

30 Documents

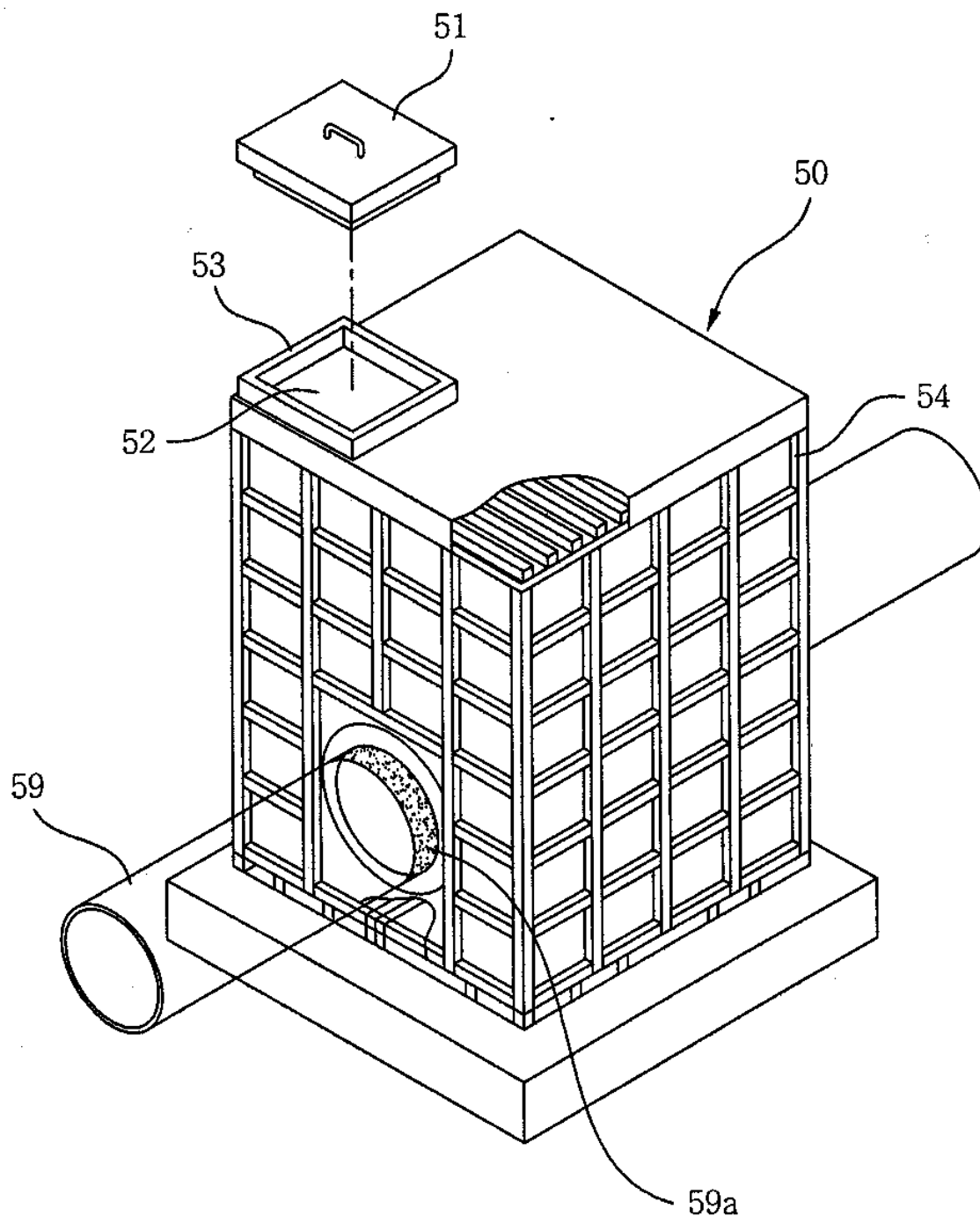
Publication numbers	Title	Current assignees
KR20060098014 A	Water-proof manhole with supervisory equipment	BOOYOUNG INDUSTRY ELECTRONIC, ...
CN206667293U U	Be applied to utility tunnel's automatic well lid device of hydraulic pressure	SHANGHAI ELECTRICAL APPARATUS RESEARCH INSTITUTE
CN207079632U U	Realize automatic well lid that translation upset opened through hydraulic means	Zhang Feng
KR200385408U Y1	Water-proof manhole with supervisory equipment	FRP, ...
DE202013102053 U1	Shaft cover	NORBERT SCHÜTZ
CN206128134U U	Manhole cover assembly	NANJING PULANING CONSTRUCTION ENGINEERING CONSULTING
CN207469314U U	Hydraulic pressure well lid device	SHENZHEN HECHUANG YONG AN INTELLIGENT TECHNOLOGY
CN107587526 A	Intelligent well lid system based on unmanned aerial vehicle and control method of system	CAI JING
CN107366308 A	Electric cable well lid disassembly detecting method and device	ZHEJIANG WINS WIRELESS NETWORK TECHNOLOGY
KR200402945U Y1	Reinforced manhole	FRP, ...
CN107419753 A	Novel security and protection intelligent well lid	CHANGSHA CHANGE RATE INFORMATION TECHNOLOGY
CN206873499U U	Waterproof control system that floods of well lid	YUNNAN CREALLIES TECHNOLOGY
CN207194024U U	Flood control is with well lid structure and inside and outside well lid device of combination formula	FUZHOU SANXINLONG CASTING
CN107476347 A	Flood prevention well lid structure and combined inner and outer well lid device	FUZHOU SANXINLONG CASTING
CN108316357 A	Well lid repair system and repair method	NANHUA UNIVERSITY
JP2012207396 A	System to display dangerous place in time of water disaster	NIPPON TELEGRAPH & TELEPHONE
AP201609103 A0	Thermoset polymer utility vault lid	CHANNELL COMMERCIAL, ...
AP201609102 A0	Method of manufacturing a thermoset polymer utility vault lid	CHANNELL COMMERCIAL, ...
EP2256253 A2	Separator assembly with a separator tank	OPANSKI JOSEF ZOLTAN

Publication numbers	Title	Current assignees
CN207904982U U	Wellhead repair system	NANHUA UNIVERSITY
CN108277822 A	Protective intelligent sealing cover plate of ventilation opening used for comprehensive pipe rack and capable of taking civil defense design into consideration and performance detecting and control method	PLA ARMY ENGINEERING UNIVERSITY
WO201017399 A2	Safety hatch system	SAFEPRO
JP2010140441 A	Radio unit and flood detection system	NIPPON TELEGRAPH & TELEPHONE
JP2016014255 A	Monitoring and control system and manhole cover	MEIDENSHA ELECTRIC MANUFACTURING
JP2007016479 A	Pavement replacing construction method of manhole arranging road surface	NAKAKEN
CN206329436U U	Intelligence well lid is from power supply unit	NANJING UNIVERSITY OF POSTS & TELECOMMUNICATIONS
CN206523748U U	Well lid control system based on thing networking	HUNAN XINGUANG WELL COVER TECHNOLOGY
CN205352501U U	Well lid and water level monitoring device thereof	HUANG XIN
NZ-630446 A	Monitoring systems and methods	SOUTH EAST WATER
WO201327754 A1	Circular cutting device, circular cutting method, removal construction method for underground structure, and road-paving construction method	TSUBAKIMORI SHINICHI, ...

Family 1/30 - FAMPAT - ©Questel

Title

(KR100712394)

Water-proof **manhole** with supervisory equipment**Images****Publication data including kind & date**

KR20060098014	A	2006-09-18	KR20060098014
KR100712394	B1	2007-05-02	KR100712394

**Abstract**

(KR100712394)

PURPOSE: A supervisory waterproof **manhole** is provided to install, manage and protect high-priced facilities in a **manhole** by cutting off the inflow of water to a **manhole** and monitoring the internal conditions such as leaking water, temperature and humidity, gas, vibration, etc. in real time.

CONSTITUTION: A supervisory waterproof **manhole**(50) comprises: a main **manhole** body(54) cutting off the inflow of the outside water by forming a setting plane(53) on the upper part of a **manhole** hole(52) and coupling a **manhole** cover(51) along the setting plane; a setting part forming a setting plane by forming an end projection along an internal wall of the **manhole** hole formed on the main **manhole** body; an auxiliary cover covering the inside of the **manhole** hole by forming a coupling plane fixed along the setting plane of the setting part on the edge; a monitor checking the internal condition of the main **manhole** body; a processor obtaining and storing the information detected by the monitor, and transmitting and receiving the data of the information; and a watertight member installed between the setting part and the auxiliary cover to prevent a water leakage on the contact surface between the setting plane and the auxiliary cover and composed of a primary sealing part contacted with an internal wall of the **manhole** hole around the setting plane to seal up the interval between the **manhole** hole and the setting plane, an elastic space unified with the primary sealing part and a secondary sealing part sealing up the contact surface between the setting plane and the auxiliary cover by the elastic transformation of the elastic space. A construction method of the supervisory waterproof **manhole** comprises the steps of: manufacturing a **manhole**; excavating an underground space around a pipeline(59); installing a foundation and installing the pre-manufactured main **manhole** body along the underground space to be coupled with the pipeline; waterproofing the pipeline and coupling to a groove(59a) formed on the wall surface of the main **manhole** body; installing a monitor along the internal wall or space of the main **manhole** body to check the internal condition and installing a processor for obtaining, storing the information detected by the monitor and transmitting, receiving the data of the information; and waterproofing the **manhole** hole by coupling the **manhole** cover and the auxiliary cover.

(C) KIPO 2006

Inventors

NAMKOONG LAK

Latest standardized assignees - inventors removed

BOOYOUNG INDUSTRY ELECTRONIC

FRP

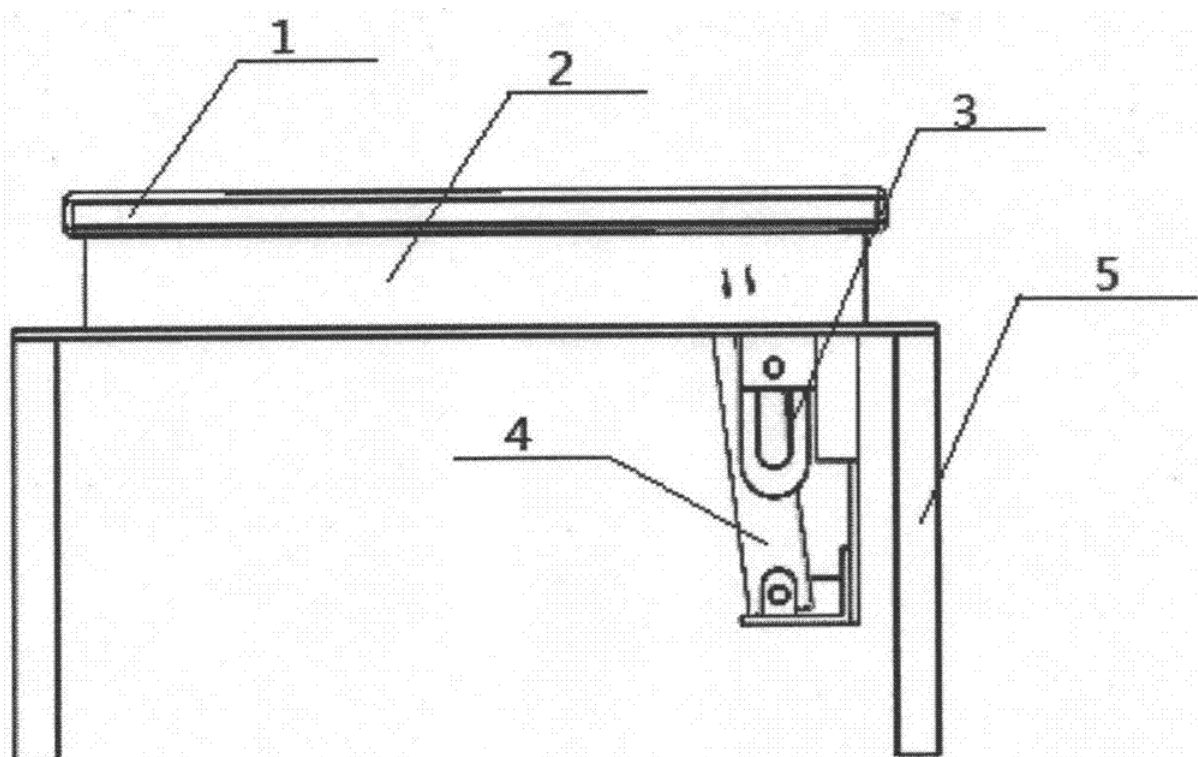
Family 2/30 - FAMPAT - ©Questel

Title

(CN206667293U)

Be applied to utility tunnel's automatic well **lid** device of **hydraulic** pressure

Images



Publication data including kind & date

CN206667293

U 2017-11-24 CN206667293U

**Abstract**

(CN206667293U)

The utility model provides a be applied to utility tunnel's automatic well **lid** device of **hydraulic** pressure, including matcing the well **lid** and L type walling crib that sets up, L type walling crib is fixed in installation fixed bolster upper portion, and jacking cylinder is fixed in installation fixed bolster lower part, inside jacking fixed establishment board was located L type walling crib, jacking cylinder was connected to jacking fixed establishment board lower extreme, well **lid** one side is supported to the upper end, the inside upset bearing that passes through of this side of well **lid** is connected with jacking fixed establishment board, and the well **lid** can be around the upset of upset bearing. During the use, the jacking cylinder jacking, the flat steady well **lid** that holds up of jacking fixed establishment, the ascent is during to a take the altitude, and the automatic upset of well **lid** is opened to the stopper position, and the well **lid** stops the upset. The utility model discloses collecting automatic, intelligent and conveniently transporting characteristics such as dimension personnel discrepancy, it is convenient to control, and possess communication interface, can satisfy the demand of remote management and control, the well **lid** is when satisfying the bearing capacity, and it is convenient to install, safe theftproof, and long service life.

Inventors

TANG XIAOJUN

QI CHENCHEN

ZHOU YONG

ZHU ZHEN

YAO WEI

CAO GUOQIANG

Latest standardized assignees - inventors removed

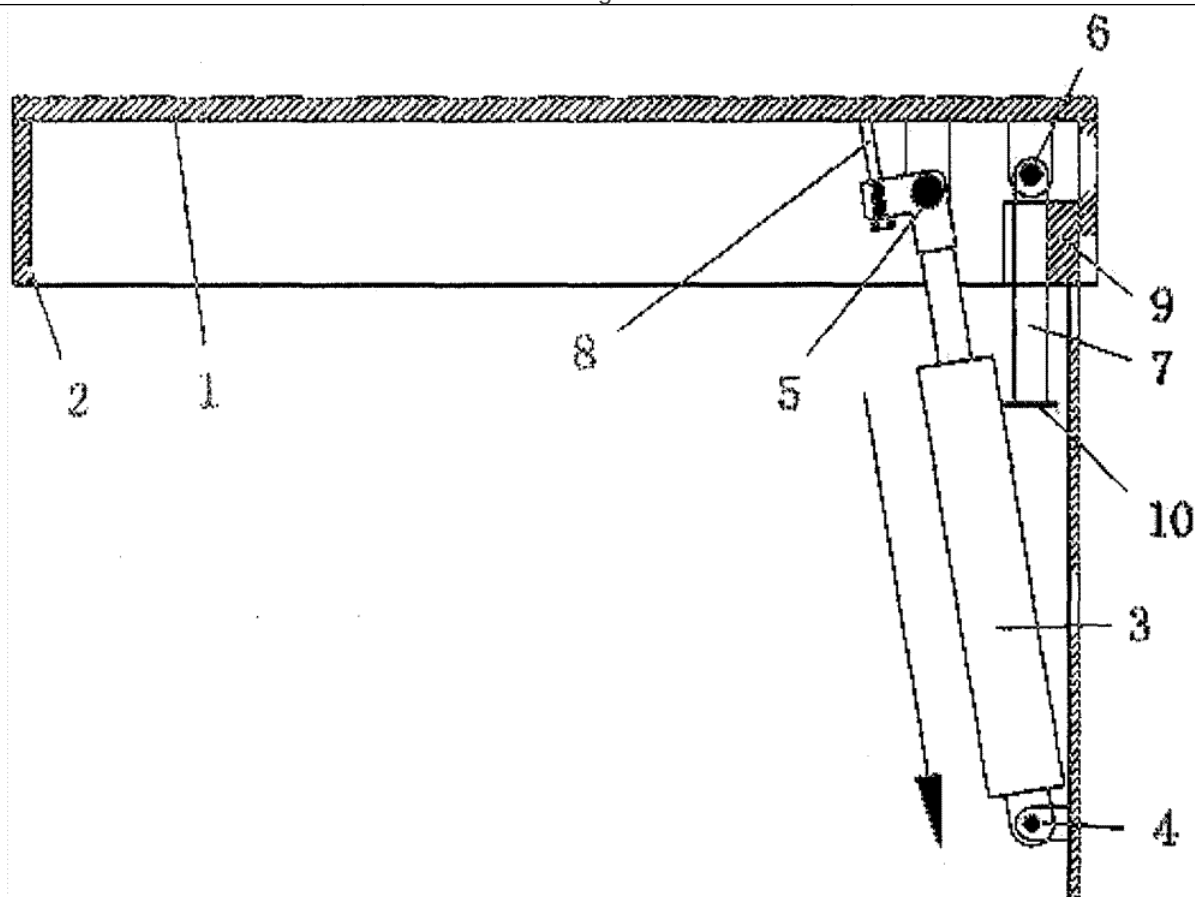
SHANGHAI ELECTRICAL APPARATUS RESEARCH INSTITUTE

Family 3/30 - FAMPAT - ©Questel

Title

(CN207079632U)

Realize automatic well **lid** that translation upset opened through **hydraulic** means**Images**



Publication data including kind & date

CN207079632

U

2018-03-09

CN207079632U



Abstract

(CN207079632U)

The utility model relates to a municipal administration road infrastructure technical field especially relates to a realize automatic well lid that translation upset opened through hydraulic means. This realize automatic well lid that translation upset opened through hydraulic means is by removable cover, unable adjustment base, drive arrangement triplex, removable cover passes through the top that hinge II connects drive arrangement to connect in the top of guide pillar through hinge III, drive arrangement top one side still is equipped with adjustment mechanism, the drive arrangement lower extreme is fixed in unable adjustment base through hinge I on, the unable adjustment base inner wall is equipped with guider, and the guide pillar runs through in guider, and the one end of guide pillar is connected with the stopper. The utility model provides a pair of realize automatic well lid that translation upset opened through hydraulic means, the well head headroom is big, the leakproofness good, prevent destroying, corrosion -resistant, the durability good, do not have external hinge, can the translation upset open.

