



New connection on: : 08-03-2018 : 22:24:31 - Last disconnection on: : 08-03-2018 : 21:33:16

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201802)) (RPM D201802)

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[EPODOC: SS 5] ..fi

Select a database: ..FI EPODOC

 Database: EPODOC

[EPODOC: SS 5] SUPPORT AND CONDUCTOR AND WIRE AND ELECTIC

Results in EPODOC 1

[SS 6] SUPPORT AND CONDUCTOR AND WIRE AND ELECTRIC

Results in EPODOC 709

[SS 7] ROTATING AND CONDUCTOR AND HOLDER AND WIRE AND ELECTRIC

Results in EPODOC 14

[SS 8] ..LI



1/14 © EPODOC / EPO

PN - [CN105345183](#) A 20160224

PR - CN20151917254 20151214

AP - CN20151917254 20151214

DT - I

CT - || STSE (A)

[CH348198](#) A 19600815 [X] (KUHN ALBERT [CH])

[X] 1-5

* 说明书附图1 *;

[US2001025831](#) A1 20011004 [A] (KOBAYASHI HARUO [JP])

[A] 1-7

* 全文 *;

[CN201568504U](#) U 20100901 [X] (GUOHUA ZHAO)

[X] 1-5

* 说明书第14-15段，附图1-2 *;

[CN202278435U](#) U 20120620 [X] (CSIC ZHONGNAN EQUIPMENT CO LTD)

[X] 6-7

* 说明书第18-22段，附图1 *;

[CN203189589U](#) U 20130911 [X] (XUANCHENG HUA FENG MACHINERY CO LTD)

[X] 1-5

* 说明书第10-11段，附图1-2 *;

[CN203627622U](#) U 20140604 [X] (PANG KEDI)

[X] 1-5

* 说明书第27-43段，附图1-4 *;

[CN204025473U](#) U 20141217 [X] (YONGJIA SANHE SPRING CO LTD)

[X] 1-5

* 说明书第22-27段，附图1-4 *;

[CN205519971U](#) U 20160831 [R] (SHAANXI WEIHE TOOLS CO LTD)

[R] 1-7

* 权利要求1-7 *

- CNOI - [B23H7/06](#) ; [B23H7/10](#) ; [B23H7/26](#) ; [F16F1/06](#)
- PA - SHAANXI WEIHE TOOLS CO LTD
- TI - Rectangular spiral tube spring and processing device thereof
- AB - The invention provides a rectangular spiral tube spring and a processing device thereof, wherein the rectangular spiral tube spring is formed in a manner that continuous spiral lines and helicoids are formed by spiral clearances, and the cross section of the spiral tube is rectangular. The processing device is formed by a spirally-progressing mechanism and a coil **holder** mechanism, wherein the screw-in mechanism is formed by a **rotating** mechanism arranged on a coordinate workbench, and the **rotating** mechanism is provided with a three-jaw chuck used for clamping a pipe; the coil **holder** is formed by an upper arm and a cylindrical lower arm, and the diameter of the lower arm is smaller than the inner diameter of the pipe; and when the pipe moves straightly along X direction and spirally progresses in a **rotating** manner, a molybdenum **wire** cuts in from the end face of the pipe and forms a spiral clearance by cutting. The device disclosed by the invention is simple and practical, and convenient to operate, not only can be used for cutting a spiral surface, but also can be used for cutting various irregularly-shaped holes through which pipes cannot run by only penetrating the lower arm into the inner hole of the pipe, the operation can be completed as long as the pipe is an **electric conductor**, and the processing surface of the rectangular spiral tube spring is smooth and level.

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- PN - [CN202150607U](#) U 20120222
- PR - CN20112259258U 20110721
- AP - CN20112259258U 20110721
- DT - I
- PA - NANJING TIAN SU AUTOMATION CONTROL SYSTEM CO LTD
- TI - **Rotating** splicing-type multifunctional **wire holder**
- AB - A **rotating** splicing-type multifunctional **wire holder** comprises a plurality of conversion wiring plates, a **rotating** shaft, a fixing clamp, installation holes, support pipes, wiring terminals and tester wiring sleeves, wherein the plurality of conversion wiring plates are rectangles being same in size, one corner of each conversion wiring plate is fixedly connected with the **rotating** shaft via the fixing clamp, the other three corners of each conversion wiring plate are fixedly connected with the support pipes via the installation holes, each wiring terminal is a hollow and telescopic **conductor** only having one bottom surface, the wiring terminals are uniformly fixed on the conversion wiring plates, and the wiring terminals on the same conversion wiring plate have same shapes, the tester wiring sleeves are embedded into the bottom of the wiring terminals in a movable manner, and the shapes of the tester wiring sleeves are matched with the shapes of the wiring terminals. The **rotating** splicing-type multifunctional **wire holder**, the area of which can be adjusted freely, is suitable for the wiring terminals of various **electric** instruments, can satisfy the demands of various wiring terminals or wiring jacks, solves the problem that a wiring pedestal is inconvenient in replacing time after time, improves working efficiency, and reduces working cost.

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PN - [JP2011151023](#) A 20110804

PNFP - JP5074605B B2 20121114

PR - KR20100005322 20100120

AP - JP20110008800 20110119

DT - I

CCI - [H01H1/226](#) ; [H01H77/10](#)

FI - H01H73/02&C

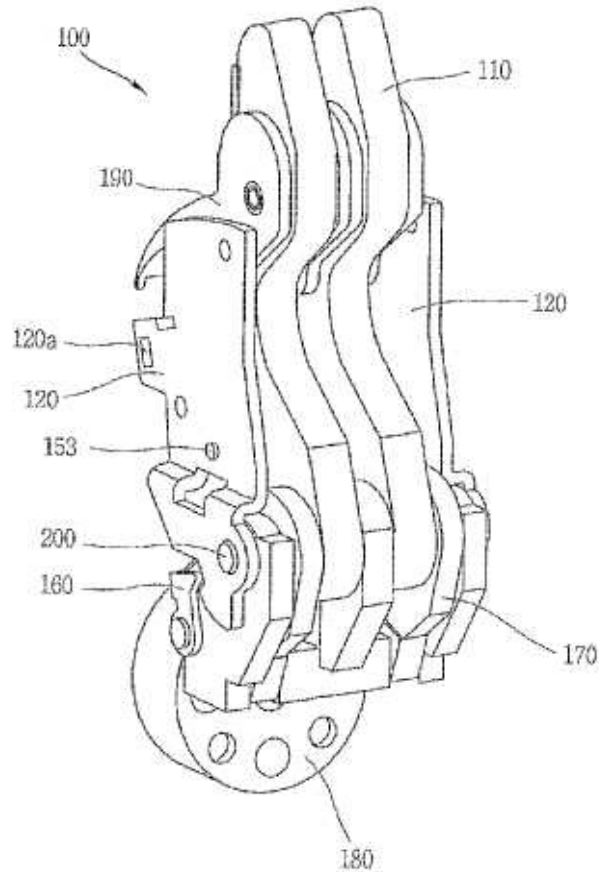
FT - 5G030/AA06; 5G030/FE05;
5G030/XX05; 5G030/YY05

PA - (A)
LS IND SYSTEMS CO LTD

TI - (A)
MOVABLE CONTACTOR ASSEMBLY
OF CIRCUIT BREAKER FOR
CURRENT-LIMITING TYPE WIRING

AB - (A)
PROBLEM TO BE SOLVED: To
provide a movable contactor
assembly of a circuit breaker for
a current-limiting type wiring,
capable of improving the
efficiency of power
transmission, capable of
simplifying a structure
component to improve
assembling productivity, and
capable of manufacturing a
spring support mechanism
quickly at low cost.
- SOLUTION: The movable
contactor assembly includes a
terminal base formed of
an **electric conductor** and fixed
and arranged at an outer case, a
plurality of movable contactors
provided at each phase of
alternating current, having a
cam surface and **rotating** to a
separation direction from a fixed
contactor at current-limiting
operation, a **holder** plate
supporting the movable
contactors from both sides, a
plurality of first springs granting
biasing force to movable
contactors in a contact direction
with the fixed contactor at a
closed circuit state of the circuit
breaker of a wiring, and in a
separation direction from the
fixed contactor at current-
limiting operation, a plurality of
extended plates faced to and
electrically connected with a
side of an end of the movable
contactors, a plurality of
flexible **wire** plates electrically
connecting between the movable

FIG. 8



contact and the terminal base and having a part bendable to a side of the movable contactors or the extended plates, and a second spring granting biasing force to the flexible **wire** plates so as to adhere to the movable contactors.

