TAKENAKA KOMUTEN CO LTD ;
TAKENAKA CORP

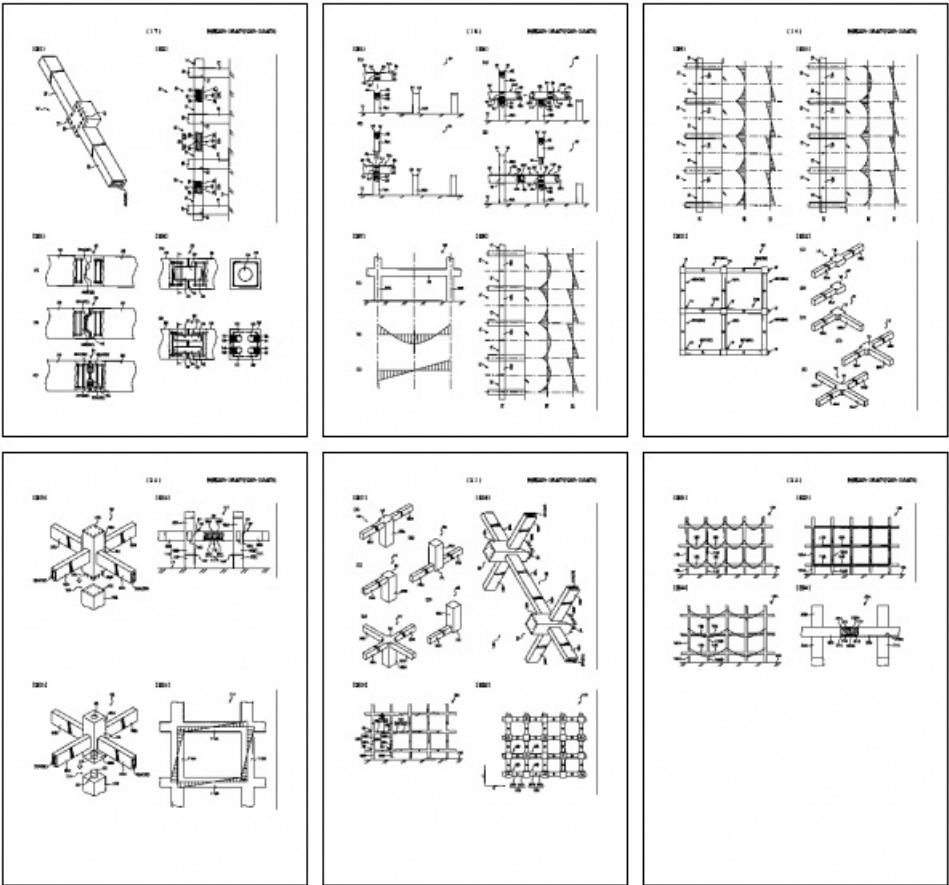


2 more images available

Title:
JOINT STRUCTURE OF
PRECAST CONCRETE
STRUCTURAL MEMBER,
BUILDING, AND
CONSTRUCTION METHOD FOR
BUILDING

Abstract:
Source: JP2009185447A
PROBLEM TO BE SOLVED: To
provide a joint structure of a
precast concrete structural
member capable of reducing
time and labor required by the
work for joining a beam part of
the structural member made of
PCa and a beam member made
of PCa mutually, to provide a
building having the joint
structure of the precast
concrete structural member,
and to provide a construction
method for the building having
the joint structure of the
precast concrete structural
member. SOLUTION: Generally
speaking, the bending moment
generated in a beam due to
load of earthquake becomes
the ...

Probable Assignee:
TAKENAKA KOMUTEN CO
Assignee(s):(std):
TAKENAKA KOMUTEN CO
Assignee(s):
TAKENAKA KOMUTEN CO LTD ;
TAKENAKA CORP



