

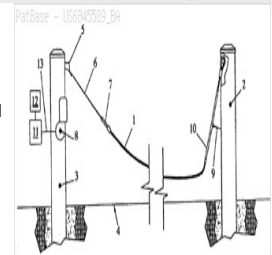
1) Family number: 20642019 (US6845589B)

CABLE GATE

**Abstract:** Source: US6845589B A gate for controlling passage through an opening including a first support located on one side of the opening, a second support located on the other side of the opening, at least one elongate member, having a first and a second end, extendable across the opening between the first and second support; and a control for releasing the at least one elongate member to whereby enable passage through the opening and drawing in the elongate member to thereby restrict passage through the opening.

**Probable Assignee:** MATILDA PRODUCTS LTD

**Earliest Publication Date:** 20000413



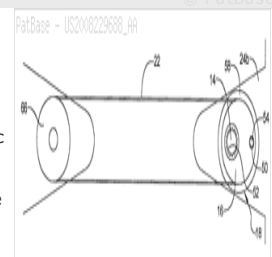
2) Family number: 41782142 (US2008229688A)

TENSIONING APPARATUS AND METHOD

**Abstract:** Source: US2008229688A A system and method for tensioning a cable. A thimble is placed over an eccentric member having a splined bore. A portion of an endless cable is placed over the thimble. The eccentric member and thimble are placed between a pair of parallel, spaced apart arms of a mounting structure. A splined shaft is inserted through holes in the arms and into the splined bore of the eccentric member to secure the eccentric member to the mounting structure. A threaded nut is placed on a threaded end of the splined shaft. The cable is tensioned by rotating a head portion of the splined shaft 180 degrees, or by a different predetermined value, which places the cable under a predetermined tension. A retaining screw is inserted through one of the mounting structure arms and into a threaded hole in the eccentric member. The system enables a precise degree of tension to be quickly and easily applied to a cable with no risk of accidentally over-tensioning the cable.

**Probable Assignee:** BOEING CO

**Earliest Publication Date:** 20080924



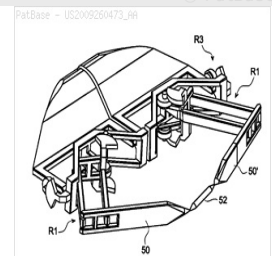
3) Family number: 41457190 (US2009260473A)

JOINTED LIMB COMPRISING FIBRES, AND JOINTED STRUCTURE AND ROBOT OR HAPTIC INTERFACE COMPRISING SUCH A JOINTED LIMB

**Abstract:** Source: US2009260473A The primary object of the present invention is a jointed and instrumented limb for robot or haptic interface comprising at least first (2) and second (4) rigid segments and a joint (6), said joint (6) comprising fibers and at least one measurement element (101, 102) and being fixed in each of the rigid segments (2, 4). The present invention also has for object a robot or a haptic interface comprising at least one such jointed limb.

**Probable Assignee:** COMMISSARIAT A LENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES

**Earliest Publication Date:** 20080207



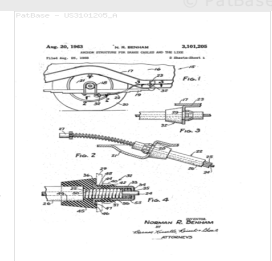
4) Family number: 22813054 (US3101205A)

ANCHOR STRUCTURE FOR BRAKE CABLES AND THE LIKE

**Abstract:** Source: US3101205A (Claim 1) 1. Anchor structure for brake cables and the like having an external sheathing, said anchor structure comprising a thimble having generally rigid side walls lying generally on a cylindrical surface, said thimble being adapted to slidably receive and engage sheathing on cable inserted therinto, said thimble having at one end an opening through which cable may pass and having at its other end an outwardly turned flange, a body of resiliently distortable material fixed to the exterior of said thimble, said body of material having two longitudinally spaced apart enlargements with an intermediate portion of reduced diameter forming a groove adapted to fit in an opening of predetermined size, said flange being imbedded in one of said enlargements and the cylindrical wall of said thimble providing a generally rigid internal support for the other enlargement, the first mentioned enlargement having a generally radial shoulder adjacent said groove, said other enlargement having an alternate circumferential series of ribs and grooves so that said other enlargement can be resiliently compressed generally to said diameter for passing through an opening, said other enlargement having one end surface disposed toward said one end of said thimble angled relatively mildly to the longitudinal extent of said thimble to facilitate compression of said other enlargement as it is forced through an opening, the other end surface of the other enlargement being relatively abruptly angled to said longitudinal extent to facilitate anchoring said structure within the opening, said shoulder and other end surface being yield-ably engageable against opposite faces of a member to which said structure is secured to facilitate securing said structure to members having different thicknesses, said first enlargement having a longitudinal opening therein aligned with the thimble interior, the latter said opening being dimensioned so that the walls defining the same friction-ally engage the sheathing of cable inserted into said structure for securing the structure and sheathing together.

**Probable Assignee:** BENHAM NORMAN R

**Earliest Publication Date:** 19630820



5) Family number: 57224431 (US2014235373A)

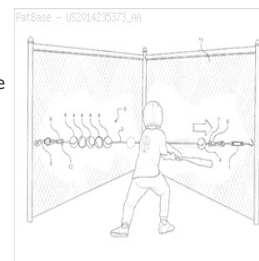
BATTING BALL ON A CABLE HAVING A LOW FRICTION SURFACE TO PROVIDE PROPER SWING

## TECHNIQUE AND MUSCLE MEMORY

**Abstract:** Source: US2014235373A A batting ball is slidably mounted on a line having a low friction surface to provide proper swing technique and muscle memory. A hook and eye turnbuckle is connected to an end of the cable by a thimble and clamp set. A swivel snap hook is connected to an end of the cable by a thimble and clamp set located opposite the hook and eye turn buckle. A bushing with a central opening is inserted and affixed into the ball opening. The bushing has a threaded end connected to an outer wall of the bushing. The central opening of the bushing will receive the cable. The balls are mounted onto the cable with a washer located at each end between the attaching elements and the balls. The washers act as a barrier to prevent the balls from being penetrated by the thimble and clamp set upon impact.

**Probable Assignee:** PALARDIS CHARLES STEVEN

**Earliest Publication Date:** 20140821



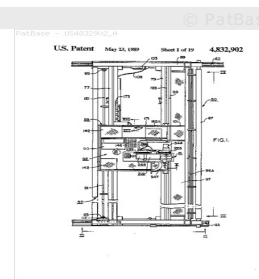
## 6) Family number: 2999711 (US4832902A)

### REFUELING OF NUCLEAR REACTOR

**Abstract:** Source: US4832902A Refueling apparatus for a nuclear reactor including a bridge and a trolley. The bridge is moveable in tracks along the containment of the pit in which the reactor is immersed in water and the trolley moveable in tracks on the bridge at right angles to the tracks on the bridge. The trolley carries a mast assembly for engaging, raising, lowering a nuclear-reactor component assembly involved in refueling. The mast includes an elongated member for engaging control-rod and thimble plug assembly and a gripper for raising fuel assemblies. The elongated member is moveable upwardly or downwardly. The bridge, trolley and mast assembly each has a pulse generator which produces pulses in accordance with the movement of each. The number of pulses produced when the bridge, trolley or elongated member move to a position at a predetermined distance from a reference position is a measure of the new position of each. The mast assembly can be positioned over the reactor at positions whose location can be set in terms of number of pulses as coordinates of a Cartesian coordinate system. The axes of the coordinate system are parallel to the directions of motion of the bridge and trolley. The elongated member likewise can be positioned vertically at a height whose location can be set by a coordinate measured by its number of pulses. As the bridge, trolley or elongated member move, limit switches are actuated by each at a predetermined position in its track. The signal produced by actuation of each switch yields a reading of the position of the bridge, trolley or elongated member at the instant of actuation and this is compared with a computer entry of the position which the vehicle in question should occupy. The computer is programmed to make a compensating correction in the position of the vehicle or elongated member.

**Probable Assignee:** WESTINGHOUSE ELECTRIC CO

**Earliest Publication Date:** 19831130



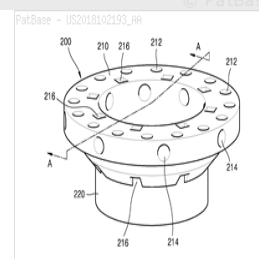
## 7) Family number: 66978200 (US2018102193A)

### INSTALLATION STRUCTURE FOR INSTALLING CONTROL ROD DRIVE MECHANISM AND CABLE SEALING UNIT IN NUCLEAR REACTOR PRESSURE VESSEL

**Abstract:** Source: US2018102193A Provided is an installation structure for installing control rod drive mechanisms and cable sealing units in a nuclear reactor pressure vessel. The installation structure includes: a sealing flange having a ring shape and being hermetically coupled to an upper pressure vessel and a lower pressure vessel of the nuclear reactor pressure vessel; a cylindrical tube extending downward vertically from an internal edge of the sealing flange; and a support plate provided horizontally to block a lower end portion of the cylindrical tube. A plurality of mounting holes that penetrate through the sealing flange horizontally are arranged in the sealing flange with a predetermined interval therebetween along a circumferential direction, the cable sealing units are inserted and mounted in the plurality of mounting holes, and the control rod drive mechanisms are installed on the support plate to be supported.

**Probable Assignee:** KEPKO ENGINEERING AND CONSTRUCTION CO INC

**Earliest Publication Date:** 20170918



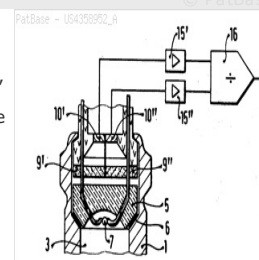
## 8) Family number: 29259136 (US4358952A)

### OPTICAL ENGINE KNOCK SENSOR

**Abstract:** Source: US4358952A To detect detonations in the combustion chamber of an internal combustion engine, the sensor system is constructed as a unit that may be threadedly engaged with the combustion chamber wall, the unit including an antechamber in the region near the combustion chamber and a detector being disposed at the base of the antechamber. The sensor system further may be equipped with a heater for burning off contaminations. In a further embodiment, at least one filter disc is disposed in front of the detector, so that a selective processing of the received optical signals is possible.

**Probable Assignee:** BOSCH GMBH ROBERT

**Earliest Publication Date:** 19810723



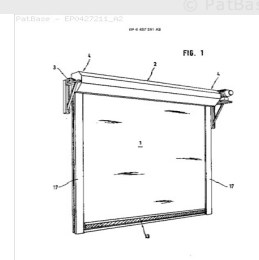
## 9) Family number: 3338643 (EP0427211A2)

### ROLLER SHUTTER WITH A FLEXIBLE FABRIC LEAF

**Abstract:** Roller shutter with a flexible fabric leaf which can be wound on and off a winding roller and is provided with pulling ropes, extending at least on one side and serving to take along the leaf with them, which are guided over conical rope drums arranged correspondingly adjoining one or preferably both end faces of the winding roller, the rope drums being designed, for tightening the leaf in the closed position, in the shape of a double cone, in such a way that the pulling rope received in their guiding groove is wound, in the course of the closing movement of the leaf, onto the rope drums with decreasing groove helix diameter, which groove helix diameter is designed so as to increase again for an end portion of the closing-movement section of the leaf.

**Probable Assignee:** HOERMANN KG

**Earliest Publication Date:** 19910508



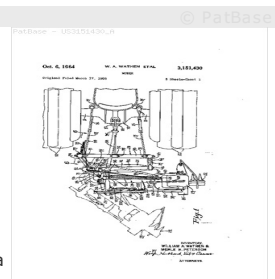
**10) Family number: 23742177** (US3151430A)

## MOWER

**Abstract:** Source: GB905857A 905,857. Reaping machines. MASSEYFERGUSON Inc. March 16, 1959 [March 17, 1958], No. 8934/59. Class 6(3). A mower mountable on tractor hitch-links 13, 17 comprises, in combination, a frame 20 mounted on the hitch-links, a cutter-bar 22, a drag-bar 24 pivotally supporting the cutterbar at one end and being pivotally supported on the frame at its other end by means of a horizontal bearing 50, the bearing being mountable at various positions laterally of the frame in order to adjust the cutter-bar transversely. The frame 20 comprises an inverted-U beam 30 having vertically-spaced hingebearings 34, 35 supporting one limb 40 of a further inverted-U frame 21 the limbs of which are bridged by a plate 42 carrying the bearing 50 at one end and a latch 45 at the other, the latch permitting the frame 21 to swing back under excess load. To permit the cutter-bar and drag-bar to be raised about the pivot 50 as an incident to bodily lifting of the mower, the cutter-head 23 is connected by a chain 68, through a bell-crank 69 on the drag-bar and a cable 70, to a lever 73, Fig. 6, which is pivoted to the hitch connection 31 of one of the hitch-links 13. The lever 73 has an abutment 80 engaging under the hitch-link, so that relative movement between the hitch-link and frame 30 upon lifting tautens the cable 70 and thereby tilts the cutter-bar about the pivot 50. Fore and aft canting of the cutter-bar is effected by making the drag-bar in two telescoping parts 55, 56, Fig. 4, having integral upstanding lugs 60, 61 one of which can be turned relatively to the other by the rotation of a cam 64 in a slot 62. The drive is transmitted from the power take-off, through a jointed shaft 94, to a pulley 91 and belt-drive 92. The bearing 97 carrying the pulley 91 is pivoted on the drag-bar and is adjustable by a turnbuckle 102, the end of the turnbuckle being selectively received in holes 104 in a plate 105 welded to the drag-bar; jockeypulleys 107 are adjustable in slots in the plate 105. A spring 81 counterbalances the cutterbar weight about the pivot 50.

