

1) Family number: 30168837 (WO9957376A1)

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Title: A TECHNIQUE AND A DEVICE FOR BUILDING PROTECTIVE SEA WALLS OR ARTIFICIAL REEFS MADE OF MODULAR PARTS

Abstract: This technique enables to build harbour structures such as breakwaters, protective sea walls or artificial reefs. These structures are modular and can be removed after their installation. This technique uses mostly cylinder-shaped solids (6) fitted in the structures which can be filled with water or emptied to sink or float. This enables to transport the structures by sea. Since the structures are modular, they can be joined together vertically and horizontally so that structures of almost any size can be built. One of the devices which can be built is a structure with a closed cylinder (6) made of concrete, with a steel network structure (8) around it. The entire structure is prism-shaped with a triangular base and has open or closed surfaces with panels. The modules are joined together by means of conventional systems. The use of conventional floats (9) guarantees maneuverability to the modules.

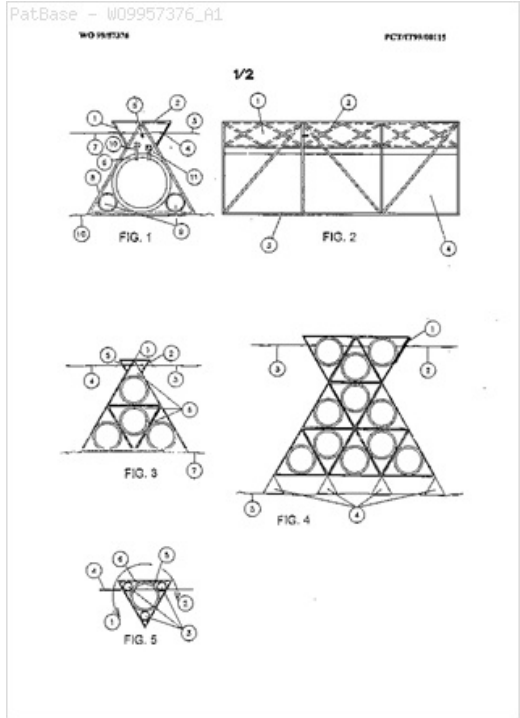
Classifications:

International (ipc 8-9): E02B3/04 E02B3/06 (Advanced/Invention); E02B3/04 E02B3/06 (Core/Invention)

International (ipc 1-7): E02B3/04 E02D

CPC: Y02A10/15 Y02A10/26 E02B3/046 E02B3/06

European: E02B3/04C E02B3/06



Family:

Publication number	Publication date	Application number	Application date
AU199938463 A1	19991123	AU19990038463	19990504
IT1299449 B1	20000316	IT1998RM00284	19980504
ITRM980284 A0	19980504	IT1998RM00284	19980504
ITRM980284 A1	19991104	IT1998RM00284	19980504
WO9957376 A1	19991111	WO1999IT00115	19990504

Priority:

IT1998RM00284 19980504 WO1999IT00115 19990504

Probable Assignee: GROSSI GIORGIO

Assignee(s): (std): GROSSI GIORGIO

Assignee(s): GIORGIO GROSSI

Inventor(s): (std): GROSSI GIORGIO

Inventor(s): GIORGIO GROSSI

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 GD 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

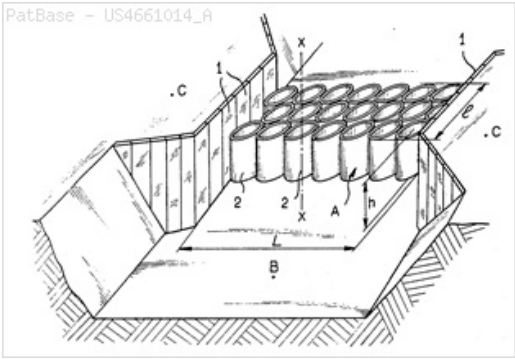
2) Family number: 5267018 (US4661014A)

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Title: Prefabricated civil engineering module, method for the construction of a structure including said module and resulting structure

Abstract: System for the construction and utilization of multitubular structures called modules A, whose joined elements (2) have a cylindrical or prismatic shape. The dimensions (L, l) transversely to the axis (X-X) of the elements (2) are greater than the dimension (h) along this axis (X-X). Several joined modules constitute a line of modules, used to close off a river. Several lines of modules can be superimposed to build an overspill structure of a certain height. Structure is provided to float a line of modules into place above its sinking site. Modules can also be used advantageously for certain works built on dry ground.