Inventors

ZHANG FENG

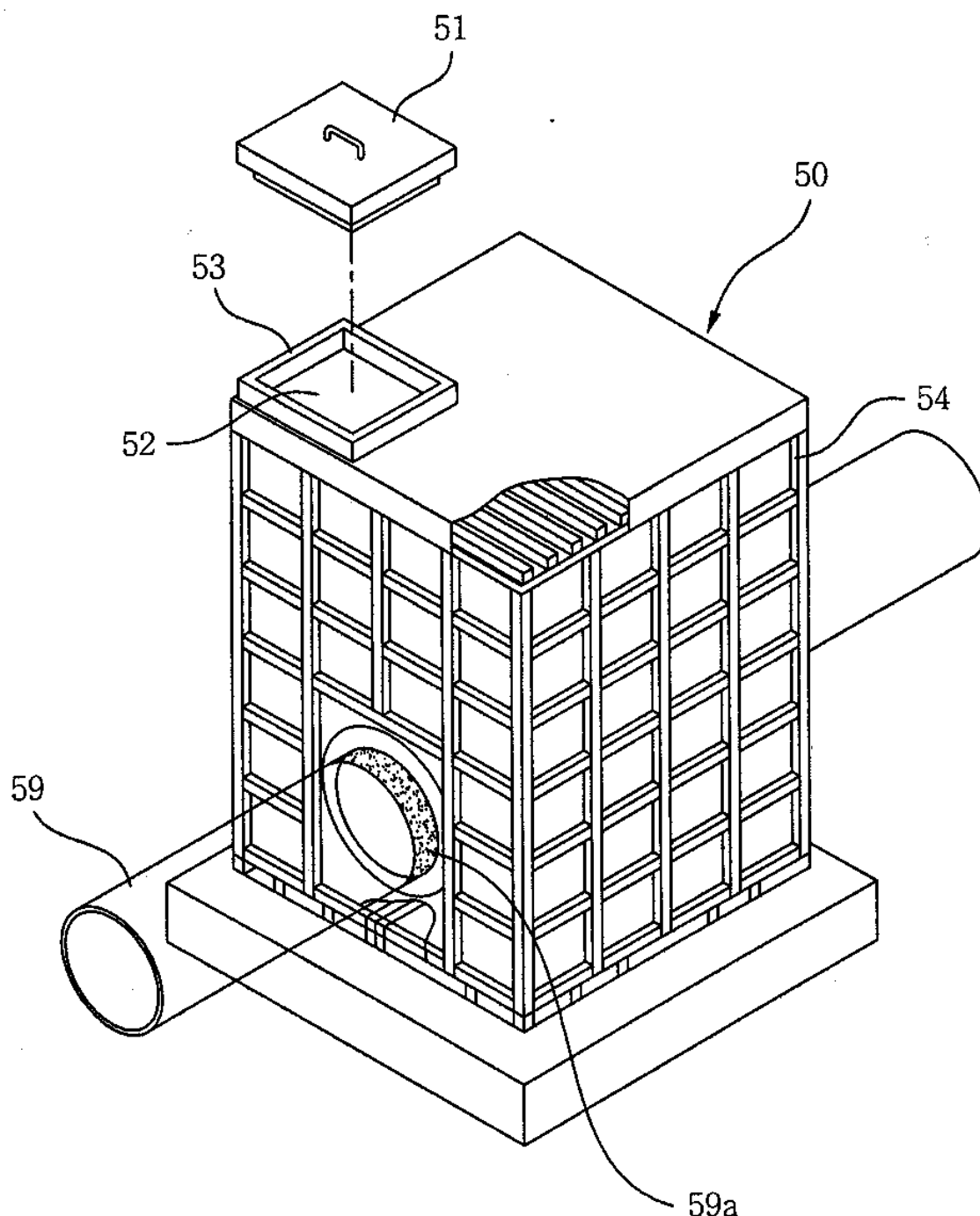
Family 4/30 - FAMPAT - ©Questel

Title

(KR200385408U)

Water-proof manhole with supervisory equipment

Images



Publication data including kind & date

[KR200385408](#)

Y1 2005-05-27 KR200385408U



Abstract

(KR200385408U)

This invention relates to a road **manhole** monitoring type waterproofing embedding relates more particularly to prevent inflow of the incoming water into the **manhole** and the **manhole** structure while providing the water inlet is introduced into the **manhole** to the outside if it is detected at an early stage in the **manhole** by leakage of information to a substrate for an expensive and also to prevent the water, temperature, humidity, vibration, harmful gas, whether or not the closing of the **manhole** cover, and abnormality of the power supply can be checked so as to maintain the inside of a **manhole** to be the best for the present invention.

Manhole type waterproofing monitoring according to the present invention is, in the mounting surface on an upper side of the hole to form a **manhole** and a **manhole** cover according to the seating surface bonded to the outside of the body of the block entry of the influent **manhole**, the **manhole** **manhole** aperture formed in the body of the ledge along the inner wall of

the **manhole** cover is formed separately from the outer side of the seating surface is formed with a predetermined mounting surface on the seating portion, wherein the seating portion of the seating surface bonded to the surface mounted along the edges of the holes formed in the inside of the **manhole** cover with an auxiliary **lid**, the inner wall of the **manhole** body according to the interior of the body of the **manhole** or space in order to check the condition monitoring device is installed, the monitoring device for the acquisition of the information detected by the transmit and receive data and information storage and processing device is characterized in that it.

Inventors

NAMKOONG Lak

Latest standardized assignees - inventors removed

FRP

BOOYOUNG INDUSTRIAL ELECTRONIC

Family 5/30 - FAMPAT - ©Questel

Title

(EP2924173)

Shaft cover

Images

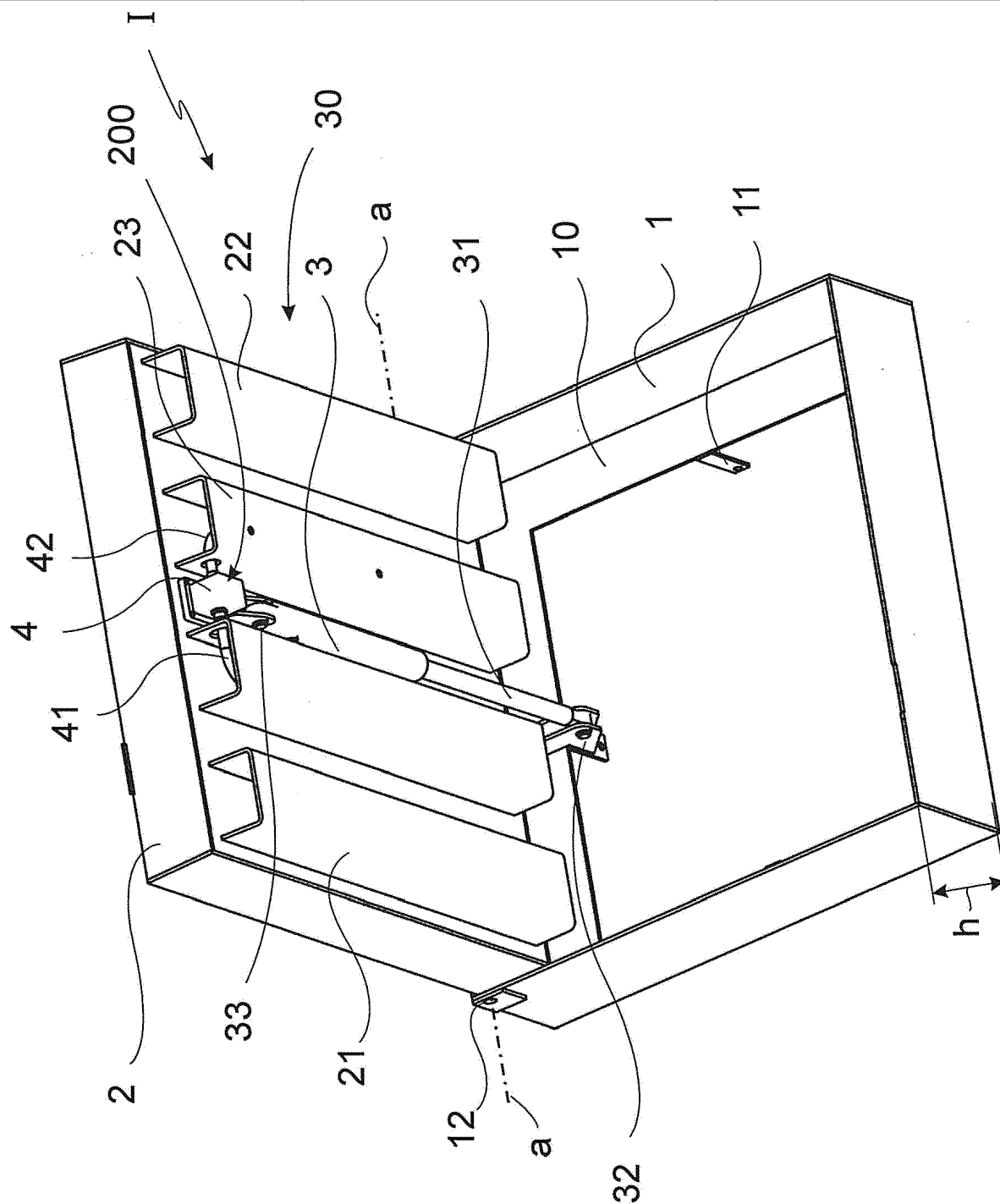


Fig. 1

Publication data including kind & date

DE202013102053	U1	2013-08-08	DE202013102053
EP2924173	A1	2015-09-30	EP2924173
EP2924173	B1	2017-09-13	EP2924173

**Abstract**

(EP2924173)

The invention relates to a **manhole** cover, where each at least one outer frame and inner cover frame includes, support frame and cover frame in the closed state of the shaft cover aligned with respect to height and are at least cover frame corresponding to an outside of the shaft cover extending plate shaped filling or arranged or can be placed and the covering

frame relative to the support frame by a pivoting means pivots the pivot at least one active-acting pneumatic, **hydraulic** or electromechanical drive with a drive shaft is assigned and the manipulator, both the frame and on the cover frame engages, the cover frame relative to the support frame for opening and closing of the **manhole** cover to pivot.

Inventors

SCHÜTZ NORBERT

Latest standardized assignees - inventors removed

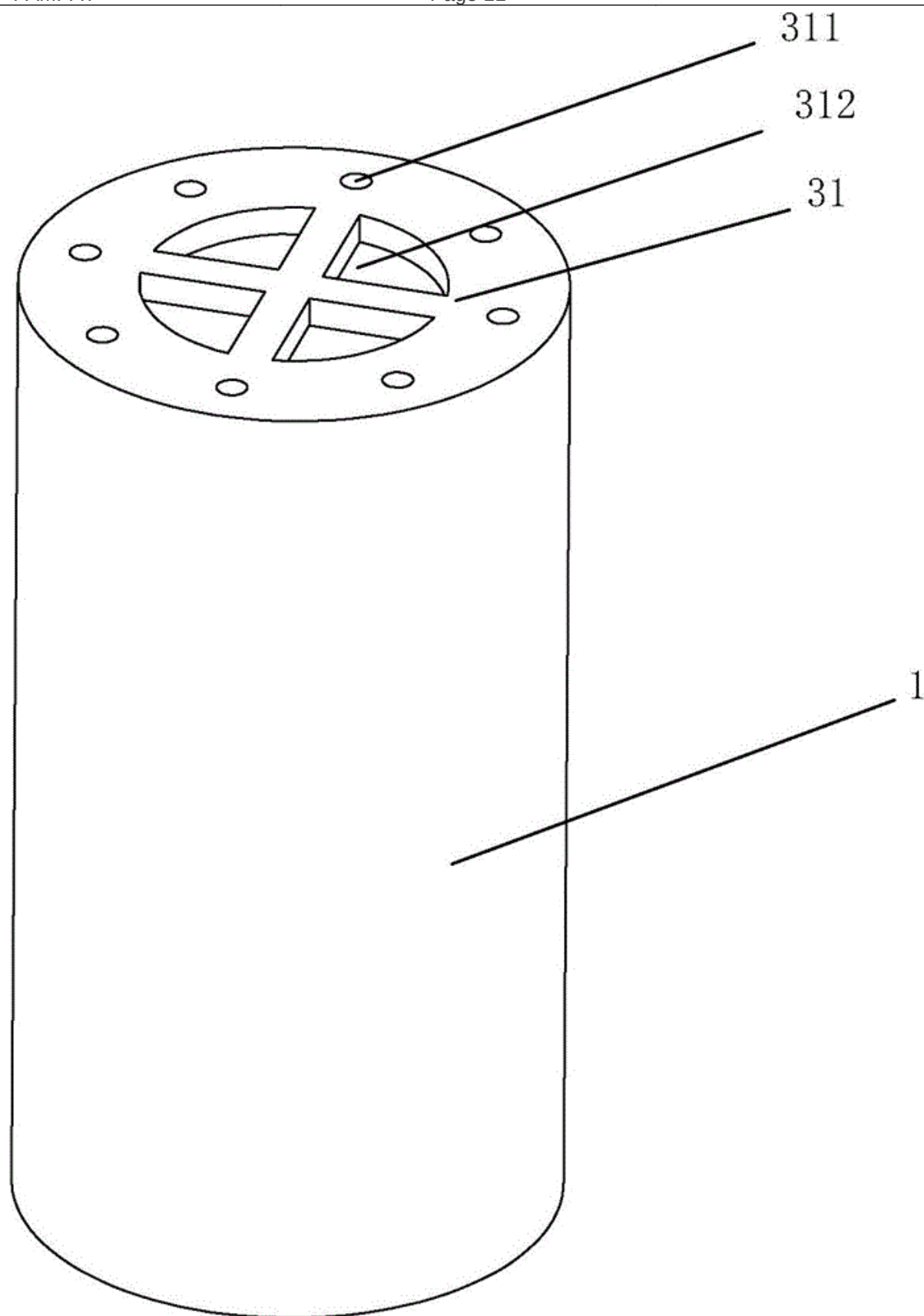
NORBERT SCHÜTZ

Family 6/30 - FAMPAT - ©Questel

Title

(CN206128134U)

Manhole cover assembly**Images**

**Publication data including kind & date**[CN206128134](#)

U

2017-04-26

CN206128134U

**Abstract**

(CN206128134U)

The utility model discloses a **manhole** cover assembly, belong to municipal drainage technology field, it need not to open the **manhole** cover assembly that the inspection shaft **lid** just can increase water discharge ability to aim at providing one kind, the technical scheme is as follows, be equipped with a supporting bench of step form on the inner wall of inspection shaft, the inspection shaft **lid** is including last well **lid** and lower well **lid**, evenly be equipped with a plurality of holes that leak

around the last well **lid**, it is equipped with a plurality of rain leakage holes to go up the well **lid**, the lower fixed surface of well **lid** is connected with the landing leg down, be equipped with rotating device and **hydraulic** cylinder on the supporting bench, the landing leg passes through rotating device and **hydraulic** cylinder swing joint on a supporting bench.