**Probable Assignee:** MASSEY FERGUSON INC

**Earliest Publication Date:** 19610523



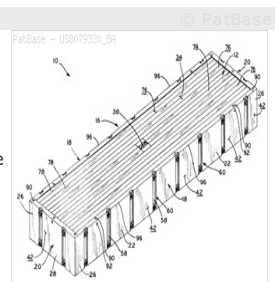
**11) Family number: 50122258** (US8079320B)

## PERIMETER FRAME SYSTEM FOR USE WITH CONSTRUCTION BARGES

**Abstract:** Source: US8079320B The present invention provides a perimeter frame system for use in forming the top and/or bottom surface of a construction barge. In one exemplary embodiment, the perimeter frame system is used in conjunction with support panels that are manufactured from extruded or roll form materials, such as extruded aluminum or roll form steel. The use of the perimeter frame system of the present invention eliminates the need to modify the perimeter edge portions of the extrusions forming the deck of the barge.

**Probable Assignee:** MID AMERICA FOUNDATION SUPPLY INC

**Earliest Publication Date:** 20111220



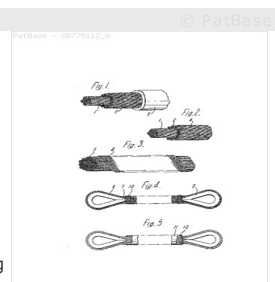
**12) Family number: 20257028** (GB775112A)

## IMPROVEMENTS RELATING TO THE CONSTRUCTION OF OVERHEAD ELECTRIC TRACTION SYSTEMS

**Abstract:** Source: GB775112A 775,112. Ropes c. BRITISH INSULATED CALLENDER'S CONSTRUCTION CO., Ltd. June 22, 1955 [June 23, 1954; July 28, 1954], Nos. 18417/54 and 22089/54. Class 109. [Also in Group XXXVI] A rope for use as a tensioned support member in an overhead electric traction system is made of cords or rovings of non-metallic inorganic fibres of high tensile strength, such as glass or lava fibre, all the individual strands or rovings being impregnated with, and the rope having a coating of, a water-repellant insulating material such as a silicone varnish, an epoxy resin, a polyvinyl chloride compound, a synthetic rubber or polyethylene. The rope may be made by twisting together a number of cords, or by bunching the cords 5 and applying a whipping 6 of impregnated glass fibre yarn. The cords 5 are pre-impregnated with P.V.C. and an overall sheath of P.V.C. is applied. A support member may be made by winding a length of impregnated cord or roving 7 about spaced thimbles 8, 9 and applying a binding thread 10 and a resin coating. An end clamp for a rope may comprise a tapered hollow body 28 (Fig. 8) having rigid arms 29 carrying pin 30. The rope 32 passes round a tapered inner member 31 and the tension in the rope causes it to be clamped between the member 31 and the body 28.

**Probable Assignee:** BRITISH INSULATED CALLENDERS

**Earliest Publication Date:** 19570522



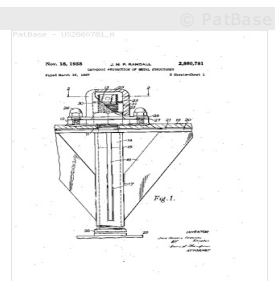
**13) Family number: 20624737** (US2860781A)

## CATHODIC PROTECTION OF METAL STRUCTURES

**Abstract:** Source: GB833483A 833,483. Preventing corrosion. HUGHES and CO. Ltd., F. A. March 5, 1957 [March 21, 1956], No. 8796/56. Class 123(1) Consumable anodes for the cathodic protection of ships' tanks are secured to the underside of the top of the tank without the use of scaffolding by providing in the tank top 10 a small bolt hole 11 around which is welded a collar 12, the anode assembly consisting of a bolt 13 of slightly less diameter than the hole 11 to the lower end 14 of which is secured a tube 15 connected to an anode block 29 of, for example, magnesium alloy. Welded to the tube 15 are four arms 18 supporting a steel plate 20. The assembly is lowered through the normal tank hatchway to the bottom of the tank. The lowering cable is then detached, lowered through the hole 11 and secured to the bolt 13. The anode assembly is then hauled up until the bolt 13 projects through the hole 11 when a nut 22 which has been threaded on to the cable is screwed down on to the bolt to pull the plate 20 into contact with the tank top 10. The projecting end of the bolt is concealed by a cover 25. Specifications 765,085 and 833,484 are referred to.

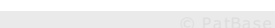
**Probable Assignee:** HUGHES AND CO

**Earliest Publication Date:** 19571101



**14) Family number: 49445806** (US2012162041A)

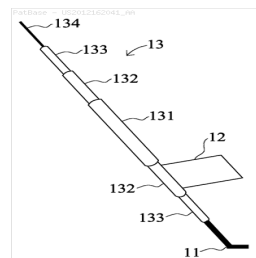
## MONOFREQUENCY ANTENNA INTEGRATED WITH COAXIAL FEEDER CABLE



**Abstract:** Source: US2012162041A A monofrequency antenna integrated with a coaxial feeder cable comprises a first conductor, a second conductor and a feeder cable. The feeder cable includes a coating layer, an outer wire, an insulating layer and a central wire. The coating layer is formed on the outmost surface of the feeder cable. The outer wire is formed on the inner surface of the coating layer, extends in two opposite directions, and connects with the second conductor. The insulating layer is formed on the inner surface of the outer wire and extends in two opposite directions. The first conductor is formed on the inner surface of the insulating layer and extends along one direction. The central wire is formed on the inner surface of the insulating layer and extends along a direction opposite to the direction along which the first conductor extends. The present invention simplifies antenna structure and promotes transmission efficiency.

**Probable Assignee:** ADVANCED CONNECTEK INC

**Earliest Publication Date:** 20110817



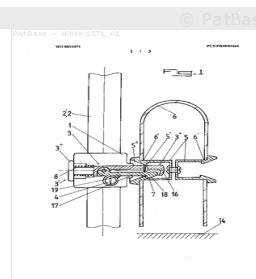
**15) Family number: 13274987 (WO0001571A1)**

#### METHOD FOR LOCKING A VEHICLE, IN PARTICULAR A TWO-WHEELER

**Abstract:** The invention concerns a device for locking a vehicle, in particular a two-wheeler, on a support or a fixed post, such as a U-bolt or the like. The invention is characterised in that it mainly consists of a body forming a housing (1) fixed on said vehicle (2) and comprising a male sliding part (3), capable of being operated by the user by pressing on said part (3) or by actuating a lock (4) and female receiving means directly mounted on or arranged in the fixed support (6), the male sliding part (3) being provided at its end (3'') opposite the one (3') designed to receive the pressure exerted by the user, catching means (7) forming a lock pin capable of being engaged by pushing the part (3) into the female receiving means (5) after adapted positioning of the vehicle (2) and the housing (1) and automatically coupling by interlocking the male sliding part (3) and the female receiving part (5), capable of being unlocked by actuating the lock (4).

**Probable Assignee:** TRIBOUT MICHEL CAMILLE PIERRE

**Earliest Publication Date:** 20000113



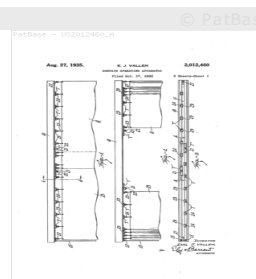
**16) Family number: 21228290 (US2012460A)**

#### CURTAIN OPERATING APPARATUS

**Abstract:** Source: US2012460A 1. In curtain-operating apparatus the combination of a. horizontal tubular frame formed with a longitudinal slot in its bottom wall and trackways on each side of said slot, respective series of travelers on said trackways having portions extending downwardly through said slot, each series being adapted to support individual curtain sections, and an operating cable in the frame for moving each series of travelers concurrently in opposite directions.

**Probable Assignee:** VALLEN EARL J

**Earliest Publication Date:** 19350827



**17) Family number: 50340223 (ES2370895A)**

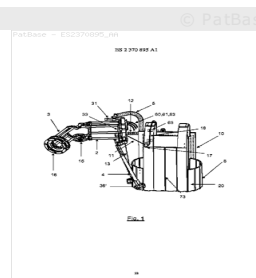
#### EXOESQUELETO ROBOTIZADO VESTIBLE PARA BRAZO HUMANO. THE ROBOTIC EXOSKELETON VESTIBLE FOR HUMAN ARM. (MACHINE TRANSLATION)

**Abstract:** Source: ES2370895A La presente invencion se refiere a un exoesqueleto robotizado accionado por cables y mecanismos paralelos de reducido peso y volumen, permitiendo al usuario moverse comodamente y realizar terapias medicas, ayudas a la realizacion de fuerzas del tipo ortesico, actividades relacionadas con practicas deportivas o entrenamientos especializados que requieran secuencias de movimientos o ayuda para las tareas cotidianas.El sistema esta formado por un chaleco (8), al cual estan adosados el exo-brazo (2), el exo-antebrazo (3), una estructura de cinematica paralela del hombro que permite efectuar un seguimiento de los desplazamientos del hombro respecto al cuerpo, un sistema de compensacion del peso (4, 5) del conjunto articulado, accionamientos de potencia (6) que permiten mover de manera controlada el brazo articulado, un sistema de alimentacion autonomo y una unidad de control basada en computador (1) en la que residiran los procedimientos de control de movimiento, que pueden ser programados, tele-operados o coordinados.

**Machine translation:** The present invention relates to a robotic exoskeleton driven parallel mechanisms of cables and low weight and volume, allowing the user to move comfortably and perform medical therapies, support for the realization of orthotic-type forces, activities related to sports practices or requiring specialized training or movement sequences cotidianas.El homework help system consists of a vest (8), which are attached to the exo-arm (2), the exo-forearm (3), a kinematic structure allowing shoulder parallel to track the movement of the shoulder relative to the body, a weight compensation system (4, 5) of the articulated joint, power drives (6) which allow a controlled move the articulated arm, a system autonomous and feeding a control unit based computer (1) in which reside the movement control procedures, which can be programmed, tele-operated or coordinated.

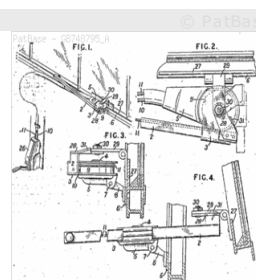
**Probable Assignee:** UNIV MADRID POLITECNICA

**Earliest Publication Date:** 20111223



**18) Family number: 20138370 (GB748795A)**

#### IMPROVEMENTS IN OR RELATING TO MOVEMENT CONTROL MECHANISM



**Abstract:** Source: GB748795A 748,795. Linkwork. ARENS CONTROLS, Ltd. Oct. 21, 1954 [Nov. 2, 1953], No. 30232/53. Class 80(3) [Also in Group X] Mechanism for moving a bar 2 longitudinally and also angularly about an axis 30 is particularly applicable to the operation of pivoted windows, louvres dampers and the like and comprises a carriage 3 supporting the bar 2 for sliding movement and being itself - mounted for pivotal movement about a pin 4 secured to a support 5 which also carries a roller 9. As shown, the support 5 is pivotally connected at 7 to a bracket 8 secured to the frame 6 of a top-hinged window 27. The bar 2 is secured to a plate 28 which is pivotally connected at 30 to an arm 29 hinged to the movable window 27. The bar 2 is adapted to be actuated by means of a pair of cables 10, 11 passing oppositely round the roller 9 and being secured at the respective ends of the bar, the cables being operated at a remote point by pulling one or the other either directly or through any suitable mechanism 26. The arrangement of the mechanism is such that with the window closed as in Figs. 1-3 the pivot 30 of the bar 2 is coincident with the pivot 4 of the carriage 3 so that on pulling on one of the cables 10 or 11 the bar and the carriage will swing about this common pivot axis until a projection 31 on the plate 28 engages the arm 29 when the bar 2 will be at approximately right angles to the window. Further pivotal movement is thus prevented and the bar 2 will then be moved longitudinally in the carriage 3 to effect an opening movement of the window as in Fig. 4. Pulling on the other cable 10 or 11 will return, the window to closed position and finally pivot bar 2 and carriage 3 to the rest position parallel to the window as in Figs. 1 and 2. The arm 29 to which the bar 2 is pivoted could be secured to the fixed frame of the window and the support 5 to the movable part. Two or more devices could be operated from a single control point by cables arranged in series or by parallel branches from a main pair of cables. The windows may be bottom centrally or vertically hinged. Specification 747,564 is referred to.