Classifications:
International (IPC 8-9): E02B3/04 E02B3/14 E02D17/20 E02D29/02 (Advanced/Invention); E02B3/04 E02B3/14 E02D17/20 E02D29/02 (Core/Invention)
International (IPC 1-7): E02B3/04 E02B3/06 E02B7/08 E02B7/14 E02D17/20 E02D29/02
CPC: E02B3/04 E02B3/14 E02D17/20 E02D17/20S E02D29/0208 E02D29/0266
European: E02B3/04 E02B3/14 E02D17/20 E02D17/20C E02D29/02B E02D29/02F1
US: 405/111 405/114 405/21



Family:

Publication number	Publication date	Application number	Application date
AT30610 E	19871115	AT19840402660T	19841219
DE0147311 T1	19850926	DE19840402660T	19841219
DE3467202 D1	19871210	DE19843467202	19841219
EP0147311 A2	19850703	EP19840402660	19841219
EP0147311 A3	19850828	EP19840402660	19841219
EP0147311 B1	19871104	EP19840402660	19841219
FR2557172 A1	19850628	FR19830020666	19831223
FR2557172 B1	19870424	FR19830020666	19831223
US4661014 A	19870428	US19840678571	19841204

Priority:

FR19830020666 19831223 EP19840402660 19841219

Probable Assignee: HYDRO ORGUE

Assignee(s): (std): AUBERT J ; GRP D INTERET ECONOMIQUE ; HYDRO ORGUE

Assignee(s): HYDRO ORGUE TOUR HORIZON ; HYDRO ORGUE PUTEAUX FR ; AUBERT JEAN ; D INTERET ECONOMIQUE GRP ; GROUPEMENT D INTERET ECONOMIQUE

Inventor(s): (std): AUBERT JEAN

Inventor(s): AUBERT JEAN F 75008 PARIS FR ; JEAN AUBERT

Designated states: AT CH DE FR GB IT LI NL SE

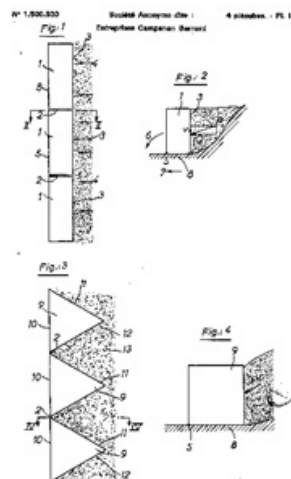
3) Family number: 21170272 (FR1500930A) © PatBase

Title: PROCEDE DE CONSTRUCTION DE MURS DE SOUTÈNEMENT OU DE QUAIS ET OUVRAGES CONSTRUITS SUIVANT CE PROCEDE
WALL CONSTRUCTION METHOD FOR SUPPORTING OR DOCKS AND ARTICLES CONSTRUCTED FOLLOWING THE METHOD (Machine translation)

Abstract: Source: FR1500930A [FR] (Claim 1) 1. Un procede de construction au moyen d'elements disposes cote a cote de murs de soutènement, de quais ou d'ouvrages analogues, destines a resister a une force de poussee due a la presence de terres ou de remblais, consistant a donner aux elements constituant l'ouvrage une forme generale prismatique a base horizontale triangulaire ou sensiblement triangulaire, et a grouper ces elements cote a cote de facon que, pour chacun des prismes, l'une des faces soit disposee dans le prolongement des faces correspondantes des deux prismes adjacents, disposes de part et d'autre du prisme considere, de maniere que l'ensemble desdites faces forme un parement continu ou a peu pres continu constituant le cote de l'ouvrage qui n'est pas soumis a la poussee des terres, les deux autres faces du prisme considere formant avec les faces correspondantes des prismes adjacents, des angles diedres dont l'arete se trouve sur ledit parement continu et qui s'ouvrent du cote de l'ouvrage par ou s'exerce la poussee des terres.