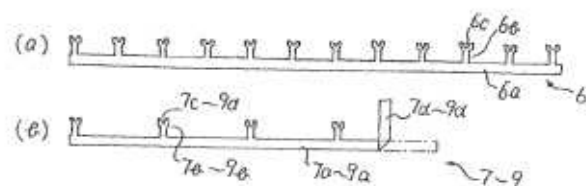
- COPYRIGHT: (C)2011,JPO&INPIT

4/14 © EPODOC / EPO

- PN - [CN201682223U](#) U 20101222
- PR - CN20092210967U 20091020
- AP - CN20092210967U 20091020
- DT - I
- PA - BAOSHAN POWER SUPPLY BRANCH OF SHANGHAI MUNICIPAL ELECTRIC POWER COMPANY; SHANGHAI ELECTRIC LIVE LINE WORK TECHNOLOGY DEV CO LTD
- TI - **Electric** heating **wire** stripper
- AB - The utility model relates to an **electric** heating **wire** stripper which comprises a **wire** stripper frame and a cutter **holder** handle; an upper cutter **holder** and a lower cutter **holder** which form a vise shape are arranged in the **wire** stripper frame; the middle parts of the upper and the lower cutter holders are used for placing conductors with insulation layer wrappers to be stripped, and the sides thereof are provided with symmetric arc-shaped inner concave cutter blades; a single cutter blade is arranged in the inner side between the two arc-shaped inner concave cutters of the upper and the lower cutter holders; the **wire** stripper cutter **holder** handle is provided with a cutter feeding piece which penetrates the frame and rotates spirally; and the two arc-shaped inner concave cutters on the sides of the upper and the lower cutter holders and the single cutter blade are connected with **electric** heating plates. The **electric** heating **wire** stripper improves from the cutter structure and simultaneously heats the cutter blades after being fed with DC current, cuts an insulator **conductor** by **rotating** the fed cutters, heats and softens the insulation layers of the conductors when the cutters are fed and rotates the cutters so that the insulation layers are separated from the **conductor** cores. Consequently, the hardness of the insulation layers is reduced, and the cutter feeding, cutting and stripping are convenient.

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- PN - [KR20020044534](#) A 20020615
- PNFP - KR100438993B B1 20040702
- PR - JP20000370563 20001205
- AP - KR20010048203 20010810
- DT - I
- CCI - [H02K3/522](#)
- CCA - [H02K2203/09](#)
- PA - (A)
MITSUBISHI ELECTRIC CORP
- TI - (A)
ELECTRIC ROTATING MACHINE
- AB - (A)
PURPOSE: To obtain a small-sized, inexpensive **electric** **rotating** machine wherein connection of stator coils is facilitated, the space occupied by **wire** connection portions is reduced, the values of the



resistance of the **wire** connection portions are uniformized, and thus stable torque characteristics are obtained. CONSTITUTION: Coil bobbins 4 are attached to the magnetic poles 3b of a stator core 3, and the stator coils 5 are installed thereon. A lead-out **wire** 5a is led out of the end of the stator core 3 on one side toward the outside diameter side. A connection **conductor holder** 10 has through holes 10f, in which coil connection conductors 7a, 8a, and 9a in respective phases are housed the conductors of which have such a cross-sectional area as to uniformize the electrical resistance in each phase after the connection of a common coil connection **conductor** 6a, having connecting terminals 6b, 7b, 8b, and 9b protruded in the radial direction and the stator coils 5. The **holder** is installed at the ends of the coil bobbins 4, to form a space 17 in which a bearing housing portion 12a can be inserted. The connecting terminals 6b, 7b, 8b, 9b are connected with the lead-out **wire** 5a on the outside diameter side of the connection **conductor holder** 10, to form a terminal area 11.

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PN - [JP2003307228](#) A 20031031
PR - JP20020110744 20020412
AP - JP20020110744 20020412
DT - I
FI - F16C19/52; F16C41/00; G01K1/14&M; G01P3/488&C; G08C17/00&B; G08C17/02; G08C23/00&B; G08C23/00&C; G08C23/02; G08C23/04&B
FT - 2F073/AA02; 2F073/AA35; 2F073/AB02; 2F073/BB02; 2F073/BC02; 2F073/BC04; 2F073/BC05; 2F073/CC01; 2F073/EE12; 2F073/FF02; 2F073/FF08; 2F073/GG01; 2F073/GG04; 3J101/AA01; 3J101/AA62; 3J101/BA53; 3J101/BA54; 3J101/BA56; 3J101/BA77; 3J101/FA22; 3J101/FA23; 3J101/FA24; 3J101/FA26; 3J101/FA46; 3J101/FA48; 3J101/FA55; 3J101/GA02; 3J101/GA31; 3J101/GA36; 3J217/JA02; 3J217/JA13; 3J217/JA15; 3J217/JA16; 3J217/JA24; 3J217/JA33; 3J217/JA34; 3J217/JA37; 3J217/JA38; 3J217/JA39; 3J217/JA42; 3J217/JA44; 3J217/JA46; 3J217/JB23; 3J217/JB26; 3J217/JB37; 3J217/JB52; 3J217/JB56; 3J217/JB61; 3J217/JB64; 3J217/JB66; 3J217/JB83; 3J217/JB87; 3J701/AA01; 3J701/AA62; 3J701/BA53; 3J701/BA54; 3J701/BA56; 3J701/BA77; 3J701/FA22; 3J701/FA23; 3J701/FA24; 3J701/FA26; 3J701/FA46; 3J701/FA48; 3J701/FA55; 3J701/GA02; 3J701/GA31; 3J701/GA36
PA - NSK LTD
TI - BEARING DEVICE WITH SENSOR

- AB - PROBLEM TO BE SOLVED: To provide a bearing device with a sensor easily installable without taking into consideration the wiring of a signal **conductor**, an **electric wire** cable and the like.
- SOLUTION: This bearing device 1 with the sensor has an outer ring 9 and inner rings 10a and 10b (a set of bearing rings) for relatively **rotating** by a plurality of rolling bodies 8, and a wireless sensor (a sensor) 7 installed on the outer ring (the first bearing ring) 9 or a member fixed to the outer ring 9. The wireless sensor 7 is formed by arranging a detecting part 14 for detecting a measuring object, a communication device 16 for outputting a signal detected by the detecting part 14 or the information of processing the signal by radio transmission R, and a power source 17 for supplying **electric** power to at least the communication device 16 of the detecting part 14 and the communication device 16 in a sensor **holder** 13.
- COPYRIGHT: (C)2004,JPO

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PN - [JP2002171708](#) A 20020614

PNFP - JP3696080B B2 20050914

PR - JP20000370563 20001205

AP - JP20000370563 20001205

DT - I

CCI - [H02K3/522](#)

CCA - [H02K2203/09](#)

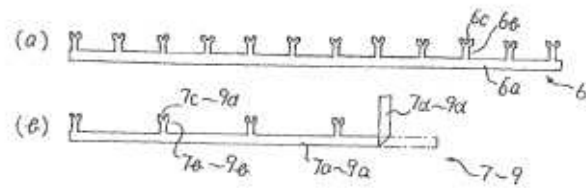
FI - H02K3/18&J; H02K3/38&A;
H02K3/52&E

FT - 5H603/AA03; 5H603/AA04;
5H603/AA09; 5H603/BB01;
5H603/BB05; 5H603/BB10;
5H603/BB12; 5H603/CA01;
5H603/CA05; 5H603/CB03;
5H603/CB04; 5H603/CB12;
5H603/CB26; 5H603/CC11;
5H603/CC17; 5H603/CD01;
5H603/CD21; 5H603/CE01;
5H603/EE01; 5H603/EE11;
5H603/EE12; 5H603/EE13;
5H604/AA05; 5H604/AA08;
5H604/BB01; 5H604/BB08;
5H604/BB14; 5H604/BB17;
5H604/CC01; 5H604/CC05;
5H604/CC16; 5H604/PB03;
5H604/PC03; 5H604/QB01;
5H604/QB03; 5H604/QB17

PA - (A)
MITSUBISHI ELECTRIC CORP

TI - (A)
ELECTRIC ROTATING MACHINE

AB - (A)
PROBLEM TO BE SOLVED: To obtain a small-sized, inexpensive **electric rotating** machine wherein connection of stator coils is facilitated, the space occupied by **wire** connection portions is reduced, the values of the resistance of the **wire** connection portions are uniformized, and thus stable



torque characteristics are obtained. SOLUTION: Coil bobbins 4 are attached to the magnetic poles 3b of a stator core 3, and the stator coils 5 are installed thereon. A lead-out **wire** 5a is led out of the end of the stator core 3 on one side toward the outside diameter side. A connection **conductor holder** 10 has through holes 10f, in which coil connection conductors 7a, 8a, and 9a in respective phases are housed the conductors of which have such a cross-sectional area as to uniformize the electrical resistance in each phase after the connection of a common coil connection **conductor** 6a, having connecting terminals 6b, 7b, 8b, and 9b protruded in the radial direction and the stator coils 5. The **holder** is installed at the ends of the coil bobbins 4, to form a space 17 in which a bearing housing portion 12a can be inserted. The connecting terminals 6b, 7b, 8b, 9b are connected with the lead-out **wire** 5a on the outside diameter side of the connection **conductor holder** 10, to form a terminal area 11.

PN - [GB191203011](#) A 19121205

PR - GBT191203011 19120206

AP - GBD191203011 19120206

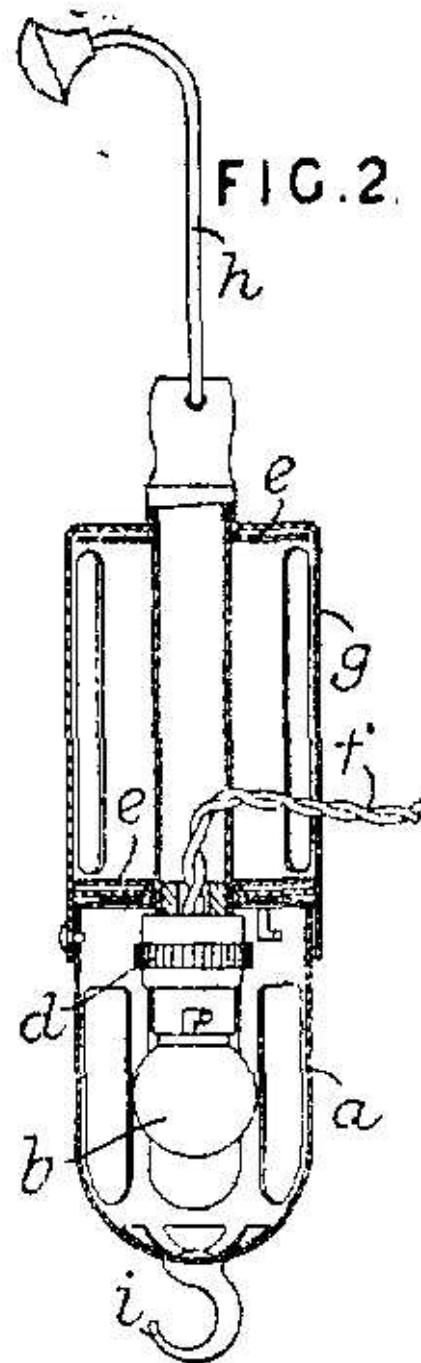
DT - *

CCI - [F21V27/005](#)

PA - LUCAS HARRY; EDWARDS WILLIAM HENRY

TI - Improvements relating to **Electric** Hand Lamps.

AB - 3011. Lucas, H., and Edwards, W. H. Feb. 6. Supporting.-In **electric** hand lamps, used more particularly for inspection purposes on motorvehicles, and provided with a reel e on which the leads are wound, a hooked handle h is provided for **rotating** the reel e, and the leads are guided by one of the slots of the cage g. The reel e is secured to the lamp **holder** d, and the protecting cage a is secured by a bayonet joint to the cage g. A hook i may be provided on the cage a. According to the Provisional Specification, the **conductor** is guided through a **wire** loop secured to the main portion of the lamp, and the reel serves as a handle.



PN - [GB190706289](#) A 19080220

PR - GBT190706289 19070315

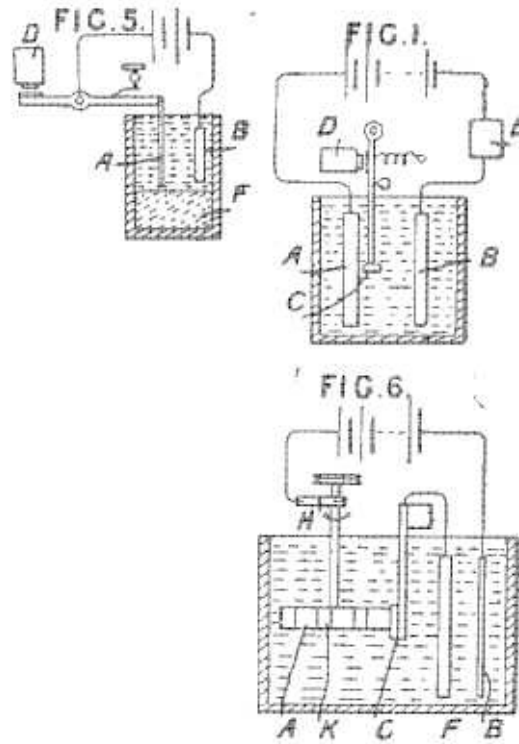
AP - GBD190706289 19070315

DT - I

PA - WALTER LOUIS HEATHCOTE

TI - Improvements in Methods of and Means for Controlling **Electric** Currents

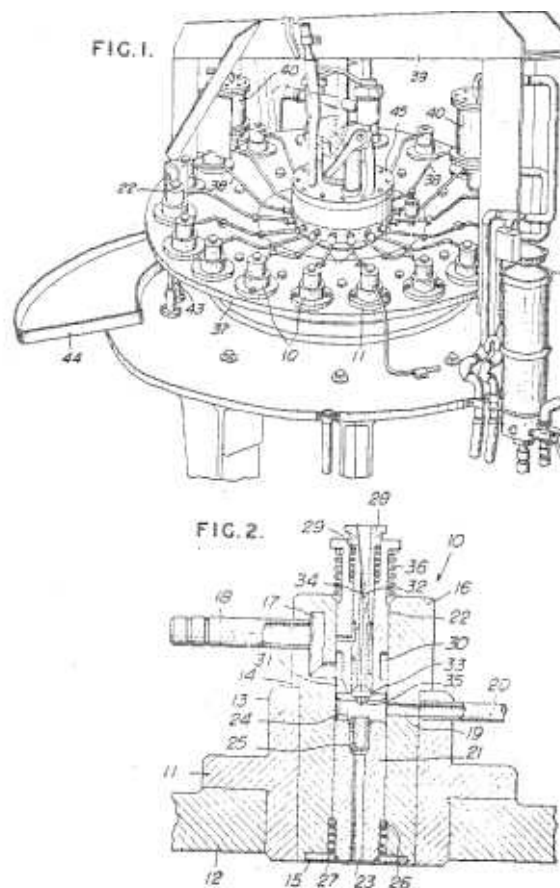
AB - 6289. Walter, L. H. March 15. Resistances.- Electrolytic valve cells having an anode such as aluminium or magnesium and an electrolyte such as ammonium borate are instantly depolarized by touching the immersed anode with a **conductor**, such as a platinum **wire** or carbon pencil held in an insulated **holder**, or connected to the cathode **wire**. In the arrangement shown in Fig. 1, the current in a circuit E is varied by moving the insulated contact-piece C up to the anode A by means of an electro-magnet D ; the cathode B may be of carbon, or aluminium, or other metal unacted on by the electrolyte. Actual contact between the contact-piece and the anode need not be made if the voltage applied is near the critical value for the electrolyte employed. Preliminary preparation of the anode is unnecessary if bright aluminium sheet is used, while, after use, a periodic wiping of the surface with clean tissue paper is preferable. The anode may be in two parts, contact being made with the part not directly connected with the source, and the apparatus, such as an induction coil, in which the current is to be varied being connected between the two anode parts, which form a condenser. The device may be used in connexion with a switch to prevent sparking or burning of contacts on opening a circuit ; the contact-piece may in this case be a plate of carbon or graphite of considerable size, having several projections on its face normally in contact with the anode, and is separated from it, thereby greatly reducing the current, before breaking the circuit. For rapid interruptions



with small currents a **wire** A, Fig. 5, of tantalum or other suitable metal serving as the anode, is depolarized by dipping into mercury F<1> ; for larger currents a **rotating** anode with alternate sectors of aluminium A, Fig. 6, and insulation K is used with a brush contact C, a brush H bearing on the aluminium shaft, completing the circuit. For heavy currents, a small moving contact-piece or the brush-contact C, Fig. 6, is connected to a large plate F, Fig. 6, preferably of the same material dipping in the electrolyte ; the piece C may be graphite or aluminium, and the plate F may be graphite or carbon.

10/14 © EPODOC / EPO

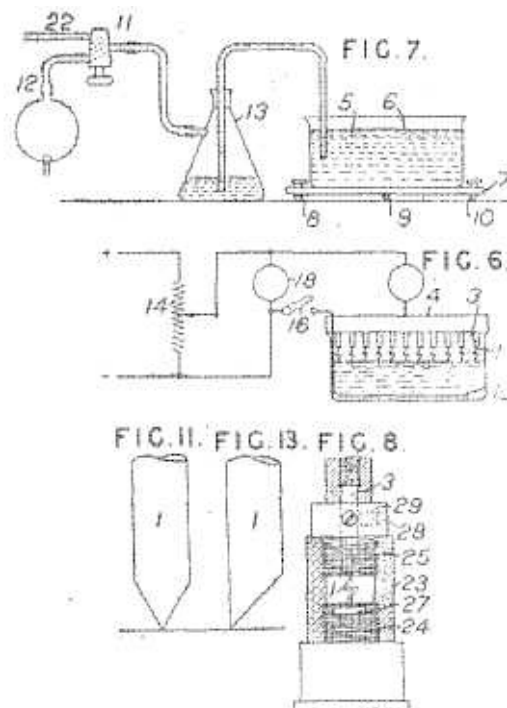
- PN - [GB926077](#) A 19630515
- PR - GB19610027583
19610728; FR19610869875
19610802; US19590858901
19591211
- AP - GB19610027583 19610728
- DT - **
- CCI - [H01J5/20](#) ; [H01J5/28](#) ;
[H01L21/67121](#) ; [H01L21/67126](#)
- CCA - [H01J2893/0037](#) ;
[H01J2893/0044](#) ;
[Y10T29/49105](#) ; [Y10T29/53096](#) ;
[Y10T29/5327](#)
- PA - TOKYO SHIBAURA ELECTRIC CO
- TI - Automatic sealing apparatus for semi-**conductor** devices
- AB - 926,077. Semi-**conductor** devices. TOKYO SHIBAURA **ELECTRIC** CO. Ltd. July 28, 1961, No. 27583/61. Class 37. Apparatus for sealing a semi-**conductor** element in a housing comprises holders for the element and for the housing which are slidably mounted in a sleeve, the sleeve and holders defining a chamber which is continuously fed with clean dry gas. Fig. 1 shows the sealing apparatus. The semi-**conductor** element 35 is mounted in the end of chuck 28 slidably in stem **holder** 22 which is slidable in sleeve 16. A spring 32 holds lead **wire** 34 which extends from the semi-**conductor** element 35.



The housing or shell 25 for the semi-**conductor** element is mounted in the end of shell **holder** 21 which is also slidable in sleeve 16. The sealing operation is performed by pressing down stem **holder** 21 so that element 35 is suitably situated in shell 25 to which it is sealed by projection welding, cold welding, cold soldering or other known process. The sealing process takes place in the presence of a gas such as oxygen, nitrogen or air which flows from inlet pipe 18, pipe 17, recess 33 to the space around the element and its shell and then out via tube 20. Mass production may be effected by means of an intermittently **rotating** table 37 (Fig. 2) carrying a number of elements 10 each as shown in Fig. 1, which are manually or automatically loaded with shells and semi-**conductor** elements in their stem holders and then rotated to the sealing station where a press means 40 depresses the stem **holder** as previously described, to allow hermetic sealing to proceed. The gas supply comes from a central valve 40 via distribution tubes 38. The operation is completed in half a revolution.

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- PN - [GB595601](#) A 19471210
- PR - US19430479320 19430316
- AP - GB19440013950 19440720
- DT - **
- CCI - [C10L5/14](#) ; [H01L21/00](#) ;
[H01L29/40](#) ; [H01L29/417](#) ;
[H01L29/72](#)
- CCA - [Y10T29/49169](#)
- PA - WESTERN ELECTRIC CO
- TI - Improved method of making fine **wire** contacts for use in electrical apparatus
- AB - 595,601. Making **electric** contacts. WESTERN **ELECTRIC** CO., Inc. July 20, 1944, No. 13950. Convention date, March 16, 1943. [Class 83 (ii)] [Also in Groups XXXVI and XL] The end of a fine **wire** for use as an



electrical contact member, e.g. in detectors or rectifiers for ultra high frequency radio &c., is given a desired form, e.g. by grinding, is electrolytically etched, and is then pressed against the member it is to remain in contact with, and preferably tapped, to flatten the point into a contact engaging area. A tungsten **wire** 0.005 inches in diameter, preferably gold plated, is given a conical end, 75-degrees apex angle by **rotating** it in contact with a high speed grinding wheel. The other end of the **wire** is then soldered to a **holder** 3 of brass or other **conductor** and the **wire** bent a number of times to give it resilience. A number of these holders 3 are mounted on a strip 4 and arranged with the ground points of the wires immersed in 25 per cent potassium hydroxide solution in a dish 5, Fig. 7. The dish is levelled by means of a tripod table 7 with adjusting screws 8, 9, 10 and the height of the solution 6 is regulated by altering the pressure in a flask 13, connected to the dish by a syphon, by means of a two-way valve 11, an air pump in the form of a rubber bulb 12, and an exhaust pipe 22. The dish 5 contains a cathode 15 and a potential difference of 0.80 volts, as registered by the meter 18 is applied for two seconds to etch the points to a spherical form, e. g. with a radius of 0.0003 inches. This etched form is then polished by applying 2 volts for 0.2 seconds twice. These times and voltages are obtained by use of the switch 16 and rheostat 14. The level of the electrolyte is then lowered, the strip 4 with its holders 3 is removed and the wires are washed and dried. A **holder** 3 is inserted in a plug 25, Fig. 8, which is screwed into a ceramic cylinder 23, the base of which is closed by a screw plug 24 carrying a wafer 27 of crystalline silicon. The **holder** is adjusted to exert enough force on the **wire** point to flatten it to a small finite area and is so

secured by set screws 29. The device is then tapped so as to produce a flattened area of about 0.0003 inches in diameter. In modifications, the **wire** is ground or otherwise formed to a wedge, Fig. 11 or 13, instead of to a cone and then treated as described.

12/14 © EPODOC / EPO

PN - [GB1031939](#) A 19660602

PR - US19630275070 19630423

AP - GB19640011850 19640320

DT - **

CCI - [H01L21/00](#) ; [H01L21/67121](#) ; [H01L21/67126](#)

CCA - [Y10T29/41](#) ; [Y10T29/49105](#)

PA - STANDARDTELEPHONESCABLESLTD

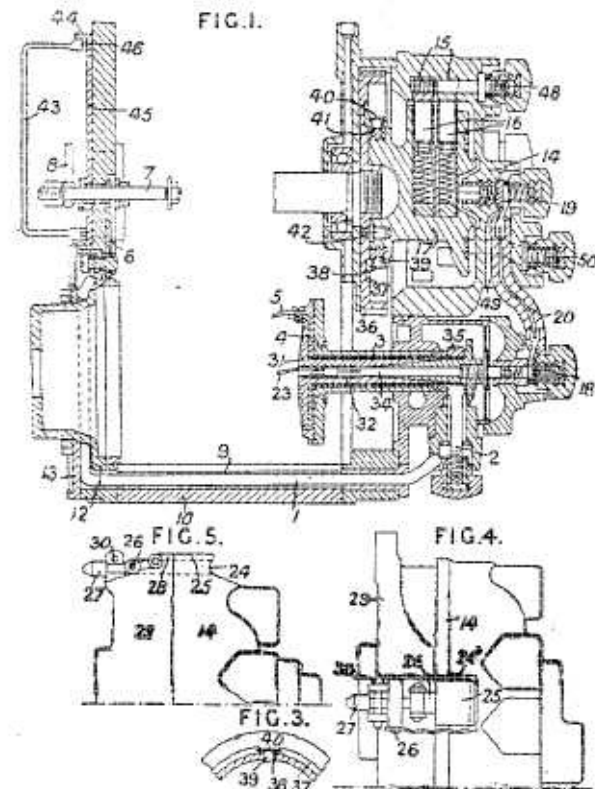
TI - Method and apparatus for assembling semi-**conductor** devices

AB - 1,031,939. Machines for making semiconductor devices. STANDARD TELEPHONES & CABLES Ltd. March 20, 1964 [April 23, 1963], No. 11850/64. Headings H1J and H1K. A method of manufacturing a semi -**conductor** device comprising a flexible whisker containing or coated with a significant impurity of one conductivity type alloyed to a wafer of semiconductor material of the opposite conductivity type, includes the steps of forming the whisker by bending a **wire** of predetermined diameter to a predetermined shape, placing an end of the whisker in contact with the wafer and advancing the other end a predetermined distance towards the wafer so that the whisker presses against the wafer with a predetermined pressure, and passing an **electric** current between the whisker and wafer for sufficient time to alloy the whisker to the wafer and thereby to remove the pressure between the whisker and wafer by dissolution of the end of the whisker in contact with the wafer. The device, Fig. 1, comprises a base element 10, having a germanium wafer 15 soldered to a lead **wire** 13 fused by a glass bead 12 to a glass envelope 11, and an insert element 16 having a lead **wire** 17 fixed in a glass bead 18 and carrying a **wire** whisker 19. The whisker comprises an alloy of 98% gold and 2% arsenic. The elements are fed to a machine, Fig. 2, having pairs of holders arranged on the periphery of an intermittently **rotating** turret, each pair comprising a base **holder** 21 and an insert **holder** 22 adapted for vertical reciprocation along its axis towards and away from the base **holder**. A friction brake 23, 24 prevents unintentional movement of the insert **holder**. During movement of a **holder** pair to the first operating station the insert **holder** 22 is forced downwardly by cam means (not shown) to place the insert 16 within the base 10 with the whisker close to, but not touching, the germanium wafer. At the first station the insert **holder** is positioned under the arm 57 of a depressing mechanism comprising a constant speed synchronous **electric** motor 27 (Fig. 3, not shown) which drives a cam 36 through reduction gearing 28 and a one-turn clutch 33 actuated by a solenoid 35. The cam has an accurately contoured spiral surface and a short return portion so that the crank 38, which is pivoted at 39 and carries a follower roller 37, is turned at a constant rate. The crank 38 is attached by a link 42 to a second crank 47 secured to a shaft 49 which is adapted to be connected with the shaft 54 carrying the arm 57 by a magnetic clutch 53. The arrival of a **holder** pair at the first operating station actuates a switch which energizes the solenoid 35 and magnetic clutch 53 and thereby causes the arm 57 to start its descent. When the whisker 19 contacts the wafer 15 it completes a circuit to actuate a millisecond timer which disconnects the magnetic clutch 53 after a predetermined time interval. During this interval the insert **holder** 22 is being forced downwardly at a constant speed by the arm 57 so that when the clutch 53 is disconnected the resilient whisker is pressed against the wafer with an accurately predetermined force. When the cam 36 has completed its turn and the arm 57 has been re-set by a spring 59, the **holder** pair is indexed to a second operating station at which a predetermined current is passed through the semi-

conductor device to weld the whisker to the wafer, the degree of diffusion of arsenic into the germanium being dependent on the contact pressure between the parts. The base **holder** 21 is provided with a heater which surrounds the glass envelope 11 and is actuated as soon as the welding is completed to seal the glass bead 18 to the envelope 11 and to anneal the glass in the device.

13/14 © EPODOC / EPO

- PN - [GB123724](#) A 19200611
- PR - FRX123724 19180227
- AP - GB19190000827 19190111
- DT - *
- CCI - [H02K5/141](#)
- PA - VALETTE HENRI DE LA [FR]
- TI - Improvements in Means for Fixing a Magneto Brush **Holder** to a Gear-wheel.
- AB - 123,724. La Valette, H. de. Feb, 27, 1918, [Convention date]. Magneto-**electric** machines; inductor machines. -Consists in improvements in magnetos having stationary armatures and magnets and **rotating** iron screens, some of the improvements being generally applicable to other types. The low-tension **wire** 5, Fig. 1, of the armature (not shown) is connected by means of a disk 4 and metal tube 3 and a rod 2 to an insulated **conductor** 1 which extends through a duct 9 formed in the bottom of the magneto casing 10, then along one of a pair of ducts formed in the outer face of an interrupter plate 12 to a metal strip 6 in contact with the axle 7 of the interrupter lever 8; the **conductor** 1 is covered by a plate 13. The stationary contacts 15 of the distributor are arranged in staggered order on two or more adjacent circumferences and are rubbed by two or more carbon brushes 16 mounted on the **rotating** brush-**holder** 17 and connected to one and the same high-tension circuit by means of terminals 19, 18 and an insulated **wire** 20. The **wire** 20 is situated in a cavity 49 in the distributor cover 14, which carries the main terminals 48 and a starting terminal 50. The high-tension **wire** 23 of the armature is connected to the terminal 18 by means of a tubular part 32



and a pin 34, insulation 31, 35 being interposed between the high-tension and low-tension conductors. The brush- **holder** 17 is secured to its driving wheel 36 by a ring 37 which is formed with a number of recesses 38 each containing a ball 39 held therein by a leaf-spring 40. The balls 39 project into an annular groove 41 in the periphery of the brush- **holder**; a positive drive between the parts is secured by a screwed stud 42. The distributor cover 14 is fixed to the supporting frame 29, Figs. 4 and 5, by means of a springy stirrup 24 which embraces a lug 25 on the cover 14 and at the other end carries the axle 26 of a lever 27; one arm of the lever abuts against a lug 28 of the frame 29, the other arm serving as a means for its operation. The parts 14, 29 can be separated by exerting a strong pull upon the lever 27 against the pressure of the stirrup 24, accidental shifting of the lever being prevented by a pin 30, bolt, or latch. The interrupter casing 48 is of insulating material and fits within a rim 44 on a plate 45 to which the casing 43 is bolted or screwed. The edge of the casing is grooved to receive packing 46.

14/14 © EPODOC / EPO

PN - [CN2413837Y](#) Y 20010110

PR - CN1999244124U 19990902

AP - CN1999244124U 19990902

DT - I

PA - ZHANG HONGLIANG [CN]

TI - **Electric welding holder**

AB - The utility model relates to an **electric** welding **holder**, belonging to a welding tool. A rod conical integral body is composed of a conical insulated **electric** welding holding end, an adjusting threaded rod, a pressing nut, a fixed nut and a claviform insulated **electric** welding **holder** body. When a welding stick is clamped with the **electric** welding **holder**, the action of clamping the **electric** welding stick can be completed by **rotating** the **electric** welding holding end and the **electric** welding **holder** body. The action of clamping the **electric** welding stick is completed by that the insulated **electric** welding holding end is rotated so that the adjusting threaded rod for a **conductor** is forward raised. **Electric** arc is not generated, and resistance is reduced. A cable **wire** is fixed. Structural parts are reduced by two thirds. Compared with a similar product, the utility model has the advantage of simple structure. The utility model is a novel **electric** welding **holder** with reliable service performance.

Results in EPODOC 165

[SS 9] /IC B66C13/08 OR H02G1/04

Results in EPODOC 9.145

[SS 10] 8 AND 9

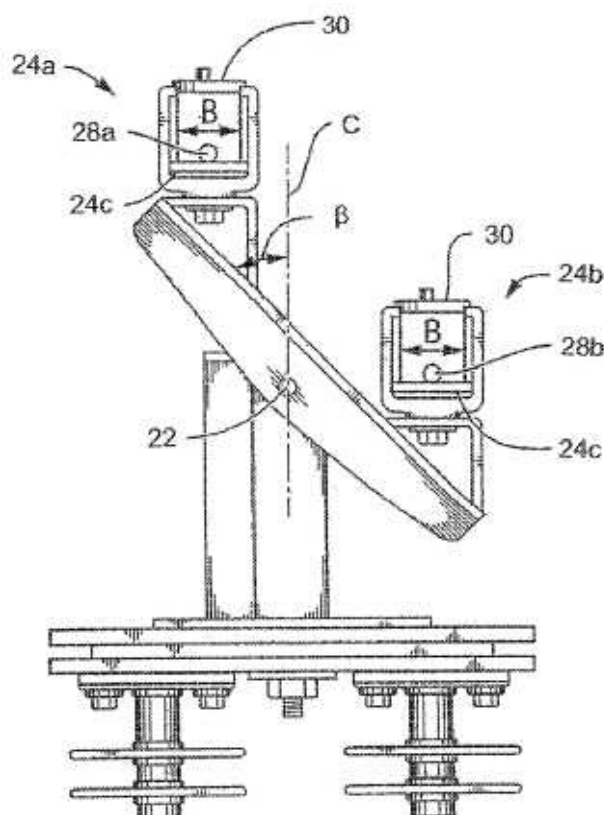
Results in EPODOC 7

[SS 11] ..LI



1/7 © EPODOC / EPO

PN - [MX2016014572](#) A 20170504
PR - US201461990213P
20140508; WO2015US29745
20150507
AP - MX20160014572 20150507
DT - I
CCI - [H02G1/02](#)
CCA - [H02G7/05](#)
PA - QUANTA ASS L P [US]
TI - **ROTATING CONDUCTOR HOLDER.**
AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.



2/7 © EPODOC / EPO

PN - [CN106663926](#) A 20170510
PR - US201461990213P
20140508; WO2015US29745
20150507
AP - CN2015836243 20150507
DT - I
CT - || STSE (A)
[US3905500](#) A 19750916
[A] (BOURGES BERNARD M)
[A] 1-41
* 全文 *;
[US4466506](#) A 19840821
[A] (DOLENTI ALFRED N [US])
[A] 1-41
* 全文 *;
[US5538207](#) A 19960723
[A] (O'CONNELL DANIEL N [CA], et al)
[A] 1-41
* 全文 *;
[CA2419417](#) A1 20030819
[A] (O'CONNELL DANIEL NEIL [CA], et al)
[A] 1-41
* 全文 *;
[US2011011987](#) A1 20110120
[A] (LESSARD ANDRE [CA])
[A] 1-41
* 全文 *;
[US2012175575](#) A1 20120712
[X] (DEVINE CLIFFORD WILLIAM [CA], et al)
[X] 1,30
* 说明书第0040-0065段, 图1-11 *;
[US2013134369](#) A1 20130530
[A] (WABNEGGER DAVID [CA])
[A] 1-41
* 全文 *

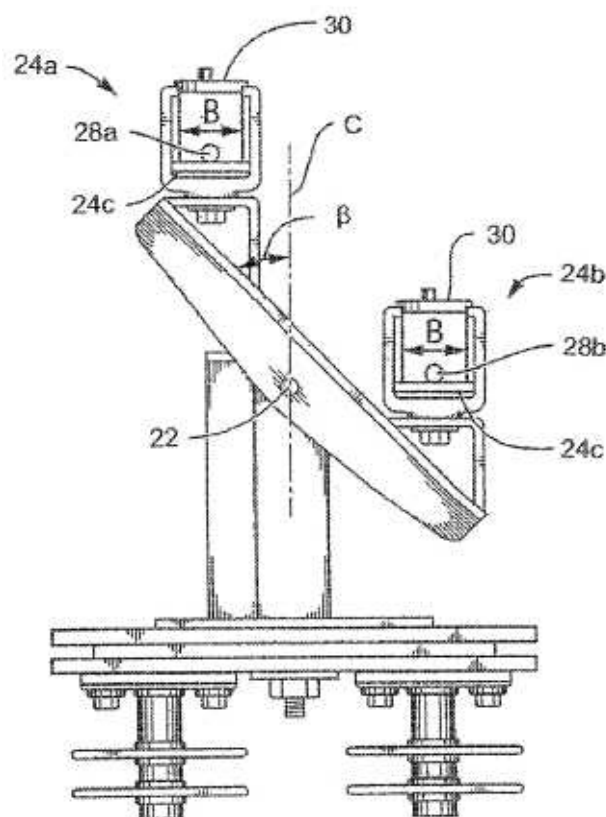
CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - QUANTA ASS L P

TI - **Rotating conductor holder**

AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least



one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.

3/7 © EPODOC / EPO

PN - [PH12016502214](#) A1 20170116

PR - US201461990213P
20140508; WO2015US29745
20150507

AP - PH2014120165022 20161108

DT - I

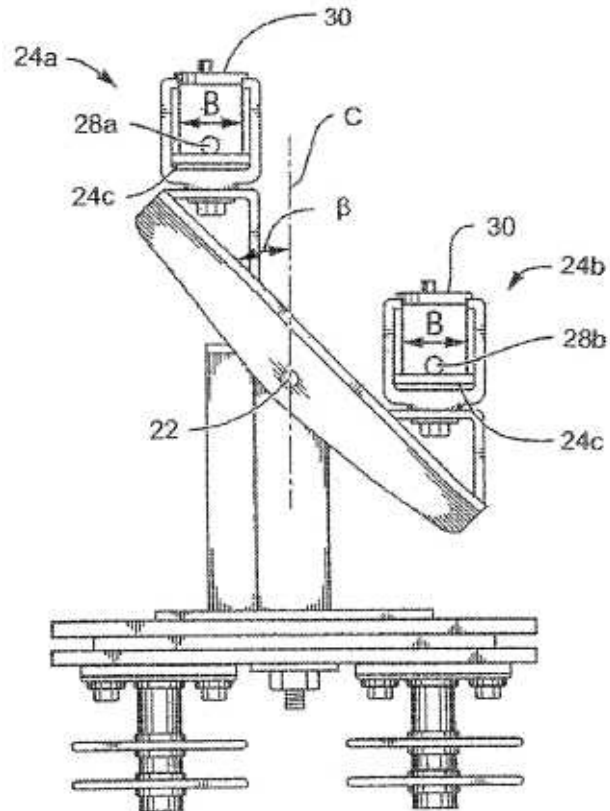
CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - QUANTA ASSOCIATES LP [US]

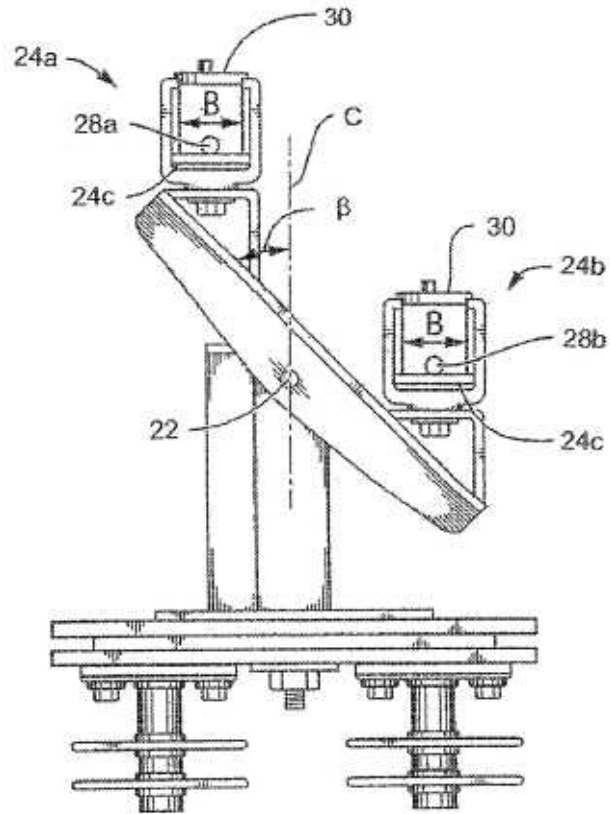
TI - **ROTATING CONDUCTOR HOLDER**

AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.



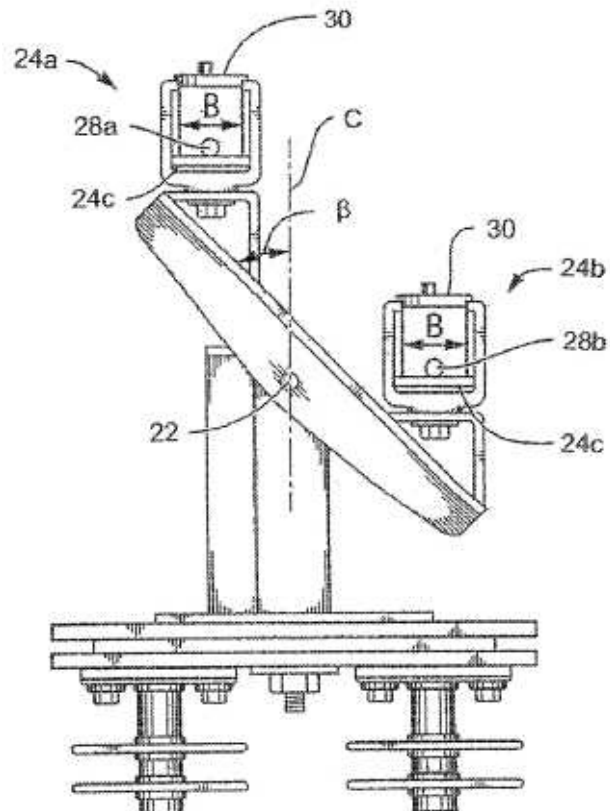
4/7 © EPODOC / EPO

PN - [AU2015255874](#) A1 20170105
PR - US201461990213P
20140508; WO2015US29745
20150507
AP - AU20150255874 20150507
DT - I
CCI - [H02G1/02](#)
CCA - [H02G7/05](#)
PA - QUANTA ASSOCIATES LP
TI - **Rotating conductor holder**
AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.



5/7 © EPODOC / EPO

PN - [CA2947879](#) A1 20151112
PR - US201461990213P
20140508; WO2015US29745
20150507
AP - CA20152947879 20150507
DT - I
CCI - [H02G1/02](#)
CCA - [H02G7/05](#)
PA - QUANTA ASS LP [US]
TI - **ROTATING CONDUCTOR HOLDER**
AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at



least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.

6/7 © EPODOC / EPO

PN - [EP3140889](#) A2 20170315

PNFP - EP3140889 A4 20171213

PR - US201461990213P
20140508; WO2015US29745
20150507

AP - EP20150789043 20150507

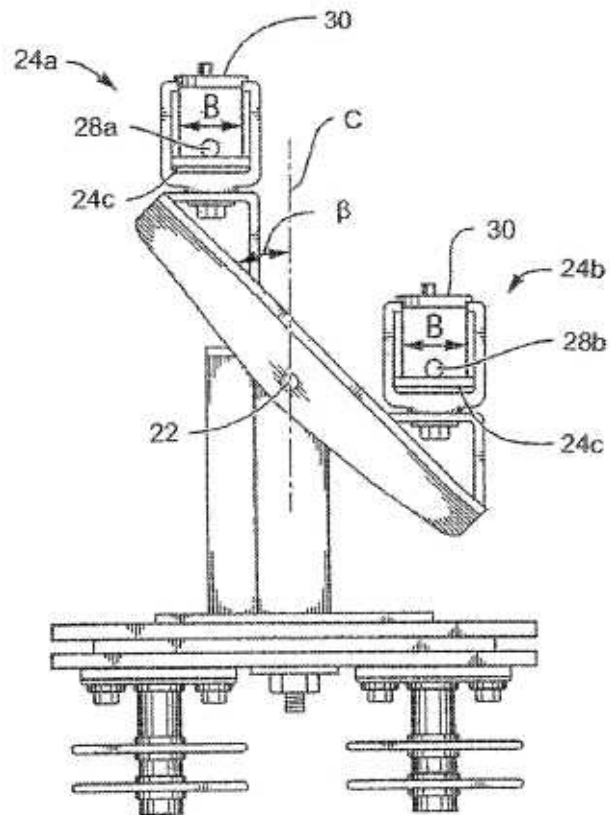
DT - I

CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - (A2 A4)
QUANTA ASS L P [US]

TI - (A2 A4)
ROTATING CONDUCTOR HOLDER



7/7 © EPODOC / EPO

PN - [WO2015171929](#) A2 20151112

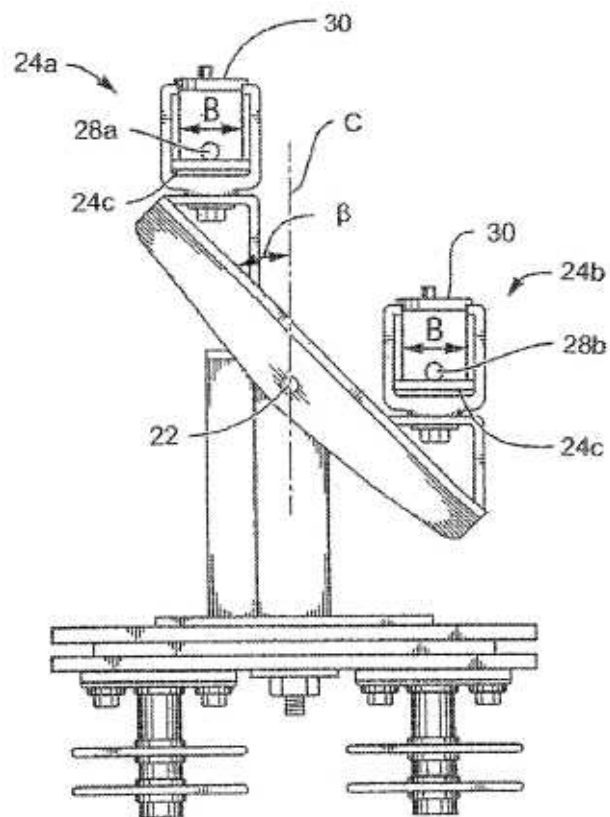
PNFP - WO2015171929 A3 20160204

PR - US201461990213P 20140508

AP - WO2015US29745 20150507

DT - **

CT - [US] ISR (A3)
[US2012175575](#) A1 20120712
[XY] (DEVINE CLIFFORD WILLIAM
[CA], et al)
[X] 1-6, 13, and 49
* ; abstract; figures 1-8;
paragraphs [0011, 0040, 0041,
0043, 0059] *
[Y] 7-12 and 14;
[US3905500](#) A 19750916
[Y] (BOURGES BERNARD M)
[Y] 7-11
* ; figure 1; column 2, lines 6-17
*;
[US5538207](#) A 19960723
[Y] (O'CONNELL DANIEL N [CA], et
al)
[Y] 10 and 12
* ; figures 2, 7, and 10A; column



4, lines 58-65; column 5, lines 9-15 and 48-56 *;
[US1501590](#) A 19240715
 [Y] (FLOYD VICTOR C)
 [Y] 14
 * ; figures 1 and 2; page 1, lines 69-108; page 2, lines 1-15 *;
[US2011011987](#) A1 20110120
 [A] (LESSARD ANDRE [CA])
 [A] 1-14 and 49
 * ; entire document *;
[US4466506](#) A 19840821
 [A] (DOLENTI ALFRED N [US])
 [A] 1-14 and 49
 * ; entire document *;
[US2015030426](#) A1 20150129
 [PX] (FRITEL RAYMOND [US], et al)
 [P,X] 1-14 and 49
 * ; abstract; figures 1-12 *

- CCI - [H02G1/02](#)
- CCA - [H02G7/05](#)
- PA - (A2 A3)
QUANTA ASSOCIATES LP [US]
- TI - (A2 A3)
ROTATING CONDUCTOR HOLDER
- AB - (A2 A3)
A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.

[SS 11] SUPPORT AND ROTATIONAL AND high AND tension AND electric AND line

Results in EPODOC 0

[SS 12] SUPPORT AND ELECTRIC AND WIRES AND CABLE

Results in EPODOC 350

[SS 13] 12 AND 9

Results in EPODOC 1

[SS 14] ..LI



1/1 © EPODOC / EPO

PN - [CN106571607](#) A 20170419

PR - CN20161319832 20160513

AP - CN20161319832 20160513

DT - I

CT - || STSE (A)

[CN1195217](#) A 19981007 [A] (HIEN ELECTRIC IND LTD [JP])

[A] 1-7

* 全文 *;

[JP2002142343](#) A 20020517 [A] (DENKENSYA & CO LTD)

[A] 1-7

* 全文 *;

[JP3738436B](#) B2 20060125 [A]

[A] 1-7

* 全文 *;

[US2006237701](#) A1 20061026 [YX] (OGATA KAZUYA [JP], et al)

[Y] 2

* 说明书第73-83段及附图7-12 *

[X] 1、3-7;

[JP4097373B](#) B2 20080611 [A]

[A] 1-7

* 全文 *;

[CN101346861](#) A 20090114 [A] (KYOEI HIGH OPT CO LTD [JP])

[A] 1-7

* 全文 *;

[CN101604829](#) A 20091216 [Y] (JIANGSU TONGGUANG OPTICAL CABL [CN])

[Y] 2

* 说明书第3页第6段-第5页第3段及附图1-6 *;

[JP4439458B](#) B2 20100324 [A]

[A] 1-7

* 全文 *;

[JP2010226884](#) A 20101007 [A] (KYOEI SENZAI KK)

[A] 1-7

* 全文 *;

[JP2013212027](#) A 20131010 [A] (KANTO DENKI KOJI, et al)

[A] 1-7

* 全文 *

CNOI - [G02B6/486](#) ; [H02G1/02](#) ; [H02G1/04](#) ; [H02G7/06](#) ; [H02G7/08](#)

PA - KYOEI HIGH OPT CO LTD

TI - **Cable** helical **support** and erecting method thereof

AB - The invention provides an erecting method for erecting a **cable** helical **support**. The **cable** helical **support**, used for bundling various cables as one bunch, is erected on **support wires** between **electric** poles or other posts. The **cable** helical **support** is composed of a levorotatory helical part and a dextrorotatory helical part, wherein the two parts are connected alternately along the axis through an inverting part. The **cable** helical **support** is clamped into the **support wires** through the inverting part so as to be rotated. In this way, the **support wires** can be taken into the inner side of the **cable** helical **support**.

[SS 14] ROTATING AND CONDUCTOR AND HOLDER

Results in EPODOC 165

[SS 15] 14 AND 9

[SS 16] ..LI



1/7 © EPODOC / EPO

PN - [MX2016014572](#) A 20170504

PR - US201461990213P
20140508; WO2015US29745
20150507

AP - MX20160014572 20150507

DT - I

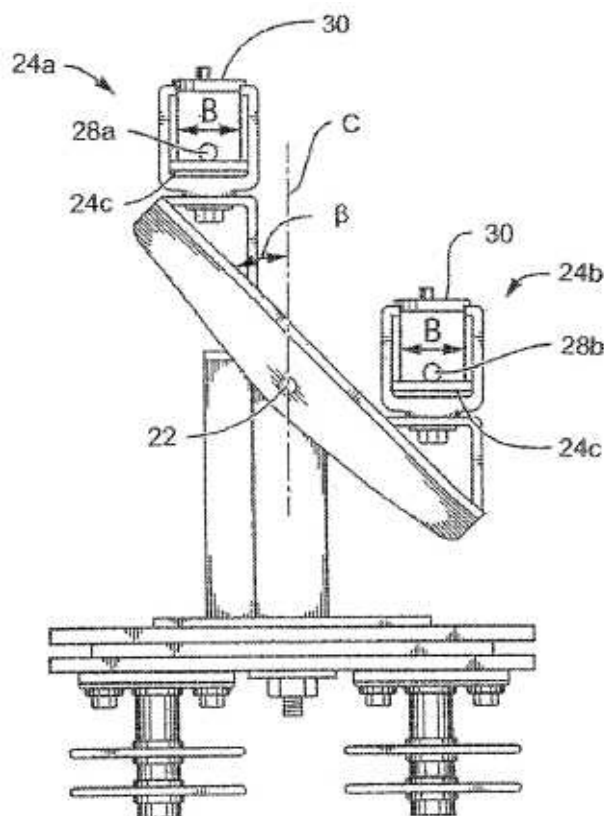
CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - QUANTA ASS L P [US]

TI - **ROTATING CONDUCTOR HOLDER.**

AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.



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PN - [CN106663926](#) A 20170510

PR - US201461990213P
20140508; WO2015US29745
20150507

AP - CN2015836243 20150507

DT - I

CT - || STSE (A)
[US3905500](#) A 19750916
[A] (BOURGES BERNARD M)
[A] 1-41
* 全文 *;
[US4466506](#) A 19840821
[A] (DOLENTI ALFRED N [US])
[A] 1-41
* 全文 *;
[US5538207](#) A 19960723
[A] (O'CONNELL DANIEL N [CA], et al)
[A] 1-41
* 全文 *;
[CA2419417](#) A1 20030819
[A] (O'CONNELL DANIEL NEIL [CA], et al)
[A] 1-41
* 全文 *;
[US2011011987](#) A1 20110120
[A] (LESSARD ANDRE [CA])
[A] 1-41
* 全文 *;
[US2012175575](#) A1 20120712
[X] (DEVINE CLIFFORD WILLIAM [CA], et al)
[X] 1,30
* 说明书第0040-0065段, 图1-11 *;
[US2013134369](#) A1 20130530
[A] (WABNEGGER DAVID [CA])
[A] 1-41
* 全文 *

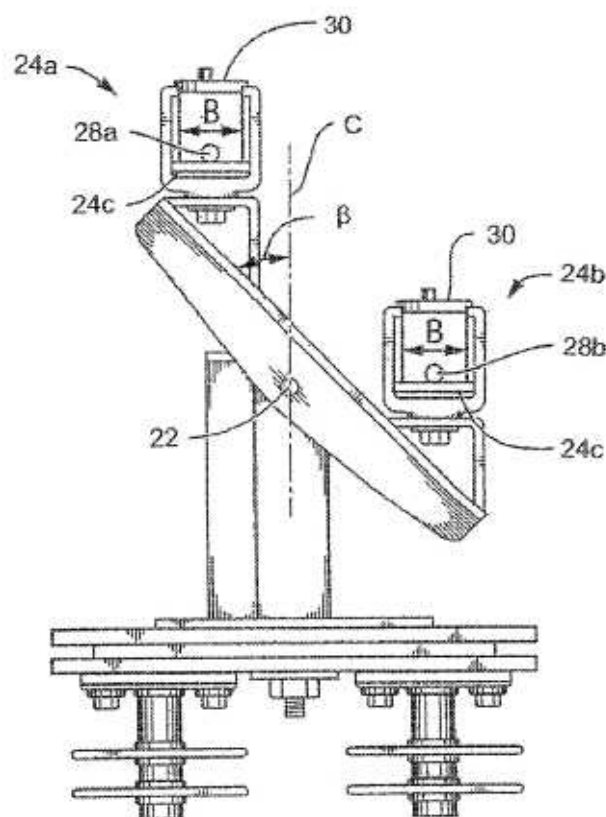
CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - QUANTA ASS L P

TI - **Rotating conductor holder**

AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least



one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.

3/7 © EPODOC / EPO

PN - [PH12016502214](#) A1 20170116

PR - US201461990213P
20140508; WO2015US29745
20150507

AP - PH2014120165022 20161108

DT - I

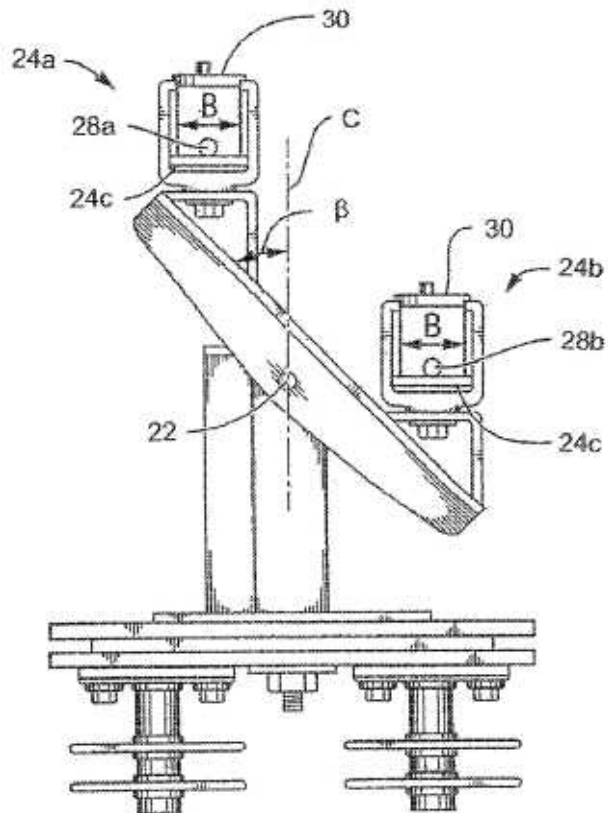
CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - QUANTA ASSOCIATES LP [US]

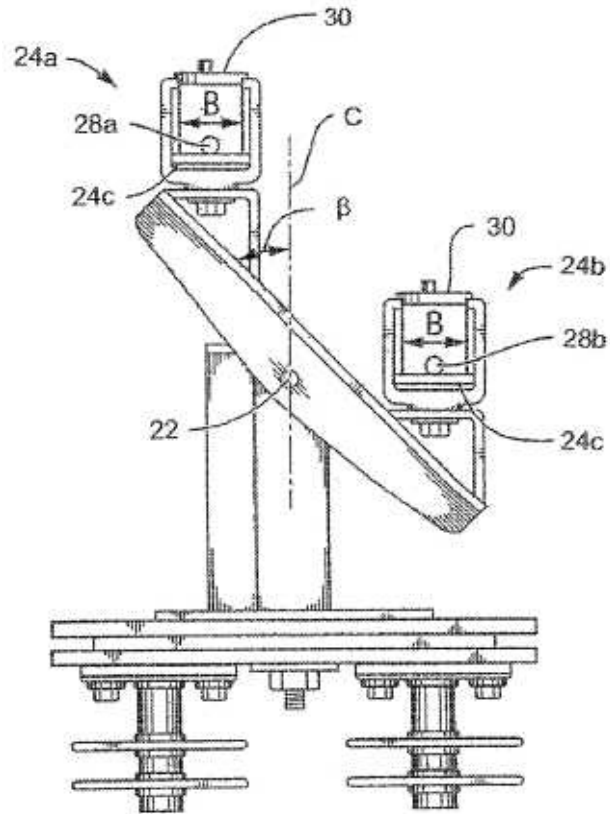
TI - **ROTATING CONDUCTOR HOLDER**

AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.



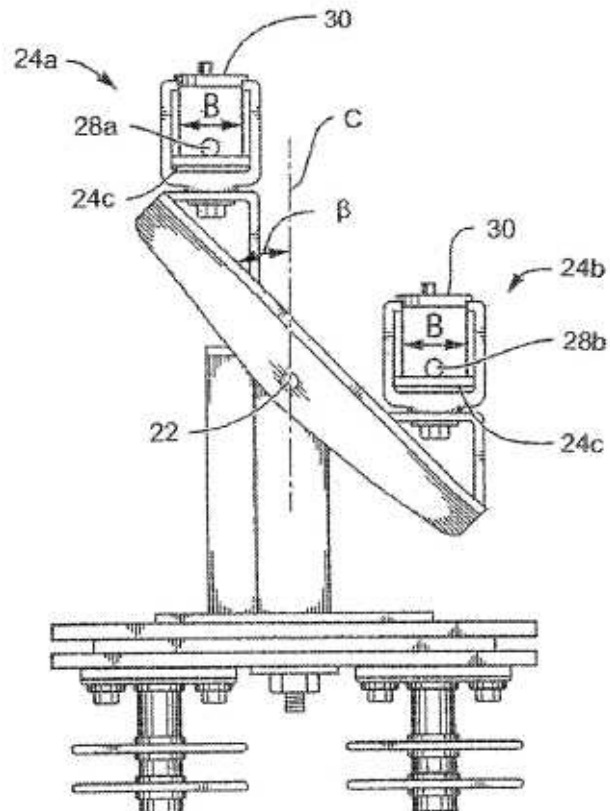
4/7 © EPODOC / EPO

PN - [AU2015255874](#) A1 20170105
PR - US201461990213P
20140508; WO2015US29745
20150507
AP - AU20150255874 20150507
DT - I
CCI - [H02G1/02](#)
CCA - [H02G7/05](#)
PA - QUANTA ASSOCIATES LP
TI - **Rotating conductor holder**
AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.



5/7 © EPODOC / EPO

PN - [CA2947879](#) A1 20151112
PR - US201461990213P
20140508; WO2015US29745
20150507
AP - CA20152947879 20150507
DT - I
CCI - [H02G1/02](#)
CCA - [H02G7/05](#)
PA - QUANTA ASS LP [US]
TI - **ROTATING CONDUCTOR HOLDER**
AB - A **rotating conductor holder** includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at



least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.

6/7 © EPODOC / EPO

PN - [EP3140889](#) A2 20170315

PNFP - EP3140889 A4 20171213

PR - US201461990213P
20140508; WO2015US29745
20150507

AP - EP20150789043 20150507

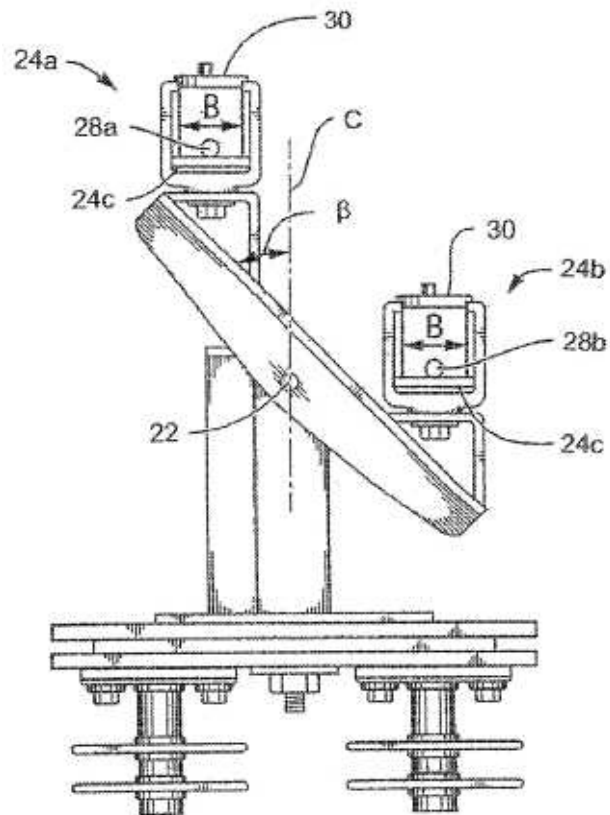
DT - I

CCI - [H02G1/02](#)

CCA - [H02G7/05](#)

PA - (A2 A4)
QUANTA ASS L P [US]

TI - (A2 A4)
ROTATING CONDUCTOR HOLDER



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PN - [WO2015171929](#) A2 20151112

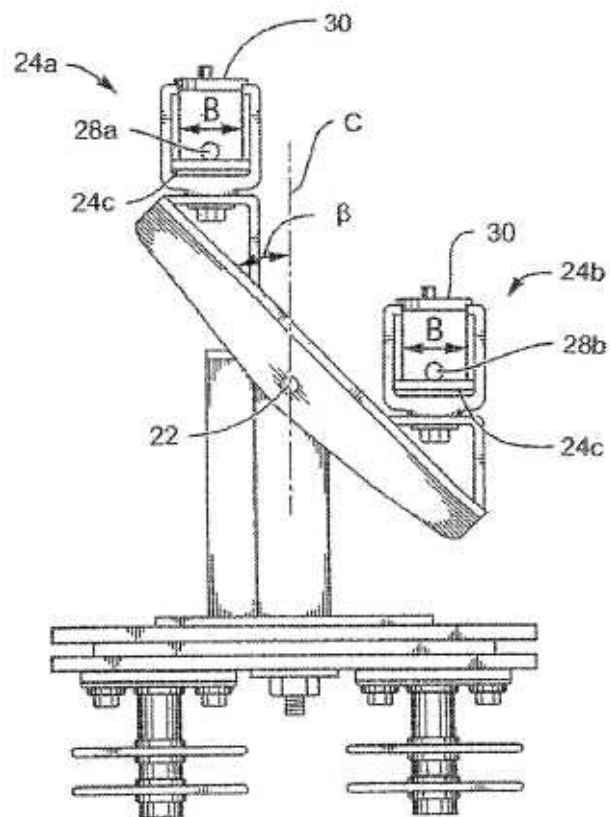
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DT - **

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[X] 1-6, 13, and 49
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[Y] 7-12 and 14;
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[Y] (BOURGES BERNARD M)
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[Y] (O'CONNELL DANIEL N [CA], et
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[A] (LESSARD ANDRE [CA])
[A] 1-14 and 49
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[A] (DOLENTI ALFRED N [US])
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- CCI - [H02G1/02](#)
- CCA - [H02G7/05](#)
- PA - (A2 A3)
QUANTA ASSOCIATES LP [US]
- TI - (A2 A3)
ROTATING CONDUCTOR HOLDER
- AB - (A2 A3)
A rotating conductor holder
includes at least a first and second **conductor** retainer, which are mounted to and spaced apart along a **rotating** base member at a distance substantially corresponding to the separation distance between the two or more existing sub-conductors that are to be replaced during a restringing procedure. The base member is rotatably attached to a support, which may be mounted on at least one insulator. The at least one insulator may be mounted on an arm on the end of a boom. An actuator and linkage may be provided to rotate the base member about its support.