**Probable Assignee:** ARENS CONTROLS

**Earliest Publication Date:** 19560509

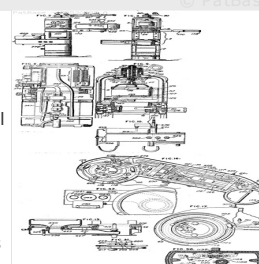
**19) Family number: 20272211** (GB530587A)

## IMPROVEMENT IN DENTAL EQUIPMENT STANDS

**Abstract:** Source: GB530587A 18437. [Class 81 (ii)] [Also in Groups XXIV, XXV and XXXVII] A dental equipment stand is built up of superposed frame sections arranged about a common vertical axis about which axis movable sections are adapted to rotate and aligned with which axis are a motor and extension shaft adapted to drive a dental engine disposed adjacent the top of the structure. Pipes are disposed within the structure which is encased by flexible sections adapted to yield in case of gas explosion. As shown in Fig. 2, the stand includes a swivelling cuspidor 429, a water niche 361, a swivelling bracket arm 170 supporting an instrument table 632 and a swivel bracket 80 supporting the dental engine 83-86. The frame sections comprise a floor section 1, Fig. 3, a main supporting section 2, cuspidor and water niche section 3, bracket-arm section 4 and motor section 5, the sections being aligned by flanges and secured together by bolts. The motor section 5, Fig. 9, comprises diametrical members 67 terminating in an annular bead 69 forming a pocket 70 supporting a cylindrical hub 71 on which is threaded a flanged member 75 rotatably supporting a flanged swivel ring 79 carrying the bracket 80. A sleeve 100, having a flange 101 threaded into the hub 71, supports bearings 97, 99 for an extension shaft 93 carrying the driving pulley 92. The motor 95 is resiliently supported at 133 in a cradle 125 whereby it may be swung out, on pintals 126, 127, for inspection, being normally aligned with the extension shaft by means of a stop lug 146 on the cradle engaging a stop 147 on the frame and held by a clampingscrew 150. A flexible coupling between the shaft 93 and motor shaft 103 comprises a core 115 furnished with rubber and c. flanges encircled by metal rims 116, 117 of which the rim 117 is permanently engaged in a thimble 105 secured to the shaft 97 by a screw 106 and the rim 117 is permanently engaged in a ring 118 adapted to be secured by key 122 and screw 123 to a collar 107 which is secured to shaft 103 by key 109 and screw 111; by loosening screws 111, 123 the collar 107 may be lowered to free the motor for lateral withdrawal. The bracket arm 170, Figs. 3, 9 or 6, comprises side bars 171, 172 merging outwardly into an annular support 173 for an accessory table and terminating inwardly in a semicircular portion 175 the free ends of which are connected by a yoke 179 to form an annular structure encircling a hub 54 on frame section 4. Rollers 185, 186 engaging a lower track 44 and a roller 187 engaging an upper track 60 support the arm for rotation and it is registered axially by rollers 200, 201, 202 engaging a cylindrical track 41 on frame section 3. Movement of the arm is restricted by a brake device 221 comprising a pair of friction jaws adjustably engaging a friction ring 217 clamped between frame sections 3 and 4; the arm is also locked against movement by a pair of friction balls 251, 252, Fig. 31, forced together by springs and forced into contact with the ring 217 by cam surfaces 249, 250, and is released and moved in either direction by a push-pull member 300 operating a T lever 281 carrying headed studs 289, 290 engaging elongated slots in a yoke 280 which is connected through a rod 279a to a lever arm 276 adapted to move inwardly a plunger 269 to separate the balls. The cuspidor is supported by arm 393, Fig. 13, furnished with a room 405 engaging a circular rib 49 with which it is retained in swivelling engagement of a strap 406, movement of the arm being limited, in either direction, by an upstanding lug on the rim engaging a stop 415. The cuspidor 429 is secured by an annular nut 450 upon a resilient seal 443 within the outer end of a drain conduit 431 which terminates in an inner portion adapted to swivel about an axial drain pipe 462, Fig. 8, and also about a drain pipe 388 from the water niche 361. The water niche is adapted to house a glass 365 supported upon a perforated shelf 366 within a basin 383. Water is supplied from a pipe 315 to a main valve 316 from which the water niche is supplied via pipes 347, 356 and valve 370 and to the cuspidor through flexible pipe 500 and valve block 501 which is furnished with three valves 509, 525 and 562, Fig. 10, controlling supply of water respectively to a swivelling cuspidor flush nozzle 519, a water heater and a saliva ejector 537. The saliva ejector 537 is supported in a bracket 539 and is connected by a flexible tube 536 to a chamber 529, Fig. 13, connected via pipes and a water ejector pump to an outlet 527 in the conduit 431. Valve 562 controls flow of water through an electric heater and also a bypass for unheated water to a syringe 576, Fig. 10, supported in a holder 571 adapted to be electrically heated. The bracket arm 170, Figs. 2, 3 and 16, is furnished with an annular mounting 173 to receive the ring 628 of a bracket table 638 carrying accessories. A shielded gas burner 634 is carried by an arm 635 pivotally supported by a tube 639, provided with a valve 638, connected through a hollow fitting 640, pipes 705, 701, and flexible tube 665, Fig. 17, to a gas inlet pipe 657 which is supplied from a gas service pipe extending upwardly through the stand via a valve 162, Fig. 2. The tube 665, Fig. 17, is spirally coiled upon and slidably supported by an annular shelf 62. Compressed air is supplied from a service pipe extending upwardly through the stand to a valve 164, Fig. 2, and thence through an air filter and pressure regulator to a pipe 737, Fig. 17, leading to a flexible tube 745 spirally supported upon flange 58 and connected through a pipe 759 to a pipe 762 leading into the annular mounting 173 from where it may be extended into the table for connection to air dispensing instruments. Water is drained from the air filter through a valved vent 772, Fig. 2. Electric current is supplied through a cable to a resistor panel housed in the frame section 2 and thence to the motor through a foot-controller adapted to control both direction and speed of the motor. The resistor panel is also connected through cable 29, Fig. 8, to a low-voltage transformer 631 housed in section 5 from which current passes through main switch 162, Fig. 2, and regulating-switch 160 to the water heater. Current is also supplied through leads 901, 902, Fig. 16, via a booster transformer 890, controlled by switch 900, to instruments, e.g. a cantery or pulp tester; also through other leads to other instruments, e.g. a mouth lamp or wax working instrument, the instrument being housed in the table 632, Fig. 2. The ring support 628 for the table 632 may be replaced by an arm 036, Fig. 42, carrying a movable spray warmer 041, provided with receptacles 042, 043 for spray bottles and a receptacle 044 for a water tumbler; the arm also supports an X-ray illuminator 1150. Electric current is supplied to the spray warmer through a lever 098, Fig. 50, carrying a contact 092 and magnetic keeper 097; the lever is connected to a thermostat comprising a coiled, bimetallic strip 1100 which is adjustable through a knob 1135, rack gear 1130 and lever 1109 to regulate the temperature. An articulated spotlight may be rotatably mounted upon the motor section by means of a sleeve replacing the spacer sleeve 74, Fig. 9. The frame sections are enclosed by hemicylindrical, sheet-metal sections having abutting flanges engaging notches in the frame sections and retained by girdling bands. The cuspidor and arm 270 are also enclosed by sheet-metal members.

**Probable Assignee:** WHITE S DENTAL MFG CO

**Earliest Publication Date:** 19401216



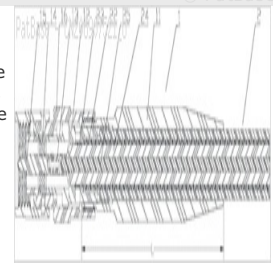
**20) Family number: 68294657** (CN206907521U)

#### SUPER GENTLE HIGHLY RELIABLE ULTRA -LONG LIFE TEST CABLE SUBASSEMBLY STRUCTURE

**Abstract:** Source: CN206907521U The utility model discloses a super gentle highly reliable ultra -long life test cable subassembly structure, including connector and test cable, the connector includes tail cover, bush, thimble, support, connector inner conductor and connector housing, the connector inner conductor fix inside the connector through the support, support and adopt the polyetherimide to make, test cable includes oversheath, shielding layer, cable outer conductor, intermediate level and cable inner conductor, cable inner conductor is formed by the transposition of multicore silver -coated copper wire, the shielding layer cover the silver -plated copper wire at cable outer conductor for woven bag, cable outer conductor be silver -plated copper strips, the intermediate level be high foaming polyfluortetraethylene belt to cable inner conductor is the centre of a circle, and is coaxial around wrapping on cable inner conductor, adopts this kind of cable and connects the cable component spare of producing, has splendid RF transmission performance, after experience 20W's curved line is experimental, and when crooked and bending back, its performance is all stable.

**Probable Assignee:** MICABLE INC

**Earliest Publication Date:** 20180119



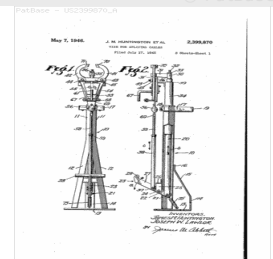
**21) Family number: 21976381** (US2399870A)

#### VICE FOR SPLICING CABLES

**Abstract:** Source: US2399870A 1) be set to dispose the arm 3| at dinerent heights, for a purpose to be hereinafter described. The upper end of the operating rod extends through a tubular member 34 which is secured within the upper end of the portion || of the standard |0. Mounted upon the free ends of the arm 3| is a saddle -35 which has an enlarged base portion to straddle the arm 3|, and is also formed with an upwardly presented anvil 36 having an arcuate groove transversely of its upper face (Fig. 4) and conforming substantially to the arcuate curve of a loop of cable and to the circular form of the transverse section for a purpose to be hereinafter described. It will thus be seen that when pressure is applied to the portion 20 of the treadle 23 the operating rod 20 will be moved upwardly and will carry the anvil 36 with it. Pivotaly mounted at 31 (Fig.

**Probable Assignee:** HUNTINGTON JAMES M

**Earliest Publication Date:** 19460507



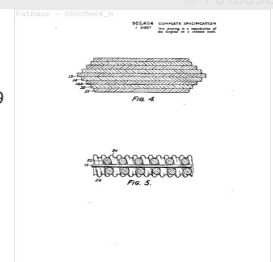
**22) Family number: 20860788** (GB905464A)

#### IMPROVEMENTS IN OR RELATING TO METHODS OF DETECTING NEUTRON FLUX AND NEUTRON FLUX DETECTION DEVICES

**Abstract:** Source: GB905464A 905,464. Controlling reactors; ionization chambers. PLESSEY CO. Ltd. April 27, 1959 [April 28, 1958], No. 13342/58. Classes 39 (1) and 39 (4). In a nuclear reactor neutron flux measuring device, an ionization chamber is supported by a cable and lowered into the reactor interior. The chamber 1 is formed of cylindrical anode 3 and concentric cathode 2 having neutron sensitive coatings of boron 10 or uranium 235. The space between 2, 3 is filled with hydrogen, argon or nitrogen introduced through duct 12. The cable 11 provides conductors to connect the chamber to external recording equipment and supports the chamber during the raising and lowering operations in standpipe 16. The cable is wound on drum 18 driven by electric motor 19 and is formed with an outer covering of woven stainless steel braid or seamless convoluted flexible tubing.

**Probable Assignee:** PLESSEY CO LTD

**Earliest Publication Date:** 19620912



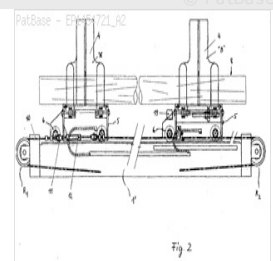
**23) Family number: 30888162** (EP1454721A2)

#### TREE TRUNKS SEIZING PLANT, FOR USE IN A SAWMILL

**Abstract:** Source: EP1454721A2 The invention concerns a tree trunk seizing trolley, to be used in a sawmill, and which is formed by several aligned modules (5) running on rails (7A,7B). Each module (5) includes a vice (4), tree trunk rotating means (9), and other devices necessary to seize, to rotate, and to position the tree trunk (8). The modules (5) are not rigidly fixed to a support frame, but can be selectively connected to a draft rope (10), including the possibility of arranging them at selectable distances to each other, according to the needs.

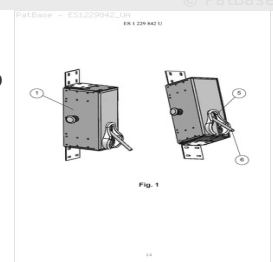
**Probable Assignee:** ARTIGLIO SPA

**Earliest Publication Date:** 20040905



**24) Family number: 74455571** (ES1229842U)

#### MODULO ANTICAIDAS DE CONTROL NEUMATICO PARA TRASERAS DE CAMIONES, Y DISPOSITIVO DE AMARRE DE ESTE MODULO A UN ARNES DE SEGURIDAD CONTROL MODULE REAR TIRE FOR TRUCKS, AND LIFELINE MOORING DEVICE OF THIS MODULE TO A SAFETY HARNESS (MACHINE TRANSLATION)