Machine translation: (Claim 1) 1. A process of construction through elements arranged side by side for retaining walls, piers or similar structures, intended to resist a thrust force due to the presence of land or embankments, consisting in giving elements constituting the book has a general form prismatic horizontal base triangular or substantially triangular, and group these elements side by side so that, for each prism, one side is disposed in the extension of the corresponding faces of two adjacent prisms, disposed of either side of the prism considered, fo that all of said faces form a continuous siding or almost continuous up the coast of the work which is not subject to the thrust of the land, the other two faces of the prism forming considered with the corresponding faces of adjacent prisms, with dihedral angles of the ridge is located on said facing continuous and open the side of the book or is exercised by the thrust of the land.

Classifications:
International (IPC 8-9): E02B3/06 E02D29/02 (Advanced/Invention); E02B3/06 E02D29/02 (Core/Invention)
International (IPC 1-7): E02B3/06 E02D29/02
CPC: E02B3/066 E02D29/0266
European: E02B3/06C E02D29/02F1

**Family:**

Publication number	Publication date	Application number	Application date
FR1500930 A	19671110	FR19660071509	19660729

Priority:

FR19660071509 19660729

Probable Assignee:

ENTPR S CAMPENON BERNARD

Assignee(s): (std):

ENTPR S CAMPENON BERNARD

Assignee(s):

ENTREPRISES CAMPENON BERNARD

4) Family number: 61063153 (US2015354160A)

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Title: BERM OR LEVEE EXPANSION SYSTEM AND METHOD

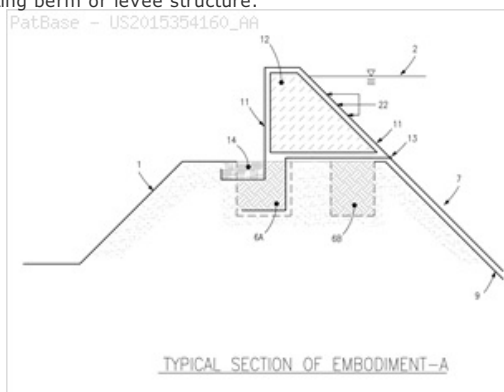
Abstract: A system and method to create or elevate a berm of a liquid retention facility by placement of lightweight fill material anchored by an impervious liner material(s). The impervious liner material is integral to a water retention system such as a containment system of a retention pond. The system and method can also be used to elevate the liquid retention height of a levee in combination with impervious liner retention material. By constructing the berm system on an existing levee, the effective height of the levee can be increased. The lightweight fill material provides the shape of the berm or levee extension. The liquid impervious liner material provides a watertight surface, the media for joining of the lightweight fill material, and the anchoring of the lightweight fill material to the existing berm or levee structure.

Classifications:

International (IPC 8-9): E02B3/10 E02B3/12 E02B7/00 E02B8/00 E02D17/18 (Advanced/Invention)

CPC: E02B3/10 E02B3/126 E02B3/122 E02D5/02 E02D5/80 E02D17/205 E02D2300/0006 E02D2300/0007 E02D2300/002 E02D2300/0029 E02D2300/0079 E02D2600/30 Y02A10/13 E02D2300/0009 E02D2300/0015

US: 405/116

**Family:**

Publication number	Publication date	Application number	Application date
US2015354160 AA	20151210	US20150731553	20150605
US2017254037 AA	20170907	US20170603834	20170524
US2018340305 AA	20181129	US20170685474	20170824
US9783944 BB	20171010	US20150731553	20150605

Priority:

US20140008662P 20140606
US20170685474 20170824

US20150731553 20150605

US20170603834 20170524

Probable Assignee:

RAGSDALE JR LARRY

Assignee(s): (std):

RAGSDALE JR LARRY ; RAGSDALE JR LARRY J

Inventor(s): (std):

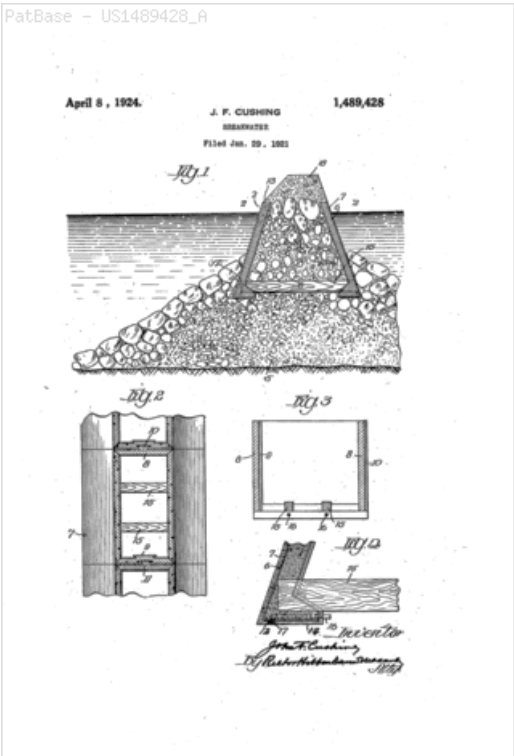
RAGSDALE JR LARRY ; RAGSDALE JR LARRY J

Agent(s):

DAVID

Title: BREAKWATER

Classifications:
International (IPC 8-9): E02B3/06 (Advanced/Invention);
E02B3/06 (Core/Invention)
International (IPC 1-7): E02B3/06
CPC: Y02A10/15 E02B3/06
European: E02B3/06
US: 405/21



Family:

Publication number	Publication date	Application number	Application date
US1489428 A	19240408	US19210441025	19210129

Priority:

US19210441025 19210129

Probable Assignee:

CUSHING JOHN F

Assignee(s): (std):

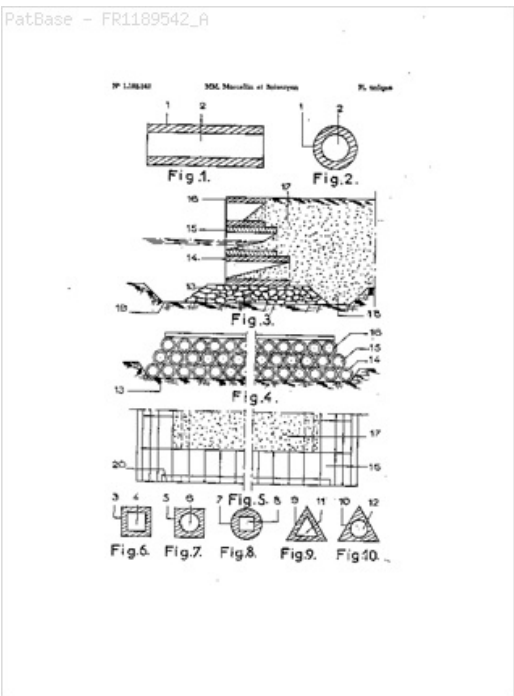
CUSHING JOHN F

Inventor(s): (std):

CUSHING JOHN F

Title: Blocs artificiels pour murs de quai Artificial blocks for the quay walls (Machine translation)

Classifications:
International (IPC 8-9): E02B3/06 E02D29/02 (Advanced/Invention);
E02B3/06 E02D29/02 (Core/Invention)
International (IPC 1-7): E02B3/06 E02D29/02
CPC: E02B3/066 E02D29/025
European: E02B3/06C E02D29/02E



Family:

Publication number	Publication date	Application number	Application date
FR1189542 A	19591005		19580107

Priority:

19580107

Inventor(s): (std): BOISRAYON ALBERT ; MARCELLIN AUGUSTE**7) Family number: 12957557** (US5605416A)

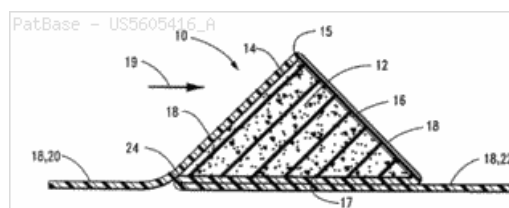
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Title: WATER, SEDIMENT AND EROSION CONTROL APPARATUS AND METHODS

Abstract: The water, sediment and erosion control apparatus of the present invention includes a water-permeable foam barrier extending generally longitudinal. The barrier has an upstream surface and a downstream surface. The apparatus also includes an apron extending laterally away from at least one surface of the barrier. The apparatus is reconfigurable for different applications by rotating the barrier relative to the apron. The method of the present invention comprises providing a reusable apparatus having an angled barrier and a protective apron, and anchoring the apparatus generally perpendicular to a natural flow of water, such that the water carrying the sediment is slowed and sediment is deposited upstream of the apparatus.

Classifications:**International (IPC 8-9):** E02B3/02 E02B3/10 (Advanced/Invention);

E02B3/00 E02B3/10 (Core/Invention)

International (IPC 1-7): E02B3/00**CPC:** E02B3/108 E02B3/02**European:** E02B3/02 E02B3/10**US:** 405/21 405/32**Family:**

Publication number	Publication date	Application number	Application date
US5605416 A	19970225	US19950410720	19950327

Priority:

US19950410720 19950327

Probable Assignee:

ROACH GARY W

Assignee(s): (std):

ROACH GARY W

Inventor(s): (std):

ROACH GARY W

8) Family number: 28089842 (WO03014480A1)

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Title: HEIGHTENING AND STRENGTHENING STRUCTURE FOR FLOOD BANKS

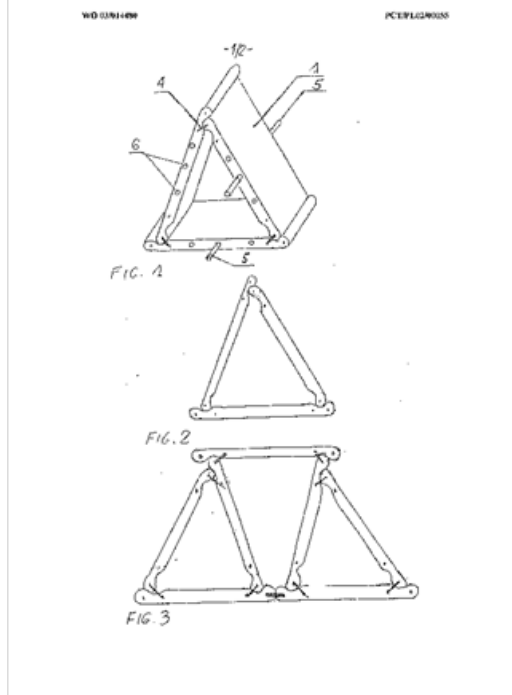
Abstract: The object of the invention is a heightening and strengthening structure, in particular for flood banks, and a constructional element of this structure, especially for banks used and not modernised for a long time. A heightening and strengthening structure, in particular for flood banks, sealed with plastic foil and the constructional element of its structure, made of reinforced concrete slabs characteristic in that it consists of repeatable barrier modules (1) and the barrier module (1) has a shape of a prism with one wall as a base of the barrier module and the remaining two side walls as the front (2) and the rear (3) wall of the barrier module (1) and the walls are joined together in the contact places with preferably metal clamps (4) while individual barrier modules (1) are stabilised with preferably metal rods placed in the holes (6) provided in the lateral surfaces (7) of the element.