Inventors

ZHOU JIANMING

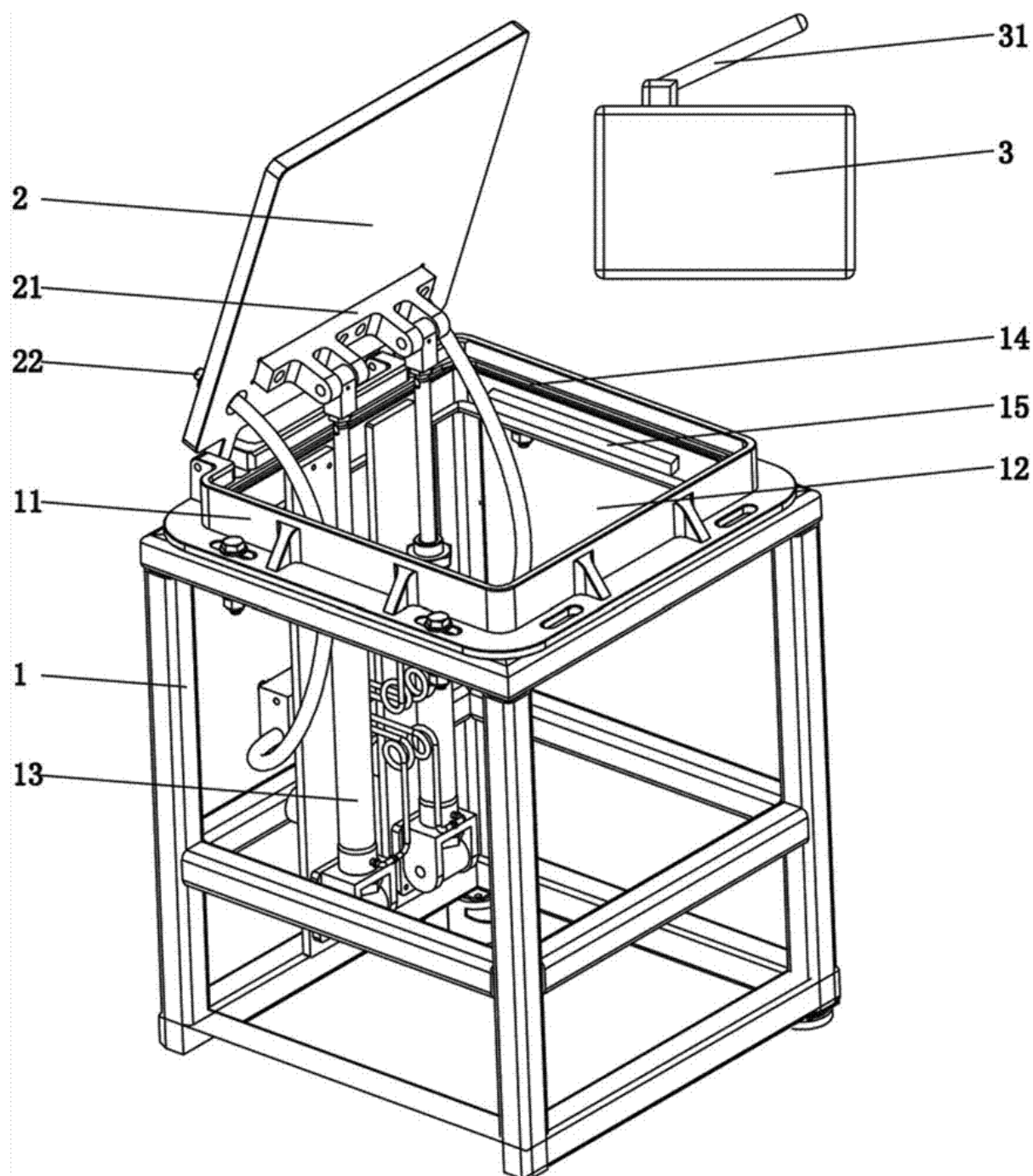
Latest standardized assignees - inventors removed

NANJING PULANING CONSTRUCTION ENGINEERING CONSULTING

Family 7/30 - FAMPAT - ©Questel

Title

(CN207469314U)

Hydraulic pressure well **lid** device**Images****Publication data including kind & date**

CN207469314

U 2018-06-08 CN207469314U

**Abstract**

(CN207469314U)

The utility model relates to a city inspection shaft management technique field specifically indicates a **hydraulic** pressure well **lid** device, including derrick, apron and control box, the derrick setup with the piping lane opening is integrative, is equipped with mouth of pipe base on the last port of derrick, in apron movably located the passway of mouth of pipe base, the one end of apron was rotated with mouth of pipe base and is connected, be equipped with **hydraulic** booster on the derrick, **hydraulic** booster's cylinder body lower extreme rotates with the derrick to be connected, and **hydraulic** booster's push rod upper end is rotated with the apron and is connected, the control box passes through the pipeline to be connected with **hydraulic** booster, is equipped with electronic **hydraulic** pump and remote control module in the control box, the utility model discloses it is rational in infrastructure, wellhead cover plate is opened or closed through remote control case remote control pneumatic cylinder, optical grating inductor detects the personage and has an emergence of avoiding the accident, is provided with the sealing strip between mouth of pipe base and the apron and avoids steam to dip damage inner line, disposes manual and outside **hydraulic** pressure turn -on mode simultaneously, improve equipment's operational reliability.

Inventors

WANG JUN

LIU HONGBO

HUANG ZHUOHUI

WANG CHENGYU

LUO ZHIQUAN

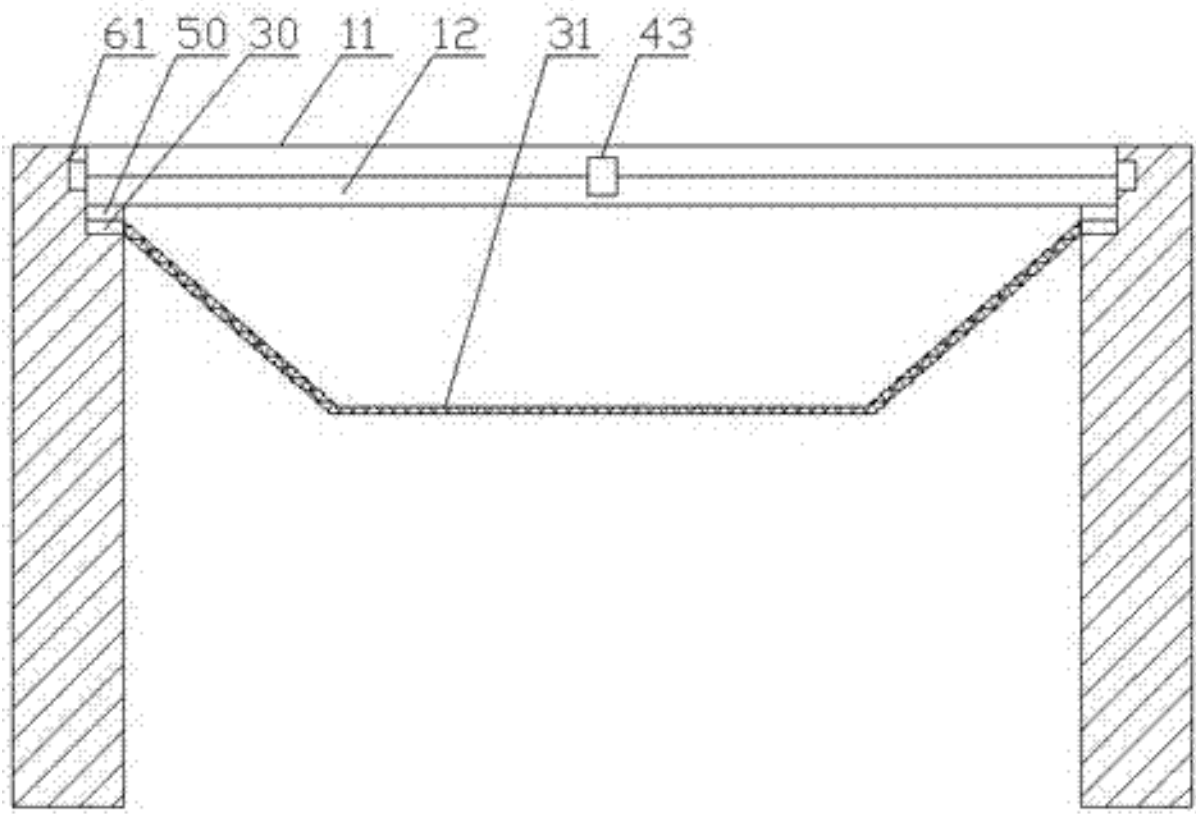
Latest standardized assignees - inventors removed

SHENZHEN HECHUANG YONG AN INTELLIGENT TECHNOLOGY

Family 8/30 - FAMPAT - ©Questel

Title

(CN107587526)

Intelligent well **lid** system based on unmanned aerial vehicle and control method of system**Images****Publication data including kind & date**

CN107587526

A 2018-01-16 CN107587526

**Abstract**

(CN107587526)

An intelligent well **lid** system based on an unmanned aerial vehicle comprises a shell, the unmanned aerial vehicle, a filtering device, a connecting device, a warning device, a detection device, a positioning device, a navigation device, a **wireless** device and a processor. The shell comprises a storage layer, a well **lid** layer, a drainage port, a liquid flow meter, a **hydraulic** pump and a **hydraulic** rod. The unmanned aerial vehicle is arranged in a storage bin and used for suspending the shell; the filtering device comprises a filter connecting lock catch and a filter screen; the connecting device comprises a connecting buckle, a connecting rope, a fixing buckle and a well **lid** connecting lock catch; the warning device comprises a lamplight alarm and a sound alarm; the detection device comprises a camera and a metal detector, and the positioning device is arranged in the unmanned aerial vehicle and used for positioning the unmanned aerial vehicle and acquiring positioning data; the navigation device is arranged on one side of the positioning device and used for planning a flight route; the **wireless** device is arranged on one side of the navigation device; the processor is arranged on one side of the **wireless** device.

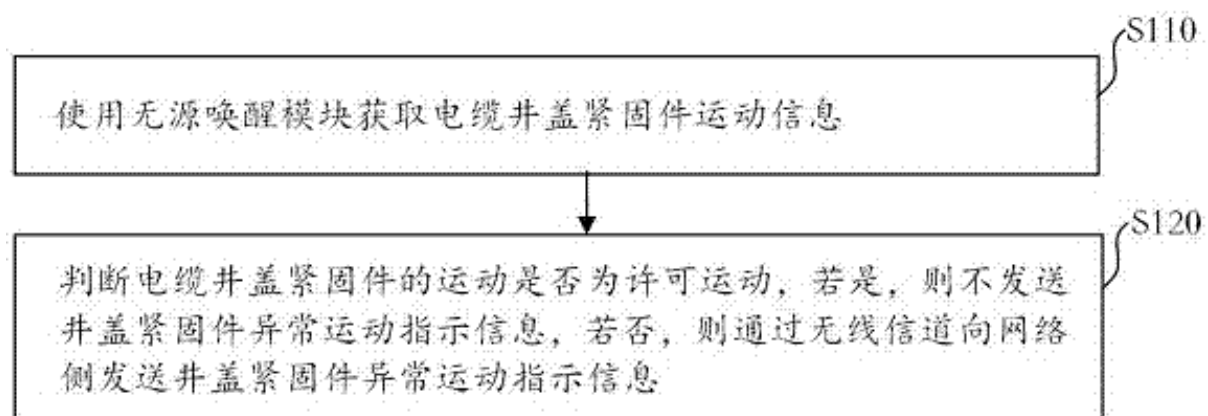
Inventors

CAI JING

Family 9/30 - FAMPAT - ©Questel

Title

(CN107366308)

Electric cable well **lid** disassembly detecting method and device**Images****Publication data including kind & date**

CN107366308

A 2017-11-21 CN107366308

**Abstract**

(CN107366308)

The invention relates to an electric cable well **lid** disassembly detecting method and device. The electric cable well **lid** disassembly detecting method comprises the following steps: using a passive wake-up module to acquire the motion information of fastening pieces of the electric cable well **lid**; judging whether the motion of the fastening pieces of the electric cable well **lid** is a permitted motion or not; if yes, not sending abnormal motion indication information of the fastening pieces of the electric cable well **lid**; and if not, sending the abnormal motion indication information of the fastening pieces of the electric cable well **lid** to the network side through a **wireless** channel. The electric cable well **lid** disassembly detecting method and device have the benefits as follows: the cost is low, the power consumption is low, the accuracy is high and the practicability is high.

Inventors

HU MIAOLONG

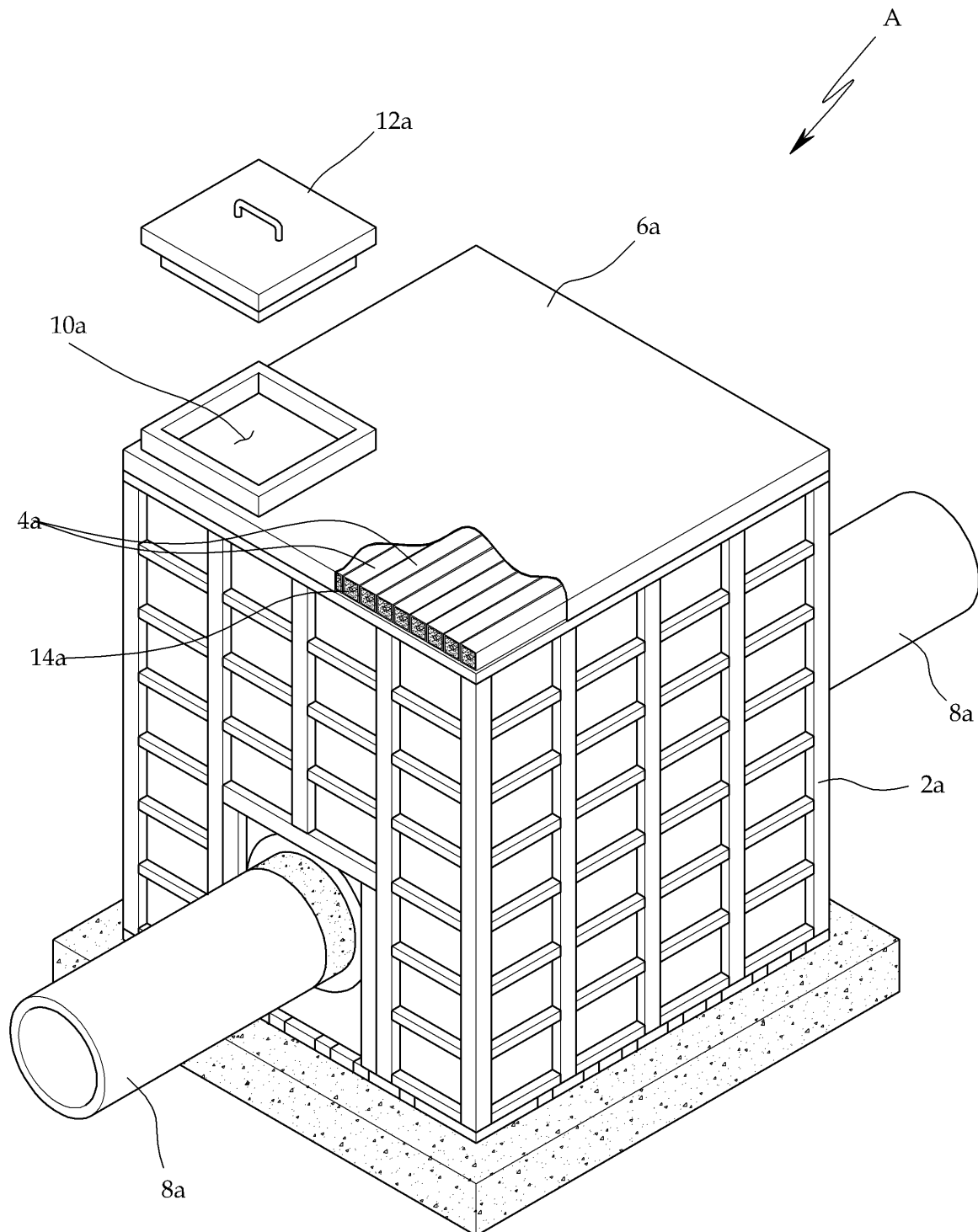
ZHOU XIAO

Latest standardized assignees - inventors removedZHEJIANG WINS **WIRELESS** NETWORK TECHNOLOGY

Family 10/30 - FAMPAT - ©Questel

Title

(KR200402945U)

Reinforced **manhole****Images****Publication data including kind & date**[KR200402945](#)

Y1 2005-12-09

KR200402945U

**Abstract**

(KR200402945U)

The present invention relates to enhance durability and waterproof to a **manhole**, a body having a space inside, mounted on the upper portion of the body includes a plurality of structural steel tube, the structure is formed over a steel tube for a

manhole comprised in the slab, the steel pipe (4a) for the inner side of the structure for reinforcing the strength of the reinforcing member (14a) for the presence and, as a concrete reinforcing material (14a) (144a) are used for the expansion, the expansion of the concrete chemical composition of the magnesium oxide (MgO) as used to expand the crack strength of concrete with a compressive strength that is configured to increase the features.

Having the configuration described above according to the present invention relates, in structural steel rebar reinforcement of concrete by the expanded presence by enhancing the strength, durability and safety of the wheel with respect to a load by increasing the service life can be prolonged.

Inventors

NAM KOONG LAK

Latest standardized assignees - inventors removed

FRP

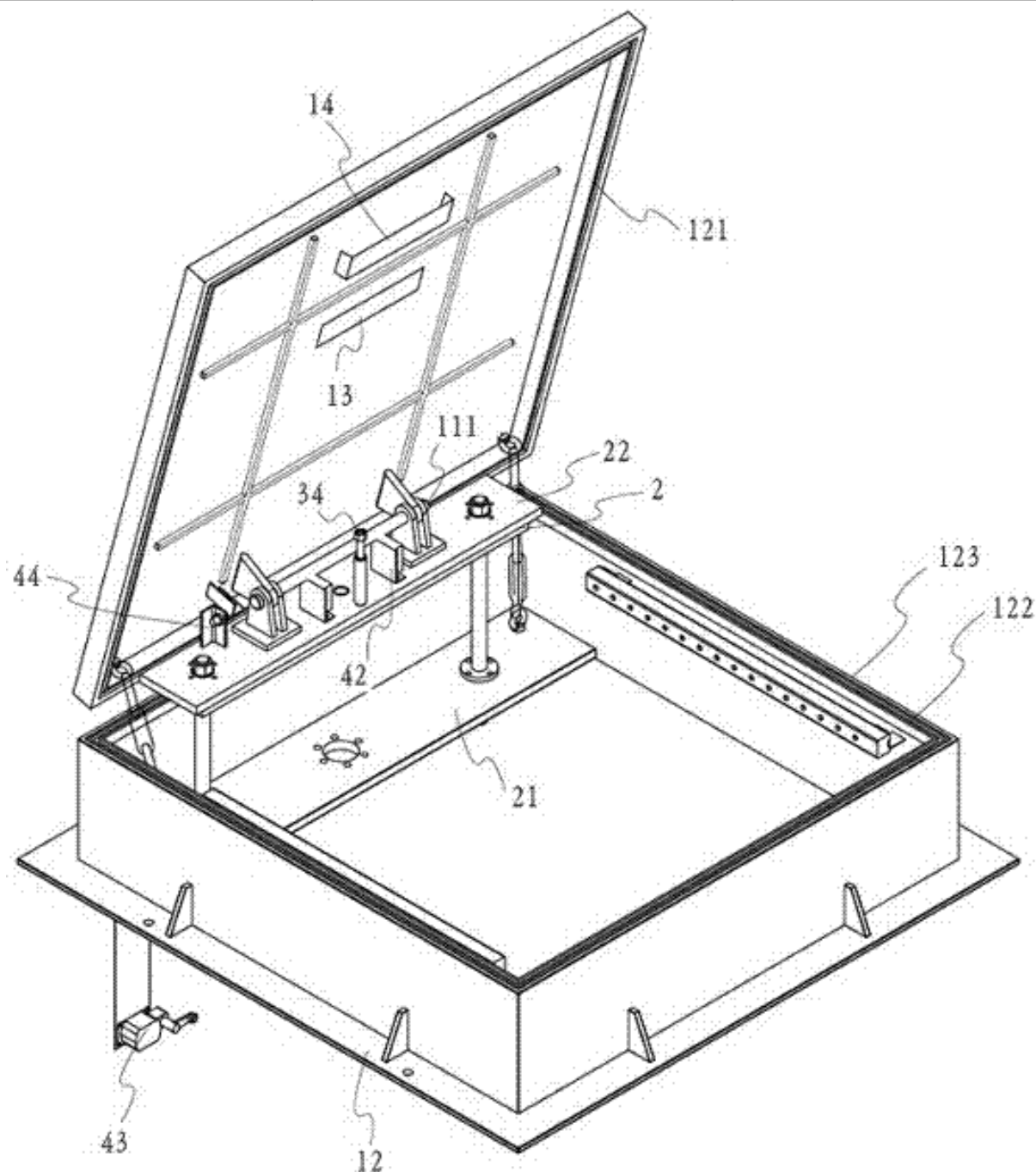
KYUNG HWA ENGINEERING

Family 11/30 - FAMPAT - ©Questel

Title

(CN107419753)

Novel security and protection intelligent well **lid****Images**



Publication data including kind & date

CN107419753

A 2017-12-01 CN107419753



Abstract

(CN107419753)

The invention discloses a novel security and protection intelligent well lid. The novel security and protection intelligent well lid comprises a well lid assembly, a guiding mechanism, a hydraulic system, a control system and a safety protection assembly. The well liquid assembly is internally provided with the hydraulic system which is in control connection with the control system. The hydraulic system is in driving connection with the guiding mechanism arranged on the well lid assembly. The guiding mechanism comprises a fixed plate fixedly arranged on the same side of the interior of a well base and a movable plate hinged to one side of the bottom of a well lid plate. Vertically-downwards guiding rods are arranged at the two ends of the movable plate, the fixed plate is provided with linear bearings correspondingly matched with the guiding rods, and the lower ends of the guiding rods are sleeved with the linear bearings. A hydraulic rod is connected between the center of the fixed plate and the center of the movable plate. The novel security and protection intelligent well lid solves the problems that opening is not convenient, well lid sealing is not good, intelligent control cannot be achieved, and the press capability is insufficient.

Inventors

GAO KUN
LIU JIANHUA
DENG JUN
QI WEI

Latest standardized assignees - inventors removed

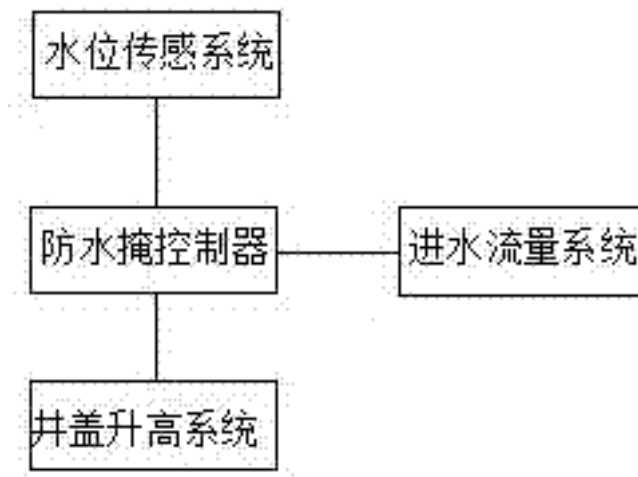
CHANGSHA CHANGE RATE INFORMATION TECHNOLOGY

Family 12/30 - FAMPAT - ©Questel

Title

(CN206873499U)

Waterproof control system that floods of well **lid**

Images**Publication data including kind & date**

[CN206873499](#) U 2018-01-12 CN206873499U

**Abstract**

(CN206873499U)

The utility model discloses a waterproof control system that floods of well **lid**, including waterproof controller, water level sensing system, the flow system of intaking, the well **lid** rising system flooded, the utility model discloses the condition of real -time supervision well **lid** below water level on line, the condition of the water yield is come to the well **lid** top, can in time effectually declare in advance the incipient fault floods, and the phenomenon of stopping often to appear flooding ponding has effectually ensured that the safety of urbanization pedestrian, vehicle is current, hasnot only reduced certain economic loss, effectively prevents the emergence of major accident moreover, effectual guarantee personal safety, improves work efficiency.

Inventors

WU MENGJIANG
TANG LIWEN

Latest standardized assignees - inventors removed

YUNNAN CREALLIES TECHNOLOGY

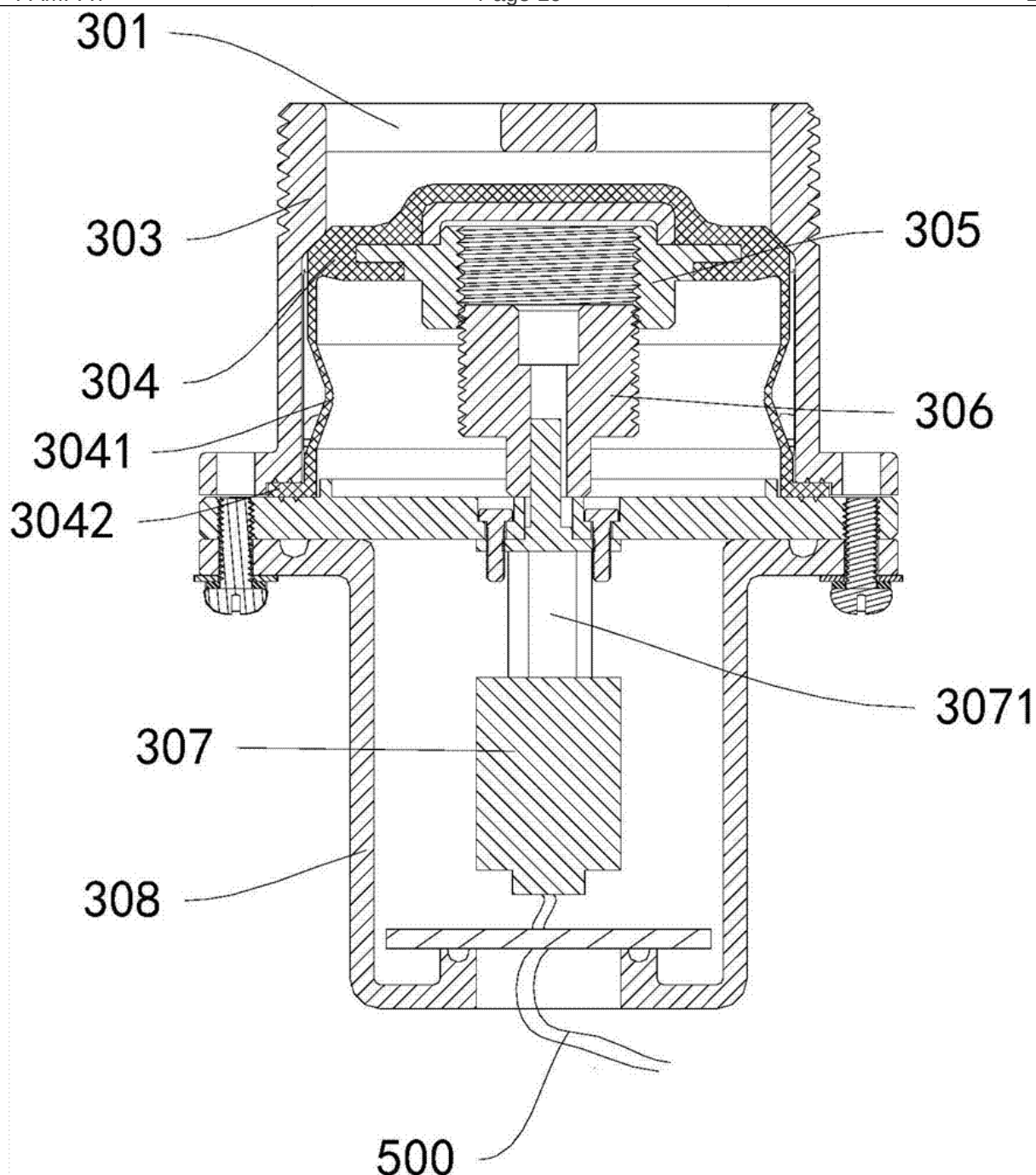
Family 13/30 - FAMPAT - ©Questel

Title

(CN207194024U)

Flood control is with well **lid** structure and inside and outside well **lid** device of combination formula

Images



Publication data including kind & date

CN207194024

U

2018-04-06

CN207194024U



Abstract

(CN207194024U)

The utility model discloses a well lid structure is used in the flood control, including following part: the lid, controller and control valve, the control valve sets up on the lid, including the case, runs through the lid valve opening on surface from top to bottom to reach the motion member who is connected with the case transmission, the controller is connected with motion member, and the controller opening and cutting out through motion member control case. Above -mentioned technical scheme is through device control valve on the well lid, through the interface channel size of control valve adjust connection lid superjacent air space with well lid below space. When the rainy day, the control valve is opened, the interface channel grow in space below lid superjacent air space and the well lid to can let more rainwater stream advance the ground well, when non - waterlogging caused by excessive rain weather, the control valve is closed, and the lid superjacent air space is blockked upwith the interface channel in well lid below space, and the foul smell can't spill, and debris can't enter into the ground well of well lid below to play fine function of sheltering from debris.

Inventors

ZHANG MUCHENG

Latest standardized assignees - inventors removed

FUZHOU SANXINLONG CASTING

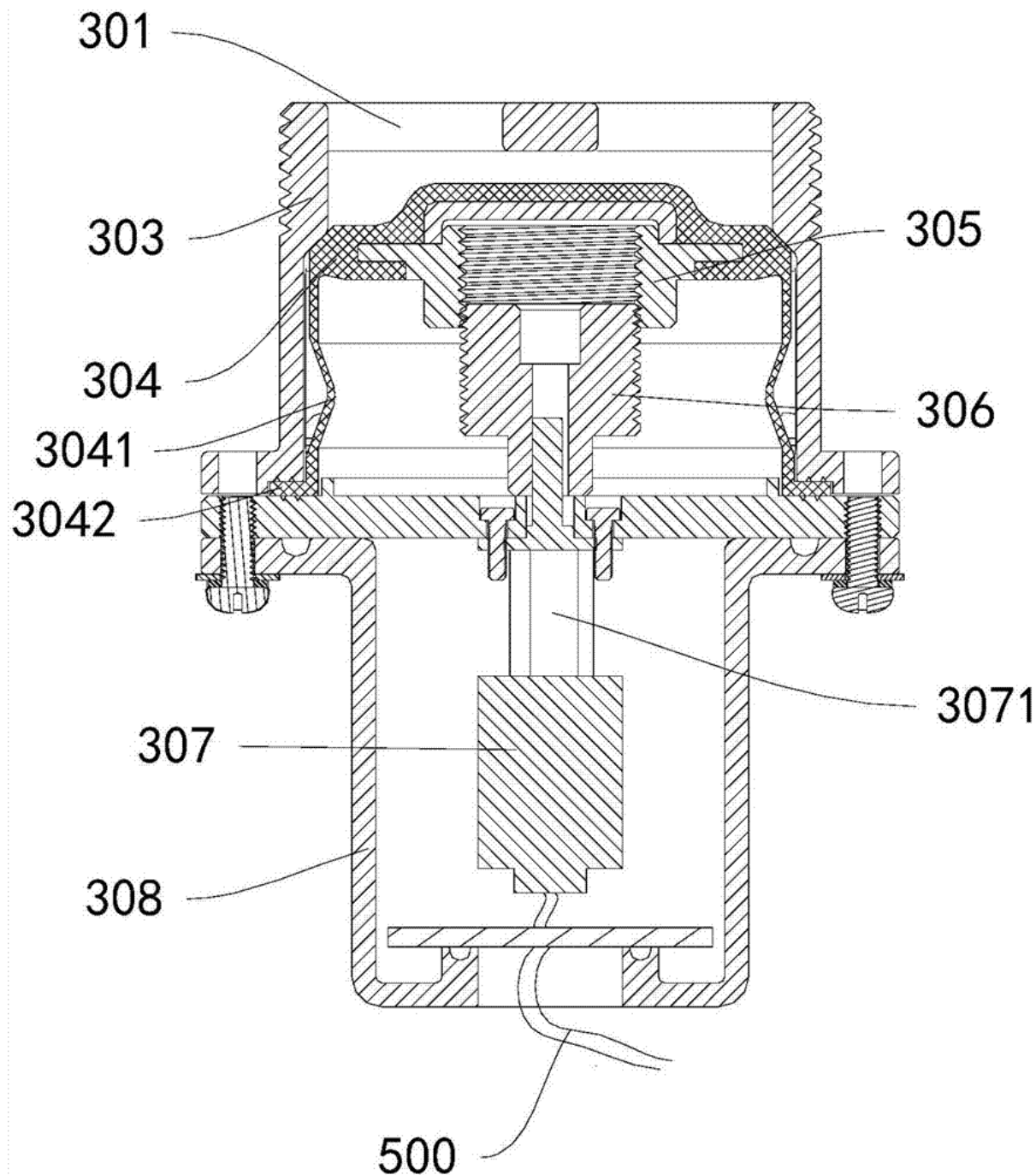
Family 14/30 - FAMPAT - ©Questel

Title

(CN107476347)

Flood prevention well lid structure and combined inner and outer well lid device

Images



Publication data including kind & date

CN107476347

A 2017-12-15 CN107476347



Abstract

(CN107476347)

The invention discloses a flood prevention well **10** structure. The flood prevention well **10** structure comprises a **10** body, a controller and a control valve, wherein the control valve is arranged on the **10** body and comprises a valve element, a valve hole penetrating through the upper surface and the lower surface of the **10** body, and an acting component in transmission connection with the valve element; and the controller is connected with the acting component and used for controlling

opening or closing of the valve element through the acting component. According to the technical scheme, as the control valve is arranged on the well **lid**, the size of a connecting channel for connecting the space above the **lid** body with the space below the well **lid** is adjusted through the control valve. On rainy days, the control valve is opened, the connecting channel for connecting the space above the **lid** body with the space below the well **lid** is enlarged, and thus more rainwater can flow into a ground well; and on other times, the control valve is closed, the connecting channel for connecting the space above the **lid** body with the space below the well **lid** is plugged, bad smell has no way to leak out, sundries are incapable of entering the ground well below the well **lid**, and accordingly a function of well keeping out of sundries is achieved.

Inventors

ZHANG MUCHENG

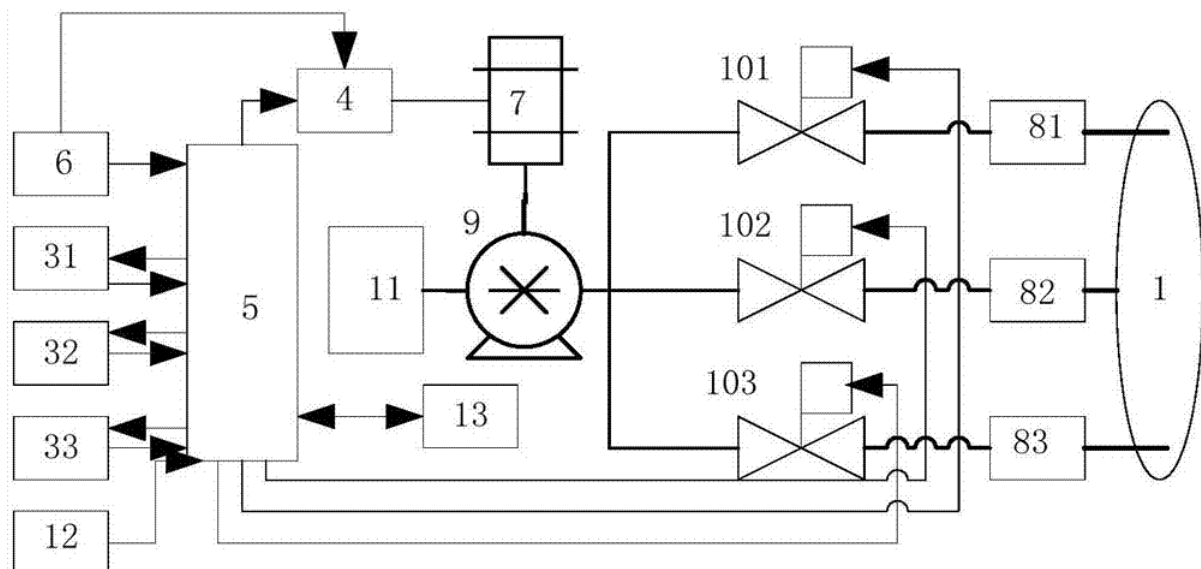
Latest standardized assignees - inventors removed

FUZHOU SANXINLONG CASTING

Family 15/30 - FAMPAT - ©Questel

Title

(CN108316357)

Well **lid** repair system and repair method**Images****Publication data including kind & date**

CN108316357

A 2018-07-24 CN108316357

**Abstract**

(CN108316357)

The invention provides a well **lid** repair system. The well **lid** repair system comprises at least three signal transceiver modules arranged on the outer wall of a **lid** body, capable of emitting signals to a direction far from the **lid** body and generating signal level hop when the top surface edge of the **lid** body is changed to a critical position from a position of higher than or lower than a pavement, height adjusting units arranged below all the signal transceiver modules and connected with the bottom surface edges of the **lid** body in corresponding positions, and a microprocessor for controlling the height adjusting unit in the corresponding position to adjust the top surface edge height of the **lid** body in the corresponding position until the signal transceiver module generates signal level hop when one signal transceiver module receives/dose not receive reflection signals after reflection by the inner wall. The invention further provides a well **lid** repair method. The well **lid** repair system and method can automatically detect inclination between the well **lid** and a road plane for repair, achieve high detecting and repair precision, and greatly reduces the manpower, material resources and financial resources consumed by well **lid** repair.

Inventors

CHEN WENGUANG

Li Xing

HUA WENJING

HU YAHANG

RAO YIHUA

YIN CHENYAN

Latest standardized assignees - inventors removed

NANHUA UNIVERSITY

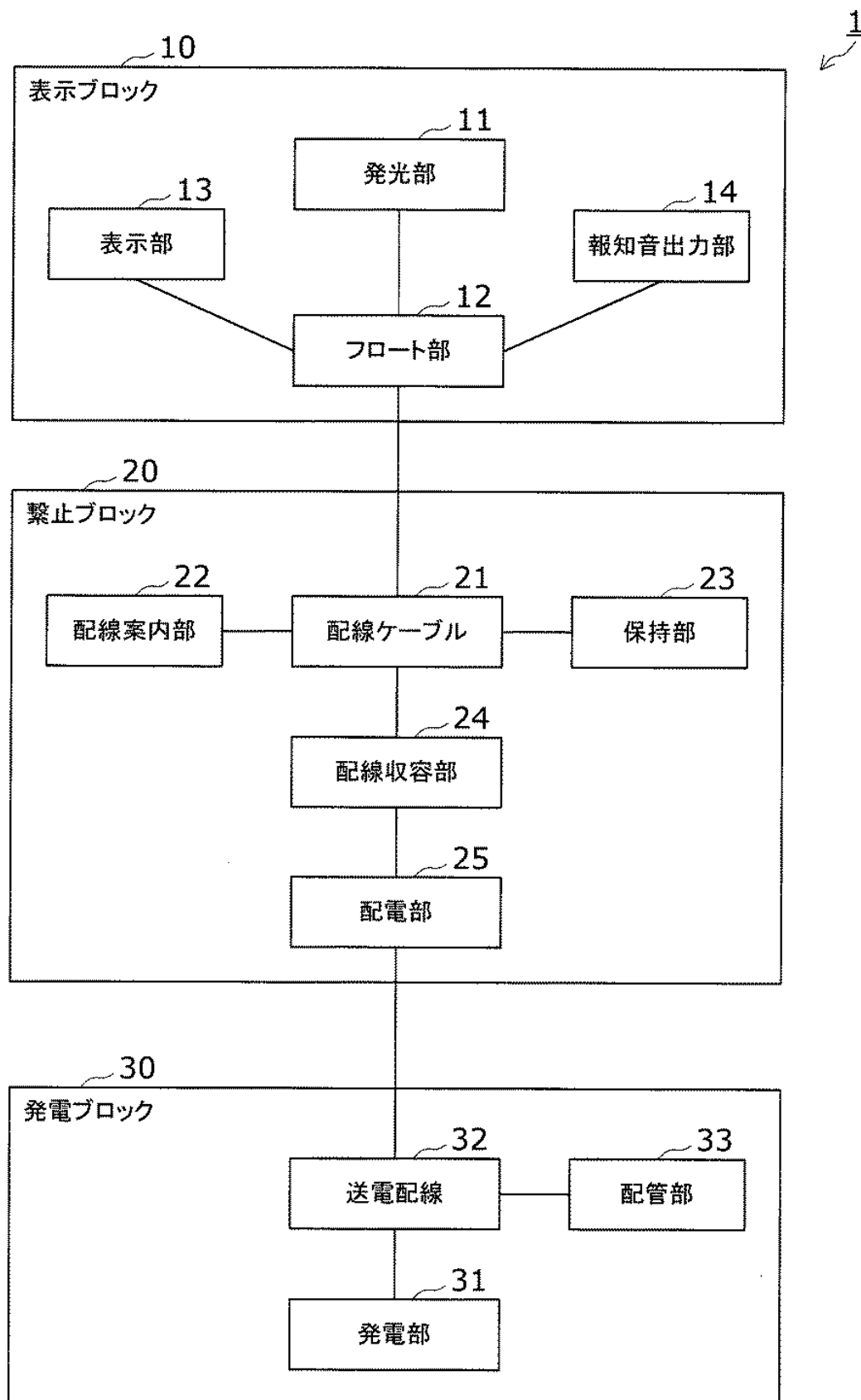
Family 16/30 - FAMPAT - ©Questel

Title

(JP2012207396)

System to display dangerous place in time of water disaster

Images



Publication data including kind & date

JP2012207396

A

2012-10-25

JP2012207396



Abstract

(JP2012207396)

PROBLEM TO BE SOLVED: To display an existence of a submerged dangerous place such as an open **manhole** or a side ditch during occurrence of water disaster such as a flood or concentrated heavy rain. SOLUTION: A display block 10

displays a position of a dangerous place by being floated on a water surface as a water level rises. An anchoring block 20 anchors the display block 10 on the water surface around a structure as the water level rises. A power generation block 30 generates operating power by water current flooding around the structure and supplies the display block 10 with the operating power through the anchoring block 20. The display block 10 displays an existence of the dangerous place through a visible display or an audible display using the operating power supplied by the power generation block 30.

Inventors

OKA HIROKI

TORIYAMA TAKESHI

Latest standardized assignees - inventors removed

NIPPON TELEGRAPH & TELEPHONE

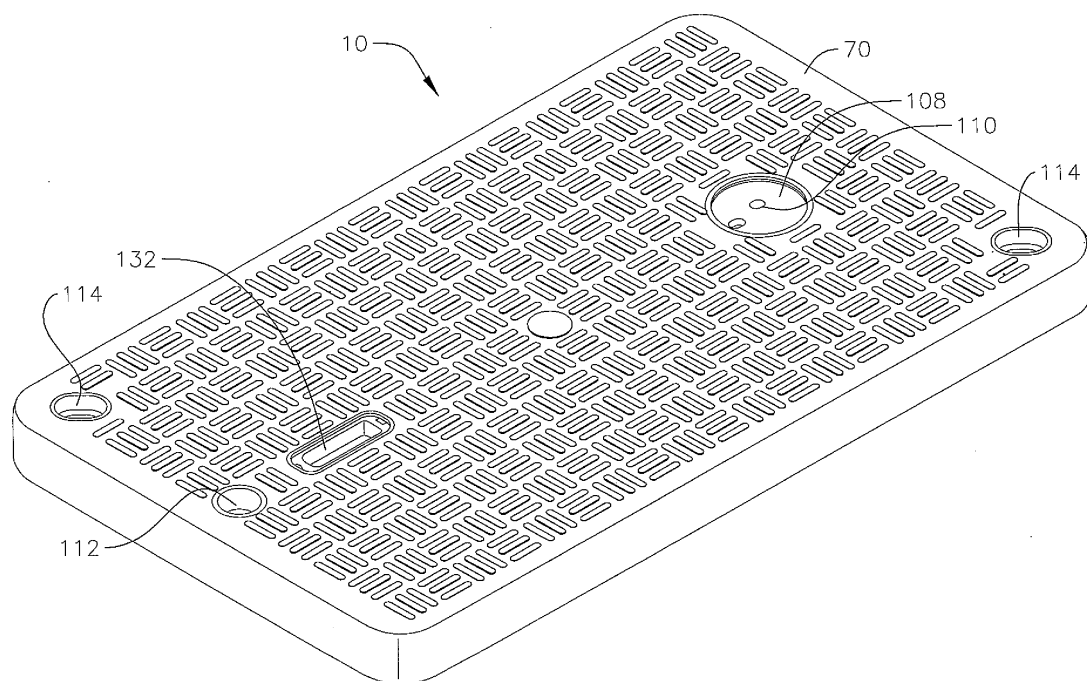
Family 17/30 - FAMPAT - ©Questel

Title

(EP3088456)

Thermoset polymer utility vault **lid**

Images



Publication data including kind & date

AP201609103	A0	2016-03-31	AP201609103
BR102016007855	A1	2016-04-19	BR102016007855
IL244481	A	2016-07-31	IL-244481
CR20160150	A	2016-08-10	CR20160150
CA3022242	A1	2016-10-10	CA3022242
CA2923668	A1	2016-10-10	CA2923668
BR102016007855	A2	2016-10-11	BR102016007855
US20160297607	A1	2016-10-13	US20160297607
IN201614008230	A	2016-10-14	IN201614008230
KR20160121439	A	2016-10-19	KR20160121439
VN49081	A	2016-10-25	VN--49081
CN106046697	A	2016-10-26	CN106046697
AU2016201803	A1	2016-10-27	AU2016201803



MX2016003598	A	2016-10-31	MX2016003598				
EP3088456	A2	2016-11-02	EP3088456				
SG10201602738Q	A	2016-11-29	SG10201602738Q				
JP2016199996	A	2016-12-01	JP2016199996				
CL2016000801	A1	2016-12-09	CL0801201600				
PE13312016	A1	2016-12-14	PE201601331				
EP3088456	A3	2017-02-15	EP3088456				
NZ717722	A	2017-03-31	NZ-717722				
ZA201601980	B	2017-06-28	ZA201601980				
AU2017204482	A1	2017-07-20	AU2017204482				
AU2016201803	B2	2017-07-20	AU2016201803				
JP6208801	B2	2017-10-04	JP6208801				
CU20160046	A7	2017-11-07	CU20160046				
UA115494	C2	2017-11-10	UA-115494				
PH12016000111	A1	2017-11-20	PH12016000111				
SG10201802574S	A	2018-05-30	SG10201802574S				
CN106046697	B	2018-10-16	CN106046697B				

Abstract

(EP3088456)

A fiber reinforced polymer material **lid** or cover for a utility vault made from an unsaturated polyester thermosetting resin matrix, glass fiber reinforcement, an inorganic filler and an ultraviolet inhibitor. The **lid** or cover has a flat textured upper surface having a plurality of bosses having different heights extending above the upper surface and a bottom surface having an outer perimeter rim with a recessed interior cavity having a number of continuous support ribs extending through the recessed interior cavity from opposite sides of the outer perimeter of the rim to transfer load placed on the **lid** or cover and minimize deflection under the load to the outer perimeter rim.

Inventors

BURKE EDWARD J

ATKINS THOMAS

BEACH BRIAN ANTHONY

GWILLIM ROBERT

Latest standardized assignees - inventors removed

CHANNELL COMMERCIAL

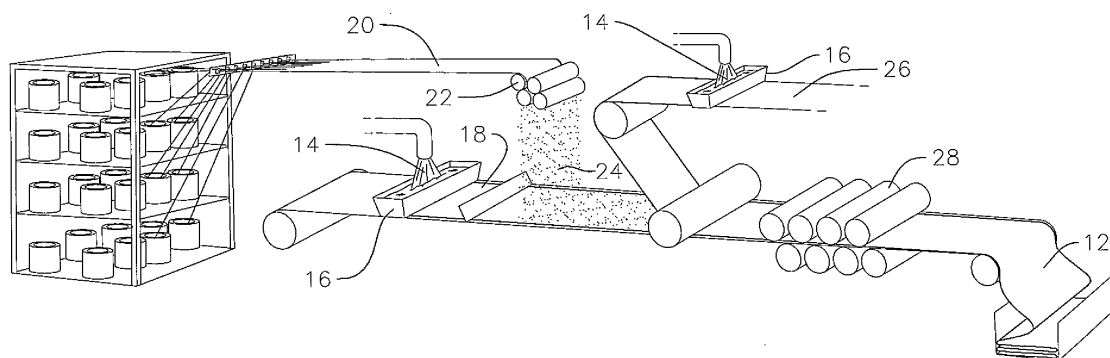
PRC COMPOSITES

Family 18/30 - FAMPAT - ©Questel

Title

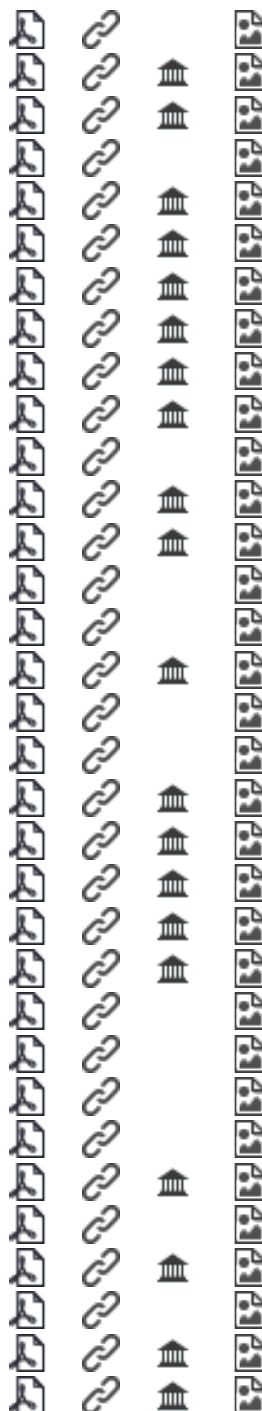
(EP3078473)

Method of manufacturing a thermoset polymer utility vault **lid****Images**



Publication data including kind & date

AP201609102	A0	2016-03-31	AP201609102
BR102016007857	A1	2016-04-19	BR102016007857
IL244482	A	2016-07-31	IL-244482
CR20160151	A	2016-08-10	CR20160151
CA3014607	A1	2016-10-10	CA3014607
CA2923669	A1	2016-10-10	CA2923669
EP3078473	A2	2016-10-12	EP3078473
US20160297113	A1	2016-10-13	US20160297113
IN201614008231	A	2016-10-14	IN201614008231
KR20160121440	A	2016-10-19	KR20160121440
VN49080	A	2016-10-25	VN--49080
CN106042421	A	2016-10-26	CN106042421
AU2016201805	A1	2016-10-27	AU2016201805
MX2016003601	A	2016-10-31	MX2016003601
SG10201602809W	A	2016-11-29	SG10201602809W
JP2016199038	A	2016-12-01	JP2016199038
CL2016000802	A1	2016-12-09	CL0802201600
PE13322016	A1	2016-12-14	PE201601332
EP3078473	A3	2017-01-25	EP3078473
BR102016007857	A2	2017-02-07	BR102016007857
NZ717712	A	2017-02-24	NZ-717712
AU2016201805	B2	2017-03-09	AU2016201805
AU2017203606	A1	2017-06-15	AU2017203606
CU20160047	A7	2017-11-07	CU20160047
UA115493	C2	2017-11-10	UA-115493
PH12016000110	A1	2017-11-20	PH12016000110
PH12016000110	B1	2017-11-20	PH12016000110
NZ724009	A	2018-07-27	NZ-724009
SG10201804092Q	A	2018-07-30	SG10201804092Q
JP6378240	B2	2018-08-22	JP6378240
PH12018000089	A1	2018-10-01	PH12018000089
CA2923669	C	2018-10-02	CA2923669
CN106042421	B	2018-10-09	CN106042421B



Abstract

(EP3078473)

A method of manufacturing a fiber reinforced composite material **lid** for an utility vault including mixing an unsaturated polyester thermosetting matrix in to a resin paste, compounding the resin paste into a fiber reinforced composite material,

maturing the compounded fiber reinforced composite material, cutting the matured compound into a charge pattern, molding the charge pattern in a mold cavity of a heated mold under low pressure to form the **lid** and cooling and machining the **lid**. The mold includes a cavity die and a core die having a shear angle for interfacing the core die within the cavity die and a steam pot for heating the cavity die and the core die, wherein the **lid** is molded between the cavity die and the core die and removed from the mold by a **lid** ejection mechanism.

Inventors

BURKE EDWARD J

ATKINS THOMAS

BEACH BRIAN ANTHONY

GWILLIM ROBERT

NEATE JOHN A

Latest standardized assignees - inventors removed

CHANNELL COMMERCIAL

PRC COMPOSITES

Family 19/30 - FAMPAT - ©Questel

Title

(EP2256253)

Separator assembly with a separator tank

Images

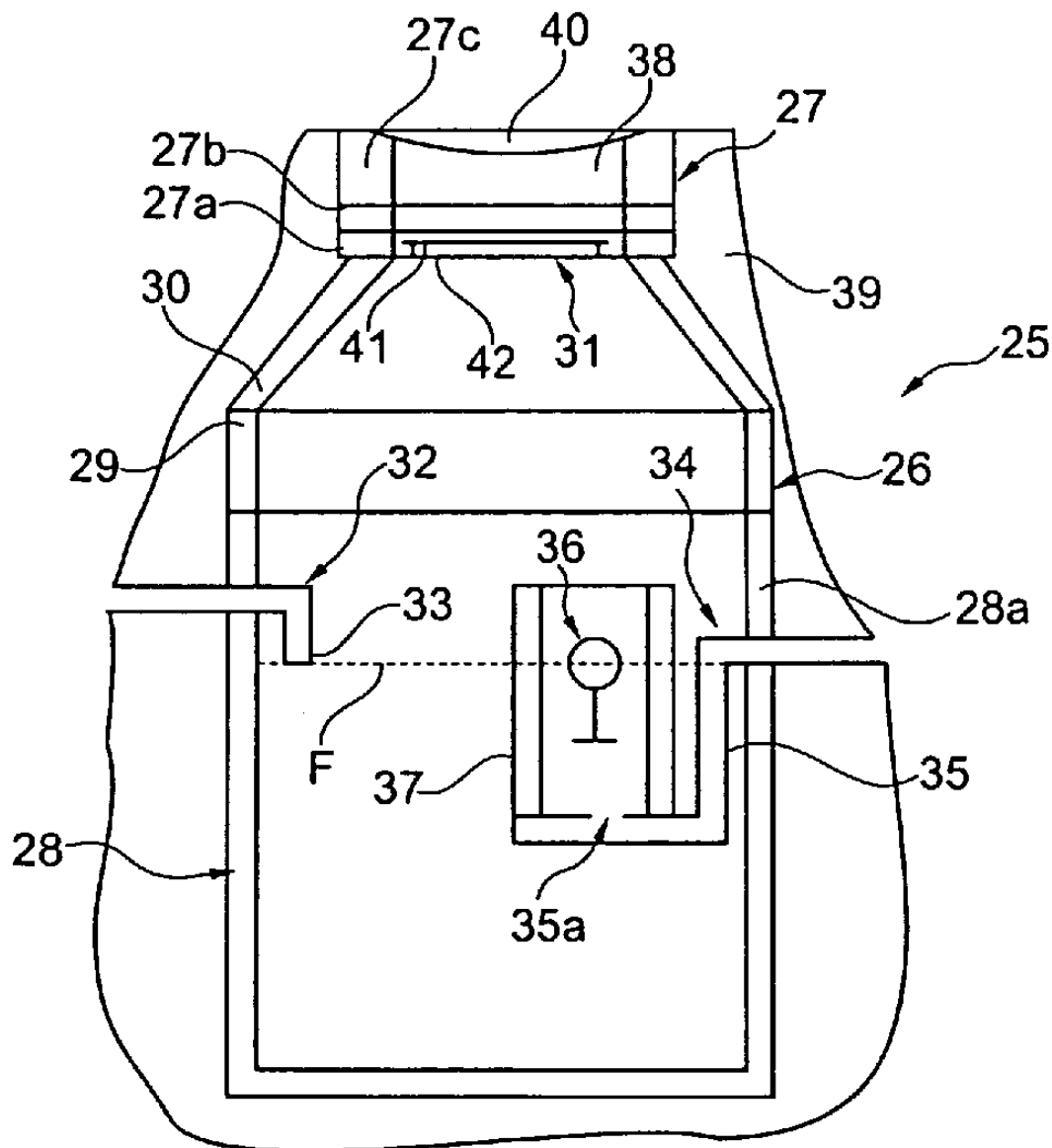


Fig. 8

Publication data including kind & date

EP2256253	A2	2010-12-01	EP2256253
DE102010021441	A1	2010-12-02	DE102010021441
EP2256253	A3	2012-07-04	EP2256253
EP2256253	B1	2013-08-14	EP2256253

**Abstract**

(EP2256253)

The separating system (25) has a separating container (26) including a container opening (31) in an upper side of the separating container. An installation arrangement (27) with an installation opening is attached above the container opening. A protection device is provided with closing devices (41, 42) i.e. valve arrangements, which avoid the passage of the fluid through the container opening. The valve arrangements are provided with a valve slot and valve bodies that are moved along with the valve slot.

Inventors

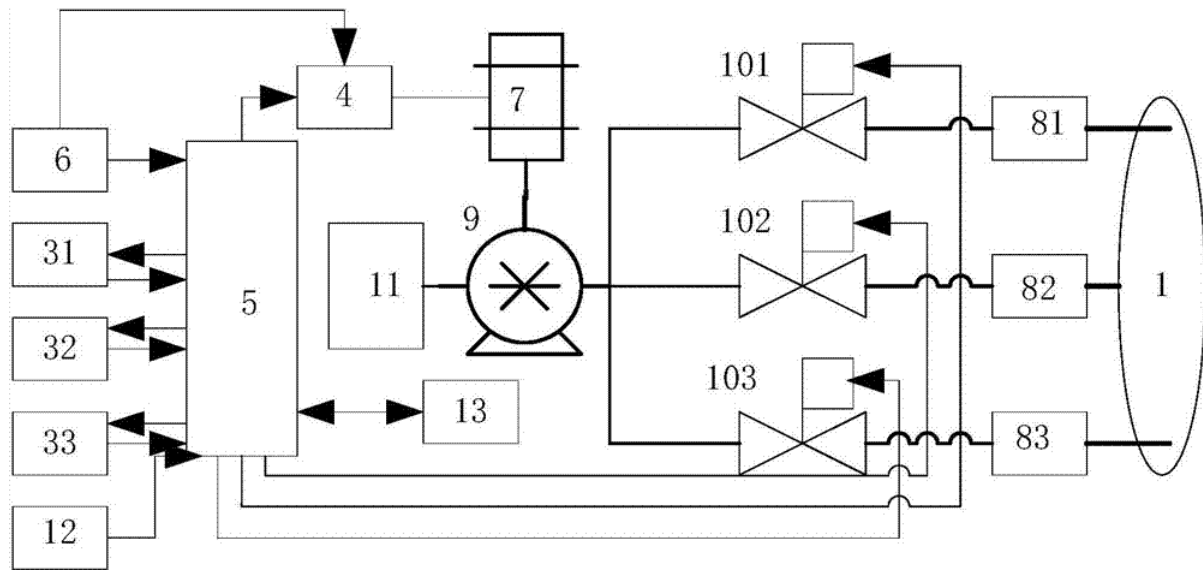
OPANSKI JOSEF ZOLTAN

Family 20/30 - FAMPAT - ©Questel

Title

(CN207904982U)

Wellhead repair system

Images**Publication data including kind & date**[CN207904982](#)

U

2018-09-25

CN207904982U

**Abstract**

(CN207904982U)

The present utility model provides a wellhead repair system, including: a cover provided on the outer wall, and can be emitted in a direction away from the cover signal, and the road surface or below the road surface from above the cover top edge converted to a critical position occurs when the signal level transitions at least three signal transmitting and receiving module; height adjusting unit, provided for each signal transceiver module below, with the respective position of the cover bottom edge connection; microprocessor, for use in any one of the signal transceiving module receives/not receiving an inner wall reflection of signals, to control the respective position adjustment unit to adjust the height of the corresponding position of the cover top edge height, until the signal transceiver module is a signal level transition. The present utility model can automatically detect whether or not the road plane is inclined between the wellhead and repair, for detecting and repairing high accuracy, greatly reduces the repair well covers said amount of labor, material resources, money.

Inventors

Li Xing

CHEN WENGUANG

HUA WENJING

HU YAHANG

RAO YIHUA

YIN CHENYAN

Latest standardized assignees - inventors removed

NANHUA UNIVERSITY

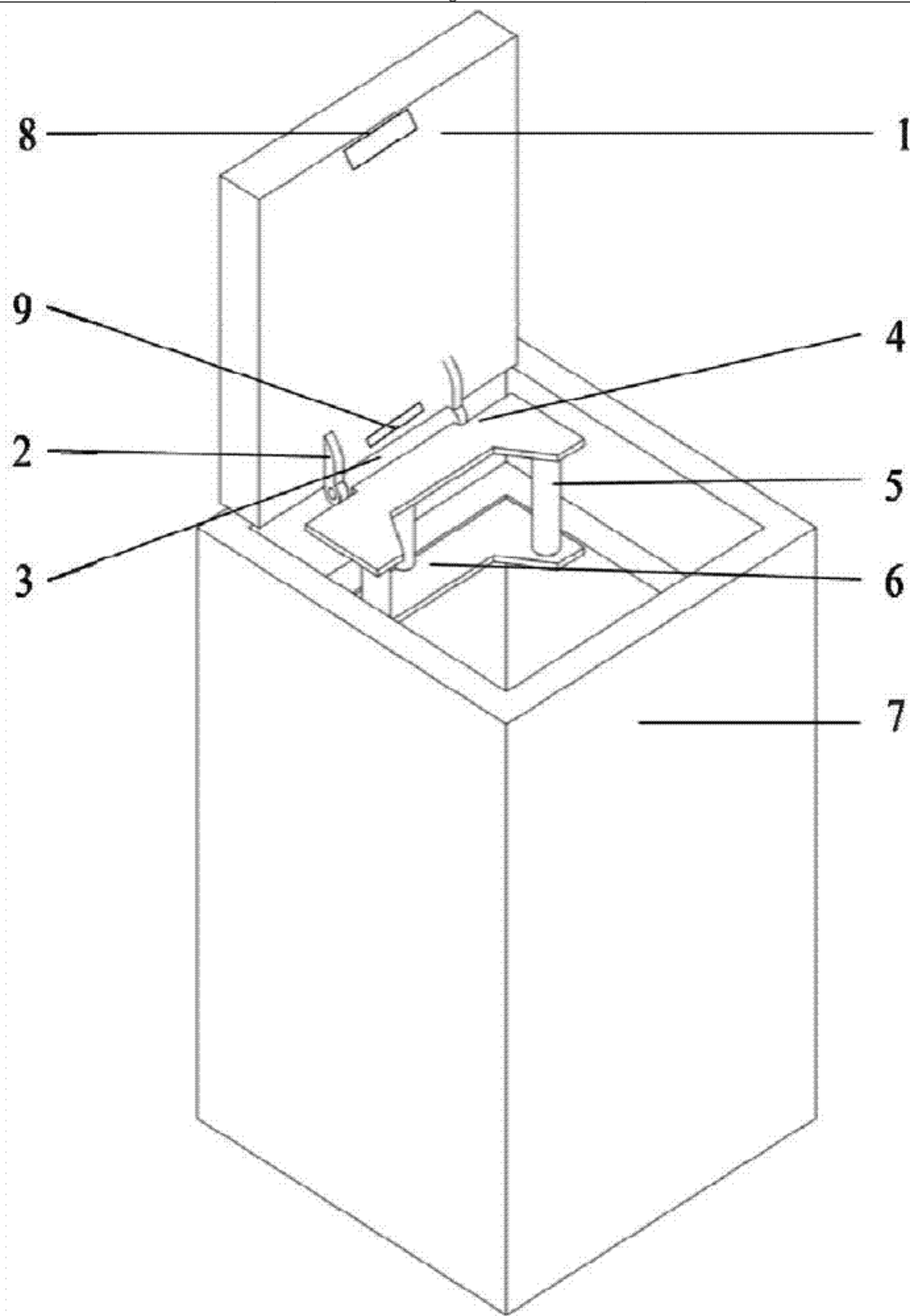
Family 21/30 - FAMPAT - ©Questel

Title

(CN108277822)

Protective intelligent sealing cover plate of ventilation opening used for comprehensive pipe rack and capable of taking civil defense design into consideration and performance detecting and control method

Images

**Publication data including kind & date**[CN108277822](#)

A

2018-07-13

CN108277822

**Abstract**

(CN108277822)

The invention discloses a protective intelligent sealing cover plate of a ventilation opening used for a comprehensive pipe rack and capable of a taking civil defense design into consideration. The protective intelligent sealing cover plate comprises a cover plate main body, a **hydraulic** power device, a monitoring control module, a data transmission module and the like;

the protective intelligent sealing cover plate is mounted in a ventilation shaft of a comprehensive pipe rack, and can realize conversion among three functional modes of a daily ventilation mode, a wartime ventilation mode and a sealed protection mode of the ventilation opening to separately correspond to daily pipe rack ventilation, wartime ventilation and wartime pipe rack hazard prevention; and the cover plate monitoring control module realizes recording, calculating and analyzing a state of the cover plate main body. The cover plate monitoring control module comprises a pressure sensor, an angle sensor and the like, can judge a working condition of the cover plate, automatically detect performance of the cover plate main body on line quickly and precisely, is beneficial for follow-up periodic maintenance and repair, and guarantees a good operation state and a good protective effect. A data transmission module can be used for transmitting and inputting detected data into a master control room of the pipe rack, so that the purpose of controlling the protective intelligent sealing cover plate through one key via a remote switch is realized.

Inventors

CHEN ZHILONG

CHEN YICUN

GONG HUADONG

CAI XIAOHU

TANG HAIZHOU

Latest standardized assignees - inventors removed

PLA ARMY ENGINEERING UNIVERSITY

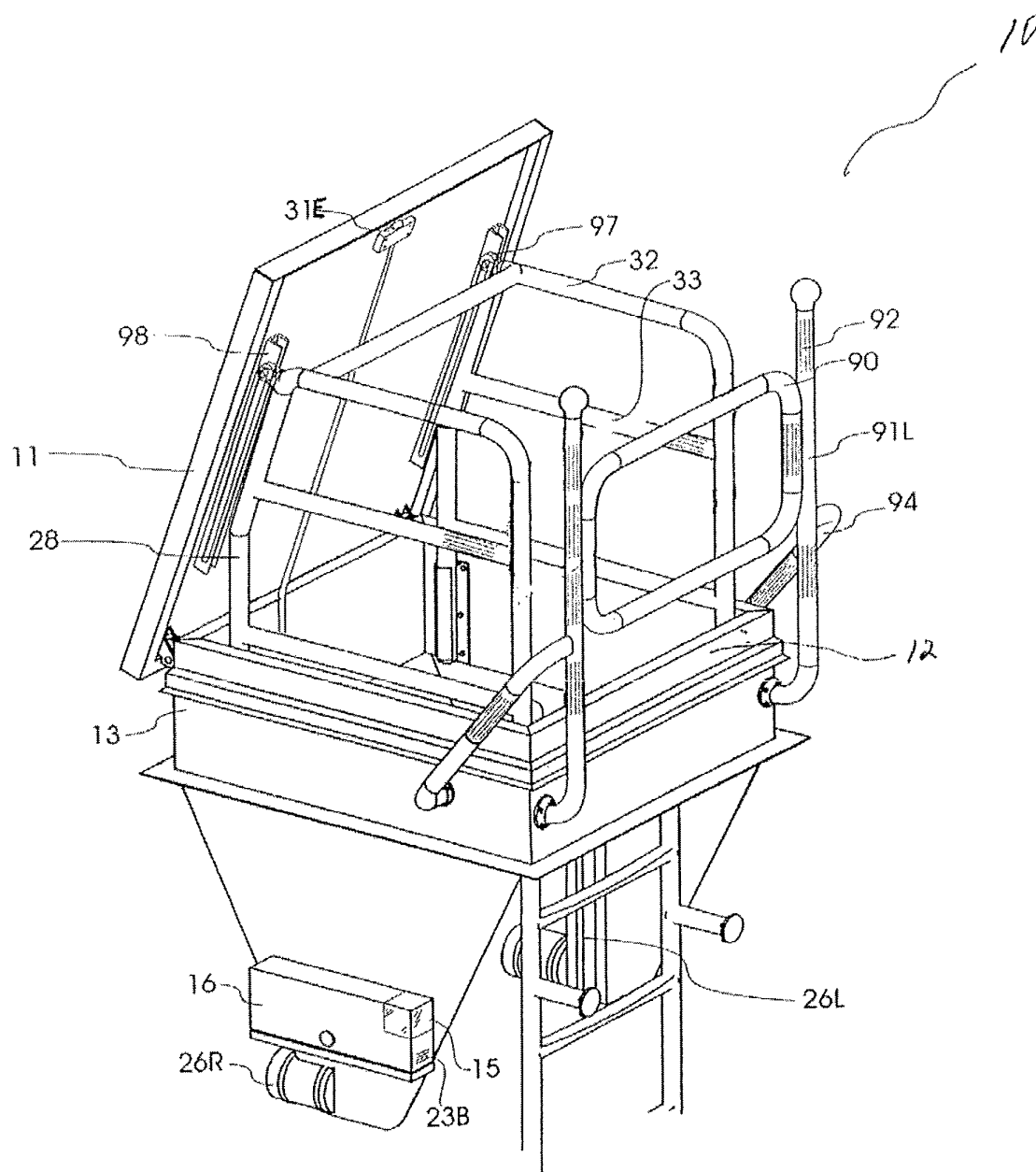
Family 22/30 - FAMPAT - ©Questel

Title

(EP2318633)

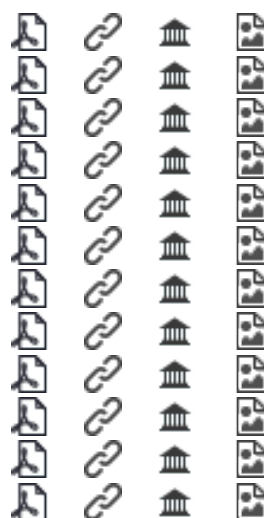
Safety hatch system

Images



Publication data including kind & date

WO2010017399	A2	2010-02-11	WO201017399
US20100031573	A1	2010-02-11	US20100031573
EP2318633	A2	2011-05-11	EP2318633
WO2010017399	A3	2012-12-20	WO201017399
US8522487	B2	2013-09-03	US8522487
EP2318633	A4	2013-11-20	EP2318633
US20130340353	A1	2013-12-26	US20130340353
US8915023	B2	2014-12-23	US8915023
US20150135604	A1	2015-05-21	US20150135604
EP2318633	B1	2016-01-06	EP2318633
US9745777	B2	2017-08-29	US9745777
US20170321452	A1	2017-11-09	US20170321452



Abstract

(EP2318633)

In one embodiment, an electronically controlled hatch system for safe ingress, egress, hazard detection, and a method to reduce or eliminate hazards, including protection of people above and below a scuttle hatch, access port, skylight or

elevated deck.Said hatch system reduces the risk of falls while ascending or descending a ladder through an access port.In certain embodiments, severe weather, hazard, security, and other safety information are detected and transmitted to a central control unit for processing and regulating the opening and closing of a hatch covering the access port and/or raising and lowering a safety railing system based on said information and/or user input.Said hatch system may include an actuator and guides for automatically locking/unlocking and opening/closing a hatch, automatically raising/lowering a railing system, hazard, security, lighting, and other safety monitoring detectors/apparatuses, and a centralized controller.

Inventors

WHITING RICHARD J

RAINEY TIMOTHY EDWARD

Latest standardized assignees - inventors removed

SAFEPRO

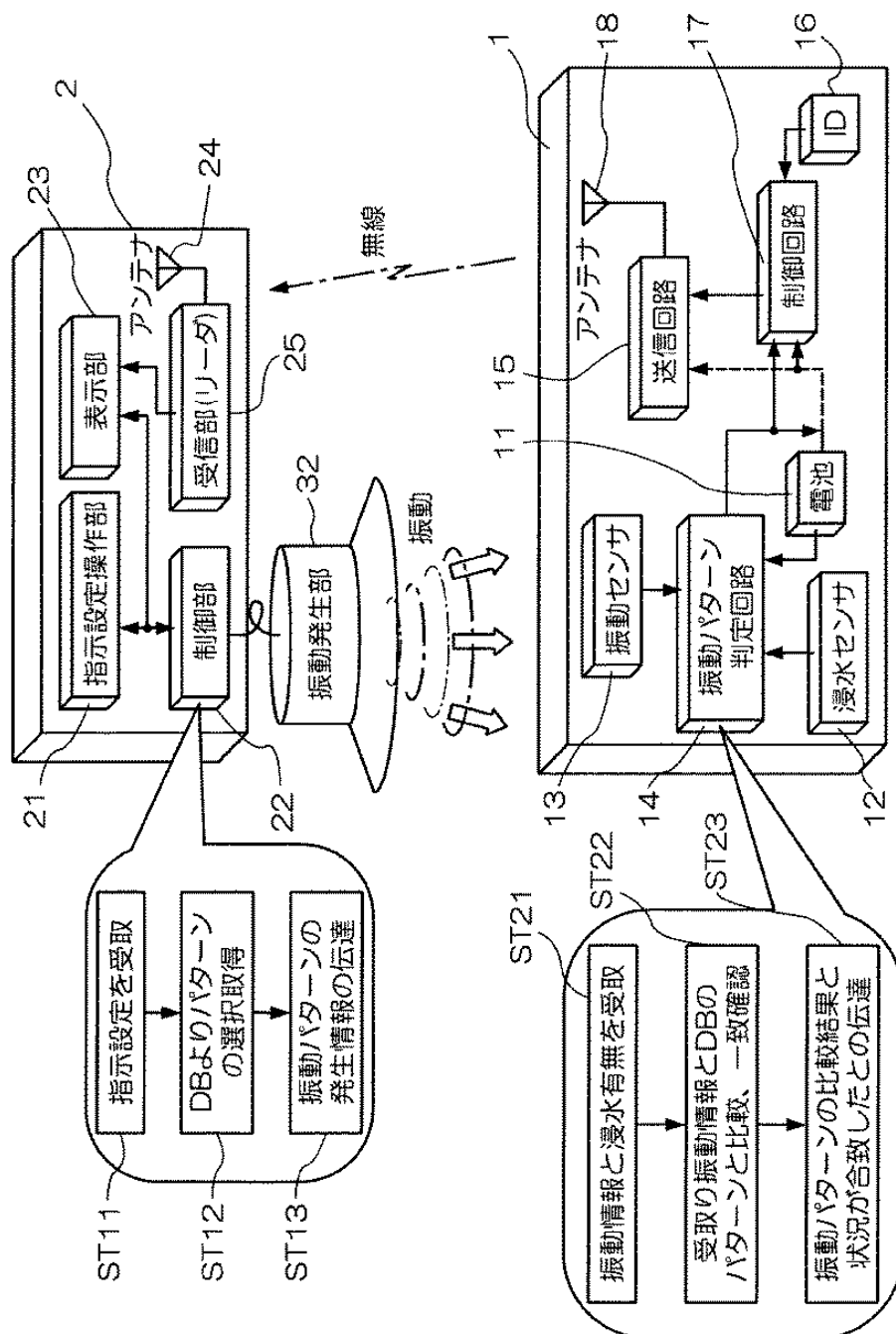
Family 23/30 - FAMPAT - ©Questel

Title

(JP2010140441)

Radio unit and flood detection system

Images



Publication data including kind & date

JP2010140441 A 2010-06-24 JP2010140441
JP5063576 B2 2012-10-31 JP5063576



Abstract

(JP5063576)

PROBLEM TO BE SOLVED: To provide a radio unit which is further suitably set in a **manhole** or the like and used to detect flood.

SOLUTION: The radio unit (**wireless** tag 1) includes: a battery 11 which supplies power to each part; a flood sensor 12 which detects a flood; a vibration sensor 13 which detects a vibration applied from the outside of the **manhole**; a vibration pattern determination circuit 14 which determines, in response to a detection output of the sensor 12, whether the vibration detected by the vibration sensor 13 is matched to a predetermined pattern; and a transmitting circuit 15 which transmits, when the determination circuit 14 determines matching to the predetermined pattern, a predetermined signal by receiving the power from the battery 11.

COPYRIGHT: (C)2010,JPO&INPIT

Inventors

TSUBOI HIDEYUKI

YOSHIOKA HIROTAKE

NAKAMURA HIROYUKI

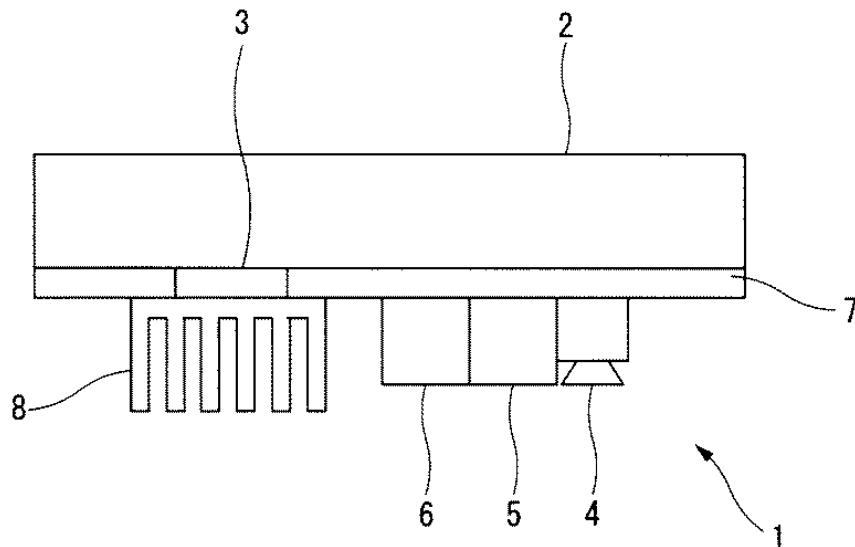
Latest standardized assignees - inventors removed

NIPPON TELEGRAPH & TELEPHONE

Family 24/30 - FAMPAT - ©Questel

Title

(JP2016014255)

Monitoring and control system and **manhole** cover**Images****Publication data including kind & date**

JP2016014255	A	2016-01-28	JP2016014255
JP6398386	B2	2018-10-03	JP6398386

**Abstract**

(JP6398386)

PROBLEM TO BE SOLVED: To facilitate maintenance and management of a monitoring and control system for monitoring and controlling the inside of a sewer. **SOLUTION:** A monitoring and control system 1 is for monitoring and controlling a sewer by measuring quantities indicating a condition inside the sewer (water level, turbidity, etc.) with a measuring instrument 4. The monitoring and control system 1 monitors and controls the sewer by transmitting measurement data measured by the measuring instrument 4 to an upper-level network with a communication terminal 5. A secondary battery 6 that supplies power to the measuring instrument 4 or the communication terminal 5 is installed, and a thermoelectric module 3 for charging the secondary battery 6 is installed on an undersurface of a **manhole** cover 2. A heat sink 8 is provided on the thermoelectric module 3, and the thermoelectric module 3 generates power on the basis of a temperature difference between the **manhole** cover 2 and the heat sink 8 (i.e., inside the sewer).

Inventors

KOSHITANI RYO

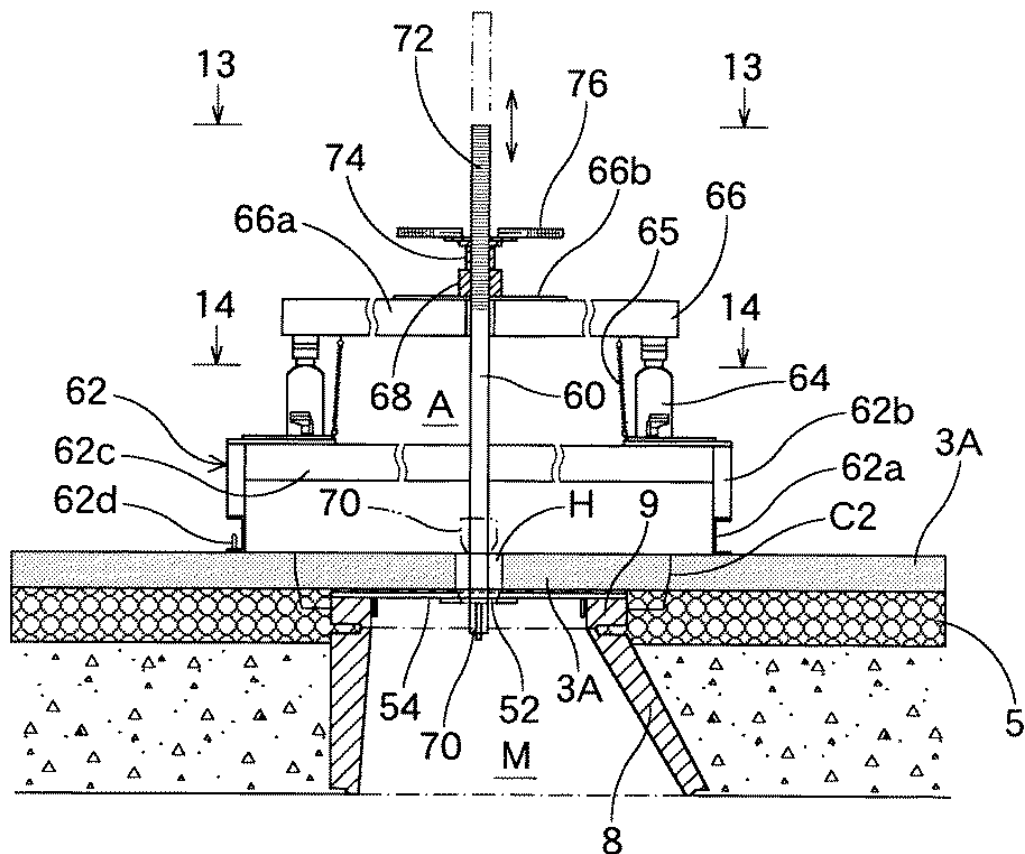
Latest standardized assignees - inventors removed

MEIDENSHA ELECTRIC MANUFACTURING

Family 25/30 - FAMPAT - ©Questel

Title

(JP2007016479)

Pavement replacing construction method of **manhole** arranging road surface**Images****Publication data including kind & date**[JP2007016479](#)

A 2007-01-25 JP2007016479

**Abstract**

(JP2007016479)

PROBLEM TO BE SOLVED: To largely shorten traffic cutoff time and a construction period.

SOLUTION: This invention relates to a pavement replacing construction method of a **manhole** arranging road surface. After removing an existing **manhole** cover 2, pavement is removed and newly placed in a state of closing a **manhole** arranging part by a temporary cover 54 having an engaging hole 52. Then, a pavement part 3 of the **manhole** arranging part is removed together with the temporary cover 54 by engaging an engaging bar 60 with the engaging hole 52 of the temporary cover 54, and the **manhole** cover 2 is also constructed.

COPYRIGHT: (C)2007,JPO&INPIT

Inventors

NAKAHARA YOSHIHIDE

Latest standardized assignees - inventors removed

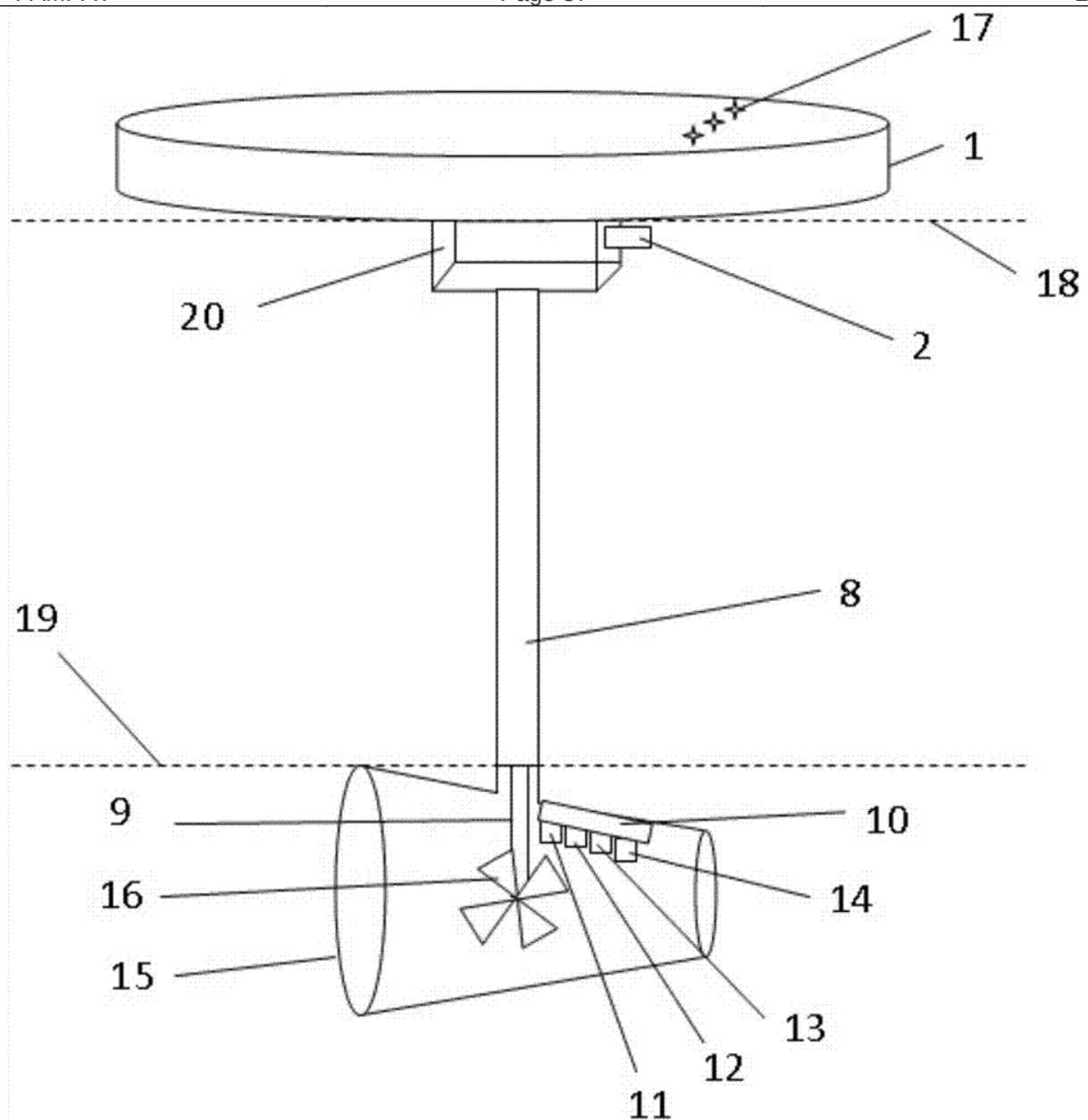
NAKAKEN

Family 26/30 - FAMPAT - ©Questel

Title

(CN206329436U)

Intelligence well **lid** is from power supply unit**Images**



Publication data including kind & date

CN206329436

U

2017-07-14

CN206329436U



Abstract

(CN206329436U)

The utility model discloses an intelligence well lid is from power supply unit, the rivers generator that can stretch pole, battery, singlechip, rivers pickup assembly, become by draft tube and hydraulic turbine including well lid, waterproof anti-corrosion metal, the waterproof anti-corrosion metal hollow structure of pole for being used for making interconnecting link pass through that can stretch, on the well lid was fixed in to its upper end, the lower extreme linked to each other with the draft tube, waterproof anti-corrosion metal that battery, singlechip are fixed in surface of water top respectively can stretch on the pole, in rivers pickup assembly was fixed in the rivers generator, the hydraulic turbine was fixed in in the draft tube. The utility model discloses a self-power function of well lid, the integration that has realized sensor and the hydraulic turbine with use singlechip integrating as the peripheral circuit of core, the four-way wireless burglar alarm has antitheft alarm function.

Inventors

LU YIN

Cong Yuanxiang

TIAN JIA

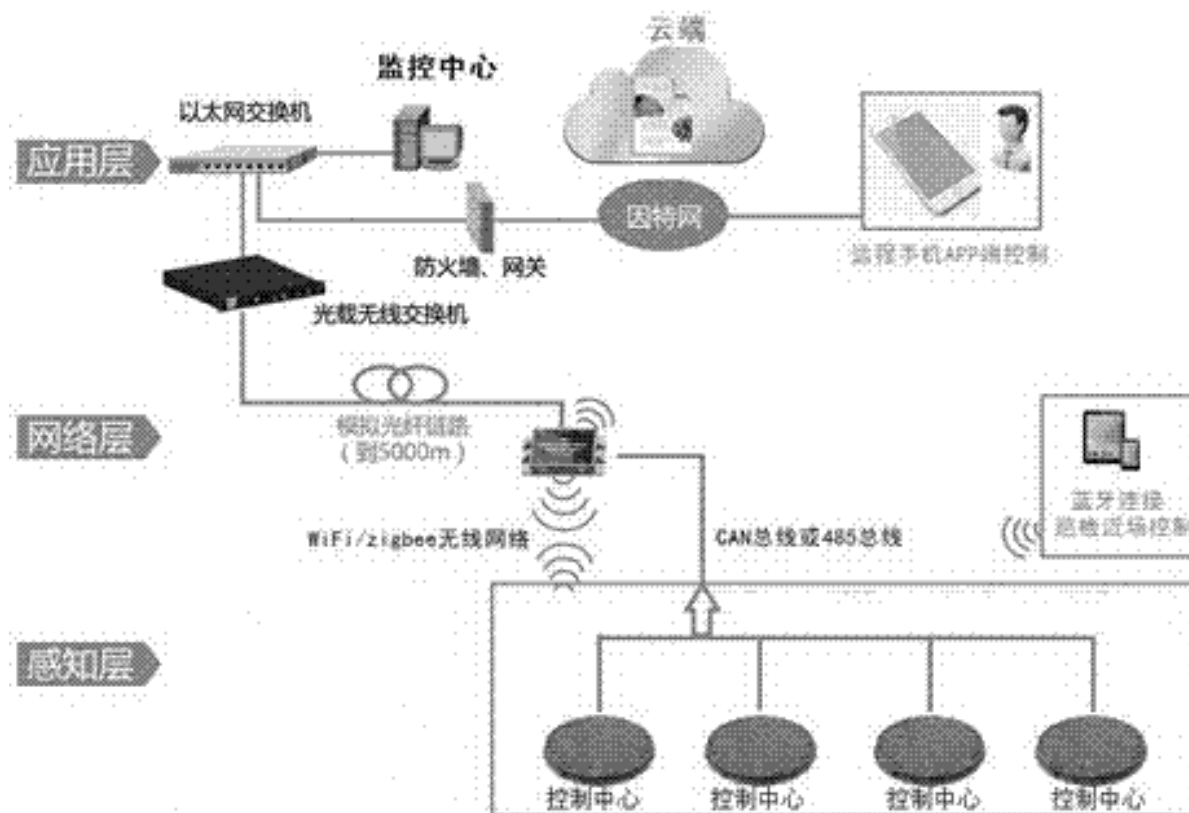
SONG YIFAN

Latest standardized assignees - inventors removed

Family 27/30 - FAMPAT - ©Questel

Title

(CN206523748U)

Well **lid** control system based on thing networking**Images****Publication data including kind & date**

CN206523748

U

2017-09-26

CN206523748U

**Abstract**

(CN206523748U)

The utility model discloses a well **lid** control system based on thing networking, including the surveillance center, surveillance center and control center, mobile terminal communication, control center is connected with the power transmission device electricity, power transmission device and power output system are connected. The utility model discloses simple structure can control **hydraulic** pump work through control center to opening or closing, convenience simple to use through power output system control well **lid**.

Inventors

WANG XINLIANG

ZHAI XIAJIE

Latest standardized assignees - inventors removed

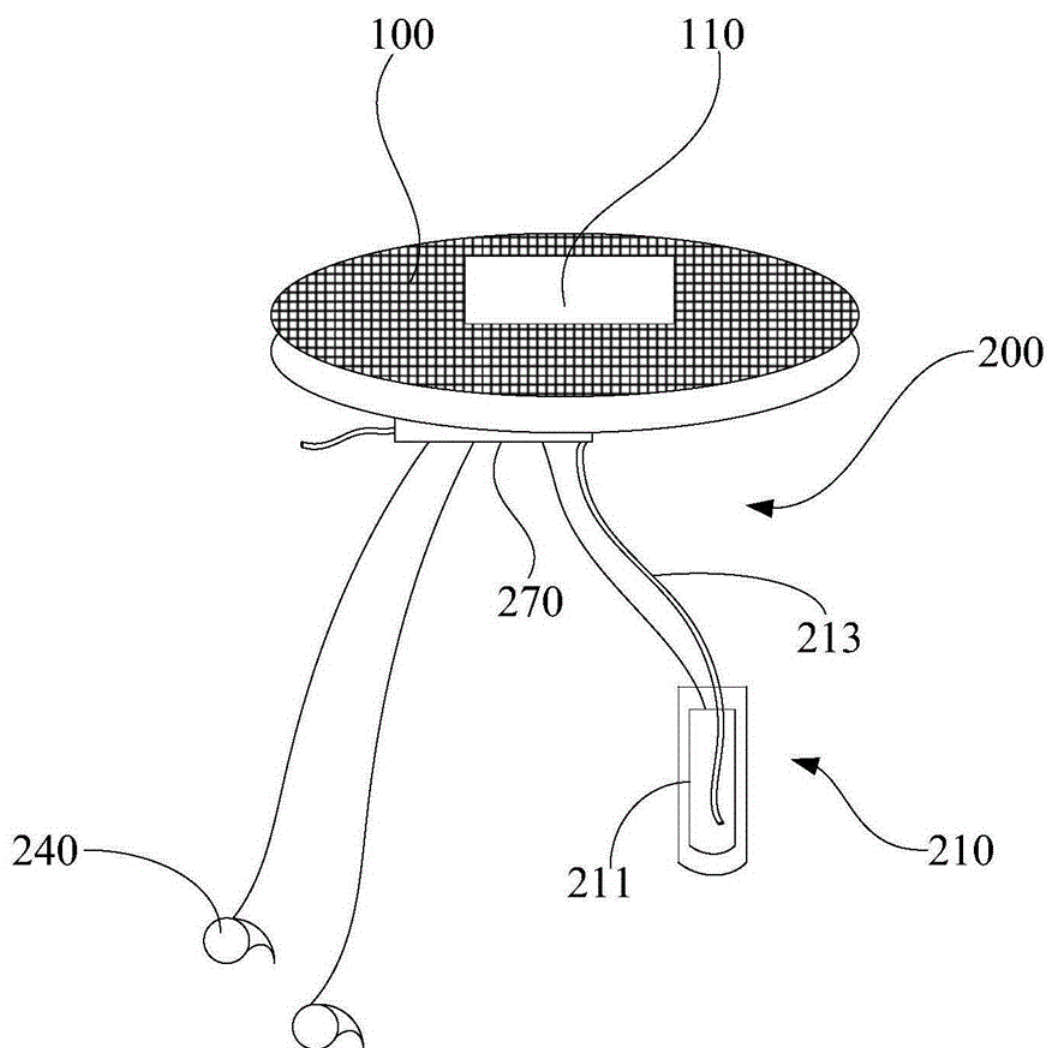
HUNAN XINGUANG WELL COVER TECHNOLOGY

Family 28/30 - FAMPAT - ©Questel

Title

(CN205352501U)

Well **lid** and water level monitoring device thereof**Images**

**Publication data including kind & date**

CN205352501

U

2016-06-29

CN205352501U

**Abstract**

(CN205352501U)

The utility model relates to a water level monitoring device, including water level changer, microprocessor and power. The water level changer communicates including the piezoelectric layer and the air conduit that are the cavity tubular structure, air conduit's one end and piezoelectric layer, and the other end is the free end. The water level changer is used for gathering current liquid level pressure to change the piezoelectricity signal into. During the monitoring water level, liquid surface below is arranged in to the water level changer, and air conduit's free end is then arrange the liquid level top in. Consequently, the cavity of the piezoelectric layer of water level changer switches on with the external world, and intracavity atmospheric pressure is atmosphere pressure, and its outside pressure is atmosphere pressure and actual **hydraulic** sum. Because the inside and outside cancel each other out of the pressure of atmospheric pressure on the piezoelectric layer, so the piezoelectric layer finally gathers actual water pressure, and then change actual water pressure into the piezoelectricity signal. Because the influence of the atmospheric pressure that above -mentioned water level monitoring device can get rid of through cancel each other out effect to make monitoring results more accurate. Furthermore, the utility model provides a well **lid**.

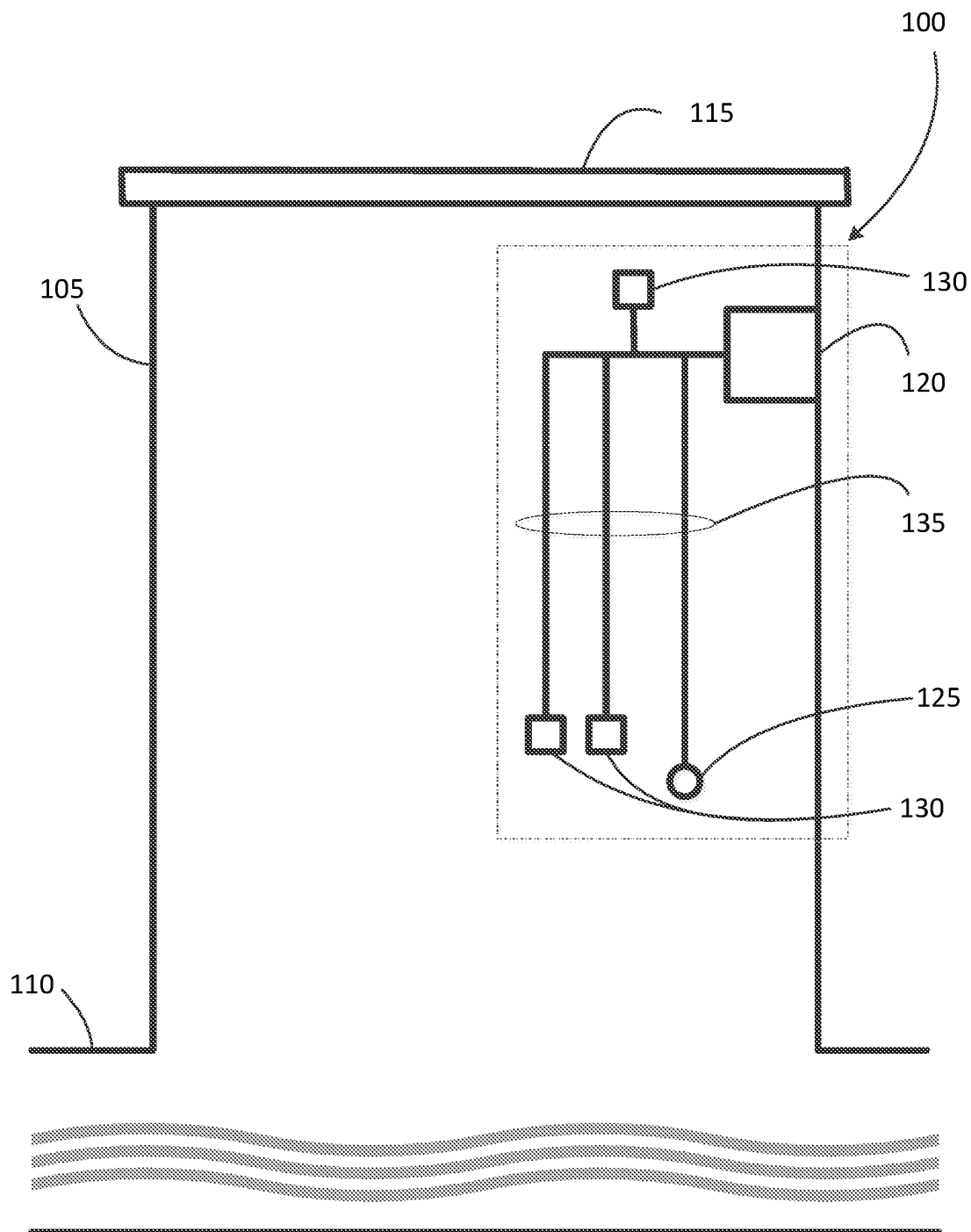
Inventors

GAO KUN

Latest standardized assignees - inventors removed

HUANG XIN

Images



NZ630446	A	2015-02-27	NZ-630446
CA2958899	A1	2016-03-10	CA2958899
WO2016033653	A1	2016-03-10	WO201633653
AU2015311619	A1	2017-03-16	AU2015311619
CN106796135	A	2017-05-31	CN106796135
EP3194908	A1	2017-07-26	EP3194908
US20170227391	A1	2017-08-10	US20170227391
EP3194908			



A4 2018-04-25 EP3194908

Abstract

(EP3194908)

A monitoring system for an access chamber to a pipe network. The system comprises at least one sensor for determining a fluid condition associated with fluid in a conduit of the pipe network and at least one threshold level indicator for determining a threshold fluid level in the access chamber, the at least one threshold level indicator being associated with the at least one sensor. The system further comprises a controller for receiving output signals from the at least one sensor and the at least one threshold level indicator and for controlling supply of power to the at least one sensor and a **wireless** transceiver in communication with the controller to allow the controller to communicate with a remote server over a communications network. The controller is arranged to supply power to the at least one sensor in response to receiving an output signal from the at least one threshold level indicator indicative of the fluid level having exceeded the threshold fluid level.

Inventors

FORSTER-KNIGHT ANDREW

LAMBE JEAN - PAUL

Latest standardized assignees - inventors removed

SOUTH EAST WATER

Family 30/30 - FAMPAT - ©Questel

Title

(WO201327754)

Circular cutting device, circular cutting method, removal construction method for underground structure, and road-paving construction method

Images

(WO201327754)

The present invention provides a circular cutting device, and a construction method which uses the cutting device to construct an underground structure whilst ensuring workability and the safety of workers, or similar, and achieving smooth removal. This circular cutting device, which comprises an operational cavity (36) and, on the inside section or the rear surface side of the cavity, a means which is to be engaged (30), and which is used for the circular cutting of an item to be cut, such as paving. Therein, a cutting bit (9) is supported in a rotatable and propellable manner on a central shaft (1), a shoe section (1a) and a pull-up rod (11), which penetrates the shoe section in an expandable and contractable manner, are provided on the central shaft (1), and an engaging means (20), capable of engaging with the means which is to be engaged (30) is provided on the end of the pull-up rod (11). The circular cutting of the item to be cut is carried out with the item to be cut compressed and held from both sides by the shoe section (1a) of the central shaft (1), pressed into an opening section in the operational cavity (36), and the engaging means (20) in the pull-up rod (11), engaged with the means which is to be engaged (30).

Inventors

TSUBAKIMORI SHINICHI

TSUBAKIMORI SHINTARO