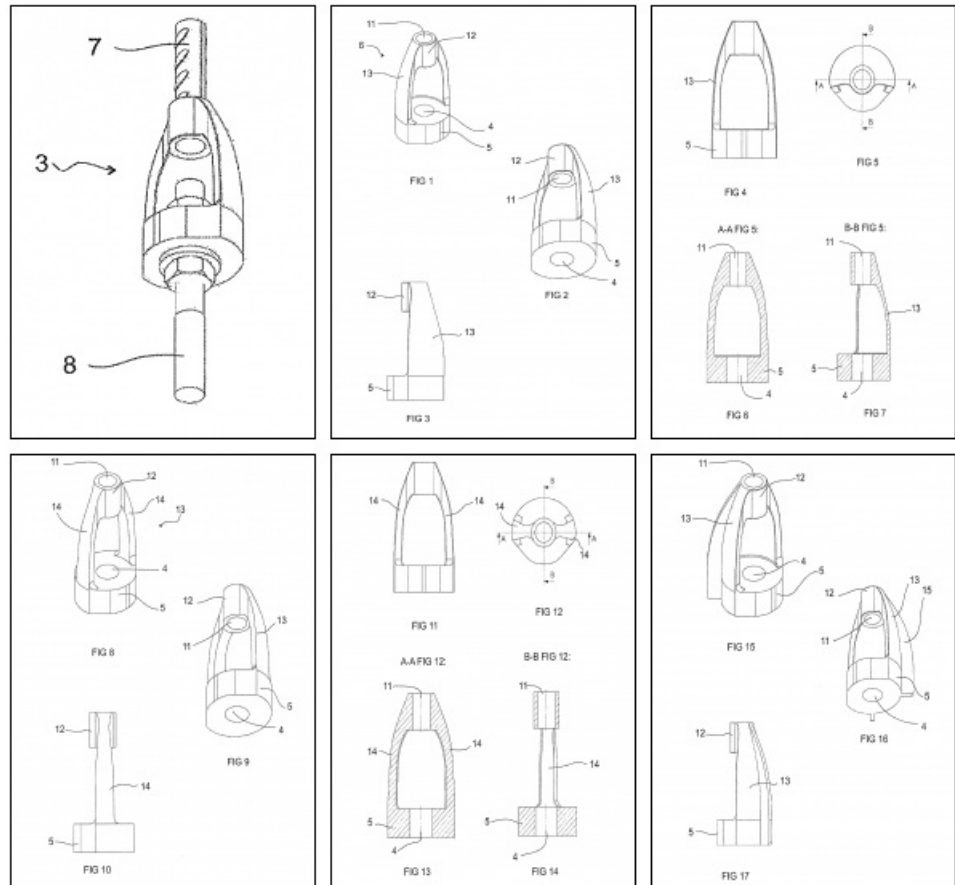
1 more images available

Title:
COLUMN SHOE

Abstract:
Source: US2013199123A The object of the invention is a column shoe for securing steel concrete columns to a base. The column shoe includes a bolt housing, which includes a base-plate provided with a bolt hole, and an upper structure which is connected to the baseplate and to which at least one attachment unit is connected for securing the column shoe and the steel concrete column together. The bolt housing is fabricated by casting such that the upper structure and the baseplate form a single-piece casting. A hole is formed in the bolt housing for the attachment unit. The hole is ...

Probable Assignee:
PEIKKO GROUP OY

Assignee(s):(std):
JUNES MARKUS ; JUNES
MARKUS TAPANI ; PEIKKO
GROUP OY



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Title:
PRECAST CONCRETE COLUMN
CONNECTING STRUCTURE

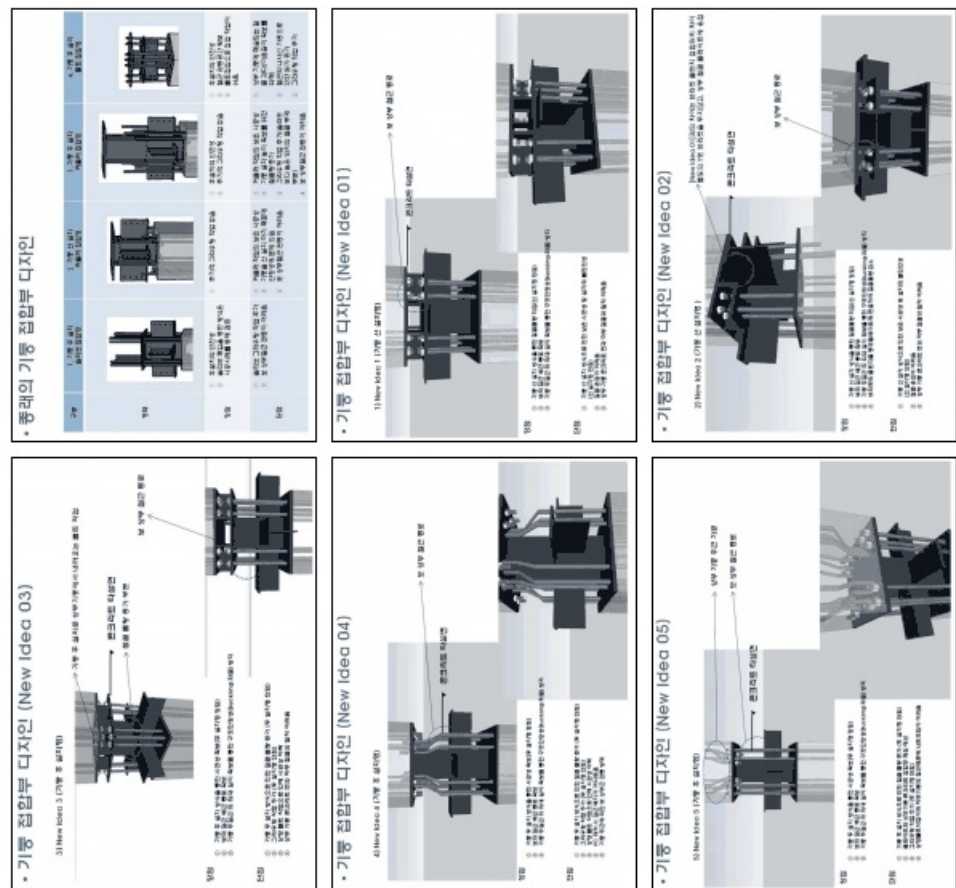
Abstract:

Source: KR101228012B
PURPOSE: A PC(Precast Concrete) column joint is provided to be pre-constructed by improving the structure of both ends of a first joint of a PC column, to be easily installed at a site and to have an excellent structural performance corresponding to a buckling or a vertical and a horizontal load after an installation.
CONSTITUTION: A PC(Precast Concrete) column joint structure includes a joint part of a PC column, a main joint part(100), and a sub joint part(200). The PC column is arranged with multiple column reinforcing bars(310) inside, made with poured concrete and ...

Probable Assignee:
KH HOUSING SOLUTIONS CO LTD

Assignee(s):(std):
KH HOUSING SOLUTIONS CO LTD ; UNIV KYUNG HEE UNIV IND COOP ; UNIV KYUNG HEE UNIV IND COOP GROUP

Assignee(s):
UNIVERSITY INDUSTRY COOPERATION GROUP OF KYUNG HEE UNIVERSITY ; IND COOPERATION GROUP OF KYUNG HEE UNIV ; KH HOUSING SOLUTIONS CO



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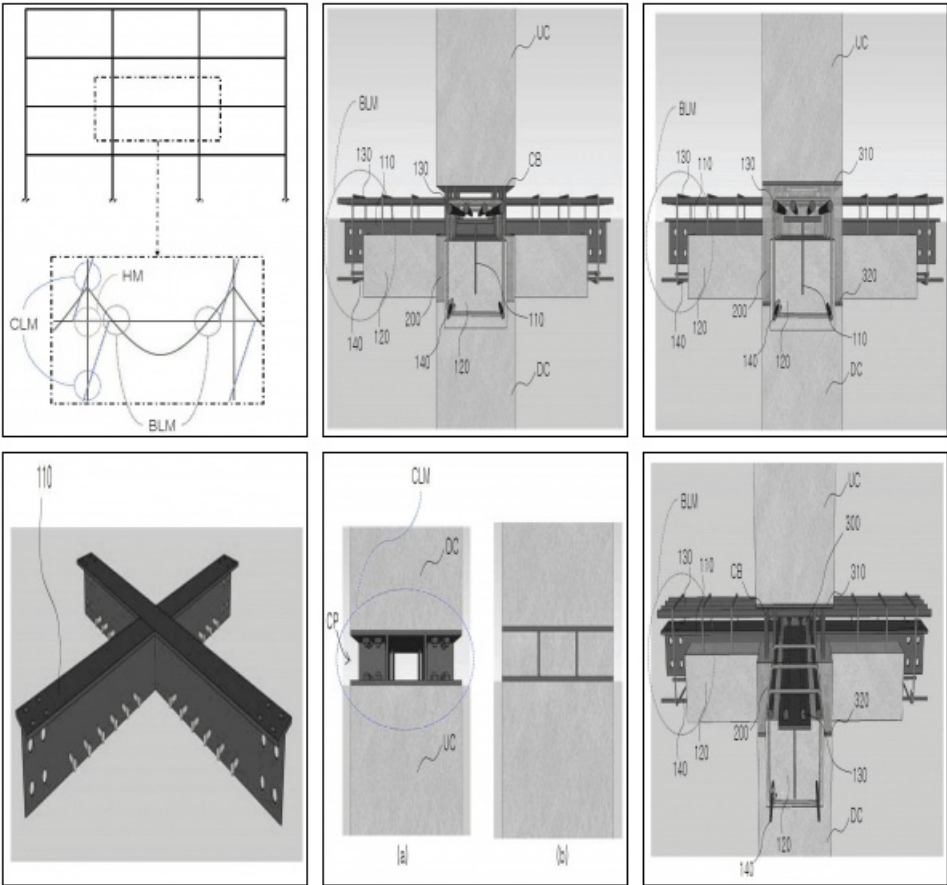
Title:
PRECAST CONCRETE COLUMN
AND BEAM UNIT ASSEMBLING
STRUCTURE BEING
CONNECTED IN THE LOW
BENDING MOMENT ZONE

Abstract:
Source: KR101260392B
PURPOSE: A prefabricated
structure of a PC (precast)
concrete column and a beam
unit is provided to improve
structural performance with
respect to vertical and
horizontal loads and to rapidly
perform a task in high-altitude.
CONSTITUTION: A PC concrete
column and a beam unit joined
in a low bending moment zone
comprises an upper PC
column(UC), a lower PC
column(DC), a column re-
bar(CB), a bracket
member(110), lower bracket
concrete(120), joint
concrete(200), and a low
bending moment joint material.
The lower bracket concrete and
joint concrete are integrally
poured for ...

Probable Assignee:
UNIV KYUNG HEE UNIV IND
COOP

Assignee(s):(std):
KH HOUSING SOLUTIONS CO
LTD ; UNIV KYUNG HEE UNIV
IND COOP ; UNIV KYUNG HEE
UNIV IND COOP GROUP

Assignee(s):
UNIVERSITY INDUSTRY
COOPERATION GROUP OF
KYUNG HEE UNIVERSITY ; IND
COOPERATION GROUP OF
KYUNG HEE UNIV ; KH
HOUSING SOLUTIONS CO



12 more images available

Title:ASSEMBLY OF PRE-CAST
CONCRETE COLUMNS**Abstract:**

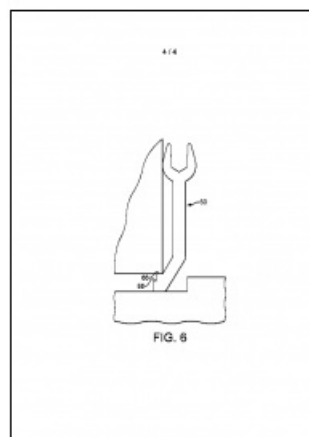
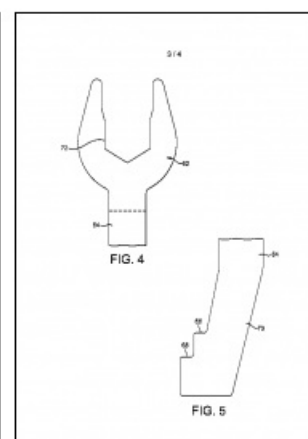
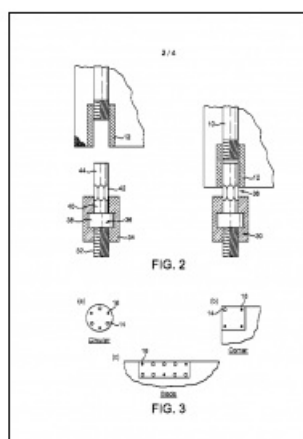
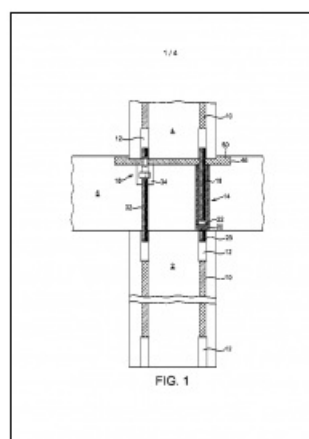
Source: GB201210828A The assembly comprises upper 4 and lower 2 pre-cast concrete or cementitious column sections containing a rebar 10, the sections being connected through an intermediate concrete slab 6. The lower face of the upper section has a projecting bar 18 that is held by grouting filler within in a void tube 20 in the slab, the void tube being coupled to a rebar in the lower section. A triangular array of swivel sockets receives a swivel thread connector 16 which is coupled to a rebar in the lower column section and projecting from the slab. The swivel connectors may comprise a ...

Probable Assignee:

LAING O ROURKE PLC

Assignee(s):(std):

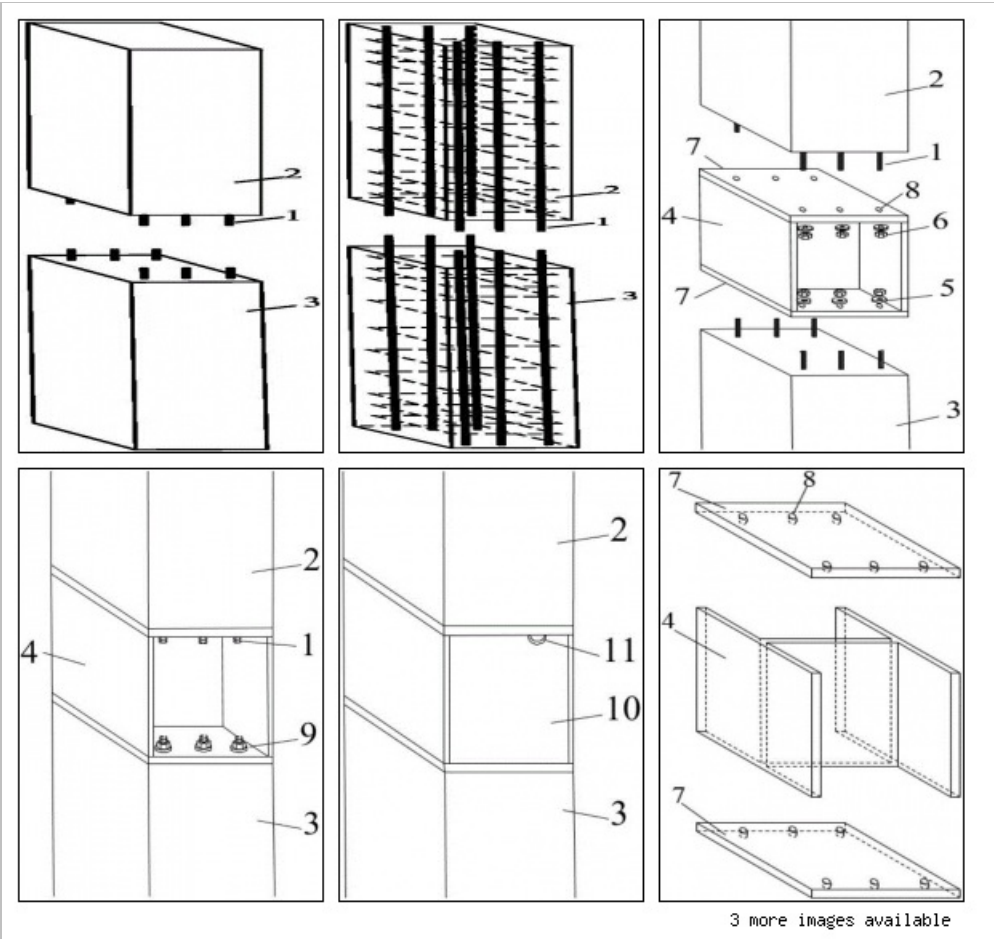
LAING O ROURKE PLC



Title:
DETACHABLE ASSEMBLED
REINFORCED CONCRETE
COLUMN AND POST SPlicing
JOINT

Abstract:
Source: CN206245471U The utility model discloses a detachable assembled reinforced concrete column and post splicing joint, it is main including the reinforced concrete upper prop, the lower prop, the steel connecting piece, overhangingly indulge muscle and 2 and take grout hole steel shrouding, it is wherein overhanging through indulging the muscle with reinforced concrete column, adopt and insert overhanging muscle from north to south in the steel connector bolt nut hole earlier, to indulge the muscle with nut and gasket screws up, then seal steel connecting piece both sides with ...

Probable Assignee:
UNIV HUNAN
Assignee(s):(std):
HUNAN UNIV ; UNIV HUNAN



3 more images available

Title:

- PC PC THE RIGID CONNECTION STRUCTURE BETWEEN HYBRID PRECAST CONCRETE COLUMN AND PRECAST CONCRETE BEAM THE CONSTRUCTION METHOD OF RIGID CONNECTION STRUCTURE USING THE SAME

Abstract:

Source: KR20170107117A The present invention provides a steel frame-concrete hybrid rigid-jointing structure of a PC pillar, and a PC beam with a joint unit on which concrete is placed; and a construction method for a rigid-jointing structure using the same. The frame-concrete hybrid rigid-jointing structure of the PC pillar and the PC beam with the joint unit on which the concrete is placed, comprises: a lower PC pillar (100) including lower pillar concrete (110), a lower pillar reinforcing bar (120), and a lower pillar plate (130) connected to an upper end of the lower pillar reinforcing bar ...

Probable Assignee:

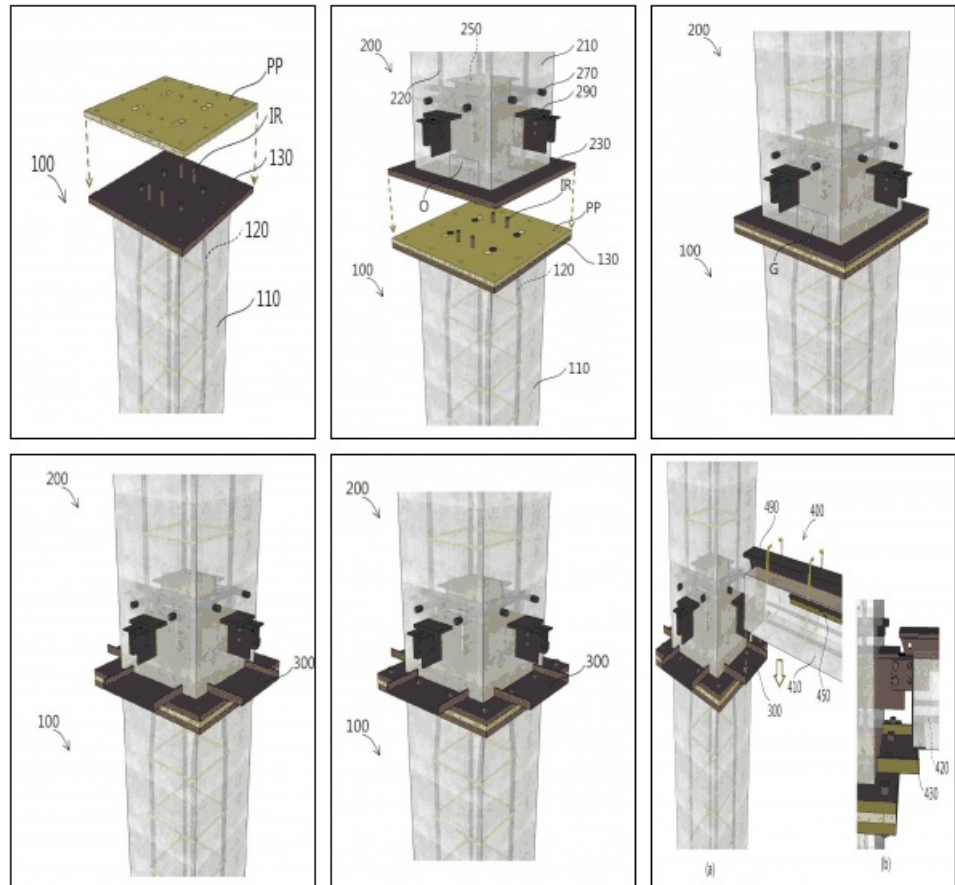
UNIV IND COOP GROUP OF KYUNG HEE UNIV

Assignee(s):(std):

IND COOPERATION GROUP OF KYUNG HEE UNIV ; UNIV IND COOP GROUP OF KYUNG HEE UNIV

Assignee(s):

UNIVERSITY INDUSTRY COOPERATION GROUP OF KYUNG HEE UNIVERSITY



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