Classifications:**International (IPC 8-9):** E02B3/10 E02B3/12

E02B7/20 (Advanced/Invention);

E02B3/10 (Core/Invention)

International (IPC 1-7): E02B3/10 E02B3/12**CPC:** E02B3/106**European:** E02B3/10

**Family:**

Publication number	Publication date	Application number	Application date
■ PL202105 B1	20090630	PL20010349081	20010808
■ PL349081 A1	20030210	PL20010349081	20010808
■ WO03014480 A1	20030220	WO2002PL00055	20020722

Priority:

PL20010349081 20010808

Probable Assignee: MARKIEWICZ HENRYK**Assignee(s):** (std): MARKIEWICZ HENRYK ; MYS ; MYSLOWSKI WLODZIMIERZ**Inventor(s):** (std): MYS ; MYSLOWSKI WLODZIMIERZ ; MARKIEWICZ HENRYK

Designated states: AM AT AU AZ BA BE BG BR BY CA CH CN CY CZ DE DK EE ES FI FR GB GH GM GR HR HU IE IL IT JP KE KG KR KZ LS LT LU MC MD MK MW MX MZ NL NZ PT RO RU SD SE SI SK SL SZ TJ TM TR TZ UA UG US YU ZM ZW

9) Family number: 5377506 (US4692060A)

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Title: WATER-BAG DAM OR DIKE AND METHOD

Abstract: A water-bag dam or dike comprises elongate tubes adapted to be filled with water. The tubes have three equal sides and are supported by longitudinal and lateral support members so that, when filled with water, they assume the shape of a substantially equilateral, triangular prism. The tubes can be stacked to make a dam or dike twice as tall and wide on the individual tubes. The tubes and support members can be transported to a flood situs and there be erected into an effective dam or dike just by filling the tubes with water.

Classifications:

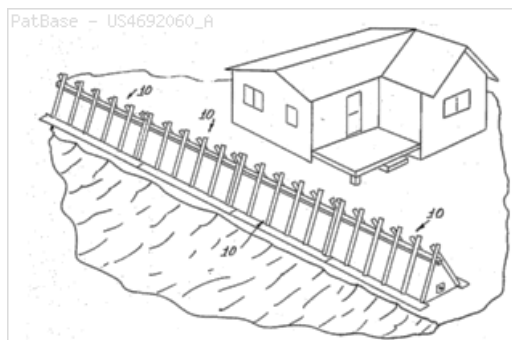
International (IPC 8-9): E02B3/10 E02B7/00 (Advanced/Invention); E02B3/10 E02B7/00 (Core/Invention)

International (IPC 1-7): E01F7/00 E02B7/20 E02B7/50

CPC: Y02A10/13 E02B3/108

European: E02B3/10

US: 256/13 405/115 405/91 52/2 52/2.18

**Family:**

Publication number	Publication date	Application number	Application date
■ US4692060 A	19870908	US19860882081	19860703

Priority:

US19860882081 19860703

Probable Assignee:

JACKSON III JAMES G

Assignee(s): (std):

JACKSON III JAMES G

Inventor(s): (std):

JACKSON III JAMES G

Title: CONNECTED WALL STRUCTURE CONSISTING OF STEEL PIPE SHEET PILES AND STEEL SHEET PILE, AND METHOD OF CONSTRUCTING SAME

Abstract: Provided are a connected wall structure consisting of steel pipe sheet piles and a steel sheet pile, and a method of constructing the same, such that there is formed a connected structure wherein a certain degree of construction errors can be allowed, with the result that constructability is excellent and construction cost can be reduced. In order that steel pipe sheet piles (1) which are installed by being driven, with a gap formed therebetween, will be connected together by a steel sheet pile (2) for the purpose of forming a connected wall structure, there are provided, on sides of the steel pipe sheet piles (1), connecting members (3) having slits (3a) which continue in the longitudinal direction. The ends of the sheet pile (2) are fitted into the slits (3a) from the longitudinal direction. Predetermined play (u) for absorbing construction errors between the steel pipe sheet piles (1) is provided in these connecting sections. Since spaces sufficient to absorb construction errors are provided in the connection sections for the steel pipe sheet piles (1) and the steel sheet pile (2), the ends of the steel sheet pile (2) can be easily fitted and installed even if the steel pipe sheet piles (1) undergo elongation or shrinkage due to driving.