**Abstract:** Source: ES1229842U 1. Modulo anticaidas de control neumatico para traseras de camiones, como por ejemplo camiones de basura o de recogidas de residuos, en los que los trabajadores u operarios viajan en una plataforma en la parte posterior del camion, del tipo de proteccion prevista para estos vehiculos de las que incluyen un elemento de union a un arnes de seguridad del trabajador, caracterizado por una caja de chapa metalica a modo de carcasa con forma de paralelepipedo recto (1), de lados rectangulares o cuadrangulares, con una abertura (2) practicada en su tapa frontal de acceso al interior y al menos un orifico (3) en uno de sus lados laterales para salida de una seta o pulsador manual, de tamano y forma adecuada para ser fijada mecanicamente al chasis de la zona del camion donde se encuentran las asas de agarre del operario, mediante sendos perfiles metalicos en forma de L (4) fijados a su vez en cualquiera de los lados superior, inferior o laterales de la caja, o mediante una estructura soporte de doble perfil vertical (28) con canalizaciones pasantes de palometas o tornillos de insercion en los bordes laterales de la caja para su posicionamiento a diferentes alturas, que integra como elemento de union al arnes de seguridad un sistema de anclaje por accionamiento neumatico de la cabeza en forma de bola (5) del cable de amarre (6) al arnes personal, constituido este sistema por los siguientes elementos: un abocador de bola (7), a modo de pieza guia que rodea externamente la abertura de la tapa frontal; un soporte bola (8) situado por detras de la tapa de la caja, en forma de una placa con un circulo troquelado en su extremo, entorno a la abertura de la tapa, que proyecta un cilindro (9) perpendicular hacia el interior, provisto en su boca posterior de una chapa circular (15) de cierre con una ranura en forma de U coincidente con una ranura perimetral (16) practicada en el borde tubular de su superficie; un cilindro neumatico (10), conectado al circuito de aire comprimido del camion mediante dos racores de toma de aire y regulacion de caudal (11), uno a cada lado del embolo, junto a la bases superior e inferior, que en conexion con el soporte bola hace subir la bola del dispositivo de anclaje cuando se acciona y avanza el embolo, produciendo su enclavamiento, o hace descender la bola cuando se desacciona y retrocede el embolo, producido su desenclavamiento y posibilitando su liberacion; una valvula de distribucion (12) integrada en el circuito de aire comprimido, para distribucion del caudal de aire a traves de los dos racores del cilindro neumatico, haciendo que el circuito funcione en uno u otro sentido; un micro escamoteable (13), instalado sobre un soporte micro (14) en la base de la caja, para la deteccion de la entrada de la bola en el cilindro del soporte bola, a traves de las ranuras se la chapa posterior y borde perimetral, y accionamiento de la valvula de distribucion y del cilindro neumatico; y una seta manual (17) de paro o emergencia, que sobresale de la caja por el orifico practicado en uno de sus lados laterales, y que al pulsarse produce la inaccion de la valvula de distribucion y del cilindro neumatico, con la consiguiente liberacion de la bola. 1. Control module rear tire for trucks lifeline, such as garbage trucks or collected from waste, in which workers or people traveling on a platform at the rear of the truck, the type of protection provided for these vehicles including a connecting element to a safety harness of the worker, characterized by a sheet metal housing (1) shaped parallelepiped, rectangular or quadrangular sides, with an opening (2) formed in its front cover to access the interior and at least one orifice (3) in one of its lateral sides for output of a mushroom or manual, of suitable size and shape To be mechanically fixed to the chassis of the truck where the handgrips of the operator, by means of respective L-shaped metal profiles (4) fixed to turn in any of the top, bottom, or side of the housing, or by a support structure (28) with double vertical profile pipes through holes of brackets or screws of insertion into the side edges of the box to be positioned at different heights, which integrates as a connecting element to the safety harness of an anchoring system by pneumatic driving of the ball-shaped head (5) of the cable tie (6) to the harness staff, consisting of the following elements: a system of abocador Ball (7), as a guide piece which externally surrounds the opening of the front cover; a ball (8) located behind the lid of the box, in the form of a die plate with a circle at its end, the opening of the lid, which projects a cylinder (9) perpendicular inwards, provided at its rear mouth of a circular plate (15) with a U-shaped groove coincident with a peripheral groove (16) formed in the tubular edge of its surface; a pneumatic cylinder (10), connected to the compressed air circuit of the truck by two air intake and flow control (11), one on each side of the plunger, Next to the upper and lower bases, that in connection with the support ball raises the ball of the anchoring device when actuated and advances the plunger, producing interlocking, or lowers the ball when the plunger back and forth desacciona, produced its unlocking and enabling its release; a delivery valve (12) integrated into the compressed air circuit, for distribution of the flow rate of air through the two fittings of the pneumatic cylinder, causing the circuit to operate in one direction or another; a retractable roof (13), installed on a support micro micro (14) in the base of the box, for the detection of the entrance of the ball of the ball bearing in the cylinder, Through the slots are the rear plate and perimeter edge, and actuation of the valve and of the pneumatic cylinder; and a mushroom manual (17) stop or emergency, protruding from the box by the hole formed in one of its sides, and when pressed produces inaction of the distribution valve and of the pneumatic cylinder, with consequent release of the ball.

**Probable Assignee:** ISANIMAR SEGURIDAD S L

**Earliest Publication Date:** 20190522

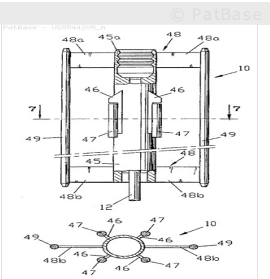
**25) Family number: 10092280** (US5544205A)

**DEVICE AND METHOD FOR CHECKING THE GUIDE ELEMENTS OF A GUIDE TUBE FOR THE UPPER INTERNALS OF A PRESSURIZED WATER NUCLEAR REACTOR**

**Abstract:** Source: US5544205A The device includes an inspection rod cluster (10) comprising a central cylindrical body (45) and a plurality of arms (46, 48) extending radially with respect to the cylindrical body (45). Guide bars (49) for the inspection rod cluster (10) in the guide elements of the guide tube may be fixed to the end of at least two arms (48), opposite the cylindrical body (45), and rotary inspection probes (47) may be fixed to the end of the other arms (46). Preferably, the probes (47) are probes for remote optical measurements by the ladar method.

**Probable Assignee:** FRAMATOME

**Earliest Publication Date:** 19950531



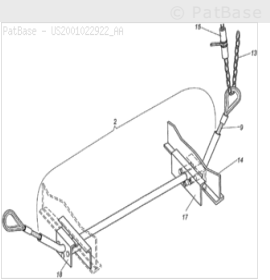
**26) Family number: 28105036** (US2001022922A)

**APPARATUS FOR RESTRAINING PAYLOADS**

**Abstract:** Source: US2001022922A A device for restraining payloads to a surface, particularly heavy objects being transported by various modes of transportation, such as a flat bed trailer. The device includes a tensionable member with loops at opposite ends that is secured to the front to rear frame rails which run lengthwise on the underside of a flat bed trailer. The device further includes chains or other restraining elements that are secured to the loops at the opposite extremities of the tensionable member, pass over or through the side rails of the flat bed trailer and over or through the payload. The device also has ratchet binders or other tightening means to achieve tightening of the restraining elements. The device, which is relatively light in weight, achieves increased restraint of payloads during transportation without significantly adding to the total weight of the payload.

**Probable Assignee:** HORNADY B C

**Earliest Publication Date:** 20010626



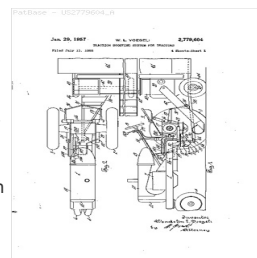
**27) Family number: 20628682** (US2779604A)

**TRACTION BOOSTING SYSTEM FOR TRACTORS**

**Abstract:** Source: GB833671A 833,671. Tractor power-lift mechanisms. ALLIS-CHALMERS MANUFACTURING CO. July 3, 1956 [July 11, 1955], No. 20549/56. Class 79(1) [Also in Group XXIX] A power lift system for transferring a part of the downward load of a towed implement, such as a combine harvester 41, to the rear driving wheels 3 of a tractor to increase adhesion automatically in response to increase in draught load, has automatic lift-responsive means for preventing the lifting force from attaining such a value as to cause complete loss of weight on the front wheels 4 of the tractor. The implement 41 rolls on wheels 44 and is towed through a rigid draught bar 38 universally hitched to the tractor at 33. The power lift comprises hydraulic rams 21 on each side of the tractor, oscillating bellcranks 18, connected by a lift-chain or cable 92 looped at its centre through an eye 91 on the draught bar 38. Fluid pressure for the rams is supplied by multiple pumps P 1...P 4, controlled by a piston valve 93, operated through a floating lever 156 conjointly by a manual lever 169 and a draught-responsive lever 29 all of which items are identical with those described in Specification 833,670. The present invention adds an adjustable relief valve 200 which automatically connects the ram pressure line 143 to exhaust 241 when lift pressure rises to such a value as would result in lifting the front wheels 4 of the tractor. This relief valve 200 comprises a valve-piston 202 load rightwards by ram pressure 143 and leftwards by a spring 231, adjustably compressed by a thimble and screw 223, which latter can be screwed fully down to lock the valve permanently closed when towing light implements. Specifications 672,701 and 833,672 also are referred to.

**Probable Assignee:** ALLIS CHALMERS MFG CO

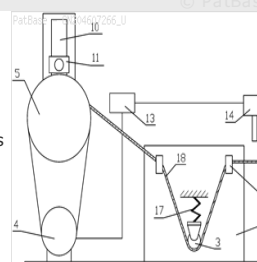
**Earliest Publication Date:** 19570129



**28) Family number: 60255365 (CN204607266U)**

#### DEVICE OF WINDING CABLE

**Abstract:** Source: CN204607266U The utility model discloses a device of winding cable, including wire winding mechanism, one side of the mechanism that should wind the line is equipped with the support, is equipped with 2 thimbles that can let the cable pass through on this support, is equipped with the gyro wheel between 2 thimbles, and the vertical height of this gyro wheel is less than the vertical height of thimble, wire winding mechanism includes motor, carousel, 2 at least wire wrapping rod, and this motor is connected with the carousel transmission, is equipped with first spout on this carousel, is equipped with 1 at least first slider in this first spout, at least 1 first slider with wire wrapping rod connects, the cable passes through in proper order twine behind thimble, gyro wheel, the thimble to the wire wrapping rod on. The utility model discloses a design of thimble, gyro wheel, fender line pole etc. Even tension that can the cable, the tension and relaxation is moderate, lets level and smooth, the standard of winding cable, and the cable does not rock, not indiscriminate line, simple structure of the device and convenient use.



**Probable Assignee:** GUANGDONG MEIYAN JIXIANG HYDROPOWER CO LTD

**Earliest Publication Date:** 20150902

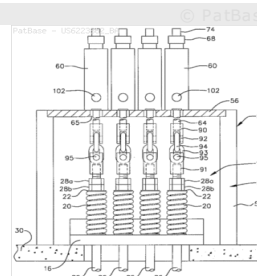
**29) Family number: 15038167 (US6223862B)**

#### ELEVATOR CABLE TENSIONING DEVICE AND METHOD

**Abstract:** Source: US6223862B A device and method are set forth for tensioning elevator cables. The device includes a platform supporting a plurality of hydraulic cylinders each adapted to be coupled to a thimble rod for a cable. Hydraulic fluid is supplied to each cylinder at the same pressure until each cable load is transferred from the cable system hitch plate to the platform indicating that each cable is now under the same tension. The thimble rods are adjusted with the cables now at the same tension and the hydraulic fluid is vented from the cylinders to transfer the cable loads back to the hitch plate.

**Probable Assignee:** BARNES MICHAEL

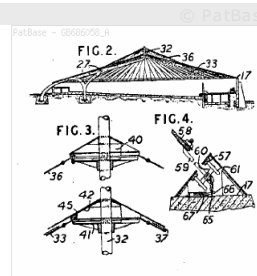
**Earliest Publication Date:** 20010501



**30) Family number: 19846403 (GB686058A)**

#### IMPROVEMENTS IN OR RELATING TO FLEXIBLE ROOF FURLING SYSTEMS

**Abstract:** Source: GB686058A 686,058. Furling awnings. MITCHELL, J. A. Feb. 1, 1951 [Feb. 6, 1950], No. 2528/51. Class 20(i) A flexible roof furling system, e.g. for amphitheatres, comprises a curved track 57 adjacent the periphery of the amphitheatre, a support, e.g. a cantilever beam 27, rising above the amphitheatre, a plurality of radial members 33 swingably connected to the beam 27 and extending to the track 57, means, e.g. wheels 61, connected to the ends of the members 33 and movable along the track 57, and a flexible cover 37 associated with the members 33. Each half of the roof is: opened through 180 degrees, like a fan, to cover the full area of the amphitheatre. The inner ends of the members 33, which may be rigid members or cables, are connected to an upright mast 32 on the beam 27, the other ends running on the track 57 carried on a peripheral wall 17 or on a series of columns. The beam 27 may arch across the full area of the amphitheatre, and a series of such arches, interconnecting at the centre, may be used. A pivotal and rotatable connection between cable 33 and mast 32 is provided by securing the end of cable 33 to a trolley 45 running on the annular track formed by inwardly directed flanges on parts 41, 42 fixed to the mast 32, Fig. 3. A similar connection 40 serves for reinforcing cables 36, the latter ends of which are secured to the mid-point of cables 33. A thimble ring 58, Fig. 4, is fixed to the lower end of the cables 33 and an L-shaped bolt 59 secures it to a trolley 60 running on the track. 57. To open or close the roof an endless chain 67 is driven and, through a link 66 and chain 65, serves to pull the trolley 60 round the track 57. Adjacent bolts 59 are spaced by short lengths of chain. Several alternative methods of connecting the cables 33 between the mast 32 and track 57 are described.



**Probable Assignee:** JAMES ANASTASIOU MITCHELL

**Earliest Publication Date:** 19530114

**31) Family number: 546419 (GB1376656A)**

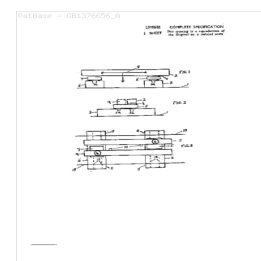
#### CARGO OR LIKE HANDLING APPARATUS FOR SHIPS

**Abstract:** Source: GB1376656A 1376656 Gantry cranes on ships J V BUCKLAND 29 March 1973 13490/74 Addition to 1365295 Heading B8B Ship's cargo handling apparatus comprises a gantry 3 mounted on a ship 1 for fore and aft movement along the deck, wherein the horizontal structure of the gantry 3 supports a Hammer Head (or other jib) crane 2 mounted on a carriage 5 specifically designed to support the free end of the jib of another Hammer Head (or other jib) crane 9 mounted on an adjacent, second gantry (6), Fig. 3 (not shown). The crane 2 is mounted on a slewing gear 4, the carriage 5 having wheels 5a enabling it to move athwartships. The jib of the crane 2 may be similarly arranged to rest on carriage (7) of crane 9, the two cranes being joined by locking devices (10) with their controls linked for joint operation by a single operator.

PatBase - GB1376656A

**Probable Assignee:** BUCKLAND J V

**Earliest Publication Date:** 19720803



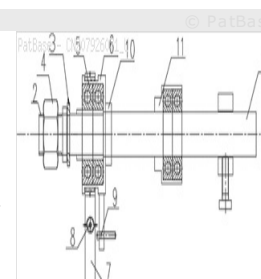
**32) Family number:** 71363826 (CN207926071U)

### STRANDING WIRE RACK

**Abstract:** Source: CN207926071U The utility model discloses a stranding wire rack, including back shaft, friction disk, supporting bowl, removal thimble and tension band, the back shaft is provided with connecting portion, connecting portion are provided with the external screw thread, fastening nut is installed to the external screw thread, supporting bowl sets up friction disk one side, what the tension band can be adjusted installs on the friction disk, it can follow to remove the thimble the length direction of back shaft goes up and moves, just supporting bowl with the removal thimble cooperates. Beneficial effect liesin: the utility model has the advantages that solved 2+3, 1+3 cable -former since the dish utensil to place the support few, can not stranding 3+3 structure cable problem, reduced the cost of buing new equipment, expanded 1+3, 3+3 cable -former production range, utilize in addition and remove 11 portable regulation controls on the thimble, can be suitable for the cable conductor of different specifications, and simple structure is compact reasonable.

**Probable Assignee:** CHONGQING KEBAO CABLE CO LTD

**Earliest Publication Date:** 20180928



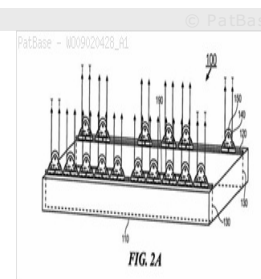
**33) Family number:** 42925010 (WO09020428A1)

### DISTRIBUTED LINE LOAD-BEARING CONNECTOR

**Abstract:** The present invention provides a distributed line load-bearing connector (140). The connector (140) comprises an elongate load-bearing beam (120) and an elongate jaw (182) operable to engage slidably with the elongate load bearing beam (120) such that the weight of a load is transferred evenly between the elongate load bearing beam (120) and the elongate jaw (182) when-the load-is-suspended by the load-bearing connector (140) on a hoist line. In one embodiment, the load-bearing beam (120) is connected to an extension of a bulkhead (130) of the load (110) whilst the jaw (182) is connected to a tongue plate (170) of a sheave block (140). In another embodiment, the load -bearing beam (120) is on a tongue plate (170) of a sheave block (140) whilst the jaw (182) is on an extension of a bulkhead (130) of the load (110).

**Probable Assignee:** JAN TAJ RAFFLZ SHIPJARD LIMITID

**Earliest Publication Date:** 20090212



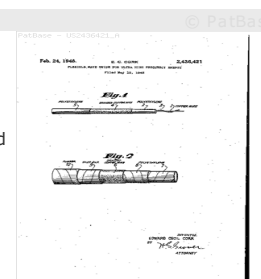
**34) Family number:** 30965761 (US2436421A)

### FLEXIBLE WAVE GUIDE FOR ULTRA HIGH FREQUENCY ENERGY

**Abstract:** Source: GB578186A 1390 and 9505. [Class 40 (v)] [Also in Group XXXVI] In a system for the transmission of ultrahigh-frequency electrical energy at wavelengths up to about 20 centimetres, use is made of a hollow conductor forming a wave guide or the outer conductor of a coaxial cable and comprising a woven or braided structure of sheath form comprising strands or strips, most of all the strands or strips, or collective assemblies of strands or strips, being insulated from each other to reduce energy forces. In Fig. 1, a concentric cable comprises an inner conductor 1, of a wire of 18 S.W.G., held centrally of a sheath 2 of insulating material known under the Registered Trade Mark " Polythene," by a thread 3 of the same material, or of impregnated string and c., the outer conductor consisting of a braided sheath 4 of strands of Cu wire of 38 S.W.G. insulated from each other by enamel, shellac, cotton, and c., an outer sheet 5 of " Polythene " is provided. In place of the thread 3, spacing may be effected by crinkling the conductor 1 at intervals. Each strand of the sheath 4 lies with a long pitch relatively to the conductor 1 and may be circular or flat or comprise a number of conductors twisted together and insulated as a whole. Two or more sheaths 4 may be provided, one within another. In Fig. 2, a wave guide consists of a similar braided conducting sheath 6 supported by a tube 7 formed by winding a strip of " Polythene," a layer 8 of thinner strip " Polythene " preventing the sheath 6 sagging into gaps; outside the sheath 6 is a layer 9 formed by winding a strip of oiled silk and c., or a covering 10 of rubber strip. The tube 7 may be supported at intervals by rings of insulating material spaced apart a quarter of the operating wave-length, or an odd multiple thereof. The guide, comprising a thin supporting tube of insulating material and the tubular conductor, may be enclosed in a flexible metallic tube. In another form, the insulating support comprises a number of short cylindrical or thimble-shaped elements fitting together and formed, as by complementary rounding of their edges, for ready flexing, the whole being held together by a covering such as a winding of insulating tape; the longitudinal section of the elements is such as to give a substantially constant cross-sectional area, and the length of each element is preferably about a quarter of the wave-length to be propagated, or an odd multiple thereof. Specification 352,011 is referred to.

**Probable Assignee:** EDWARD CECIL CORK

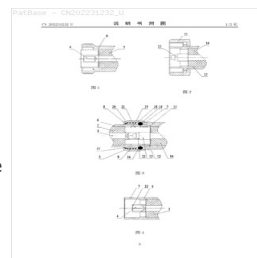
**Earliest Publication Date:** 19460619



**35) Family number:** 51160013 (CN202231232U)

### PLUG-IN TYPE CABLE CONNECTOR

**Abstract:** Source: CN202231232U The utility model belongs to a field of cable connectors and especially relates to a plug-in type cable connector. The plug-in type cable connector provided in the utility model includes two parts of a socket and a plug. The socket includes jacks, a socket insulating support and a socket shell. The plug includes a connecting sleeve, a contact head, a thimble, a plug insulating support and a plug shell. It is characterized in that the plug also includes a snap ring, a contact head, a spring and a steel ball. A snap ring groove, a lower spring base and at least two steel ball holes are arranged in an outer wall of the plug shell on an end having an opening. The snap ring is disposed in the snap ring groove. The steel ball is disposed in the steel ball hole. An upper spring base and an annular groove are arranged in an inner hole of the connecting sleeve. A distance between the bottom of the annular groove and a wall of the inner hole of the shell is larger than the sphere diameter of the steel ball. The spring is disposed between the upper spring base and the lower spring base. A steel ball groove is arranged in an outer cylindrical surface of the socket shell on an end having an opening. The plug-in type cable connector in the utility model has advantages. Compared with prior threaded connection, the installation space of a plug-in type structure is small. And the plug-in type cable connector can be assembled and dismantled more simply and conveniently.



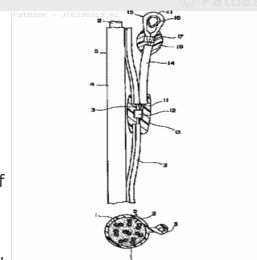
**Probable Assignee:** FUZHOU MICABLE ELECTRONIC TECHNOLOGY CO LTD

**Earliest Publication Date:** 20120523

**36) Family number: 11650089 (JP6296319A)**

### STRUCTURE FOR SUSPENDING AND FIXING CABLE WITH SUPPORTING WIRE AT ITS MIDDLE

**Abstract:** Source: JP6296319A PURPOSE:To fix the middle of a cable in suspension without cutting off a supporting wire by fixing one end of a supporting auxiliary wire to a supporting wire exposed in the middle part of a cable with a supporting wire and providing a mounting part for a support at the other end of the supporting auxiliary wire. CONSTITUTION:In a cable 5 with a supporting wire, a supporting wire 3 is exposed with a cable sheath 4 covering the supporting wire 3 removed off in the middle part. In the exposed supporting wire 3, one end of a supporting auxiliary wire 11 is fixed by compressing with the fixture 12 of a C-type compression hardware. The exposed part of the supporting wire 3 on which the fixture 12 is mounted is covered with the covering layer 13 of an insulating tape. The outer circumference of the middle part of the supporting auxiliary wire 11 is covered with an insulating cover 14. A mounting part 15 for a support is provided in the other end part of the supporting auxiliary wire 11. In the mounting part 15, the other end part of the supporting auxiliary wire 11 is wound round a thimble wire 16 and folded back, and the overlapped part of the supporting auxiliary wire 11 at the folded-back tip of the supporting auxiliary wire 11 is fixed with the compression of the fixture 17 of the C-type compression hardware, and the part of the supporting auxiliary wire 11 is covered with the covering layer 18 of an insulating tape by using the fixture 17 as the center.



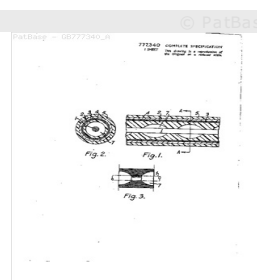
**Probable Assignee:** YAZAKI CORP

**Earliest Publication Date:** 19941021

**37) Family number: 20322129 (GB777340A)**

### SUBMARINE AIR-SPACED ELECTRIC CABLES

**Abstract:** Source: GB777340A 777,340. Air-space cables. TELEGRAPH CONSTRUCTION and MAINTENANCE CO., Ltd. April 7,1955 [April 8, 1954], No. 10396/54. Class 36. In a coaxial air-space cable, the outer conductor 3 is spaced from the inner conductor 1 by a series of insulating structures 2 which are of arch-like formation in longitudinal section and provide an air-space 7 of circular cross-section next to the conductor 1. The solid insulation 2 may be built up of thimble elements, each element forming one complete arch. Alternatively it may be built up from tapes, either by applying helically to the core a number of tapes, successive tapes being superimposed on the preceding tapes and being of increasing width, or by applying a number of tapes each of which is wound on the inner conductor at one point and is of increasing width so that the outer turns of one tape abut the outer turns of adjacent tapes. Specification 733,178 is referred to.



**Probable Assignee:** TELEGRAPH CONSTR AND MAIN CO

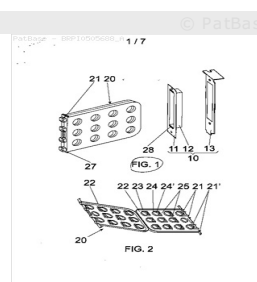
**Earliest Publication Date:** 19570619

**38) Family number: 33025728 (BRPI0505688A)**

### DISPOSITIVO GUARDA-CABO UMBRELLA DEVICE CABLE (MACHINE TRANSLATION)

**Abstract:** Source: BRPI0505688A O presente resumo refere-se a uma patente de invencao para guarda-cabo, pertencente ao campo dos acessorios usados junto a computadores, desenvolvido para organizar cabo(s) (1) disposto(s) atras do gabinete (5) de um computador e compreendendo uma estrutura-suporte (10), que e montada em uma das aberturas (4) da traseira do gabinete (5); e por um estojo-gaveta (20) adequado para alojar trecho(s) intermediario(s) do(s) cabo(s) (1) e para ficar engavetado justo na estrutura-suporte (10) com a sua maior parte alojada dentro do gabinete (5), referido estojo-gaveta (20) dotado de aberturas frontais (21) para entrada e saida do(s) cabo(s) (1).

**Machine translation:** This summary refers to a patent for thimble, belonging to the field of accessories used with the computers, designed to organize cable (s) (1) provision (s) behind the enclosure (5) of and a computer comprising a support-structure (10), which is mounted on one of the openings (4) on the rear of the enclosure (5), and a cassette-compartment (20) suitable for housing section (s) intermediate (s) (s) Cable (s) (1) and to be shelved fair-support structure (10) with mostly housed inside the case (5), said kit-drawer (20) having front openings (21) for input and output (s) of cable (s) (1).



**Probable Assignee:** SILVA LUCIANO PARRAGA DA

**Earliest Publication Date:** 20060516

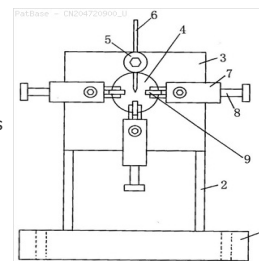
**39) Family number: 60636220 (CN204720900U)**

### SKIN WARE IS TAKEN OFF TO SIMPLE AND EASY CABLE

**Abstract:** Source: CN204720900U The utility model discloses a skin ware is taken off to simple and easy cable, its characterized in that, it has the panel to support through the support on the last plane of base the middle part of panel is equipped with the through wires hole being equipped with on the panel of through wires hole upside and drawing a sword fixing base, draw that the sword is vertical to be alternated on drawing the sword fixing base, be equipped with the fixed block respectively on the left and right sides of through wires hole and downside panel, the thimble passes through the screw to be established in the inside of fixed block the inner overhead gyro wheel that is equipped with of thimble. Through the setting, the utility model discloses simple structure, it is convenient to adjust, can take off the skin to the cable waste material of different specifications and handle, has improved the work efficiency that the skin was taken off to the cable.

**Probable Assignee:** STATE GRID SHANDONG ZHUCHENG POWER SUPPLY CO LTD

**Earliest Publication Date:** 20151021



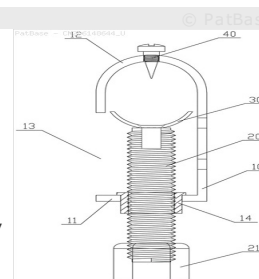
**40) Family number: 65595946 (CN206148644U)**

#### HIGH TENSION CABLE GETS VOLTAGE DEVICE

**Abstract:** Source: CN206148644U The utility model provides a high tension cable gets voltage device, includes installing support, screw rod and arc clamp plate, and the lower part of this installing support has a mounting platform, and upper portion is equipped with half circular arc body, be equipped with the internal thread hole on the mounting platform, screw rod spiro union threaded hole in this, the top of this screw rod is fixed and is equipped with the arc clamp plate, arc clamp plate and half circular arc body constitute high tension cable's fixed establishment, be equipped with a thimble that is used for puncturing high tension cable on half circular arc body inner wall or the arc clamp plate inner wall. The utility model discloses a get electric mounting tool, simple structure, convenient to use can lock under the circumstances about not having a power failure and fix on high tension cable, but anytime and anywhere gets.

**Probable Assignee:** FUJIAN HONGKE ELECTRIC POWER SCIENCE AND TECH CO LTD

**Earliest Publication Date:** 20170503



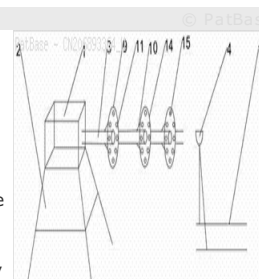
**41) Family number: 68235010 (CN206893364U)**

#### WIND IS USED IN CABLE PROCESSING

**Abstract:** Source: CN206893364U The utility model discloses a wind is used in cable processing, including the casing, the support frame, rotary main shaft and removal anchor clamps, casing one end is equipped with the dead lever, the center of fixed column is equipped with cylinder housing, there is the motor through screw fixed mounting in the cylinder housing, which comprises a housin, one end of the support rack is hinged at the support, rotary main shaft one end is equipped with the thimble, the thimble passes through the connecting piece with rotary main shaft and is connected, evenly distributed has a plurality of through wires holes on the thimble, cylinder housing's left side is equipped with wire leading ring, the last fixed mounting of rotary main shaft has two equidistant wire casings, the wire casing is equipped with the circular port with the place of through wires hole same position, remove the right side of fixture set at rotary main shaft, it is equipped with horizontal guide rail to remove the anchorclamps position, it is equipped with the motor to remove the anchor clamps bottom, anchor clamps are removed and the slip of horizontal guide rail direction can be followed, this scheme simple structure, the through wires hole set up the winding that can realize the stranded electric wire, work efficiency is high.

**Probable Assignee:** KANEKO WIRE AND TELECOMMUNICATION SUZHOU CO LTD

**Earliest Publication Date:** 20180116



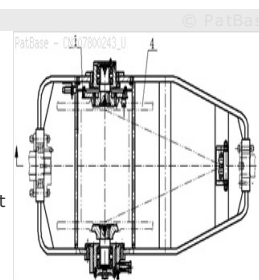
**42) Family number: 70978449 (CN207800243U)**

#### CRADLE ASSEMBLY CONTACTLESS LINE BREAKAGE WARNING DEVICE

**Abstract:** Source: CN207800243U The utility model provides a cradle assembly contactless line breakage warning device, the cradle assembly include the support and install the drum of rotatable unwrapping wire on the support, the drum dispose the initiative thimble the braking vane, the braking vane on install the discoid warning board of tooth, a proximity switch who is connected with PLC is being directed against the warning board and is installing on the support, the warning board pass through screw fastening and install on the braking vane of initiative thimble, proximity switch probe and warning board excircle to and it has simple structure at a distance of 3~5mm, convenient to use is reliable, does not have any contact with the cable, can not abrade the surface of cable, improves the characteristics such as quality and life of cable.

**Probable Assignee:** HANGZHOU SANP MACHINERY CO LTD

**Earliest Publication Date:** 20180831



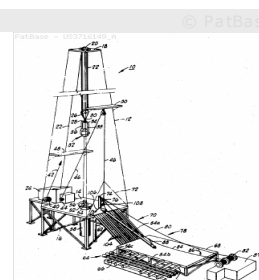
**43) Family number: 7205424 (US3716149A)**

#### APPARATUS FOR PIPE HANDLING

**Abstract:** Source: US3716149A Apparatus for handling oil field pipe and casing in accelerated manner and which reduces likelihood of damage to bell housing or threaded ends of pipe sections during the handling process. The apparatus consists of an endless trolley rigging secured to operate through the V-doors of the derrick assembly in coaction with the pipe racks and pipe handling area, as well as a tensioning tool and hoist line which, in turn, function interactively with the trolley cable to deliver pipe sections at the V-door at proper manipulation level while avoiding contact of the more fragile pipe ends with damaging surfaces; this procedure serves to reduce greatly loss and damage to highly expensive pipe sections.

**Probable Assignee:** SCAGGS O

**Earliest Publication Date:** 19730213

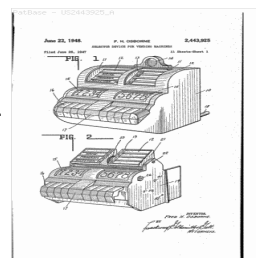


**44) Family number: 22567216 (US2443925A)**

#### SELECTOR DEVICE FOR VENDING MACHINES

**Abstract:** Source: US2443925A 1. the program is being changed so that the master switch 99 cannot be closed while the program change is proceeding. The cylinders bearing the number panels shown in Fig. 13 are arranged in end to end spaced relation and are preferably made of three segments of translucent plastic which may be of

end to end spaced relation and are preferably made of three segments of translucent plastic which may be of different colored material so that each panel presents a different color when illuminated. At each end of the cylinders 24 there is a peripheral groove 1M. A cap 105 is stamped of sheet metal with in-bent lugs 111S having indentations adapted to snap into the peripheral groove 11N. The caps mounted over the adjacent ends of the cylinders are slotted radially at 108 and provided with a pair of in-bent lugs 109 adapted to embrace a pair of driving pins 111 extending radially from the shaft 25. Said shaft is supported on the bearings 111, one of which is set in the frame 1B, the other being supported in a sub-frame 112 attached thereto. Between frame 19 and subframe 112, the gear 31 is secured to the shaft 25. Into each of the end caps 105 there extends a small bearing sleeve 113 which surrounds and revolves upon the tube 114. The latter, at its outer end has a shoulder which bears against the inner face of a mounting plate 115 and a threaded portion upon which is screwed a lock nut 116. The plate 115 is removably attached to the end frame 19 in any suitable manner. The inner end of the tube 11N has riveted thereto a supporting plate 111 which is L-shaped, it being secured to the tube 11H at its shorter leg. The longer leg extends axially through the greater part of the length of the cylinder 2B to which there are riveted the lamp supporting members 11E arranged to face the number viewing aperture in the housing 1D. Each of said lamp supports is adapted to carry a lamp 119 for illuminating said cylinders, an electrical connection thereto extending through the tube 116 about which the cylinder revolves. The above description in respect to one of the cylinders is similarly applicable to the other said cylinder. The program panels 12 are carried on a pair of end abutting and aligned prisms 21, as shown in Figs. 15 and 16, the prisms being triangular in cross section to provide three panels each. Each panel, as herein shown, is designed to carry four name cards each, said name cards being designated at 120 insertable between the holding strips 52 extending longitudinally over the face of each panel. The panels are secured together by the molding strips 122 extending along the adjacent edges of each panel. Each of said prisms is provided with a supporting end plate 123 having a bushing 125 rotatable on the shaft 21; said shaft being removably secured to the end plates 19 by the supporting screws 22. The driving gear 23, driven by the idler 28 (Fig. 3) is rotatably mounted on the shaft 21 intermediate the two prisms, and has secured thereto a driving disk 125 (Fig. 18) supported by a central tube 126 on said shaft, which tube has a reduced shoulder portion for suitably spacing apart the inner end plates 123 of the prisms. Said inner end plates are each provided with an aperture into which oppositely extending driving pins 121 extend through which the prisms are driven by the driving member 125 upon rotation of the gear 23. In operation, and as shown in Fig. 1, the customer may observe the eight selections named on the exposed program panels 12. If one of those eight is to be selected the key 11 directly under the corresponding number on the number panel is depressed. This action closes the switch 91, at the same time causing the hook 86 to lock down the escapement lever 61 so that no program change will result if the customer depresses the program key 11. This action simultaneously closes the master switch 99 which makes a circuit through the closed program switch 56 of the group of three such switches, as determined by its engaging lobe 98 in accordance with the exposed program panels. The circuit thus closed actuates the selecting device, such as an electromagnet, through the cable 18 to set the machine for playing the corresponding record or dispensing the corresponding commodity unit. If the same selector key 11 is depressed with another program panel exposed, a different selection will be made by reason of a different one of the group of three switches 11 being closed by a different lobe 11 corresponding to the program panel then exposed. In event the customer does not choose one of the selections shown on the exposed panels, the program key 11 may be depressed, which automatically rotates the program prisms 21 and the program number cylinders 24 one-third of a revolution to expose the next following panels carried by the prisms, and the next following corresponding program numbers carried by the number cylinders. This action causes the corresponding lobes 95 to release the previously closed switches 85 to close another one of the group of three switches so that a different and corresponding record or commodity unit will be selected through the newly closed switches 58 upon depressing one of the selector keys. However, during this program changing action, the escapement lever 51 will have been raised, thereby locking out movement of the hook 85 which holds open the master switch 99 so that the selecting circuit through the selector switches 81, 88 is held open. There having been power stored up from the motor 32 within the clock spring 42, upon release of the program key 11 after having been depressed, the escapement arm 51 will be returned, withdrawing its stud 13 from engagement with an inner stud 63 to permit gear 29 to rotate one-sixth of a revolution until its next outer stud 12 is brought into engagement with the stud 13. One-sixth of a revolution of the gear 29 rotates the gears 23 and 31 one-third of a revolution to change the program and number panels, as above described. Simultaneously therewith a corresponding set of lobes 95 are moved into closing engagement with a corresponding set of selector switches 96 in accordance with the newly presented program. In the modified form of the driving mechanism illustrated in Figs. 19, 20, and 21, where applicable the numerals indicating the various parts have been applied in the one hundred series as indicating parts generally corresponding in function to those employed in the above described modification. A motor 132, through the motor shaft 113, drives the shaft 135 through a flexible spring driving connection 134. On the shaft 135 there is provided a worm 135 meshing with the worm gear 140 keyed to the shaft 141 immediately in line with the driving gear 144. The driving gear 144 meshes with and drives the gear 29 keyed to the shaft 30 in the manner and for the purpose above described. However, the gear 144 which is carried on the hub 143 is free floating and rotatable on the shaft 141. Said gear is driven through the clock spring 142 having its inner end pinned to the hub 143 and its outer end secured to the spring housing or winding drum 151. Said housing is secured to a thimble 131 which is keyed to the shaft 141, driven by the worm gear 141. Within the spring housing 151 there is a disk 141 secured to and rotatable with the hub 11B. Said disk is provided with a lateral projection 148 adapted to engage with a lateral projection on the disk 149 which is freely rotatable about said shaft. The disk 149 carries a lateral projection adapted to engage with the projection 151 secured inwardly of the drum 151. The thimble 131 is intimately threaded to receive the internal threads of a reciprocating sleeve 111. Said sleeve carries a disk 139 having a series of peripheral notches 111a formed about its periphery. A spring adjusting arm 152 is secured to the spring driven gear 144 to extend laterally therefrom for selective engagement in one of the notches 111a. Thus, as the gear 144 is rotated through the unwinding action of the spring 142 it causes rotation of the threaded sleeve 145 relative to the thimble 131. The sleeve 138 is provided with a throat adapted to receive a yoke plate 145. The yoke plate is pivotally mounted on a supporting rod 148 through laterally bent ears and extends at right angles to a switch control plate 151, whereby said yoke plate and switch control plate are fulcrumed to swing about the rod 145. The plate 153 carries a contact pin 154 engageable with the contact button 155 mounted in the switch box 156. The switch within the box 156, of any suitable type, is connected with the electric circuit to the motor 132 for controlling the energizing of the motor. In operation of this modification form of the driving mechanism, when the switch in the box 158 closes the circuit to the motor 132, shaft 141 is rotated through the worm and worm gear 11B, 141. With the shaft, the threaded thimble 131 rotates and since the gear 144 is held by its associated mechanism against rotation, the threaded sleeve 145 will be screwed to the left as shown in Figs. 20 and 21. As the sleeve is thus moved to the left, it will carry the yoke 145 with it which will swing the plate 153 and pin 154 in a direction away from the switch button 155. At the same time the thimble 111 will cause the spring housing 151 to wind up the clock spring. The parts are so formed and adjusted that upon sufficient revolutions being transmitted to wind up the clock spring, the pin 154 will have been moved outwardly sufficiently to permit the switch button 155 to break the circuit and stop the motor 152. With the clock spring thus unwound the driving gear 144 is under driving tension. For each operation of the program key 11, as above described, the indexing mechanism will permit the gear 144 to rotate a one-sixth revolution under the driving tension of the clock spring. As the clock spring unwinds in driving the gear 144 rotation is transmitted to the disks 141 and 149 which, after two full revolutions, will cause the spring housing 151 to be rotated. The thimble 131 will then be rotated to screw the sleeve 138 in the opposite direction or to the right, as shown, which action will swing the plate 153 and pin 154 into actuating engagement with the switch button 155. Through suitable timing by properly setting the arm 152 in a selected notch 139a of the disk 139 the switch button 155 will be actuated to close the circuit to the motor 132 as the clock spring 142 finally reaches its unwound position. Thereupon the motor 132 will again drive the spring housing to rewind the spring for further and continued driving operation of the gear 144. In the modified form of the selector switch as shown in Figs. 22, 23, 24, and 25, the aligned groups of selector switches 96 shown in Fig. 14 with the associated cam sleeve 91 and cam lobes are replaced by a pair of commutators. The shaft 30 above described is replaced by a short shaft 31a upon which the gear 28 is keyed. The end plates 19, as above described, are replaced by end plates 1911 which are more closely associated as shown in Fig. 22. The shaft 30:1 is supported in bearings provided in the web members 11B and have their ends flattened to be received 2,4as,ona \_ 11 12' in and keyed to the hubs 197 carrying the commutator arms 198 (Figs. 29, 25). Removably supported on the bosses 190 and 11d of the frame structure there are mounted the contact cups 11B, respectively, said cups being yieldingly held in fixed relation to the frame by pressure of the resilient spring arms 200 carried on the ends of the studs 15B1 extending outwardly from said frame structure on each side of the gear 29. The outer face of each of the contact cups is formed with inner and outer annular offset steps within each of which one of the commutator arms



198 is adapted to rotate. In annular arrangement about each of the stepped portions of the cup there are a series of contacts 196 having outer contact plates 202 each connected to a selector wire 283. Thus, as the gear 29 is rotated the commutator arms 199 will be swept about the contact cup into and out of engagement with the respective contacts 196. As will be noted in Fig. 23 there are four annular series of contacts, one series for each of the selector keys 15. As there are two sets of four selector keys 16 (Fig. 1) there are two sets of four annular series of contacts 196, one in each of the opposed contact cups 199. It will also be noted in Fig. 24 that there are six contacts 195 in each annular series, but three of which are bridged by the respective bridges 204. This leaves three effective groups of four contacts each as indicated by dotted lines and the numbers 1-6 in Fig. 24. The three groups of contacts correspond with the three program faces of the prisms 204. One of the contact cups and its associated commutator arms is selective in respect to the selections I, 2, 3, and II indicated on the left hand side of Figs. 1 and

**Probable Assignee:** WURLITZER CO

**Earliest Publication Date:** 19480622

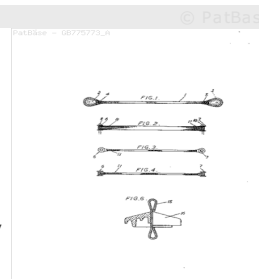
**45) Family number: 20276359 (GB775773A)**

## IMPROVEMENTS IN OR RELATING TO INSULATORS FOR HIGH TENSION OVERHEAD ELECTRIC POWER LINES

**Abstract:** Source: GB775773A 775,773. Insulators. BRITISH INSULATED CABLES LTD. Sept. 23, 1955 [June 23, 1954; July 26, 1954], Nos. 18419/54 and 21769/54. Class 36. A suspension or strain insulator for overhead power lines comprises one or more lengths of flexible rope made from non-metallic inorganic fibres of high tensile strength, such as glass, the rope, or each cord or roving from which it is formed, having a smooth water-repellent coating of an insulating material such as a silicone varnish, an epoxy resin, polyethylene, polyvinyl chloride or a synthetic rubber. The rope 1 may be secured at each end to a thimble 2, 3, the splices 4, 5 being whipped with glass yarn. Alternatively, glass fibre cords may be wound about two spaced members to form an elongated loop which is subsequently whipped with glass fibres to bring the two sides of the loop together. Short lengths 12 of the rope, each carrying an insulator 13, may be connected together by loops 14 of glass fibre cord coated or coated and impregnated with insulating material. The insulators 13 may be made of a synthetic resin containing glass fibre filler and may be moulded about the rope 12 or cemented thereon. Porcelain bodies comprising a chain insulator may be linked together by means of the insulating rope. Specification 775,112 is referred to.

**Probable Assignee:** BRITISH INSULATED CABLES LTD

**Earliest Publication Date:** 19570529



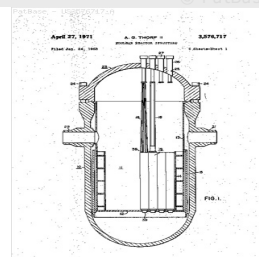
**46) Family number: 88010 (US3576717A)**

## NUCLEAR REACTOR STRUCTURE

**Abstract:** Source: US3576717A (Claim 1) In a nuclear reactor, in combination, a reactor vessel having a liquid coolant therein, a plurality of fuel assemblies immersed in the coolant, each fuel assembly including a plurality of fixedly supported fuel rods with a plurality of control elements interspersed among the fuel rods in a predetermined pattern, a generally cylindrical thimble for housing each control element, each of said thimbles being sealed at that end located within the reactor vessel, the interior of said thimbles being isolated from the interior of said reactor vessel, and the other ends of the thimbles extending at least to the exterior surface of the reactor vessel.

**Probable Assignee:** WESTINGHOUSE ELECTRIC CORP

**Earliest Publication Date:** 19690723



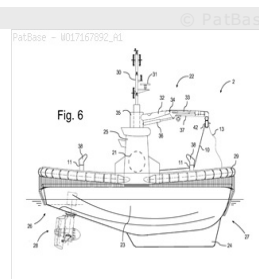
**47) Family number: 67146357 (WO17167892A1)**

## A TUGBOAT WITH A CRANE FOR HANDLING A TOWING LINE

**Abstract:** A tugboat for assisting a marine vessel to maneuver. The tugboat comprising a crane or robot arm (22) for handling a towing line, said crane or robot arm being provided with a grasping tool (42) for grasping a towing line (10).

**Probable Assignee:** AP MOELLER MAERSK AS

**Earliest Publication Date:** 20171005



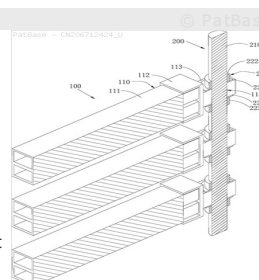
**48) Family number: 67712113 (CN206712424U)**

## PROTECTIVE CASE PACKAGE ASSEMBLY

**Abstract:** Source: CN206712424U The utility model provides a protective case package assembly, includes thimble assembly and support adjusting part, and the thimble assembly includes the protective case of a plurality of interval arrangements, and each protective case includes body, head and sliding block. Supporting the adjusting part and sliding in proper order and wear to establish the mounting hole of each sliding block including support lead screw and a plurality of regulating part, support lead screw, each regulating part correspondence sets up on a sliding block, and each regulating part includes first nut, first gasket, second nut and second gasket. Slide along supporting the lead screw through the head with protective case for distance between two cable protection sleeve is easy the regulation, wait to accomplish the range adjustment after, the rethread twists that move first nut and the second nut is supporting the lead screw with sliding block locking, can make the difficult relative displacement of emergence between each protective case, overall structure stability is better. In addition, first gasket and second gasket is utilized, better ground cushioning effect can also be played.

**Probable Assignee:** GUANGDONG HENGDA PLASTIC PIPE PRODUCTS CORP

**Earliest Publication Date:** 20171205



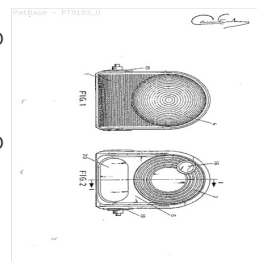
**49) Family number: 34632129 (PT9183U)**

## LANTERNA PORTATIL

**Abstract:** Source: ES1028330U LUZ PORTATIL, QUE SIENDO DEL TIPO DE LAS QUE CONSTITUYEN UN ACCESORIO PARA VEHICULOS AUTOMOVILES EN LOS QUE SE CONECTA A SU BATERIA DIRECTAMENTE O A TRAVES DEL ENCENDEDOR; ESENCIALMENTE SE CARACTERIZA PORQUE CUENTA CON UNA CARCASA (1) QUE ESTA DOTADA DE UN RECEPTACULO CONCAVO (7) DOTADO DE UNA ABERTURA CENTRAL A PARTIR DE LA CUAL SE PROLONGA CONCENTRICAMENTE SEGUN UNA PORCION CILINDRICA (8) QUE INCLUYE UNAS UNETAS (9) DE RETENCION DE UN CARRETE (2) QUE SE DISPONE AXIALMENTE A LA PORCION CILINDRICA (8) Y ENVOLVIENDO AL RECEPTACULO CONCAVO (7); CONTANDO EL CARRETE (2) CON UNAS UNETAS (17) COMPLEMENTARIAS DE LAS NUEVE DE LA CARCASA (1) REALIZANDOSE LA FIJACION CON POSIBILIDAD DE GIRO DEL CARRETE (2) CON RESPECTO A LA CARCASA (1); FACULTANDO EL ENROLLAMIENTO DEL CABLE (12); Y CON LA PARTICULARIDAD QUE SOBRE TODO EL CONJUNTO SE DISPONE UNA TAPA (6). Portable light, which BEING OF THE TYPE WHICH CONSTITUTE AN ACCESSORY FOR VEHICLES IN WHICH CONNECTS TO YOUR BATTERY DIRECTLY OR THROUGH THE CIGARETTE LIGHTER, essentially characterized in that it has a housing (1) WHICH IS PROVIDED WITH A concave receptacle (7) PROVIDED WITH A CENTRAL APERTURE FROM WHICH EXTENDS CONCENTRICALLY ACCORDING TO A cylindrical portion (8) which includes some pawls (9) retention of a reel (2) WHICH IS ARRANGED axially to the cylindrical portion (8) and enveloping the concave receptacle (7); counting the spool (2) with fingers (17) of the housing (1) OF THE NINE PERFORMING FIXATION WITH THE POSSIBILITY OF ROTATION OF THE REEL (2) WITH RESPECT TO THE Housing (1); AUTHORIZING THE WINDING OF THE CABLE (12); AND WITH THE PARTICULARITY THAT ON THE WHOLE IS ARRANGED A cover (6).

**Probable Assignee:** RINDER I S A

**Earliest Publication Date:** 19950101



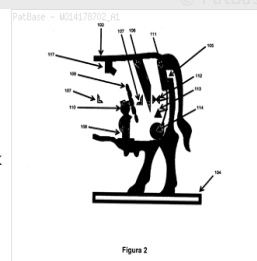
**50) Family number:** 57762049 (WO14178702A1)

## BOVINE GYNAECOLOGICAL EXAM SIMULATOR FOR DIAGNOSIS OF THE OESTROUS CYCLE

**Abstract:** The invention relates to a bovine gynaecological exam simulator for diagnosis of the oestrous cycle, which allows the user to perform simulations that imitate or simulate the sensory and physiological conditions that a veterinarian experiences while performing a bovine gynaecological exam in order to diagnose the oestrous cycle by means of rectal palpation on a real female bovine. In addition, the simulator of the invention can be used to record and store the pressure exerted by the user while palpating a real or artificial bovine ovary, while providing feedback in real time by means of a graphical interface.

**Probable Assignee:** UNIV NAC AUTONOMA DE MEXICO

**Earliest Publication Date:** 20141106



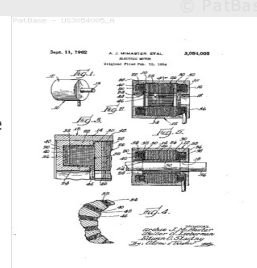
**51) Family number:** 22814457 (US3054005A)

## ELECTRIC MOTOR

**Abstract:** Source: US3054005A (Claim 1) 1. In an encapsulated precision miniature rotary electric machine the combination comprising a housing having a pair of end pieces with bearing support means therein, a laminated stator permanently mounted in said housing and spaced axially from at least one of said end pieces and being free of compression thereby, said stator with said housing substantially defining a space, said stator having a central bore, and insulating material completely filling the space between said housing and said stator and permanently securing said stator encapsulated in said housing, said central bore being free of said insulating material, at least said one end of said stator being axially free except for said insulating material, said end pieces having central bores coaxial with said stator bore.

**Probable Assignee:** G M LAB INC

**Earliest Publication Date:** 19610110



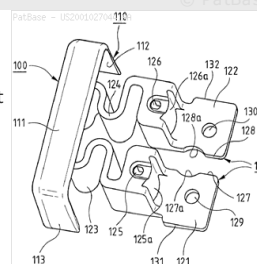
**52) Family number:** 28100917 (US2001027044A)

## END CAP FOR TRUNKING FOR ROUTING ELECTRICAL CONDUCTORS OR CABLES

**Abstract:** Source: US2001027044A An end cap for closing an end of trunking includes a closure part for closing an interior space of the trunking and a fixing part for fixing it to a back of a base section of the trunking. The fixing part includes a chimney for inserting a nail. The chimney is substantially perpendicular to the back of the base section and has a height substantially equal to the depth of the base section.

**Probable Assignee:** LEGRAND FRANCE

**Earliest Publication Date:** 20010831



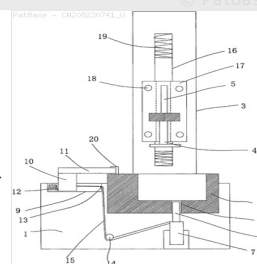
**53) Family number:** 72406231 (CN208230741U)

## COLD EXTRUSION DEVICE IS USED IN NUT PROCESSING

**Abstract:** Source: CN208230741U The utility model discloses a cold extrusion device is used in nut processing, the on-line screen storage device comprises a base, the cold extruding die of setting on the base, be fixed with the support on the base, be fixed with cold extrusion punching head and punching press cylinder on the support, be provided with ejecting hole on cold extruding die's diapire, be provided with ejecting cylinder on the base, piston crown of roll end at ejecting cylinder is fixed with the thimble, top surface at the base is provided with the lateral shifting groove, be provided with the removal slider at the lateral shifting inslot, be fixed with on removing the slider and push away from the extension board, be fixed with reset spring between the end wall in the outside of removal slider end and lateral shifting groove, medial extremity in the lateral shifting groove is provided with the driving wheel, be provided with the running wheel on the base, be provided with the cable between the piston axle that removes slider and ejecting cylinder. The utility model discloses a structure sets up rationally, the simple operation, and it is incited somebody to action ejectingly and pushes away from going on in step, is favorable to putting forward the efficiency that high pressure heater was good at, also can reduce the cost of processing, and stability in use and practicality are strong.

**Probable Assignee:** CHONGQING JINGQI TECH DEVELOPMENT CO LTD

**Earliest Publication Date:** 20181214



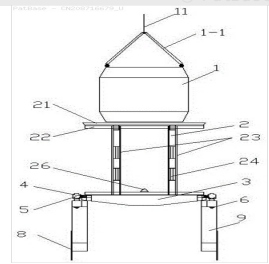
**54) Family number: 73904641** (CN208716679U)

#### **AUTOMATIC CASH DEVICE TURNS OVER**

**Abstract:** Source: CN208716679U The utility model provides an automatic cash device turns over, includes the joist, and the top of joist is connected with and cooperates the frame of accomplishing the cash process of turning over to turn over the cash device with the well -bucket, and the upper and lower both ends that the frame turned over the cash device are equipped with the collar tie beam, and the collar tie beam of upper end is connected with the deflector, and the collar tie beam of lower extreme is fixed on the joist, is connected with between the collar tie beam at upper and lower both ends and takes roller bearingstand and stand, takes the upper end of roller bearing stand to be equipped with at a distance from keeping off, still is fixed with the thimble on the joist, the joist passes through the bearing frame with the support frame to be connected, and the both ends of joist are equipped with torque spring, and the support frame is fixed on turning over cash door reveal roof beam, and the well -bucket roof beam and the hoisting cable of well -bucket are connected. The utility model discloses a frame turns over cash device simple structure, handling ease, but the automatic adjustment hangs barrel locations, makes the well -bucket roof beam and turn over the cash direction perpendicularly, save the engineering time, improved the efficiency of construction, guaranteed safety, the manual work has been saved, the automatic cash that turns over can be realized.

**Probable Assignee:** CHINA COAL NO 5 CONSTRUCTION CO LTD

**Earliest Publication Date:** 20190409



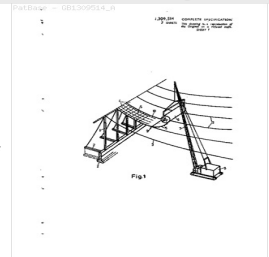
**55) Family number: 464955** (GB1309514A)

#### **ROOFING MEMBRANE OF FLEXIBLE MATERIAL**

**Abstract:** Source: GB1309514A 1309514 Suspended roofing S MOLLINGER 19 April 1971 [12 Feb 1970] 21365/71 Heading E1W Flexible roofing sheets, e.g. 4, are supported by flat transverse strips 5 which are in turn supported on, e.g. cables 3. In the embodiment described the strips 5 are fixed by, e.g. rivets, to further transverse strips 47, to which the lower skin of each roofing sheet is bonded or welded. The roofing sheets have inner and outer, preferably transparent or translucent skins, 43, 41, e.g. of plastics, with an optional insulating core 42 in the form of a continuous layer or strips. Longitudinal reinforcements 10 may be provided, and the ends of strips 5 are formed into loops and attached via wire ropes 13 to the cables 3. Temporary supports 9 may be employed during erection, using a crane 8. The strips 5 may be of glass fibre reinforced plastics or steel, and strips 47 of glass fibre reinforced plastics.

**Probable Assignee:** MOLLINGER S

**Earliest Publication Date:** 19710819



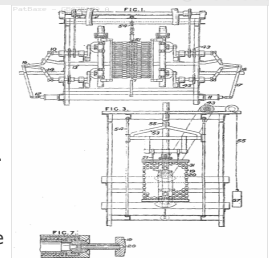
**56) Family number: 20008268** (GB625070A)

#### **IMPROVEMENTS IN OR RELATING TO THE ART OF BENDING AND TEMPERING SHEETS OF GLASS**

**Abstract:** Source: GB625070A 625,070. Bending and tempering glass sheets. PILKINGTON BROS., Ltd., BIRD, G. W. T., and DENNETT, J. Nov. 26, 1946, No. 35050. [Class 56] [Also in Group XXIX] Apparatus for bending and tempering sheet glass 1 heated to near its softening temperature has two sets of tempering structures each having means to shape the glass placed between the structures and being movable towards and away from each other respectively for the bending and quenching operations, the glass remaining in the same position for both operations. The construction of the nozzles and nozzle mountings and of the construction of the carriers and the means for imparting a circuitous movement to the carriers is substantially the same as that described in Specification 625,069, except that the nozzles may alternate with or be replaced by shapers of similar construction but with pads 19 apertured at 20 instead of the nozzles 31. Additionally the carriers are moved to and from the glass by means of the cylinders 11, piston rods 12, lever 17 pivoted at 18, links 16, and levers 13 which are pivoted at 14 and connected to the shafts 10 so as to permit rotation of the shafts. Sprockets 43 permit axial movement of the shafts 10. The glass is supported between the carriers by tongs 51 which are suspended from a frame 53 movable on guides 54 by the balance weight 57 and cable 55. The carriers are first moved inwardly to shape the glass, and then moved outwardly and given a circuitous motion when jets from the nozzles temper the glass.

**Probable Assignee:** PILKINGTON BROTHERS LTD

**Earliest Publication Date:** 19490621



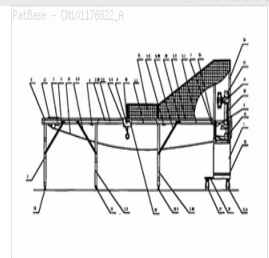
**57) Family number: 41869406** (CN101176822A)

#### **THIMBLE TYPE SPECIAL TABLE TENNIS FORCE-DEVELOPER**

**Abstract:** Source: CN101176822A The present invention provides yet another brand-new concept of the structure of the table tennis sports equipment - ping-pong Jianli casing dedicated machine, it is completely different from the past has been the "ping-pong table," is completely different from the past has been the "ball machine", but a table tennis ball ejector (pitching machine) with folding table tennis table functions, including six-legged three-pipe "machine", "Taiwan," a combination of dedicated machines, by the body cabinet, the cabinet bearing plate the body bearing wheels, folding combination platen, retractable sleeve body, platen support legs folded, the Taiwan cabinet connector in the middle of the net frame, ball grille holder, malleable ball grille, and tee ball conveying mechanism manual Digital controllers, machine control cable and other components; another invention with my application "casing universal pong Jianli machine" is different from the present invention as a "man - machine" against the special entertainment exercise machines and exercise machine, designed to use the ball back grille holder and docking hinged small sleeve body, does not require frequent replacement ball nose, and tables stretching stable, convenient and practical, takes up little space.

**Probable Assignee:** YING JIN

**Earliest Publication Date:** 20080514



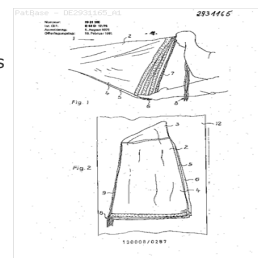
**58) Family number: 1815015** (DE2931165A1)

#### **VERFAHREN ZUM PACKEN EINES FALLSCHIRMS PARACHUTE PACKING PROCEDURE WITH PANELS FOLDED IN SEQUENCE - HAS SHROUDS PROTRUDING IN BUNDLE, INSERTED IN SKEINS AS WHOLE IS FOLDED TO SHAPE**

**Abstract:** Source: DE2931165A1 Patentan 5 p r u e c h e Verfahren zum Packen eines im wesentlichen aus Kappe, Fangleinen und Trageil bestehenden Fallschirms, der fertig gepackt beispielsweise an einen Nutzlastbehälter koppelbar, mit dem Nutzlastbehälter in einen Behälter eines nach dem Abschuss gegebenenfalls drallbehafteten Flugkörpers einsetzbar und nach dem Ausstossen des Behälters aus dem Flugkörper, gegebenenfalls nach Reduzierung der Fluggeschwindigkeit durch die Wirkung eines Bremsfallschirms, sowie nach Freigabe aus dem Behälter selbsttätig entfaltbar ist, dadurch gekennzeichnet, dass die Rappe (2) bildende und sich vom Scheitel (3) der Kappe (2) zu deren Basis erstreckende Bahnen (4, 5, 6, 7) oder Sektoren in Strecklage gebracht und in der Reihenfolge ihrer Anordnung am Umfang der Kappe (2) folgend derart sortiert und aufeinandergefaltet werden, dass ihre Fangleinen (8) aus den aufeinandergeschichteten Bahnen (4, 5, 6, 7) vorstehen, die aufeinandergeschichteten Bahnen (4, 5, 6, 7) bei gleichzeitig in den Schichtaufbau eingelegten Fangleinen (8) als Ganzes zu einem Paket auf geeignete Breite und Länge gefaltet werden, wobei das Trageil (10) in mehreren Windungen eingedreht und in das gefaltete Paket aus Bahnen (4, 5, 6, 7) und Fangleinen (8) so eingelegt wird, dass nur noch das Ende des Trageils (10) mit der Kausche (11) vorsteht. 2. The packing procedure is for chutes comprising a canopy, shrouds and suspension line, for connection after packing to (e.g.) a payload container for launching by projectile, possibly with spin. The parachute is self-opening after ejection. The canopy panels/segments, extending from crown to rim, are stretched flat and folded in sequence with shrouds extending in a bundle from the rim. The whole is then folded into a suitably sized and shaped package with the shrouds inserted in two skeins. The suspension line, looped several times, is inserted into the package leaving only the eye showing.

**Probable Assignee:** BRUEGGEMANN AND BRAND KG

**Earliest Publication Date:** 19810219



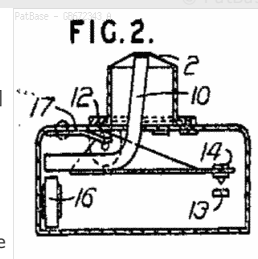
**59) Family number: 19630184** (GB672343A)

## IMPROVEMENTS RELATING TO TEMPERATURE CHANGE RESPONSIVE DEVICES FOR USE IN POWER PLANT UNITS AND FOR OTHER PURPOSES

**Abstract:** Source: GB672343A [Feb. 1, 1950] No. 2590/50. Class 38 (v). [Also in Groups XXVI, XXXV and XXXVIII] A temperature responsive device specially suitable for giving warning of excessive temperatures in the various fire-proof compartments of a jet engine plant on an aircraft (see Group XXVI), comprises a cap 2 of magnetic material, which on reaching its Curie point loses its magnetic properties thereby causing relative movement between itself and a permanent magnet and the consequent operation of contacts. In the form shown in Fig. 2, the element 2 normally attracts one pole of an L-shaped permanent magnet 10 mounted in a frame pivoted at 12 and holds it in the position shown against the repulsive action of a second permanent magnet 16 till the Curie temperature is reached when contacts 13, 14 are closed. When the temperature drops the parts resume their original positions. The magnet 10 and frame are pivoted at their C. of G. so that vibration has no effect and a blade spring 17 presses on the pivot pin to take up any play. In a modification, the frame carries one magnet which attracts the cap 2 and another magnet which is repelled by a third magnet. In another modification, the frame is biased by a spring and by air blast from an air scoop, and carries one U-shaped magnet with a short leg. The magnetic elements may be made of ferro nickel with nickel varying from 34 per cent to 45 per cent if the desired temperature of the Curie point is between 250 C. and 450 C. The elements may also be blackened or coated with silica so that they respond more readily to change of temperature.

**Probable Assignee:** ANDERS MATHISEN

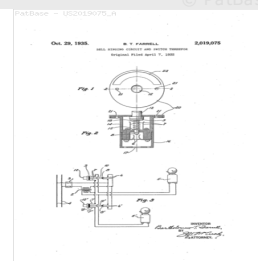
**Earliest Publication Date:** 19520521



**60) Family number: 22174472** (US2019075A)

## BELL RINGING CIRCUIT AND SWITCH THEREFOR

**Abstract:** Source: US2019075A 1. Normally both switches are held open by means of a spring, and so long as the parts remain in this condition no current can now through either the primary or secondary circuit. When it is desired to ring the bell 5 the push button 12 on the end of the plunger 10 is forced inwardly, thus closing both switches substantially simultaneously, whereupon the bell will ring so long as the switches remain closed. As soon as the pressure on the push button is relieved the spring will return it to its original position and open both the primary and secondary circuits. Additional bells may be operated from the transformer 2 by suitable connections in parallel with those above described, and such an arrangement is illustrated in Fig. 3, the parts corresponding to those above described being indicated by similar but primed numerals. It will be evident that with this arrangement the transformer takes current only when the bell is ringing. At all other times the primary circuit is open and no energy, therefore, is being consumed anywhere in the bell system. This not only avoids the waste of power which has been a necessary incident to the use of prior systems of this character, but it also eliminates the fire hazard which has attended the use of these transformers in earlier systems. A switch structure especially adapted for use in this system is illustrated in Figs. 1 and



**Probable Assignee:** FARRELL BARTHOLOMEW T

**Earliest Publication Date:** 19351029