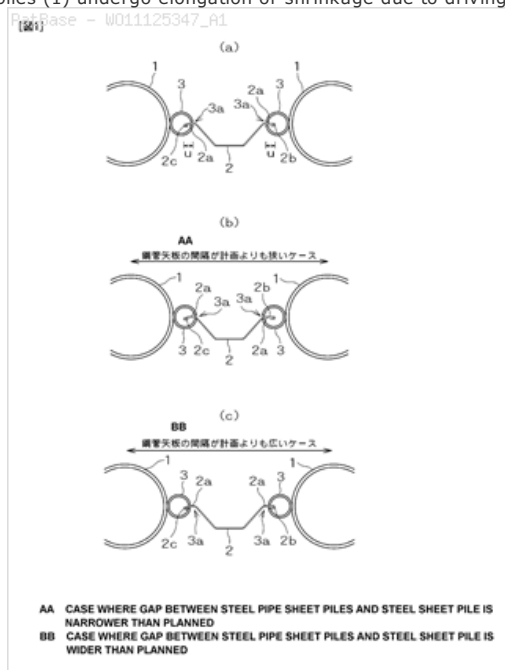
Classifications:

International (IPC 8-9): E02B E02B3/06 E02D E02D29/02 E02D5/06 E02D5/08 (Advanced/Invention);
E02D29/02 E02D5/06 (Core/Non-invention);
E02B E02D (Subclass/Invention)

International (IPC 1-7): E02B3/06 E02D5/08

CPC: E02D5/08 E02B3/066

European: E02B3/06C E02D5/08



Family:

Publication number	Publication date	Application number	Application date
■ CN102713074 A	20121003	CN201180005274	20110112
■ CN102713074 B	20150325	CN201180005274	20110112
■ CN104404915 A	20150311	CN201410602239	20110112
■ CN104404915 B	20160120	CN201410602239	20110112
■ EP2554751 A1	20130206	EP20110765249	20110112
■ EP2554751 A4	20170111	EP20110765249	20110112
■ HK1171483 A1	20130328	HK20120112254	20121128
■ HK1171483 A1	20151120	HK20120112254	20121128
■ HK1171483 B	20151120	HK20120112254	20121128
■ IN04254DN2012 A	20151113	IN2012DN04254	20120515
■ JP2011125347 A1	20130708	JP20110545518T	20110112
■ JP4998646 B1	20120815	JP20110545518T	20110112
■ JP4998646 B2	20120815	JP20110545518T	20110112
■ MY164688 A	20180130	MY20120700454	20110112
■ TW201139792 A	20111116	TW20110104403	20110210
■ TWI448608 B	20140811	TW20110104403	20110210
■ VN17158 A1	20170825	VN20120001509	20110112
■ WO11125347 A1	20111013	WO2011JP50312	20110112

Priority:

JP20100084944 20100401 CN201180005274 20110112 WO2011JP50312 20110112
JP20110545518 20110112

Probable Assignee: SUMITOMO METAL IND

Assignee(s): (std): NIPPON STEEL AND SUMITOMO METAL ; NIPPON STEEL AND SUMITOMO METAL CORP ; OKAMOTO MASANOBU ; OTSUSHI KAZUTAKA ; SUMITOMO METAL IND ; TSUKUDA KATSUO ; SUMITOMO METAL IND LTD

Inventor(s): (std): KATSUO TSUKUDA ; KAZUTAKA OTSUSHI ; MASANOBU OKAMOTO ; OKAMOTO MASANOBU ; OTSUSHI KAZUTAKA ; TSUKUDA KATSUO

Agent(s): TBK; NTD PATENT AND TRADE MARK AGENCY LTD; KUMON TAKASHI

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 TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW