

Search history

Search 1: SFT=(elevator and door) (Results 39891)
Search 2: SFT=(elevator 3w installation and door and leaf) (Results 85)

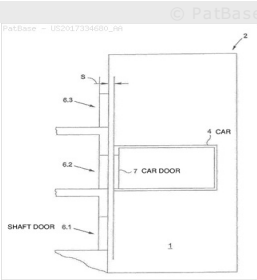
1) Family number: 62191277 (US2017334680A)

DOOR SYSTEM FOR AN ELEVATOR INSTALLATION

Abstract: Source: US2017334680A A door system for an elevator installation having an elevator car, the door system including a pivotable first car door leaf mounted at a car door opening and a pivotable first shaft door leaf mounted at a shaft door opening of the elevator installation. At least a part of the shaft door opening is closed by the first shaft door leaf in a closed position thereof and a shaft door plane is formed along the shaft door leaf. At least a part of the car door opening is closed by the first car door leaf in a closed position thereof and a car door plane is formed along the car door leaf. The car door leaf, in an open position thereof, extends through the shaft door plane, or the shaft door leaf, in an open position thereof, extends through the car door plane.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20160428



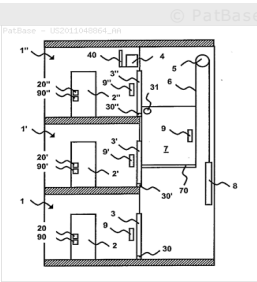
2) Family number: 43956943 (US2011048864A)

METHOD FOR USING A LIFT SYSTEM, LIFT SYSTEM SUITABLE FOR SUCH A METHOD AND METHOD FOR EQUIPPING SUCH A LIFT SYSTEM

Abstract: Source: US2011048864A The invention relates to a method of operating an elevator system in a building with at least one building door (2, 2', 2?). Through opening and/or closing the building door (2, 2', 2?) the floor (1, 1', 1?) of the opened and/or closed building door (2, 2', 2?) is defined as the start floor and a destination call for an elevator car (7) to the start floor is actuated. As soon as the elevator cage (7) has reached the start floor, an elevator door (3, 3', 3?) of the start floor is opened. As soon as at least one user has entered the elevator car (7), the opened elevator door (3, 3', 3?) is closed and the user is conveyed by the elevator car (7) to a destination floor, wherein the destination floor is defined by a destination call stored for a start floor.

Probable Assignee: INGERSOLL RAND SECURITY TECHNOLOGIES

Earliest Publication Date: 20091105



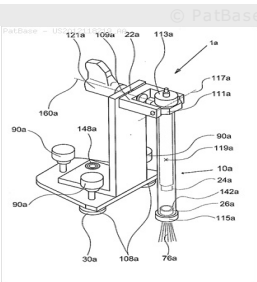
3) Family number: 47485594 (US2012118219A)

MARKING DEVICE IN ELEVATOR SYSTEM

Abstract: Source: US2012118219A In order to achieve simple maintenance and/or installation of an elevator system, a marking device has at least one light emitting unit for generating at least one mark on a component of the system.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20101104



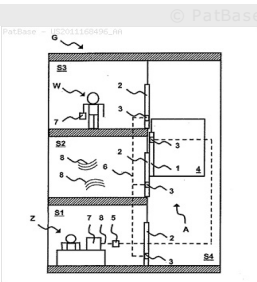
4) Family number: 44126317 (US2011168496A)

ELEVATOR INSTALLATION MAINTENANCE

Abstract: Source: US2011168496A The disclosure relates to an elevator installation and a method for maintenance of such an elevator installation. The elevator installation comprises at least one door and at least one acceleration sensor. The acceleration sensor is mounted on the door, for example.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20091217



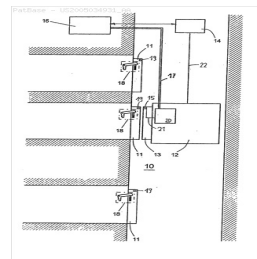
5) Family number: 29116165 (US2005034931A)

SHAFT MONITORING SYSTEM FOR AN ELEVATOR

Abstract: Source: US2005034931A A shaft monitoring system for an **elevator installation** includes a contactless sensor enabling recognition from the elevator car whether a shaft door lock and a shaft door leaf are in a correct locked setting. A securing device mechanically secures the shaft door lock in order to prevent opening of the shaft door and is mechanically and/or electromagnetically actuatable from the elevator car. The contactless sensor includes an active sensor part arranged at the car door and a passive sensor part arranged at the shaft door lock to be monitored. The active sensor part interacts with the passive sensor part as soon as the elevator car stops behind the shaft door and the shaft door leaf and the shaft door lock are disposed in the correct locked setting. The active sensor part also can transiently interact with the passive sensor part when the elevator car moves past the shaft door.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20031002



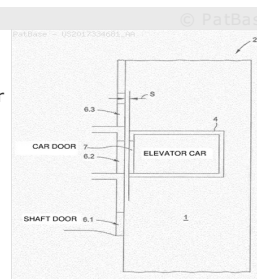
6) Family number: 62191274 (US2017334681A)

DOOR SYSTEM FOR AN **ELEVATOR INSTALLATION**

Abstract: Source: US2017334681A A door system for an **elevator installation** having an **elevator** car with a car door arranged to travel in an elevator shaft with shaft doors, wherein the car door is spaced from the shaft doors in a closed position of the door system. A primary pivot spindle is coupled to a pivotable door leaf of the shaft door or the car door and a secondary pivot spindle is coupled to a pivotable door leaf of the other of the car door and the shaft door. A drive unit includes a driven, pivotably mounted shaft to which a first entrainer and a second entrainer are fixed. During a pivoting movement of the shaft, the first entrainer engages a first counterpart element on the primary pivot spindle and the second entrainer engages a second counterpart element on the secondary pivot spindle to effect a pivoting movement of the door leaves.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20160428



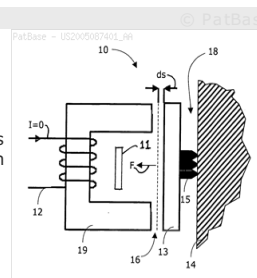
7) Family number: 44899234 (US2005087401A)

SEALING DEVICE WITH MAGNETICALLY MOVABLE DOOR SEAL FOR A CLOSABLE DOOR **LEAF** OF AN **ELEVATOR INSTALLATION**, AND **ELEVATOR INSTALLATION** WITH SUCH A DEVICE

Abstract: Source: US2005087401A An **elevator installation** has a sealing element that is movable by an electromagnetic actuator from a first position to a second position. The sealing element includes a seal carrier that is movably arranged at a door leaf of a **door** of the **elevator installation**. An electromagnetic actuator is fastened in the region of the door and upon actuation acts on the seal carrier to move it from the first position to the second position. An electrical circuit triggers the actuation before the door leaf executes an opening movement.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20050315



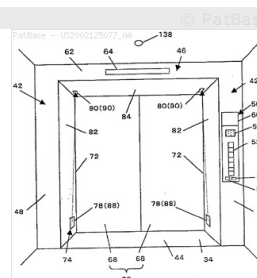
8) Family number: 28303224 (US2002125077A)

ELEVATOR SYSTEM WITH SAFETY INSTALLATION

Abstract: Source: US2002125077A An elevator system has a pair of horizontally opposed vertical surfaces defining therebetween a doorway or opening to an elevator cage and a door moving horizontally to open and close the opening. In particular, the system has a first optical device having a light emitter for emitting light and a second optical device having a light receiver for receiving the light emitted from the light emitter. The first and second optical devices are positioned in a vertical plane crossing the opening and adjacent to the opening. One of the first and second optical devices is positioned below the other of the first and second optical devices and mounted in the vertical surface.

Probable Assignee: MITSUBISHI DENKI KK

Earliest Publication Date: 20020912



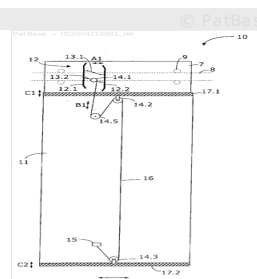
9) Family number: 31168106 (US2004216961A)

DEVICE WITH MOVABLE DOOR SEAL FOR A DISPLACEABLE DOOR PANEL OF AN **ELEVATOR INSTALLATION** AND AN **ELEVATOR INSTALLATION** WITH SUCH A DEVICE

Abstract: Source: US2004216961A A device moves a door seal for a displaceable door panel of an elevator car in an **elevator installation** with an **elevator** shaft having shaft doors. The movable door seal is arranged so that the door panel in a closed state is sealed off. The device includes an entrainer unit connected with the door panel and upon stopping of the elevator car at a floor executes a part movement. The device also includes a coupling mechanism mechanically connecting the entrainer unit with the door seal to bring the door seal out of a sealing position into an open position when the entrainer unit executes the part movement.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20041025

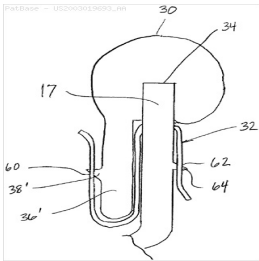


10) Family number: 28038639 (US2003019693A)

DOOR TRACK FOR AN **ELEVATOR DOOR** SYSTEM

Abstract: Source: US2003019693A An **elevator door** system for an entrance opening to an elevator cab. The system includes a two-part door having an open position and a closed position. The two-part door includes a first door portion for traversing across and covering a portion of the entrance opening as the two-part door moves between the open position and the closed position of the two-part door. The two-part door also includes a second door portion for traversing across and covering another portion of the entrance opening as the two-part door moves between the open position and the closed position of the two-part door. A header track includes a rail with a door track for guiding movement of the first and the second door portions. The door track is held onto the rail of the header track via an S-shaped spring clip.

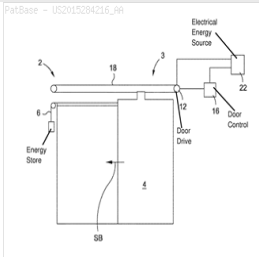
Probable Assignee: INVENTIO AG
Earliest Publication Date: 20020905



11) Family number: 56392500 (US2015284216A)

DEVICE FOR PREVENTING EXCESSIVE SPEED OF A DOOR LEAF CAUSED BY A POWER ACCUMULATOR

Abstract: Source: US2015284216A A device for preventing excess speed, which is caused by an energy store, of a door leaf, includes a door leaf displaceable between an open position and a closed position, an energy store coupled with the door leaf, which energy store provides energy for the closing movement of the door leaf in the event of failure of the electrical energy supply, a door drive coupled with the door leaf, wherein electrical energy can be induced in the door drive when closing movement of the door leaf takes place, and a door control, which activates the door drive and which is suitable for regulation of the speed of movement of the door leaf, wherein the door control is operable by the induced electrical energy when the electrical energy supply fails, and a method of operating an **elevator door**.

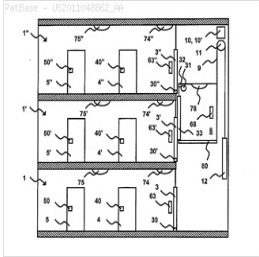


Probable Assignee: INVENTIO AG
Earliest Publication Date: 20140508

12) Family number: 43956944 (US2011048862A)

METHOD FOR TRANSPORTING PASSENGERS, AND ELEVATOR SYSTEM FOR CARRYING OUT SAID METHOD

Abstract: Source: US2011048862A The invention relates to a method and an elevator system in a building comprising a plurality of floor levels (1, 1', 1?), at least one **elevator door** (3, 3', 3?) and at least one building door (4, 4', 4?, 5, 5', 5?) and at least one elevator control (10) which controls at least one elevator drive (11) to move at least one elevator car (8), wherein an opening and/or closing of a building door (4, 4', 4?, 5, 5', 5?) causes at least one starting door signal (S1) to be generated and at least one elevator car (8) is ascertained for the starting door signal (S1).

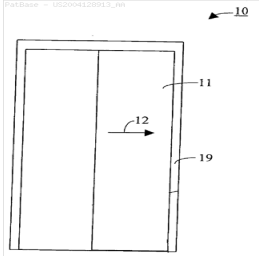


Probable Assignee: INGERSOLL RAND SECURITY TECHNOLOGIES
Earliest Publication Date: 20091105

13) Family number: 30454835 (US2004128913A)

DOOR WITH SLIDING DOOR LEAF AND WITH GUIDE MEANS

Abstract: Source: US2004128913A A door with a sliding door leaf has guides that are arranged in the region of an edge of the door leaf. The guides include a belt so aligned that it extends by the belt length thereof longitudinally of the guide surface for the door leaf in the direction of sliding of the door leaf. When the door leaf is sliding, the belt runs with the door leaf in such a manner that a portion of the belt bears against the guide surface when the door leaf is open, closed and sliding and thereby guides the door leaf.

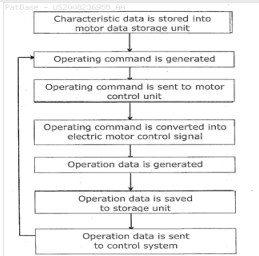


Probable Assignee: INVENTIO AG
Earliest Publication Date: 20040404

14) Family number: 34256012 (US2008236955A)

EQUIPMENT AND METHOD FOR CONTROLLING AN **ELEVATOR DOOR**

Abstract: Source: US2008236955A An equipment (21) for controlling an **elevator door** (22) comprises a motor (24), an encoder (25) connected to the motor and a motor control unit (26), which are integrated into a coherent motor unit (23), an elevator control system (28), power supply means (29) for supplying operating power from the control system to the motor unit, and a data transfer bus (30) for data transfer between the control system and the motor unit. According to the invention, the data transfer bus (30) is bi-directional, and the motor unit (23) comprises a motor data storage unit (31).



Probable Assignee: KONE CORP
Earliest Publication Date: 20070131

15) Family number: 41658019 (US2008078628A)

METHOD OF MODERNIZING AN **ELEVATOR DOOR SYSTEM OF AN **ELEVATOR INSTALLATION** AND MODERNIZATION KIT FOR CARRYING OUT THE METHOD**

Earliest Publication Date: 20080402

Earliest Publication Date: 20130627

Fig. 1 is a cross-sectional view of an elevator shaft head region. The diagram shows a vertical shaft with a head region at the top. The shaft is bounded by a wall (10) and a floor (12). The head region (2) contains a shaft door (4a, 4b, 4c) and a shaft (6). The shaft door is divided into three sections: 4a (top), 4b (middle), and 4c (bottom). The shaft (6) is shown with a shaft head (14) and a shaft tail (16). The shaft head (14) is connected to the shaft tail (16) by a shaft (18). The shaft (18) is shown with a shaft head (14) and a shaft tail (16). The shaft head (14) is connected to the shaft tail (16) by a shaft (18). The shaft head (14) is connected to the shaft tail (16) by a shaft (18).

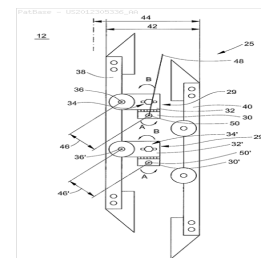
Earliest Publication Date: 20130404

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Earliest Publication Date: 20141204

Earliest Publication Date: 20031111

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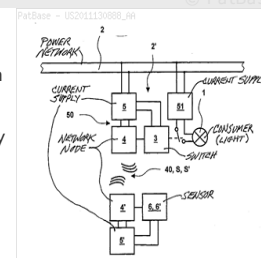
21) Family number: 43956938 (US2011130888A)

METHOD FOR OPERATING ELECTRICAL CONSUMERS IN A BUILDING

Abstract: Source: US2011130888A A method is provided for switching at least one electrical consumer (1, 1' 1?) in a building comprising an elevator system. The switched electrical consumer (1?) is, for example, a camera. The camera is activated if when using the elevator system the user does not actuate a building door within an ascertained route time, i.e. the user does not arrive at his/her destination. It is possible using an image recorded by the camera to establish whether the user is possibly in a dangerous situation.

Probable Assignee: INGERSOLL RAND SECURITY TECHNOLOGIES

Earliest Publication Date: 20091105



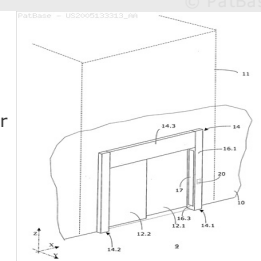
22) Family number: 31774304 (US2005133313A)

DOOR FRAME OF A SHAFT DOOR WITH A CONTROL ARRANGEMENT FOR AN ELEVATOR SHAFT AND METHOD FOR ACCESS TO A CONTROL UNIT

Abstract: Source: US2005133313A An **elevator** shaft **door** frame incorporates a control arrangement for an **elevator installation** including a control unit. The control unit is fixed in a chamber of a frame element of the door frame. The chamber communicates with an outside opening in the door frame, which opens at a floor, and is closed with a cover. The cover can be moved from the closed position by demounting to a service position in which access to the chamber is free. In addition, the door frame has an inside opening to the chamber which is accessible from the elevator shaft.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20050330



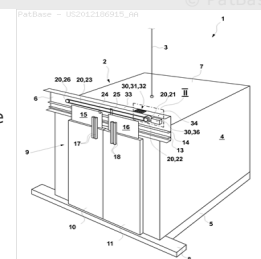
23) Family number: 48201178 (US2012186915A)

ELEVATOR CAR

Abstract: Source: US2012186915A An elevator car for an elevator system includes a car door, a car door mechanism, at least one car door panel, a door drive motor, and a drive control device for the door drive motor. The car door mechanism thereby supports the car door panel. The drive control device includes an operator module having an operator panel, wherein the operator module is disposed on the elevator car so that the operator panel can be operated from the roof of the elevator car and through an opened shaft door from a building floor.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20110127



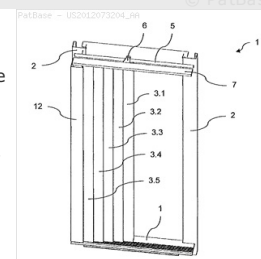
24) Family number: 50829749 (US2012073204A)

SLIDING DOOR FOR AN ELEVATOR INSTALLATION

Abstract: Source: US2012073204A A sliding **door** for an **elevator installation** comprises **door** leaves, which are horizontally displaceable between a closed position and an open position. The sliding door further comprises a synchronization element, which is coupled with the door leaves and so synchronizes these that the door leaves are guided at different speeds in an opening direction from the closed position to the open position and conversely against the opening direction. The sliding door comprises a toggle mechanism which couples a door post with only one door leaf, which is not directly arranged at the door post.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20120329



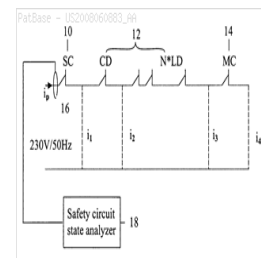
25) Family number: 33476531 (US2008060883A)

ELEVATOR SYSTEM

Abstract: Source: US2008060883A The invention concerns a method and a system for monitoring the operation of the safety circuit of an elevator, said safety circuit containing safety switches connected in series with a contactor and a static circuit. In the method, the current flowing in the safety circuit is measured and the state of the safety circuit is determined on the basis of the measured current. The measurement of the safety circuit current is preferably performed without a galvanic connection to the safety circuit. The state of the safety circuit is determined on the basis of the magnitude of the measured current, from which the positions of the safety switches during the current measurement can be inferred.

Probable Assignee: KONE CORP

Earliest Publication Date: 20061009



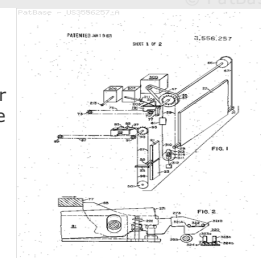
26) Family number: 655833 (US3556257A)

MASTER DOOR OPERATOR HATCH DOOR CLOSURE

Abstract: Source: US3556257A Positive hatch door closing is assured in an **elevator** master **door** operator system. If the hatch door does not lock within one second after the close limit switch opens the circuit on the master door operator, the close limit switch is bypassed allowing the master door operator to drive the hatch doors until the lock indication is received. When driving beyond the close limit of the car gate, the counterweight on the vertically movable gate is slowly raised. Means are provided to slowly lower the counterweight thereby returning the car mounted portion of the drive coupling between the car door operator and the hatch door operator to the normal closed position after the hatch door lock indication is received.

Probable Assignee: WESTINGHOUSE ELECTRIC CORP

Earliest Publication Date: 19700515



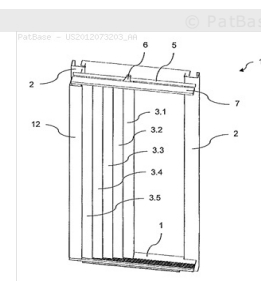
27) Family number: 50829746 (US2012073203A)

SLIDING **DOOR** FOR AN **ELEVATOR INSTALLATION**

Abstract: Source: US2012073203A A sliding **door** for an **elevator installation** includes **door** leaves, which are horizontally displaceable between a closed position and an open position. The sliding door also includes a synchronization element, which is coupled with the door leaves and so synchronizes these that the door leaves are guided at different speeds, in an opening direction from the closed position to the open position or conversely opposite to the opening direction. The synchronization element includes at least one scissors linkage. The sliding door also includes a drive shaft coupled by way of a drive linkage at least with one door leaf. The sliding door additionally includes a locking mechanism which is so coupled with the drive shaft that the locking mechanism is openable by an actuation of the drive shaft when the door leaves are still substantially closed.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20120329



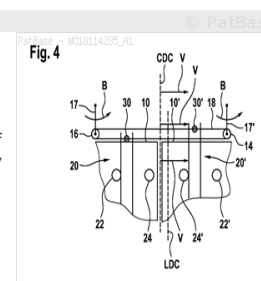
28) Family number: 70246714 (WO18114285A1)

ELEVATOR CAB HAVING A MOVABLE CAB DOOR

Abstract: The invention relates to an elevator system, having an elevator cab (2) and a cab door (4) arranged on the elevator cab (2). The cab door (4) comprises at least one door leaf (8, 8') movable in a translatable manner, a guide rail (40) fastened to the elevator cab (2), which guide rail (40) forms a guide for the translatable movement of the door leaf (8, 8'), and a drive assembly (12) for driving the door leaf (8, 8'). The drive assembly (12) is movably mounted on the elevator cab (2).

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20180628



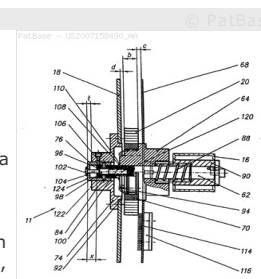
29) Family number: 32121297 (US2007158490A)

AXIAL BEARING FOR A BANDING ROLL

Abstract: Source: US2007158490A An axial bearing, for a spooling roller on a spooling machine, with a shaft fixed to a machine frame, or to a machine chassis, a fixed rear cover disc, a hub freely rotating about the shaft and a flange, arranged on the free front face of the shaft with a front cover disc. At least one stud chamfers in the radial direction, away from the shaft in the region of the flange, engaging in but without projecting beyond a guide slot of a bayonet sleeve, detachably connected to the flange. The open guide slot, on the front face, rises up to an arched peak, turns away from the front face of the bayonet sleeve at a separation and runs toward the front face with a blind terminus. A pressure spring, tensioned on the shaft, is arranged between a shaft mounting and the hub, which presses the roller core with the spooling roller, over the hub, in the axial direction on the flange and forms therewith a rapid closure with the centered spooling roller. The separation (a) corresponds to the separating of the roller core, or the mounted but not yet pressurized spooling roller, from the rear cover disc.

Probable Assignee: ATS AUTOMATIC TAPING SYSTEMS AG

Earliest Publication Date: 20050804



30) Family number: 43401604 (US5246089A)

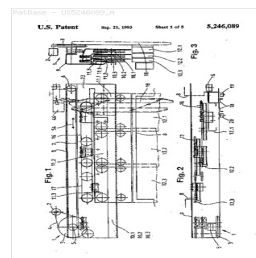
DOOR DRIVE APPARATUS WITH LOCKING MECHANISM FOR ELEVATORS

PatBase

Abstract: Source: US5246089A A door drive apparatus with a locking mechanism for **elevator doors** permits the opening of the car door situated in the region of a floor together with a coupled-on shaft door, driven automatically in the normal case or manually in the case of a power failure. If the elevator car is situated outside a floor region, the car door remains locked. A control cam mounted at the upper end of a car door leaf is connected with a door drive by a belted drive means and causes a low-jerk opening and closing of the car door at the closing end of travel. The control cam is connected by a pull rod to an entraining member parallelogram for the coupling of the shaft door to the car door. A locking mechanism on the upper end of the same door leaf has an actuating roller which is actuated by a double lever connected to the control cam and the pull rod for the unlocking when the car is located in the door opening region of a floor.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 19921101



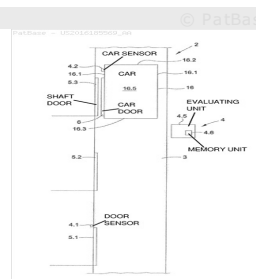
31) Family number: 58512090 (US2016185569A)

MONITORING SYSTEM OF AN **ELEVATOR INSTALLATION**

Abstract: Source: US2016185569A A monitoring system of an **elevator installation** having an **elevator door** and a method of operating the monitoring system are suitable for generating usage data of the **elevator door**, the monitoring system including a sensor arranged in the **elevator installation**, wherein at least one physical parameter of the environment of the sensor can be detected by the sensor, and an evaluating unit, which determines an operating state of the **elevator door** by a course of the physical parameter over time.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20150219



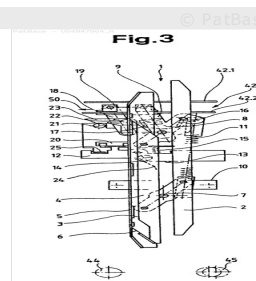
32) Family number: 15336608 (US4947964A)

DOOR DRIVE APPARATUS WITH LOCKING MECHANISM FOR ELEVATORS

Abstract: Source: US4947964A An apparatus for opening and closing the car **door** of an **elevator** car which is situated in the door opening zone of a floor is coupled together with a shaft door, and is driven automatically by a drive motor or, in the case of a power failure, manually by a passenger. If the elevator car is situated outside a door opening zone, the car door remains locked by the same apparatus. The car door is driven through a drive belt by way of an entraining parallelogram linkage, which linkage includes a rigid cam and a movable cam and is mounted at the upper part of a car door. For free travel through a door opening zone, the linkage is closed, and the linkage opens for the coupling with the shaft door between two coupling rollers mounted on the shaft door before a movement of the doors takes place. The movable cam includes a compressible ramp cam which, during the travel and on stopping outside a door opening zone, lifts off from a rigid cam carrier due to leaf springs. On the coupling with the coupling rollers of a shaft door, the ramp cam is pressed against the rigid cam carrier for the unlocking of a car door bolt. The linkage is connected to the drive belt by an actuating lever which cooperates with a pair of abutments to define the open and closed positions of the linkage.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 19890919



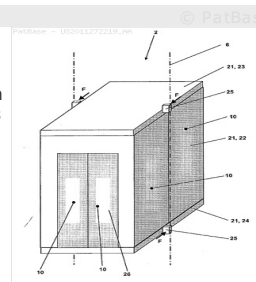
33) Family number: 44515859 (US2011272219A)

ELEVATOR INSTALLATION WITH LIGHTWEIGHT GLASS PLATE

Abstract: Source: US2011272219A A lightweight glass plate includes a first glass plate, a second glass plate and an intermediate layer that connects the first and the second plates together. The lightweight glass plate further includes at least one connection element that allows the lightweight glass plate to be connected to an abutting component. The connection element is embedded into the intermediate layer in an edge area of the lightweight glass plate and the intermediate layer extends to surfaces located between the connection element and the glass plates. The lightweight glass plate is preferably used in the preparation of **elevator doors** and/or car walls. The lightweight glass plates are lightweight and can transfer large forces.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20100311



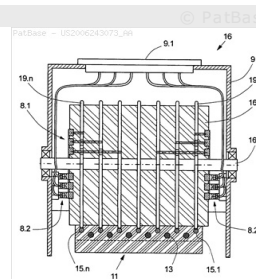
34) Family number: 33340475 (US2006243073A)

DOOR DRIVE WITH BELT-LIKE DRIVE MEANS AND **ELEVATOR INSTALLATION** WITH SUCH A DOOR DRIVE

Abstract: Source: US2006243073A A door drive has a drive unit and a belt-like drive for moving at least one door leaf. At least one electrically conductive element extends in a longitudinal direction of the belt-like drive for transmission of electrical signals or energy to/from the at least one door leaf. A first contact device extends into a longitudinal groove formed in the belt-like drive enabling access to the at least one electrically conductive element. When the belt-like drive is moving past the first contact device, the first contact device produces a permanent contact with the at least one electrically conductive element.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20060911



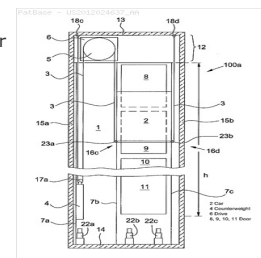
35) Family number: 47452187 (US2012024637A)

OPERATING STATE MONITORING OF SUPPORT APPARATUS OF AN ELEVATOR SYSTEM

Abstract: Source: US2012024637A An elevator system includes at least one elevator car and at least one counterweight, which can be moved in opposite directions from each other on at least one guide track in an elevator shaft by a support apparatus guided over a traction sheave of a drive. At least one monitoring device detects a slackening of the support apparatus, wherein the monitoring device is disposed at a deflection roller for the support apparatus.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20101028



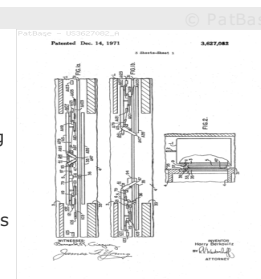
36) Family number: 982888 (US3627082A)

ELEVATOR DOOR SAFETY DEVICE

Abstract: Source: US3627082A (Claim 1) 1. In an elevator system, a hoistway having a plurality of landings, horizontally sliding hoistway door means at a plurality of landings, an elevator car mounted for movement in the hoistway to serve the landings, horizontally sliding car door means for the elevator car, coupling means for coupling the car door means to the hoistway door means adjacent the position of the car, master door operator means for opening and closing the car door means and the hoistway door means adjacent the position of the car simultaneously, and a detector unit for detecting objects in the path of the door means, comprising a mechanical detector element, mounting means for mounting the mechanical detector element to the edge of the car door means which is the leading edge during door closing for movement therewith, and extension means for extending the mechanical detector element from the car door means ahead of and into the path of the hoistway door means, whereby objects in the path of the hoistway door means will contact the mechanical detector element in advance of the hoistway door means during door closing.

Probable Assignee: WESTINGHOUSE ELECTRIC CORP

Earliest Publication Date: 19711214



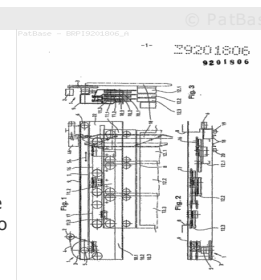
37) Family number: 31701732 (BRPI9201806A)

EQUIPAMENTO DE ACIONAMENTO DE PORTA COM MECANISMO DE TRAVAMENTO PARA ELEVADORES DRIVE GEAR WITH LOCKING MECHANISM FOR ELEVATORS (MACHINE TRANSLATION)

Abstract: Source: BRPI9201806A [Source: Claim 1] 1 - Equipamento de acionamento de porta com mecanismo de travamento para elevadores, no qual, na área dos andares, uma porta de cabine, que pode ser unida com 5 uma porta de poço mediante um mecanismo de acoplamento, e movível por um acionamento de porta il), sendo que o mecanismo de acoplamento consiste de um paralelogramo ar rastador (18), apoiado a uma folha de porta de cabine (11.1), e de duas polias de acoplamento (19, 20) dispostas respectivamente em cada porta de poço, e o acionamento de porta (1) apresenta um motor de acionamento (2) disposto acima da cabine, uma transmissão (3) e um meio de acionamento em forma de fita (7) que esta unido com a porta de cabine mediante um orgão de atuação e fixa a 15 porta de cabine na posição fechada e na posição aberta, e o mecanismo de travamento apresenta um ferrolho de porta de cabine (46) apoiado pivotantemente, o qual, monitorado por um contato de segurança (53) e bloqueável junto a um esbarro, trava em uma posição retentiva pelo peso próprio e pode ser empurrado, por um dispositivo de atuação, para uma posição de desbloqueio, caracterizado pelo fato de que o orgão de atuação disposto na porta de cabine e um carne de controle (15) que, através de um tirante 20, iss < • • • • • 1 • MI & III & • < 1 • • • • • (36), ativa o paralelogramo arrastador (18) e que esta apoiado giratoriamente em um carro corrediço (11.1) de uma folha de porta corrediça (12.1) e, através de uma alavanca acotovelada (14), esta unido articuladamente com o meio de acionamento (7), e de que no suporte de chapa (9), no lado de fechamento, esta disposta uma polia (27) apoiada sem poder deslocar-se e giratoriamente, sobre a qual rola o contorno do carne de controle (15). [Source: Claim 1] 1-port activation equipment with me-locking mechanism for lifts, in which, in the area of the floors, a cabin door, which can be joined with poço door 5 1 by means of a coupling mechanism, and movível for a door drive), and the coupling mechanism consists of a parallelogram air rastador (18), supported a cabin door leaf (11.1), and two pulleys (19, 20) biometric 10 tas respectively on each port of poço, and acionamen to (1) features a drive motor (2) above the cabin, a transmission (3) and a half-shaped tape drive (7) that this United with the cabin door by an organ of superior performance and fixes the cabin door 15 in position closed and open position, and features a locking mechanism for bolt's cabin (46) supported pivotantemente, which, monito safety contact for rado (53) and bloqueável with a depth stop, locking in a retentive position by himself and weight can be pushed, by a device of acts for a dog unlocking position, characterized by the fact that the organ of superior performance provisions of cabi ne port and a control meat (15) that through a 20 Rod i ss & & < • • • • • • 1 MI & III & • < 1 • • • • • (36), activates the parallelogram feeder (18) and the poiado giratoriamente in a corrediço car (11.1) of u-ma corrediça door sheet (12.1) and, through a acotovelada lever (14), this articuladamente with 5 medium attached drive (7), and that the support plate (9) closing side, this willing a pulley (27) supported without being able to move and giratoriamente, on which rolls the contour of the meat (15).

Probable Assignee: INVENTIO AG

Earliest Publication Date: 19921229

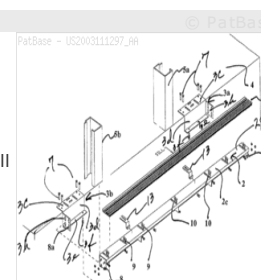


38) Family number: 28665610 (US2003111297A)

ELEVATOR ENTRANCE SILL STRUCTURE AND INSTALLATION METHOD

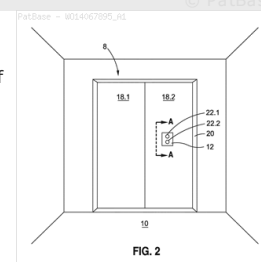
Abstract: Source: US2003111297A This invention relates to a cost saving way of solving a difficult problem in the structure and installation and leveling of an elevator sill. This invention provides ease of installing from the hallway without the use of a moving elevator platform. The structure consists of a sill, a cradle for the sill and a pair of end brackets for supporting the cradle. The pair of spaced L-shaped end brackets are provided for attachment to the hall floor. A vertically adjustable sill cradle is supported at its end portions by the brackets and a horizontally and vertically adjustable sill is mounted on the sill cradle. The elevator door sill cradle is adjustable vertically by means of fasteners that are moveable in vertical slots in the end brackets and is horizontally adjustable on the cradle by means of fasteners that are moveable in horizontal slots provided in the cradle. The elevator door sill assembly brackets are generally L-shaped with a vertical cleat extending therefrom toward the interior of the elevator shaft. The cleats have vertical slots formed therein. The elevator door sill assembly has off set clips that are mounted on the sill and are attached to the lower ends of a pair of elevator door vertical posts. The elevator door sill assembly has a pair of vertical elevator door supports on opposite sides of a pair of vertical elevator door posts which are adjustably attached to the brackets.

Probable Assignee: FRIEDMAN HAROLD S

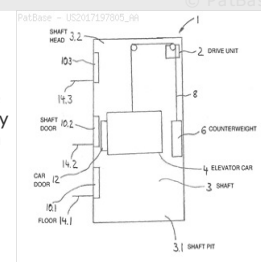


39) Family number: 56392499 (WO14067895A1)**ELEVATOR SYSTEM WITH AN OPERATING UNIT**

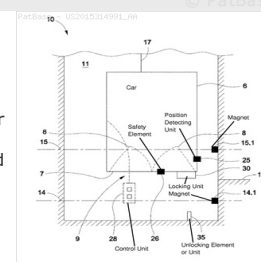
Abstract: The invention relates to an elevator system (2) with a door leaf (18, 18a, 18b, 18.1, 18.2), said door leaf (18, 18a, 18b, 18.1, 18.2) having an operating unit (12, 12a, 12b, 12c) which can be operated by an elevator passenger (13), to such an operating unit (12, 12a, 12b, 12c), and to a method for installing an operating unit (12, 12a, 12b, 12c), which can be operated by an elevator passenger (13), on a door leaf (18, 18a, 18b, 18.1, 18.2) of an elevator system (2), wherein the operating unit (12, 12a, 12b, 12c) is fixed to the door leaf (18, 18a, 18b, 18.1, 18.2).

Probable Assignee: INVENTIO AG**Earliest Publication Date:** 20140508**40) Family number: 61387126** (US2017197805A)**SERVICING SYSTEM FOR AN ELEVATOR INSTALLATION**

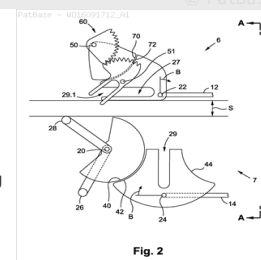
Abstract: Source: US2017197805A A method for servicing at least one component of an **elevator installation**, wherein the component is provided with a mark, and the mark permits identification of this component, includes the steps of: reading in the mark by a reading device; listing, by the reading device at least one working step necessary for servicing the component, wherein the working step which is to be listed is determined on the basis of data which can be obtained from the mark; executing the servicing of the component; and inputting a confirmation into the reading device, by which confirmation the servicing which has been carried out on the component is confirmed. The method is performed by a servicing system for the **elevator installation**.

Probable Assignee: INVENTIO AG**Earliest Publication Date:** 20160114**41) Family number: 56386216** (US2015314991A)**ELEVATOR WITH MAINTENANCE OPENING IN THE CAR FLOOR**

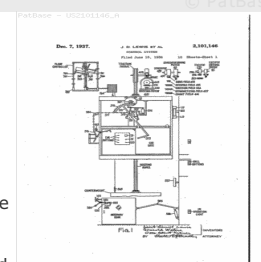
Abstract: Source: US2015314991A An elevator includes a drive unit and an elevator car movable in an elevator shaft to a plurality of floors between a shaft ceiling and a shaft floor by the drive unit. The elevator car has a car floor which can be opened at least partially by at least one floor element to expose an opening. The elevator further includes a locking unit, with which the at least one floor element can be locked. The elevator also has an unlocking unit, by which the locking unit can be unlocked or released for unlocking only if the elevator car has reached an end position in the region of the lowermost floor.

Probable Assignee: INVENTIO AG**Earliest Publication Date:** 20140507**42) Family number: 62658218** (WO16091712A1)**DOOR SYSTEM FOR A LIFT INSTALLATION**

Abstract: The invention relates to a door system for a lift installation, the door system comprising a drive unit (30) having a driven, pivotably mounted shaft (20) and a blocking element (40), wherein the blocking element (40) is fixed to the shaft (20), at least one pivoting unit, wherein each of the at least one pivoting unit comprises a pivoting spindle (22, 24), which can be coupled with a door leaf (12, 14), and a blocking recess (42, 72), wherein the blocking recess (42, 72) is fixed to the pivoting spindle (22, 24), wherein a pivoting movement (B) of the pivoting spindle (22, 24) is limited by a first end position describing an end position of the door system, wherein the blocking element (40) interacts with the blocking recess (42, 72) in such a way that the pivoting spindle (22, 24) can be blocked in the first end position, and to a lift installation having such a door system.

Probable Assignee: INVENTIO AG**Earliest Publication Date:** 20160616**43) Family number: 21320427** (US2101146A)**CONTROL SYSTEM**

Abstract: Source: US2101146A VYh_t is claimed is: 1. In combination; a source of current; a work motor; a generator for supplying current to said work motor, said generator having two held windings; means for connecting one of said Held windings to said source to establish the polarity of said generator; and means operable upon the polarity of the voltage generated by said generator being deznitely established for connecting the other of said Held windings across the armature of said generator. 2. In combination; a source of current; a work motor; a generator for supplying current to said work motor, said generator having two Held windings; means for connecting one of said Held wind- p 2,101, ings to said-source to establish the polarity of said generator; and means responsive to the polarity and value of the voltage generated by _said generator when excited by said one Held winding for connecting the other of said field windings across the armature of said generator. 3. In combination; a source of direct current; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a separately excited held winding and a shunt field Winding; means for connecting said separately excited field winding to said source to cause the generation of a voltage of a certain polarity; means for connecting said shunt held winding across the armature of said generator to cause said generator to build up to full voltage as a self-excited generator; and means for preventing the connection of said shunt ield winding across the generator armature until the polarity of the generator i.n accordance with the excitation provided by said separately excited field winding has been definitely established. 4. In combination; a source of direct current; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a direction field winding and a shunt field winding; means for connecting said direction field winding to said source for current supply therefrom through such winding in either direction, thereby determining the polarity of the generator voltage, the amount of such excitation being sufficient to Start said motor in a direction in accordance with the excitation of the generator by its direction ield winding; means for connecting said shunt held Winding across the ai-mature of said generator to cause said generator to build up as a selfexcited generator voltage of a polarity determined by the direction I-held winding, thereby accelerating the motor to full speed; and means for preventing the connection of



said shunt field winding across the generator armature until generator voltage of a polarity in accordance with the direction of current supplied to said direction field winding has attained a certain value. 5. In combination; a source of direct current; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a direction field winding and a shunt field winding; means for connecting said direction field winding to said source for current supply therefrom through such winding in either direction, thereby determining the polarity of the generator voltage, the amount of such excitation being sufficient to start said motor in a direction in accordance with the excitation of the generator by its direction field winding; and means responsive to the polarity and value of the generator voltage for connecting said shunt field winding across the armature of said generator when the generator has attained a voltage of a certain value and of a polarity in accordance with the direction of current supply to said direction field winding to cause said generator to build up as a self-excited generator. 6. In a control system for an elevator car; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a direction field winding and a shunt field winding; a source of direct current supply; means for connecting said direction field winding to said source for current supply therefrom in one direction to effect starting the car in the up direction; means for connecting said direction field winding to said source for current supply therefrom in the opposite direction to effect starting the car in the down direction; means for connecting said shunt field winding across the armature of said generator to cause said generator to build up as a self-excited generator voltage of a polarity determined by the direction field winding, thereby gradually bringing the car up to full speed; and means for preventing the connection of said shunt field winding across the generator armature until generator voltage of a polarity in accordance with the direction of current supplied to said direction field winding has attained a certain value. 7. In combination: a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a direction field winding, a shunt field winding and a series field winding; a source of direct current supply; means for connecting said direction field winding to said source for current supply therefrom through such winding in either direction, thereby determining the polarity of the generator voltage; means for connecting said shunt field winding across the armature of said generator to cause said generator to build up as a self-excited generator voltage of a polarity determined by the direction field winding; and means for preventing the connection of said shunt field winding across the generator armature and for rendering said series field winding ineffective until generator voltage of a polarity in accordance with the direction of current supplied to said direction field winding has attained a certain value. 8. In a control system for an elevator car; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a direction field winding, a shunt field winding and a series field winding; a source of direct current supply; means for connecting said direction field winding to said source for current supply therefrom in one direction to effect starting the car in the up direction; means for connecting said direction field winding to said source for current supply therefrom in the opposite direction to effect starting the car in the down direction; means for connecting said shunt field winding across the armature of said generator to cause said generator to build up as a self-excited generator voltage of a polarity determined by the direction field winding, thereby gradually bringing the car up to full speed; and means for preventing the connection of said shunt field winding across the generator armature and for shortcircuiting said series field winding until generator voltage of a polarity in accordance with the direction of current supplied to said direction field winding has attained a certain value. 9. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding and a shunt field winding; means for connecting said separately excited field winding to said source to cause generation of a voltage to start the car; means for connecting said shunt field winding across the armature of said generator to cause said generator to build up to full value a voltage of a polarity determined by said separately excited field winding to bring the car up to full speed; and a relay for preventing the connection of said shunt field winding across the generator armature until generator voltage of a polarity determined by said separately excited field winding has attained a certain value, said relay having two operating coils, one connected in parallel with said separately excited field winding and the other across the generator armature so as to oppose each other except when the polarity of the generator voltage is in accordance with the direction of current supplied to said separately excited field winding. 10. In a control system for an elevator car: a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, the armatures of said generator and motor being permanently connected in a loop circuit, said generator having a series field winding connected in said loop circuit, a separately excited field winding capable when connected to said source of causing the generation of voltage by said generator sufficient to cause the car to run at slow speed, and a shunt field winding capable when connected across the generator armature of causing the generator to build up its voltage to full value to accelerate the car to full speed, said series field winding being short-circuited and said separately excited and shunt field windings being disconnected while the car is idle; means for connecting said separately excited field winding to said source for current supply therefrom in one direction to effect starting the car in the up direction; means for connecting said separately excited field winding to said source for current supply therefrom in the opposite direction to effect starting the car in the down direction; and means including a relay having two operating coils, one connected to said source and the other across the generator armature, which act to assist each other when the generator voltage is of a polarity in accordance with the direction of current supplied to said separately excited field winding and attains a certain value for removing the short circuit for the series field winding and for connecting said shunt field winding across the armature of said generator to cause said generator to build up voltage of a polarity determined by the separately excited field winding, thereby gradually bringing the car up to full speed. 11. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, the armatures of said generator and motor being permanently connected in a loop circuit, said generator having a series field winding connected in said loop circuit, a separately excited field winding capable when connected to said source of causing the generation of voltage by said generator sufficient to cause the car to run at slow speed, and a shunt field winding capable when connected across the generator armature of causing the generator to build up its voltage to full value to accelerate the car to full speed, said series field winding being short-circuited and said separately excited and shunt field windings being disconnected while the car is idle; means for connecting said separately excited field winding to said source for current supply therefrom in one direction to effect starting the car in the up direction; means for connecting said separately excited field winding to said source for current supply therefrom in the opposite direction to effect starting the car in the down direction; means for connecting said shunt field winding across the armature of said generator to cause said generator to build up voltage of a polarity determined by the separately excited field winding, thereby gradually bringing the car up to full speed; means for removing the short circuit from across the series field winding; and means including a relay having two operating coils, one connected to said source and the other across the generator armature, and acting to oppose each other except when the polarity of the generator voltage is in accordance with the direction of current supplied to said separately excited field winding for preventing the connection of said shunt field winding across the generator armature and the removal of the short circuit for the series field winding until generator voltage of the polarity determined by said separately excited field winding has attained a certain value. 12. In combination; a work motor; a generator for supplying current to said work motor; means for causing said generator to generate voltage for application to said motor; and means for decreasing the voltage of said generator by connecting two field windings of the generator across the generator armature so as to act in opposition. 13. In combination; a work motor; a generator for supplying current to said work motor, said generator having at least two field windings; means for causing said generator to generate voltage for application to said motor comprising means for connecting one field winding across the generator armature; and means for decreasing the generator voltage comprising means for connecting the other field winding across the generator armature in opposition to said one field winding. 14. In combination; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a shunt field winding and a demagnetizing field winding; means for connecting said shunt field winding across the generator armature to cause the generator to apply voltage to said motor for full-speed operation; and means for connecting said demagnetizing field winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage, thereby slowing down the motor. 15. In combination; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having two field windings; means for connecting one of said windings across the generator armature to cause the generator to apply voltage to said motor for full speed operation; and means for connecting the other field winding across the generator armature so as to oppose said one winding to effect a gradual decrease in the value of the generator voltage, thereby slowing down the motor. said last named means comprising means for limiting the current supplied

voltage, thereby slowing down the motor; said last named means comprising means for limiting the current supplied to said demagnetizing Held winding during the first part of said slow down. - 16. In combination; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a shunt Held winding and a demagnetizing Held winding; means connecting said shunt Held winding across the generator armature to cause the generator to apply voltage to said motor for full speed operation; and means for slowing down the motor to a slow speed, said means comprising means for connecting said demagnetizing Held winding across the generator armature. While maintaining the connection of said shunt Held winding across the generator armature, with the direction of current flow through the demagnetizing Held winding such that it acts in opposition to said shunt held winding to effect a gradual decrease in the value of the generator voltage. 17. In combination; a direct current work motor; a direct current generator for supplying current to said work motor, said generator having a direction field winding, a shunt field winding and a demagnetizing Held winding; means for connecting said shunt Held winding across the generator armature to cause the generator to apply voltage to said motor for full speed operation; means for connecting said demagnetizing Held winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage, thereby slowing down the motor; a source of direct current; and means for disconnecting said shunt and demagnetizing Held windings from across the generator armature and for causing generator excitation for slow speed operation of said motor to be provided by said direction Held winding connected to said source, 18. In combination; a source of direct current; a direct current work motor; and a direct current generator for supplying power to said work motor, said generator having a separately excited held winding for connection to said source to establish the polarity of the generator and start the motor and for providing a low voltage for the initial slow speed of the motor during a slow down operation, a shunt held winding for connection across the generator armature when the polarity has been definitely established to cause the generator to build up as a self-excited generator to full voltage to bring the motor up to full speed, and a demagnetizing Held winding adapted for connection across the generator armature while maintaining the connection of the shunt field winding across the generator armature to act in opposition to the shunt field winding so as to gradually decrease the generator voltage to reduce the speed of the motor to a slow speed. 19. In combination; a source of direct current supply; a direct current work motor; a direct current generator for supplying current to said motor, said generator having a direction held winding, a shunt field winding and a demagnetizing field winding; means for connecting said direction Held winding to said source to establish the polarity of the generator and start the motor; means for connecting said shunt held winding across the armature of said generator to cause said generator to build up its voltage to full value to bring the motor up to full speed; means for connecting said demagnetizing held winding across the generator armature so as to oppose said shunt field winding to decrease the generator voltage to slow down the motor; and means for disconnecting said shunt and demagnetizing field windings from across the generator armature, said direction Held winding being maintained connected to said source so that upon such disconnection it provides excitation for said generator for operating said motor at slow speed. 20. In combination; a source of direct current supply; a direct current work motor; a direct current generator for supplying current to said motor, said generator having a direction held winding. A shunt held winding and a demagnetizing field winding; means for connecting said direction Held winding to said source to establish the polarity of the generator and start the motor; means for connecting said shunt Held winding across the armature of said generator to cause said generator to build up its voltage to full value to bring the motor up to full speed; means for connecting said demagnetizing Held winding across the generator armature so as to oppose said shunt Held winding to decrease the generator voltage to slow down the motor; means for disconnecting said shunt and demagnetizing field windings from across the generator armature and for causing generator excitation for generating voltage for slow speed operation of the motor to be obtained from said separately excited Held winding connected to said source; and means for bringing the car to a stop. said last named means comprising means for disconnecting said separately excited field winding from said source and for reconnecting said demagnetizing held Winding across the generator armature. 21. In a control system for an elevator car: a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor. said generator having a separately excited Held winding. a shunt field winding and a demagnetizing held winding; means for connecting said separately excited held winding to said source to establish the polarity of said generator and start the car; means for connecting said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the car up to full speed; and means for connecting said demagnetizing Held winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage to slow down the car. 22. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited Held winding. a shunt held winding and a demagnetizing field winding; means for connecting said separately excited field winding to said source to cause generation of a voltage to start the car; means for connecting said shunt Held winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the car up to full speed; means for connecting said demagnetizing Held winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage to slow down the car; and means responsive to load on the work motor for increasing the excitation of said shunt held winding and for causing a corresponding increase in the effect of said demagnetizing field winding. 23. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor. said generator having a separately excited Held winding, a shunt field winding, and a demagnetizing field winding; means for connecting said separately excited held winding to said source to cause generation of a voltage to start the car; means for connecting said shunt held winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the car up to full speed; means for connecting said demagnetizing Held winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage to slow down the car; means for disconnecting said shunt and demagnetizing held windings from across the generator armature when the generator voltage decreases to a low value and for causing generator excitation for slow speed operation of the car to be provided by said separately excited Held winding connected to said source; and means for causing the voltage applied to said separately excited Held winding by said source to be greater for starting the car than for slow speed operation. 24. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited Held winding. a shunt Held winding and a demagnetizing Held winding; means for connecting said separately excited field winding to said source to cause generation of a voltage to start the car; means for connecting said shunt held winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the car up to full speed; means for connecting said demagnetizing field winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage to slow down the car; means responsive to load on the work motor for increasing the excitation of said shunt held winding and for causing a corresponding increase in the effect of said demagnetizing Held winding; and means for disconnecting said shunt and demagnetizing held windings from across the generator armature when the generator voltage decreases to a low value and for causing generator excitation for slow speed operation of the car to be provided by said separately excited held winding connected to said source. 25. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a series Held winding, a separately excited Held winding, a shunt Held winding and a demagnetizing field winding; means for connecting said separately excited held winding to said source to establish the polarity of the generator and to start the car; means dependent upon the polarity of the generator voltage being definitely established for rendering said series Held winding effective and for connecting said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the car up to full speed; means for connecting said demagnetizing Held winding across the generator armature so as to oppose said shunt held winding to effect a gradual decrease in the value of the generator voltage to slow down the car; means responsive to current supplied to the work motor during starting for increasing the excitation of said shunt Held winding and for causing a corresponding increase in the effect of said demagnetizing held winding; means for rendering said series field winding ineffective during said slow down when said current responsive means has not been operated; means for disconnecting said shunt and demagnetizing held windings from across the generator armature when the generator voltage decreases to a low value and for causing generator excitation for slow speed operation of the car to be provided by said separately excited field winding

connected to said source; and means for rendering said series field winding again effective for said slow speed operation of the car. 26. In combination; a source of direct current supply; a direct current work motor; a direct current generator for supplying current to said motor, said generator having a separately excited field winding, a shunt field winding and a demagnetizing field winding; means for connecting said separately excited field winding to said source to cause generation of a voltage to start the motor; means for connecting said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the motor up to full speed; means for connecting said demagnetizing field winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage to slow down the motor, said shunt and demagnetizing field windings being of approximately the same strength; and means for disconnecting said shunt and demagnetizing field windings from across the generator armature, said separately excited field winding being connected to said source at the time such disconnection occurs to provide excitation for said generator for operating said motor at slow speed. ~ 27. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding, a shunt field winding and a demagnetizing field winding; means for connecting said separately excited field winding to said source to cause generation of a voltage to start the car; means for connecting said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value as a self-excited generator to bring the car up to full speed; means for connecting said demagnetizing field winding across the generator armature so as to oppose said shunt field winding to effect a gradual decrease in the value of the generator voltage to slow down the car; and means for disconnecting said shunt and demagnetizing field windings from across the generator armature to further decrease the generator voltage for a further reduction in speed of the car, said separately excited field winding being connected to said source at the time such disconnection occurs to provide excitation for said generator, the magnetizing force due to said shunt field winding being slightly greater than that due to the demagnetizing field winding at the time they are disconnected so that upon their disconnection a reduction in generator excitation takes place. 28. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding for connection to said source, a shunt field winding for connection across the generator armature, and a demagnetizing field winding also for connection across the generator so as to oppose said shunt field winding; means for connecting said separately excited field winding to said source for current supply therefrom in one direction to cause generation of voltage of a polarity to start the car in the up direction; means for connecting said separately excited field winding to said source for current supply therefrom in the opposite direction to cause generation of voltage of a polarity to start the car in the down direction; means operable when the generator voltage of the polarity determined by said separately excited field winding has attained a certain value to connect said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value, thereby bringing the car up to full speed; and means for slowing down the car, said last named means comprising means for connecting said demagnetizing field winding across the generator armature, while maintaining the connection of said shunt field winding across the generator armature, with the direction of current flow through the demagnetizing field winding such that it acts in opposition to said shunt field winding to effect a gradual decrease in the value of the generator voltage to bring the car down to a slow speed and means for disconnecting said shunt and demagnetizing field windings from across the generator armature and for causing generator excitation for slow speed operation of the car to be provided by said separately excited field winding connected to said source. 29. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding for connection to said source, a shunt field winding for connection across the generator armature, and a demagnetizing field winding also for connection across the generator armature; means for connecting said separately excited field winding to said source for current supply therefrom in one direction to cause generation of voltage of a polarity to start the car in the up direction; means for connecting said separately excited field winding to said source for current supply therefrom in the opposite direction to cause generation of voltage of a polarity to start the car in the down direction; means operable when the generator voltage of the polarity determined by said separately excited field winding has attained a certain value to connect said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value, thereby bringing the car up to full speed; means for slowing down the car, said last named means comprising means for connecting said demagnetizing field winding across the generator armature, while maintaining the connection of said shunt field winding across the generator armature, with the direction of current flow through the demagnetizing field winding such that it acts in opposition to said shunt field winding to effect a gradual decrease in the value of the generator voltage to bring the car down to a slow speed and means for disconnecting said shunt and demagnetizing field windings from across the generator armature and for causing generator excitation for slow speed operation of the car to be provided by said separately excited field winding connected to said source; resistance in circuit with said shunt field winding; resistance in circuit with said shunt field winding; resistance in circuit with said demagnetizing field winding; means responsive to the load on the work motor during starting of the car for short-circuiting both of said resistances; and means for maintaining said resistances short-circuited until said shunt and demagnetizing field windings are disconnected from across the generator armature. 30. In a control system for an elevator car; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a shunt field winding and a demagnetizing field winding; means connecting said shunt field winding across the generator armature to cause the generator to apply voltage to said motor for full speed operation of the car; and means for slowing down the car to a slow speed, said means comprising means operable when a normal stop is being made to connect said demagnetizing field winding across the generator armature while maintaining the connection of said shunt field winding across the generator armature, with the direction of current flow through the demagnetizing field winding such that it acts in opposition to said shunt field winding to effect a gradual decrease in the value of the generator voltage and means operable when an abnormal stop is being made to connect said demagnetizing field winding across the generator armature with the direction of current flow therethrough such that it acts to oppose the flux of the generator field and to disconnect said shunt field winding from across the generator armature and establish a discharge circuit for said shunt; field winding so as to decrease the rate at which the generator voltage decreases. 31. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding, a shunt field winding and a demagnetizing field winding; means for connecting said separately excited field winding to said source to cause generation of voltage to start the car; means for connecting said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value, thereby bringing the car up to full speed; and means actuated in accordance with car movement operable upon arrival of the car at a predetermined distance from a landing at which a stop is to be made for connecting said demagnetizing field winding across the generator armature so as to act in opposition to said shunt field winding to slow down the car. 32. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding, a shunt field winding and a demagnetizing field winding; means for connecting said separately excited field winding to said source to cause generation of voltage to start the car; means for connecting said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value, thereby bringing the car up to full speed; and means actuated in accordance with car movement operable upon arrival of the car at a predetermined distance from a landing at which a stop is to be made for connecting said demagnetizing field winding across the generator armature so as to act in opposition to said shunt field winding to slow down the car and operable upon arrival of the car at a point still closer to the landing for disconnecting said shunt and demagnetizing field windings and for causing generator excitation for slow speed operation of the car to be provided by said separately excited field winding connected to said source. 33. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited field winding, a shunt field winding and a demagnetizing field winding; means for connecting said separately excited field winding to said source for current supply therefrom to cause generation of voltage of a polarity to start the car in either direction; means operable when the generator voltage of the polarity determined by said separately excited field winding has attained a certain value to connect said shunt field winding across the armature of said generator to cause said generator gradually to build up its voltage to full value, thereby bringing the car up to full speed; means operable automatically upon arrival of the car at a predetermined distance from a landing at which a

stop is to be made for initiating slow down of the car, said means comprising means for connecting said demagnetizing Held winding across the generator armature while maintaining the connection of said shunt Held winding 'across the generator armature with the direction of current flow through the demagnetizing Held winding such that it acts in opposition to said shunt Held winding to effect a gradual decrease in the value of generator voltage: and means operable automatically upon arrival of the car at a point still closer to the landing for disconnecting said shunt and demagnetizing Held windings and for causing generator excitation for slow speed operation of the car to be provided by said separately excited Held winding connected to said source. 34. In a control system for an elevator car; a source of direct current supply; a direct current motor for raising and lowering said car; a direct current generator for supplying current to said motor, said generator having a separately excited Held winding and a shunt Held winding; means for connecting said separately excited Held winding to said source to cause generation of a voltage to start the car; means for connecting said shunt Held winding across the armature of said generator to cause said generator to build up to full value a voltage of a polarity determined by said separately excited Held Winding to bring the car up to full speed; means for decreasing the generator voltage to slow down the car preparatory to bringing it to a stop at a landing; and means for bringing the car to a level with the landing at which a stop is being made, regardless of whether the car underruns or overruns the landing, with generator excitation provided by said separately excited Held winding connected to said source

Probable Assignee: OTIS ELEVATOR CO

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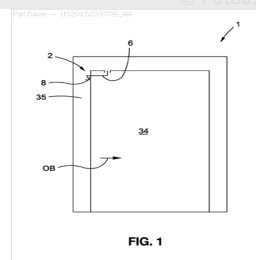
44) Family number: 56145030 (US2015239709A)

DEVICE FOR CHECKING OR ADJUSTING AN ELEVATOR DOOR LOCK

Abstract: Source: US2015239709A A device and a method for checking or adjusting a depth of engagement of a locked elevator door lock, wherein the door lock has a catch engaged with a stop, can be fixed to the catch and have a region for supporting the stop. Alternatively, the device can be fixed to the stop and have a region for supporting the catch. The device can be fixed to the catch or to the stop such that a defined depth of engagement is formed when the stop or the catch is resting on the device support region.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20140403



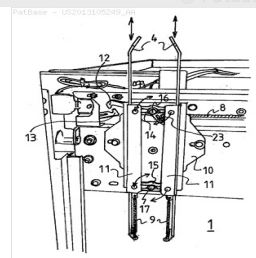
45) Family number: 47782188 (US2013105249A)

LIFT SHAFT DOOR UNLOCKING MECHANISM

Abstract: Source: US2013105249A An elevator shaft door unlocking mechanism has expander skates on the door drive to unlock the elevator shaft door when entering the region close to an access level. The skates are flexible with respect to the elevator car such that, in the event of any touching of the elevator shaft head, they are flexible over an adjustable distance, and, after the elevator car moves away from the elevator shaft head, they assume their original position. The skates are displaceably mounted on the expander skate construction along respective guides, are held in the uppermost displacement position by tension springs, and are displaced downwardly against the force of these springs through application of force to the upper ends from above resulting from a collision with the elevator shaft head. After the upper ends have been released, they are returned to the uppermost displacement position again by the springs.

Probable Assignee: INVENTIO AG

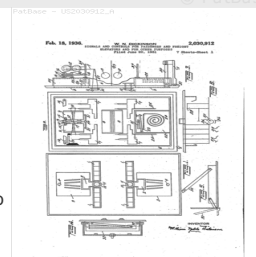
Earliest Publication Date: 20101125



46) Family number: 20876686 (US2030912A)

SIGNALS AND CONTROLS FOR PASSENGER AND FREIGHT ELEVATORS AND FOR OTHER PURPOSES

Abstract: Source: US2030912A I claim: 'V 1. In an elevator signaling system including in combination, centralized push buttons and cu' designating signal means at each intermediate floor landing, said car designating signal means 'comprising an up and down signal lamp, windows situated at each side of the push buttons corresponding with the elevators at each side of said push buttons and adapted to be illuminated by said signal lamp, a light baffle normally maintained in a position to block out light from mid windows, an electro-magnetically operated pawl and ratchet mechanism to shift said baffle a certain distance to illuminate all of the windows from the push button out to and including the particular window which designates the door to be served by an approaching elevator, and a trolley to control the electrical impulses transmitted to said electro-magnet. said controller comprising a traveling solenoid having a movement corresponding to the movement of an elevator, an electrical connection between said solenoid and the push button, a mechanism co-operating with the plunger in said solenoid to actuate a contact-wiping member and contacts 601' responding in number to an approaching car, over which said wiping member passes to complete an electrical circuit with the said electromagnet and thereby send the required number of electrical impulses through same. 2. A controller for operating floor signals in an elevator signal control system comprising in combination a vertically movable solenoid member corresponding with each elevator, mechanism for moving same at the same relative speed as the moving elevators, guides to support said solenoid member, a pair of horizontally disposed cross-arms corresponding with each door pivotally mounted in end supports, electrical contacts on each cross-arm corresponding with each elevator, a push button on each floor landing, electrically connected with its corresponding crossarm to sensitize same, a contact wiper to energize said solenoid upon engagement with said cross-arm and means actuated by said solenoid, to rock said cross-arm and move its contacts out of the path of other contact wipers. and means for de-energizing the solenoid by the rocking movement of the cross-arm, a plunger within said solenoid which is moved upward abruptly when the solenoid is energized and means for retarding its downward movement. a contact arm actuated by the downward movement of the solenoid plunger and contacts engageable thereby electrically connected with the door signals. 3. In an elevator signaling system including in combination. push button-SQ means for illuminating same when pressed, signals to designate which door will next be served by an approaching elevator, said signals being arranged in close proximity to said push buttons, lighting means behind said signals and a baffle to normally exclude the light from same, an electro-magnetically operated mechanism for shifting said baffle to illuminate the signal which designates the door at which an approaching car will stop, and a controller mechanism corresponding with a serving elevator for controlling the electro-magnetically operated mechanism. 4. In an elevator signaling system including in combination up and down car signaling push buttons at each floor landing, car designating signals arranged in close proximity to said push buttons, shutter members to normally conceal the car designating signals, tapered portions on said shutter members, an impulse generator associated with each elevator car and movable by the movement of its associated car, means co-operating with said landing push buttons to actuate the impulse generator corresponding with an approaching elevator and thereby shift its associated shutter member, whereby signals will be exposed in an order starting with the one nearest the push button and will continue in a step-by-step relation until the particular signal is reached which designates the car which will next serve that landing. 5. In an elevator signaling system including in combination centralized landing push buttons and car designating signal means at each intermediate door landing,



said car designating signal means comprising an up and down signal lamp, windows situated at each side of the push buttons corresponding with the elevators at each side of said push buttons, bames normally maintained in a position to block out said windows, an impulse generator associated with each elevator car and movable by the movement of its associated car, means co-operating with said landing push buttons to actuate the impulse generator corresponding with an approaching elevator and thereby shift its associated baffle to expose the windows starting from one push button, out to and including the particular window which designates the door to be served by the approaching elevator. _ _ It; _ 6. In an elevator signaling system including in combination centralized push buttons and car designating signal means at each intermediate door landing, said car designating signal means comprising an up and down signal lamp, windows situated at each side of the push buttons corresponding with the elevators at each side of said push buttons and adapted to be illumined by said signal lamps, light battles normally maintained in 9. position to block out light from said windows, an impulse generator associated with each elevator car and movable by the movement of its associated car, means co-operating with said landing _push buttons to actuate the impulse generator corresponding with an approaching elevator and thereby shift its associated baffle, whereby signals will be exposed in an order starting with the one nearest the push button and will continue. until the particular window is reached which designates the car which will next serve that landing. 7. In a signal system for a multiplicity of elevator cars, impulse actuated signals for each door including an electro-magnetically actuated shutter adapted to be actuated intermittently to expose a signal upon each movement thereof. an impulse generator associated with each car and movable by the movement of its associated car including an electro-magnetically actuated member adapted to wipe across a plurality of contacts to complete an electrical circuit to the shutter operating electro-magnet and ss thereby provide an electrical impulse upon engaging each contact, and means for actuating an impulse generator associated with a car which will next serve a door from which a service call has been made to thereby operate the door signals. 8. In a signal control system for a multiplicity of elevator cars, call registering members and signals at each landing, a controller having selector contact members associated with the call registering means and adapted to be sensitized by an associated call registering member, means associated with each car and movable thereby in the path of and in contact relation with said selector contact members and a reacting electromagnetically operated device including an intermittently operated circuit closing means connecting said landing signals with said latter means to effect the operation of the door signals after engagement is made with a sensitized selector contact member, and means to isolate the sensitized selector member after contact is made therewith. , 9. In a signal control system for a multiplicity of elevators, the combination with door signals and push buttons at each door landing of a controller including cross-bars grouped in pairs and representing the up and down direction of car travel of a plurality of cars and adapted to be sensitized by their related push buttons, electromagnetically operated mechanism associated with each car and movable by the movement of its associated car, means movable with said electromagnetically operated mechanism adapted to move over each of said cross-bars and energize said electro-magnetically operated mechanism when engagement is made with a sensitized crossbar, and means actuated by said energized electro-magnetically operated mechanism to control said signals. 10. In a signal control system for a multiplicity of elevators, the combination with door signals and push buttons at each door landing, of a controller including horizontally disposed crossarms co-operating with each push button and adapted to be sensitized by the pressing of a push button, a carrier movable by the movement of the car, contact members on said carrier adapted to contact with each of said cross-arms, electro-magnetically controlled mechanism associated with each elevator car and located on said carrier which is adapted to be actuated when a carrier contact member contacts with a sensitized cross-arm. and means co-operating with said electro-magnetically controlled mechanism to operate the door signals. 11. In a signal control system for a multiplicity of elevators, the combination with door signals and push buttons at each door landing, of a controller including horizontally disposed cross-arms to-operating with each push button and adapted to be sensitized thereby. a carrier movable by the movement of the car, vertically movable contact members on said carriers adapted to contact with each of said cross-arms, impulse generating mechanism supported by said carrier including a solenoid and plunger member adapted to be energized when a vertically movable contact member engages a sensitized cross-arm, means to de-energize said solenoid, and means operable on the return stroke of the solenoid plunger to energize a plurality of door signal operating contacts. 12. In a signal control system for a plurality of elevators, the combination with door signals and push buttons at each door landing, of a controller including horizontally disposed cross-arms electrically connected with said push buttons, solenoid operated mechanism associated with each car, a carrier for said mechanism geared to the movement of its associated car, vertically movable contact members on said carrier movable over the horizontal cross-bars and adapted to complete a circuit with the solenoid when contact is made with any cross-arms which have 1 6 2,080,912 It; been sensitized by the pressing of associated push buttons, means actuated by the upward thrust of the solenoid plunger to move the sensitized cross-arm out of the path of other vertically movable contact members, and means actuated by the downward movement of the plunger to actuate the door signals. 13. In a door signal system for a multiplicity of elevator cars, impulse actuated signals at each door, contacting members for each door common to said elevator cars, push button actuated means for sensitizing any one of said common contacting members, an impulse generator associated with each car and movable by the movement of its associated car, means associated with each impulse generator adapted to wipe over said common contacting members and complete a circuit and energize the impulse generator when said wiper engages the sensitized contacting member, means to move said sensitized contacting member out of the path or other wiping means after said impulse generator is energized, and means for completing a circuit between the impulse generator and the door signals. 14. In a system for controlling car signals in a multiplicity of elevator cars, contacting members for each common to said elevator cars, push button actuated means for sensitizing any one of said common contacting members, a reacting magnet associated with each car and movable by the movement of its associated car, means associated with each magnet to wipe over said common contacting members and complete a circuit to energize said reacting magnet when said wiping means engages the sensitized contacting member, means to move said sensitized contacting member out of the path of other wiping means when said magnet is energized, signals within each car, means actuated by the energized magnet to prepare a car signal circuit, and means movable with said reacting magnet to complete the car signal circuit. . ~ 15. In a signal and control system for a multiplicity of elevators, including up and down signal lamps at each landing, push buttons at each landing, a holding magnet for each push button, windows adjacent to said push buttons, shutters associated with said windows, polarizing magnets to actuate said shutters, a controller including a contact arm associated with each push button, a movable member associated with each elevator and movable by the movement of its associated elevator, a contact wiper and a solenoid on said movable member, a resistance, on electric circuit completed through said holding magnet and resistance upon the pressing of a push button and adapted to sensitize said contact arm, another electric circuit completed to said solenoid by the wiping, action of said contact wiper over said sensitized contact arm, a plunger actuated by said solenoid, means co-operating with said plunger on its initial stroke to move said contact arm to de-energize said solenoid and set a circuit relation with a polarized magnet, and means co-operating with said plunger on its return stroke to complete the circuit to the polarized magnet and thereby operate the shutters and signals, _ V - , ` 16; In a signal system for a multiplicity of elevator cars, door signals including windows located to the right and left of push buttons at each landing, shutters to obstruct the passage of light there through, electro-magnetic means co-operating with each shutter, and an impulse generator associated with each car and adapted to move said shutter intermittently whereby a band of light is presented through the windows with the last illumined window designating the car which will next serve the landing. ss 17. In an elevator signaling system, one panel structure including up and down call registering push buttons, an electro-magnetically operated switch-closing means. said panel structure being arranged in one position with relation to a bank of elevators at a landing, means to energize said electro-magnetically operated switch when a car approaches a landing at which a call has been registered, another panel structure arranged at a position remote to the first named panel structure to designate another bank of elevators, and a remote position indicating signal within each panel, one of which signals is adapted to be illumined by the switch-closing means in the other panel, and when illumined will inform an intending passenger that the elevator which will next serve the landing will be had at that section where the other panel is located. 18. In an electrical controller, a multiplicity of movable members, a multiplicity of electrical contactors normally in the path of said movable members, means for sensitizing any of said electrical contactors, a contact wiper carried by each movable member and adapted to wipe across said contactors, a re-acting electro-magnet carried by each movable member and electrically connected with an associated contact wiper, whereby upon the engagement of a wiper with a sensitized contactor the electro-magnet becomes energized, means to move said sensitized contactor out of the path of all other contact wipers when said electro-magnet is energized. circuit controlling switch members, and means movable by the movement of said sensitized contactor to change the contact relation of said circuit controlling switch members, whereby said electro-

magnet is deenergized and the sensitized contactor is desensitized. 19. In an electrical controller, a multiplicity of movable members, a multiplicity of electrical contactors normally in the path of said movable members, means for sensitizing any of said electrical contactors, a contact wiper associated with each movable member and adapted to wipe across said contactors, a solenoid having a plunger movable therein and adapted to be energized when an associated contact wiper engages a sensitized contactor, means actuated by the movement of the solenoid plunger to move said sensitized contactor out of the path of other contact wipers, circuit controlling switch members co-operating with said sensitized contactor when moved to change the contact relation of said circuit controlling switch members and thereby deenergize said electro-magnet, a remote signal means having a plurality of contacts electrically connected therewith and a contact arm arranged to be moved into electrical contact relation with said signal contacts to operate said remote signal means on the return movement of the solenoid plunger. 20. In a control system for a multiplicity of elevators, the combination with floor signals and push buttons at each floor landing, of a controller including circuit controlling members representing the up and down directions of car travel with respect to each floor and adapted to be sensitized by their related push buttons when pressed, electro-magnetically operated means representing an associated car and its upward movement said car to maintain the same relative position with respect to the car, and circuit closing means movable with said electro-magnetically operated means and adapted to engage a sensitized circuit controlling member to thereby energize said electro-magnetically operated means, and a second circuit closing means operable by said magnetically operated means when energized to operate such door signals as are associated with the sensitized circuit controlling member. 21. In a signal control system for a multiplicity of elevator cars, the combination of door signals and call registering means for each floor landing, contacting members normally common to all elevator cars but individual with reference to the call register means, said contacting members being adapted to be sensitized by associated registering means, and a reacting electro-magnetically operated device associated with each car including one circuit closing means adapted to engage any sensitized contacting member to energize the electro-magnetically operated device, and a second circuit closing means operable by said electromagnetically operated device to thereby effect the operation of the floor signals associated with said sensitized contacting members. 22. In a signal control system for a multiplicity of elevators, the combination of door signals and push buttons at each door landing, a controller including a contacting member co-operating with each push button and adapted to be sensitized thereby when pressed, a contact wiper co-operating with each elevator car and movable by the movement of the car, and electro-magnetically controlled mechanism associated with each elevator car and energized when the contact wiper engages a sensitized contacting member; and a circuit closing member operable upon energization of the magnetically controlled mechanism which is adapted to establish and actuate signal operating circuits. 23. An electrical circuit controlling means for use with an elevator system, including in combination, call registering means at each landing, contacting members normally common to all elevator cars but individual with reference to the call register means, said contacting members having an electrical connection with the call registering means to sensitize same upon registering a call, a reacting electro-magnetically operated device associated with each car, means movable over each contact member to energize said device when engagement is made with any sensitized contacting member to thereby establish an electrical circuit, and other contacting members associated with the electro-magnetically operated device to close the established circuit. 24. In an electrical controller, a multiplicity of movable members having contact wipers thereon, a multiplicity of electrical contactors normally in the paths of said contact wipers, circuit closing means for sensitizing

Probable Assignee: NOBLE DICKINSON WILLIAM

Earliest Publication Date: 19360218

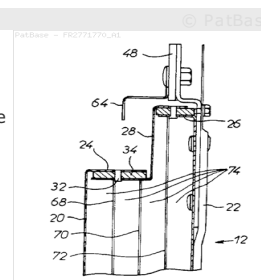
47) Family number: 14328197 (FR2771770A)

FIRE DOOR FOR LIFT

Abstract: Source: FR2771770A The fire door comprises a caisson shaped leaf (12) including a front panel (20) on the side where the fire may occur made of heat deformable material. A rear panel (22) on the opposite side is made from heat resistant material. Sections (28) connect the front and rear panels along their peripheral edges with interposed insulating bands (34) creating a sealed chamber between the panels. A retarding complex (68,70,72,74) filling the inside of the chamber slows the heat transmission speed from the front to the rear panel.

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19990604



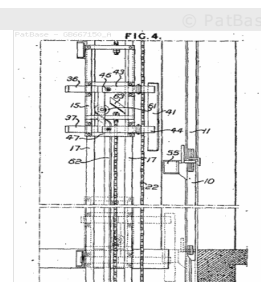
48) Family number: 19558940 (GB667150A)

IMPROVEMENTS IN OR RELATING TO A MECHANISM FOR OPERATING A SLIDABLE DOOR

Abstract: Source: GB667150A No. 31149/49. Class 78 (iii). [Also in Group XXV] The oppositely sliding leaves 10, 11 of a counterbalanced lift-shaft door are operated by means of a friction element 41 adapted to embrace a plate 55 fixed to the lower leaf, means being provided for projecting the friction element into engagement with the plate, reciprocating it to open and close the door and finally retracting it. The friction element, which is mounted on a frame 15 carried by the lift cage and is slidable along guide rails 17 by means of a motor-driven chain 22, comprises a pair of shoes, one of which is fixed to arms 36, 37 slidably mounted in the frame, while the other is fixed to arms 43, 44 pivotally mounted on brackets projecting from the arms 36, 37 and biased towards the latter by means of springs 46, 47. The arms 36, 37 carry a roller 61 which co-operates with a cam guide 62 to project the friction shoes into the path of the plate at the commencement of the downward travel of the frame, a limit switch halting the frame when the door is fully open. Subsequently, after the door has reached its fully open position, the frame continues its upward travel until the roller co-operates with a cam guide 63 to retract the friction shoes, the plate slipping between the latter during the final movement of the frame.

Probable Assignee: GUILBERT INC

Earliest Publication Date: 19520227



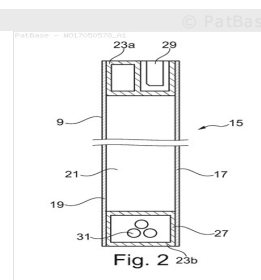
49) Family number: 65321055 (WO17050578A1)

PLANAR ELEVATOR CAR ELEMENT FOR AN ELEVATOR INSTALLATION

Abstract: The invention relates to a planar elevator car element (15) for an elevator installation, comprising a first cover layer (17), a second cover layer (19), and an intermediate layer (21). The intermediate layer (21) has a lesser density than the first cover layer (17). Furthermore, the planar elevator car element (15) has a frame profiled element (23a, 23b) along at least one of the edges of the planar car element, which frame profiled element is arranged between the first cover layer (17) and the second cover layer (19).

Probable Assignee: THYSSENKRUPP AG

Earliest Publication Date: 20170330

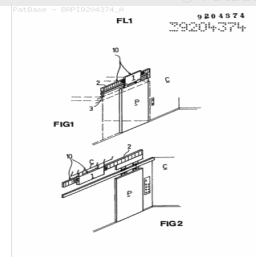


OPERADOR DE PORTA COM MOTOR CONTROLADO POR INVERSOR DOOR OPERATOR WITH MOTOR CONTROLLED BY INVERTER (MACHINE TRANSLATION)

Abstract: Source: BRPI9204374A [Source: Claim 1] 1- "Operador de porta com motor controlado por inversor", do tipo PWM constituído de um circuito de controle e de um circuito de potencia que 5 recebem de carnes ou sensores de posicao de porta e do armario de comando, os sinais para gerar um padrao de velocidade de abertura ou de fechamento da porta, sendo os sinais transferidos ao circuito de controle por meio de acopladores opticos e/ou outros; sendo ainda provido 10 um circuito gerador de sinais de disparo para um circuito de potencia que por sua vez geram frequencias variaveis, alimentando os enrolamentos do motor de inducao, caracterizado pelo fato do motor de inducao (10) ser do tipo linear composto de um indutor plano (1) e de um 15 induzido na forma de uma placa plana (2, 23) de material condutor eletrico, estando seletivamente instalados de forma fixa junto a porta (P) e/ou a cabine (C) do elevador de uma unica folha de porta (P); e instalados de forma fixa, respectivamente, em uma das portas (Pi e 20 | Pia) de elevadores providos de duas folhas de porta com abertura central. [Source: Claim 1] 1 - "door operator with motor controlled by inverter", consisting of t ipo PWM control circuit and power circuit that receive meat 5 or door position sensors and the control cabinet, the signals to generate a pattern of opening or closing speed of the door, being the signs transferred to the circuit of control through otical couplers and/or others; and provided 10 1 generator circuit clock signals to a power circuit which in turn generates variable frequencies, feeding the motor windings of inducement, characterized by the fact of inducement (10) be in linear type consisting of an inductor (1) and 1:15 induced in the form of a flat plate (2, 23) of electric conductive material, being selectively installed fixed along the door (P) and/or the cabin (C) a single lift door leaf (P); and installed in fixed form, respectively, in one of the ports (Ip and 20 | Sink) of elevators equipped with two sheets of door with central opening.

Probable Assignee: VILLARES IND

Earliest Publication Date: 19940510



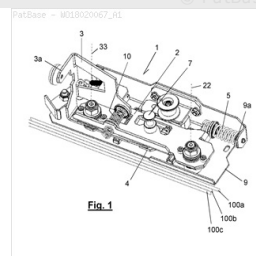
51) Family number: 68412916 (WO18020067A1)

DEVICE AND SYSTEM FOR RETAINING AN AUTOMATIC DOOR OF A LIFT CAR

Abstract: The retaining device, which can be operated in a coordinated manner using the operating means that provides the movement of a door leaf, comprises a rotational lever having a latch element that can adopt a retaining position and a further release position. The lever can be moved by an actuating arm which is applied by a spring in an operation direction, and on which an accessory is mounted that permits the pulling of said actuating arm, thereby loading the spring in order to keep same in a standby position in which the latch element is in a retaining position. The device can form part of a system in which a pulling element links the actuating arm to the actuator via the accessory, loading the spring with the door in a closed position and keeping the latch element in a retaining position.

Probable Assignee: GOMIS EGEA EDUARD

Earliest Publication Date: 20180129



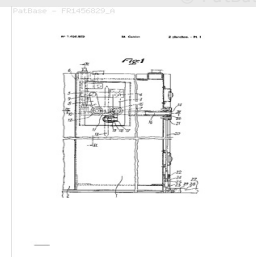
52) Family number: 21814958 (FR1456829A)

DISPOSITIF D'IMMOBILISATION D'UNE PORTE PALIERE D'ASCENSEUR AUTOMATIQUE IMMOBILIZER OF LANDING DOOR LIFT AUTOMATIC (MACHINE TRANSLATION)

Abstract: Source: FR1456829A (Claim 1) 1 Dispositif d'immobilisation d'une porte pa-liere- d'ascenseur automatique constitue par un pene de securite monte coulissant - dans des moyens de guidage suivant un axe perpendicu laire -a la tranche inferieure d'un des vantaux de ladite -porte,- debouchant sur ladite tranche au voisinage du talon du vantail, soumis a l'ac tion d'un moyen de - commande et destine a cooperer avec une gache menagee sur la tranche superieure du- rail de guidage inferieur du van tail. 20 Modes de realisation comportant fume au moins- des caracteristiques suivantes prises isole ment ou en combinaison a. Le moyen de commande du pene de securite est constitue, d'une part,-par un moyen elastique sollicitant ledit pene en position basse et, d'autre part, par une tringle solidaire, a l'une de ses extremités, d'une biellette articulee sur ledit pene et, a l'autre extremité, d'un levier muni d'un galet cooperant avec une came portee par la porte de la cabine de maniere telle que ladite came, repoussant le galet au passage de la cabine, entraine le levier en un mouvement de rotation qui, transmis par la tringle a la biellette, amene le pivotement de cette derniere vers le haut; b. La came portee par la porte de la cabine est constituee par la tranche de la piece verticale, generalement appelee drapeau, destinee a com. mander le deverrouillage de la porte palier et son entrainement par ladite porte de cabine.

Machine translation: (Claim 1) a device for immobilizing a door-border pa-automatic elevator is a sliding bolt mounted safety - in the guide means along an axis perpendicular LAIR-a the bottom of One of the doors of that door - that leading edge near the heel of the door, subject to the ac tion of a means of command and intended to cooperate with a keeper formed on the top of the rail- lower guide the van tail. 20 embodiments comprising at least smoke-taken of the following isolates ment or in combination a. The control means of the bolt is safety is, on the one hand, by an elastic means urging said bolt in the down position and, secondly, by a link of solidarity, has one of its ends, with a articulated on said rod pene and, at the other end, a lever with a roller cooperating with a cam carried by the door of the cabin in such a way that said cam, pushing the puck to the passage of the cabin, leads the lever in a rotation which, transmitted through the rod to the rod, move the pivot up this last b. The cam carried by the door of the cabin consists of the vertical portion of the piece, usually called flag com FOR. sent for unlocking the landing door and drive by that car door.

Earliest Publication Date: 19660708

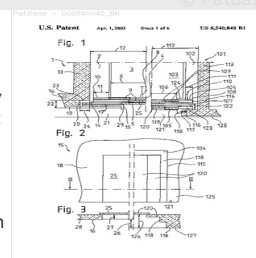


53) Family number: 13094908 (US6540048B)

ELEVATOR INSTALLATION WITH HOISTWAY DOORS

Abstract: Source: US6540048B An **elevator installation** with hoistway doors has door panels that can be laterally displaced beyond the width of the hoistway, and/or they can be at least partially displaced into the hoistway wall resulting in an **elevator installation** with improved utilization of building space, which also requires less effort to install. The door frame of the hoistway door assembly is transformed into a flat, wide hoistway wall module with integral hoistway doors such that building space hitherto required in the hoistway by the hoistway wall is reduced. The hoistway wall module is either inserted between the landing floors, or else several such hoistway wall modules are fitted together vertically and form a largely freestanding modular hoistway wall which forms between the **elevator installation** and the building an interface which is either self-supporting or supported individually on each floor.

Probable Assignee: INVENTIO AG



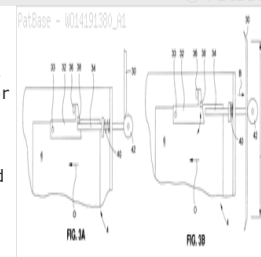
54) Family number: 57944710 (WO14191380A1)

ELEVATOR SHAFT WITH REDUCED SHAFT PIT OR REDUCED SHAFT TOP

Abstract: The invention relates to an elevator system (2) with a shaft door (4.1, 4.2, 4.3) arranged on a floor (8.1, 8.2, 8.3); an elevator car (10); a door latch (32) arranged on the shaft door (4.1, 4.2, 4.3) for locking the shaft door (4.1, 4.2, 4.3), wherein the door latch (32) can be brought from a locked position into an unlocked position in order to unlock the shaft door (4.1, 4.2, 4.3) from a shaft door (4.1, 4.2, 4.3) face facing the floor (8.1, 8.2, 8.3) using a key; a blocking element (34) which prevents the shaft door (4.1, 4.2, 4.3) from being opened in a blocking position of the blocking element; and an actuator (30) which acts on the blocking element, said actuator (30) being designed such that the blocking position of the blocking element (34) is released exclusively when the elevator car (10) is arranged within an emergency rescue zone paired with the shaft door (4.1, 4.2, 4.3).

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20141204



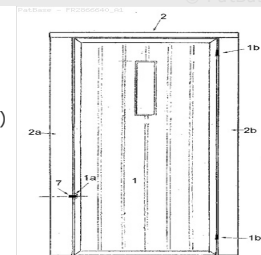
55) Family number: 32199204 (FR2866640B)

MECHANICAL LOCKING DEVICE FOR DOOR OF E.G. ELEVATOR, HAS CONTROL SYSTEM FOR ASSURING ACCURATE POSITIONING OF BOLT IN STRIKE PLATE OF DOOR IN ORDER TO PREVENT DISPLACEMENT OF PLATFORM IF DOOR IS NOT LOCKED CORRECTLY

Abstract: Source: FR2866640B The device is housed in an inner upright mechanism (2a) of a prehung door unit (2) to activate or deactivate locking of a door (1) by intrinsic mechanical energy. The device has a control system assures accurate positioning of a bolt (7) in a strike plate (1a) of the door in order to prevent displacement of a platform if the door is not locked correctly. - The locking of the door is active when the platform is in an intermediate phase and becomes mechanically inactive by physical presence of the platform stopped in front of the door.

Probable Assignee: DEBOFFLES JEAN YVES

Earliest Publication Date: 20050826



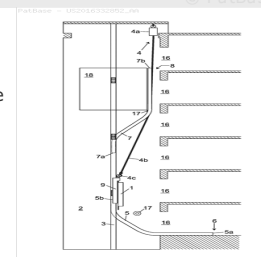
56) Family number: 63985782 (US2016332852A)

ARRANGEMENT AND A METHOD FOR TRANSPORTING MATERIAL IN AN ELEVATOR SHAFT

Abstract: Source: US2016332852A A material transport arrangement for transporting transportable material in an elevator shaft and a material transport method are disclosed. The arrangement includes a pair of elevator car guide rails and a hoisting system mounted in the elevator shaft above the height to which transportable material is to be transported, for providing a pulling force to move the transportable material. The arrangement includes a pair of lower auxiliary guide rails for guiding the movement of transportable material between a loading position and the pair of elevator car guide rails, a pair of upper auxiliary guide rails at a height above the pair of lower auxiliary guide rails for guiding the movement of transportable material between the pair of elevator car guide rails and an unloading position, and a guide configured to be moveable along the pair of lower auxiliary guide rails, the pair of elevator car guide rails and the pair of upper auxiliary guide rails, and being removably attachable to the hoisting system and to the transportable material to move the transportable material.

Probable Assignee: KONE CORP

Earliest Publication Date: 20161116



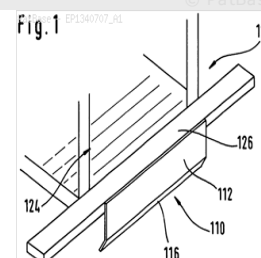
57) Family number: 28937227 (EP1340707B1)

PREVENTION OF THE OPENING OF AN **ELEVATOR DOOR**

Abstract: Source: EP1340707B1 The elevator system has an elevator cage (120) movable between at least two floors in an elevator shaft and an arrangement for preventing and/or restricting the ability to open a shaft door and/or an **elevator cage door** depending on the relative height of an elevator cage floor above a relevant building floor. The prevention arrangement can be adjusted depending on the length of an apron (110) associated with the elevator cage.

Probable Assignee: THYSSENKRUPP AUFZUGSWERKE GMBH

Earliest Publication Date: 20030903



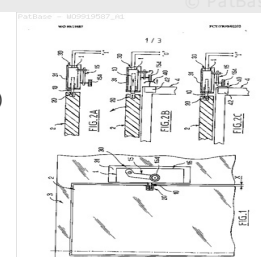
58) Family number: 13338468 (WO9919587A1)

FAIL SAFE LOCK, IN PARTICULAR FOR ELEVATING DEVICE LANDING DOOR

Abstract: The invention concerns a fail safe lock (1), in particular for an elevating device landing door (2), comprising within a housing (16): a bolt (10) provided with a core (200) capable of co-operating with a striker (201) integral with the door leaf; a mechanism for moving said bolt (10) towards an extreme locking position wherein it is engaged in a locking part (20) integral with the door (2), said moving mechanism being controlled by the core (200); an operating arm for controlling the withdrawal of the bolt (10) towards an extreme withdrawn position; and a mechanism for limiting the torque exerted on a connecting rod associated with said operating arm. The lock (1) further comprises a mechanism (7, 14) for adjusting the bolt (10) engaging position.

Probable Assignee: PRUDHOMME DOMINIQUE

Earliest Publication Date: 19990416



59) Family number: 22797693 (US3051267A)

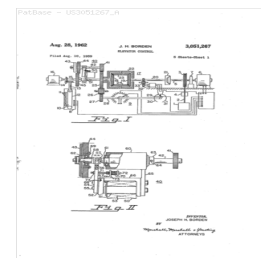
ELEVATOR CONTROL

PatBase - WO1990070101

Abstract: Source: US3051267A (Claim 1) 1. In an elevator control, in combination; an elevator car serving a plurality of floors; an elevator motor adapted to drive said car; motor control means for accelerating said car; means for detecting the normal uniform velocity of said car; means for detecting a predetermined ratio of the distance traveled by said car from its last stop to the total distance to be traveled; said motor control means being operative to interrupt said acceleration in response to the detection of said predetermined ratio or the detection of normal uniform velocity, whichever occurs first.

Probable Assignee: TOLEDO SCALE CORP

Earliest Publication Date: 19620828



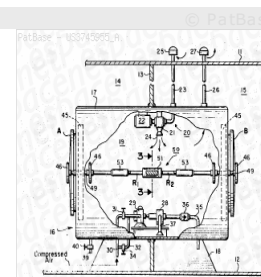
60) Family number: 7387000 (US3745955A)

TANK VESSEL AIR LOCK

Abstract: Source: US3745955A An air lock on a tank ship is arranged in the bulkhead between the engine and pump rooms to provide access to and from the pump room, the air lock being provided with doors on each end. Each door is openable only when the other door is closed there being an interconnection between the doors which prevents one being opened while the other is open, respectively and both doors being openable sequentially from within the air lock which forms a ventilated chamber.

Probable Assignee: EXXON MOBIL CORP

Earliest Publication Date: 19730717



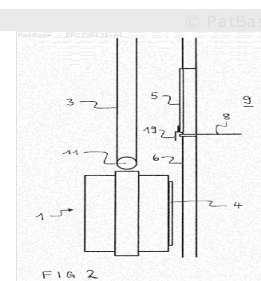
61) Family number: 56585452 (EP2738131A1)

AUFZUGSANLAGE LIFT ASSEMBLY

Abstract: Source: EP2738131A1 Eine Aufzugsanlage umfasst eine Kabine (1) und ein Tragmittel (3), wobei die Kabine (1) durch das Tragmittel (3) zumindest teilweise getragen und angetrieben ist. Zudem umfasst die Aufzugsanlage ein Schutzelement (19), welches an einem Tuerblatt einer Schachttuer (5) angeordnet ist und das Tuerblatt nach unten ueberragt. Dadurch ist unter der Schachttuer (5) hindurch in den Schacht eindringendes Loeschwasser (14) durch das Schutzelement (19) daran gehindert, einen Abschnitt des Tragmittels (3) zu benetzen. The system has a cabin (1) that is partially carried and driven by a belt-like supporting unit (3), and a protection element (19) arranged at a door blade of a manhole door (5). The blade projects outwardly such that fire fighting water enters into a shaft under the door, where the protection element inhibits moistening of a section of the supporting unit by the water. The protection element has a stepped cross-section, and made from flexible manner. The supporting unit has a casing and a tie beam arranged parallel to the casing, where the cabin is suspended at a supporting roller (11).

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20140604



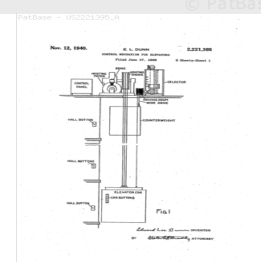
62) Family number: 21355304 (US2221395A)

CONTROL MECHANISM FOR ELEVATORS

Abstract: Source: US2221395A 1. What is claimed is: L Control mechanism for an elevator car serving a plurality of landings comprising: switching mechanism; rotatable means; a, plurality of lugs, one for each of said landings, mounted on said rotatable means in spaced relation in accordance with the distance between the landings for which the lugs are provided; movable means actuated in accordance with car movement; a member carried by said movable means for cooperation with said lugs; electromagnetically controlled means for effecting rotative movement of said rotatable means to move said lugs into and out of the path of movement of said member, said member upon extension of said lugs into its path of movement acting to engage the next lug; and means operable by the coaction of said member with said lug as movement of said movable means continues for actuating said switching mechanism.

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19401112



63) Family number: 20532846 (FR1223660A)

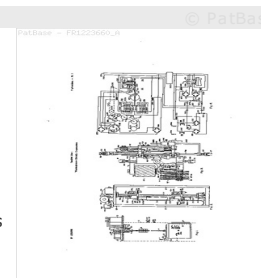
DISPOSITIF DE COMMANDE D'ASCENSEUR ELEVATOR CONTROL DEVICE (MACHINE TRANSLATION)

Abstract: Source: FR1223660A (Claim 1) Bien que l'un ait decrit et represente certaines formes particulieres de realisation, celles-ci aux-! quelles on peut apporter de nombreuses modifications qui restent dans la portee de l'invention,! n'out ete citees qu'a titre d'exemples sans caractere j restrictif.

Machine translation: (Claim 1) Although one has described and represents some particular embodiments, these in-! what we can make many changes that remain in the scope of the invention! out has not been cited as examples without restrictive character j.

Probable Assignee: WESTINGHOUSE ELECTRIC CORP

Earliest Publication Date: 19600620



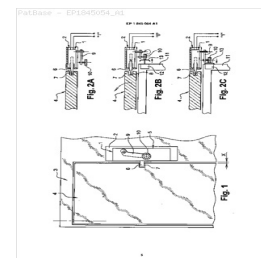
64) Family number: 40461369 (EP1845054B1)

DEVICE FOR LOCKING A POSITIVE SAFETY LOCK, IN PARTICULAR FOR AN ELEVATOR DOOR, AND LOCK COMPRISING SAME

Abstract: The lock (1) has an adjustable bolt (6) mounted slidingly in a case (5), and cooperating with a locking part. A rod (15) is integrated to a rotating axle (16) that traverses the case, and is connected with the bolt for displacing the bolt between locking and unlocking positions with respect to a landing door. A locking unit (21) temporarily locks a head (17) of the rod by direct action on the head for displacing the bolt to the locking position.

Probable Assignee: PRUDHOMME SOC PAR ACTIONS SIMP

Earliest Publication Date: 20071012



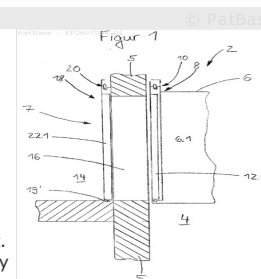
65) Family number: 54138111 (EP2607284A1)

AUFZUGSANLAGE MIT EINEM TUERSYSTEM LIFT ASSEMBLY WITH A DOOR SYSTEM

Abstract: Source: EP2607284A1 Eine Aufzugsanlage (2) zur Installation in einem Gebaeude, in dem ein Aufzugsschachttinnenraum (4) durch mindestens eine Tueroeffnung (16) aufweisende Gebaeudewand (5) begrenzt ist, wobei ein Aufzugskabineninnenraum (6.1) durch die Tueroeffnung (16) betretbar ist, weist im eingebauten Zustand einen parallel zur Gebaeudewand (5) verschiebbaren Schachttuerfluegel (22.1), wobei die Tueroeffnung (16) zumindest teilweise durch den Schachttuerfluegel (22.1) verschliessbar ist, und einen Kabinentuerfluegel (12.1), der mit dem Schachttuerfluegel (22.1) derart koppelbar ist, dass der Kabinentuerfluegel (12.1) parallel zur Gebaeudewand (5) mit dem Schachttuerfluegel (22.1) verschiebbar ist, auf, wobei der Schachttuerfluegel (22.1) ausserhalb des Aufzugsschachttinnenraumes (4) an der Gebaeudewand (5) angeordnet ist. The system (2) has a shaft door leaf (22.1) moved parallel to a building wall (5), and a door opening (16) is partially locked by the shaft door leaf. A cabin door leaf (12.1) is coupled with the shaft door leaf such that the cabin door leaf is moved parallel to the wall with the shaft door leaf. The shaft door leaf is arranged outside a lift shaft inner chamber at the wall. A shaft door guide (20) guides the shaft door leaf, and a cabin door guide (10) guides the cabin door leaf, where the shaft door guide and cabin door guide are arranged along a length parallel to the wall.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20130626



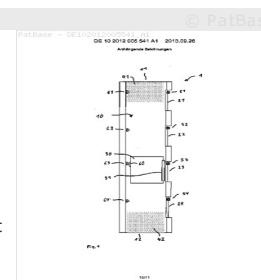
66) Family number: 54802539 (DE102012005541A1)

SCHACHTSICHERHEITSVORRICHTUNG SOWIE AUFZUGSANLAGE SHAFT SAFETY DEVICE FOR PROTECTING MAINTENANCE WORKER OF LIFT SYSTEM, HAS SAFETY CIRCUIT THAT IS STOPPED, WHEN POSITION SENSOR DETECTS THAT LIFT CABIN IS NOT POSITIONED IN SPECIFIC REGION OF SHAFT DOOR

Abstract: Source: DE102012005541A1 Die Erfindung betrifft Schachtsicherheitsvorrichtung (7) zum Schuetzen eines Wartungsarbeiters vor einer Aufzugskabine in einem Aufzugsschacht sowie eine Aufzugsanlage mit einer solchen Schachtsicherheitsvorrichtung. Die Schachtsicherheitsvorrichtung (7) weist eine Sicherheitsschaltung (70) mit mindestens einem Sicherheitsstromkreis (71, 72) auf. Der mindestens eine Sicherheitsstromkreis (71, 72) weist mindestens einen an einer der Schachttuere angeordneten Tuersensor (51 bis 54) zur Detektion des oeffnens der Schachttuere und mindestens einen zugeordneten Positionssensor (61 bis 64) auf. Der Positionssensor (61 bis 64) ist so angeordnet und eingerichtet, dass er eine Positionierung der Aufzugskabine im Bereich derjenigen Schachttuere detektiert, deren oeffnen von dem zugeordneten Tuersensor (51 bis 54) detektiert wird. Dabei sind der Tuersensor (51 bis 54) und der zugeordnete Positionssensor (61 bis 64) in dem Sicherheitsstromkreis (71, 72) derart parallel verschaltet, dass der Sicherheitsstromkreis (71, 72) unterbrochen wird, wenn der Tuersensor (51 bis 54) ein oeffnen der Schachttuere (21 bis 24) detektiert und der zugeordnete Positionssensor (61 bis 64) detektiert, dass die Aufzugskabine nicht im Bereich der Schachttuere positioniert ist. Der Sicherheitsstromkreis (71, 72) wird nicht unterbrochen, wenn der Tuersensor (51 bis 54) ein oeffnen der Schachttuere detektiert und der Positionssensor (61 bis 64) detektiert, dass die Aufzugskabine im Bereich der Schachttuere (21 bis 24) positioniert ist, oder wenn der Tuersensor (51 bis 54) detektiert, dass die zugeordnete Schachttuere (21 bis 24) geschlossen ist. (2) The device has a safety circuit that is stopped, when a door sensor (51) detects the opening state of a shaft door (21) and when a position sensor (61) detects that a lift cabin (30) is not positioned in a specific region of the shaft door. The safety circuit is not interrupted, when the door sensor detects the opening state of the shaft door and when the position sensor detects that the lift cabin is positioned in the specific region of the shaft door, or when the door sensor detects the closing state of the shaft door. An independent claim is included for a lift system.

Probable Assignee: SCHMITT AND SOHN AUFZUGWERKE

Earliest Publication Date: 20130926



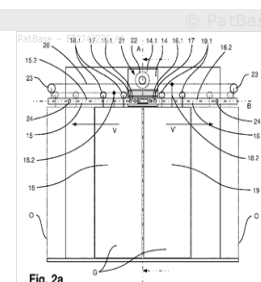
67) Family number: 56710417 (EP2743226A1)

TUERE FUER EINE AUFZUGSANLAGE DOOR FOR A LIFT SYSTEM

Abstract: Source: EP2743226A1 Die Erfindung betrifft eine Tuere (12), insbesondere Schiebetuere, zum Verschliessen einer Tueroeffnung (3, 13) einer Aufzugsanlage (1), insbesondere eine Kabinentuere (13) oder eine Schachtuere (3). Die Tuere (12) umfasst einen Tuertraeger (14, 14') zur Montage der Tuere (12) in der Aufzugsanlage (1), an welchem wenigstens eine Fuehrungsschiene (15, 16) angeordnet ist, welche eine, insbesondere horizontale, Verschieberichtung (V, V') definiert. An der wenigstens einen Fuehrungsschiene ist wenigstens ein Tuerfluegel (18, 19) in der Verschieberichtung (V, V') gefuehrt verfahrbar gelagert. Dabei ist der wenigstens eine Tuerfluegel (18, 19) zum Verschliessen und zur Freigabe der mit der Tuere verschliessbaren Tueroeffnung (3, 13) ueber einen vorgegebenen Verschiebeweg auf der wenigstens einen Fuehrungsschiene (15, 16) in der Verschieberichtung (V, V') verfahrbar. Erfindungsgemass erstreckt sich die wenigstens eine Fuehrungsschiene (15, 16) in der Verschieberichtung (V, V') mit wenigstens einem freien Schienenabschnitt (15.2, 16.2), welcher bevorzugt wenigstens 50 percent ihrer Gesamtlange umfasst, ueber den Tuertraeger (14, 14') hinaus. The door has a door carrier (14) for mounting the door at a cage or at a shaft wall in a lift system. Guide rails (15, 16) are fastened at the carrier, and define horizontal displacement directions (V, V'). Door wings (18, 19) are movably and stably guided at the rails in the directions. The wings are movable on the rails in the directions for closing and releasing an opening over a preset displacement path. The rails are extended in the directions with free rail sections (15.2, 16.2) over the carrier, where the free rail sections include 50 percent of a total length. An independent claim is also included for a lift system.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20140618



68) Family number: 23103908 (FR1253164A)

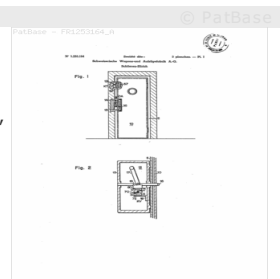
PERFECTIONNEMENTS APPORTES AUX COMMANDES POUR ASCENSEURS IMPROVEMENTS TO CONTROL FOR LIFTS (MACHINE TRANSLATION)

Abstract: Source: FR1253164A (Claim 1) 1. Les elements emetteurs sont constitues par des noyaux relies en serie, magnetiquement saturables, influences par au moins un aimant et munis d'au moins un enroulement, les noyaux et aimants mutuels pouvant se deplacer les uns relativement aux autres, alors que le signal, qui correspond a la saturation ou a la desaturation d'un noyau quelconque et qui est produit dans son enroulement ou est commande par celui-ci, influence le signal de sortie du circuit de securite et, par consequent, la commande de l'ascenseur;

Machine translation: (Claim 1) 1. The transmitter elements are constituted by cores connected in series, magnetically saturable, influenced by at least one magnet and equipped with at least one winding, the mutual cores and magnets that can move relative to each other, whereas the signal, which corresponds to the saturation or desaturation and any of a nucleus that is produced in the coil or is controlled by the latter influences the output signal of the safety circuit and, therefore, the elevator control;

Probable Assignee: SCHWEIZ WAGONS AUFZUEGEFAB

Earliest Publication Date: 19610203



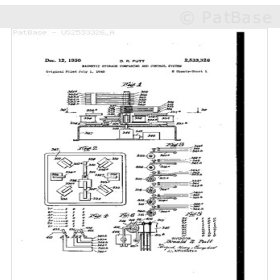
69) Family number: 22290861 (US2533326A)

MAGNETIC STORAGE COMPARING AND CONTROL SYSTEM

Abstract: Source: US2533326A (Claim 1) 1. A control system comprising means for storing signals in the form of magnetism; means for generating a first code from said magnetic storage; means for generating a second code; means for comparing said first and second code; and means for achieving the control when the comparison of the two codes indicates that the control is to be effected.

Probable Assignee: PUTT DONALD R

Earliest Publication Date: 19490705



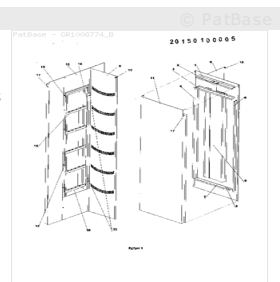
70) Family number: 62970953 (GR1008774B)

ILLUMINATED SEMI-AUTOMATIC AND ROTARILY-OPENABLE DOOR FOR ELEVATOR'S SHAFTS

Abstract: Source: GR1008774B Novelty: an illuminated semi-automatic and rotarily-openable door for elevator's shafts is disclosed. Constitution: a small-sized door for lighting and cabling control, which door is placed at the front side 9 or rear side 28 of the elevator's door leaf; it bears ribs (3,4,5,23,24,25) which, being placed inside the door's leaf, boost the strength of the construction. The hinges (13,14) facilitate the opening and closure of said control door whereon supports (6,16,30,29) are placed for fixing LEDs thereon. Compared to ordinary doors, the position where the door pusher (abrupt closure preventing means) (1,2,21,22) and the chain (7,8,26,27) are installed does not influence the whole construction. The light diffused by the door's leaf lights up the staircase, it abolishes the installation of the elevator's operation push buttons panel at the floors since the operational indications are depicted on the door leaf during the elevators' operation; the construction of the invention is strong like in ordinary doors.

Probable Assignee: PAPOUTSIS PANAGIOTIS IOANNI

Earliest Publication Date: 20160524



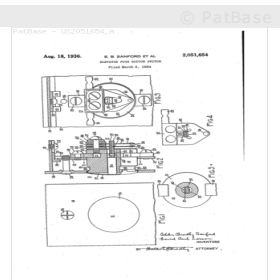
71) Family number: 20995504 (US2051654A)

ELEVATOR PUSH BUTTON SWITCH

Abstract: Source: US2051654A What is claimed is: A tamper-proof elevator push button switch comprising; a cylindrical member having a front face, a rear face, an aperture substantially along the axis thereof between the two faces, and a circumferential groove just behind the front face to form a circular bead around the front end of the member, the front of said bead curving back from said front face to the periphery of the bead and the rear of said bead sloping back from said periphery into said groove; switching mechanism mounted on said rear face of said member; a manually depressible circular diaphragm of thin, elastic, metallic material having a body portion shaped as a portion of a spheroidal shell of relatively large radius, said diaphragm having lips for securing said diaphragm in position over said front face with said body portion extending outwardly therefrom, the edge of said diaphragm being curved to conform with the curvature of said bead up to the periphery of the bead and said lips extending inwardly from the periphery of the bead and being bent to lie against the rear of said bead, thereby securing the diaphragm to said member in such way that the diaphragm is free to give radially outwardly at its edge upon pressure being applied to the diaphragm, thus permitting the diaphragm to be depressed, said front face preventing inward motion of said diaphragm past the plane of the periphery of said body portion, and said diaphragm being self-returning from all resulting depressible positions; and a push rod abutting against the inside surface of said diaphragm and sliding in, and guided by, said aperture in said cylindrical member for operating said switching mechanism

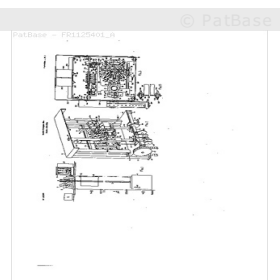
Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19360818



72) Family number: 20731238 (GB690779A)

MECHANISM FOR CONTROLLING ELEVATOR CIRCUITS



Abstract: Source: GB690779A 690,779. Controllers. WAYGOOD-OTIS, Ltd. May 8, 1951 [May 20, 1950], No. 10811/51. Class 38(iii) Control apparatus for an electrically-driven lift comprises a plurality of conductive contacting segments 70, one for each floor, which are mounted on a shaft 40 to be rotated at a speed proportional to that of the liftcar. A plurality of contact devices are arranged on a crosshead 32 which is movable in a direction parallel to the axis of the shaft 40 and the contact devices are biased to engage slidably each segment 70 when the car is within a certain distance of the floor for which the segment is provided. The segments 70 are spaced in accordance with the distance between floors and are helical in form, having a pitch equal to the travel of the crosshead per revolution of the shaft. If it is intended that the car should not stop at a certain floor, an electromagnetic device 55 which is carried by the crosshead retracts the contact devices to clear the segment corresponding to that floor. A drive wheel 27 is driven by a tape which is attached to the car and to the counterweight. The crosshead 32 slides on a vertical tubular member 44 and is driven through chain 31 and reduction gearing 28. The shaft 40 is driven through bevel gears 36, 37. The contact devices engageable by the segments 70 are mounted on a collar 80 which is helical at its upper edge and has helical slots for positioning the contact devices which are arranged in pairs on each side of a pointer 85. Contact fingers 86, 87, are for up and down fast levelling speed operation and contact fingers 90, 91, for up and down slow levelling speed operation. Combined up and down interlock switches and feed contact fingers 92, 93, are provided together with door zone switches 94, 95. The collar 80 is supported by a bracket operated by the electromagnetic device 55, a spring assisting gravity in biasing the armature of the magnet to an unattracted position. A radial slot is provided in each of the segments 70 and is utilized in conjunction with the pointer 85 to position the segment on shaft 40. A panel frame 58 is mounted on the crosshead and carries a plurality of sections 175 of insulating material upon which are mounted a number of brushes 185-187, 190-195, for engaging contacts mounted on floor bars 176. One bar is provided for each floor and the spacing of the bars corresponds to that of the floors. Also mounted on each floor bar is a combined bush and switch which is utilized in the direction-determining circuit for the car. The direction switches are operated by a direction cam comprising a down-section 242 of conducting material and an up-section comprising two members 243, 244, of insulating material. These switches are controlled by the registered calls for the floors for which they are provided and may be connected as shown in Specification 297,801, [Class 78 (ii)]. The control apparatus also comprises an indicator guide chain 62 which is attached to the crosshead 32. A relay compartment is enclosed in the same casing as the control gear, the relay assembly being hinged to allow ready access to the floor bars. Upon starting the car, the electromagnetic device is energised to lift the collar 80 and, as the car upwardly approaches a floor for which a car call is registered, the brush 193 engages the stationary contact for that floor, picking up the call and effecting its automatic cancellation. The stopping brush 191 is rendered effective to initiate deceleration of the car and the electromagnetic device 55 allows collar 80 to drop the contact devices into a position to be engaged by the levelling segment. The leading edge of the segment runs on to fingers 86 and 90 so that the car is slowed down, and, at a certain distance from the floor, switch 92 is actuated to establish an auxiliary operating circuit for the car and to open the main operating circuit. At this time the car runs at fast levelling speed. Switch 94 is then operated to open the doors, and, as the car arrives in the slow speed levelling zone, the finger 86 is de-energised. Just before the car reaches floor level the finger 90 is disengaged and the car is then brought to a stop. When the car reaches its highest call in its upward travel the cam member 243 operates the direction switch to break the up-direction circuit. This enables a stop to be made during upward travel in response to a downward landing call provided that no call is registered from a floor above. During downward travel the direction circuit is maintained by cam member 242. Contact fingers 86, 87, 90, 91, are of the same construction and are mounted in the same way on the collar 80, Fig. 10 (not shown). Each contact finger has a carbon contact, which is adapted to be engaged by the segments 70, and comprises a contact spring mounted on a base of insulating material which is bolted to the collar. The switches 92, 93, Figs. 8, 9, (not shown) are of the same construction and comprise an arm which is pivotally mounted on the collar 80 and has at one end a carbon contact engageable by the segments 70. The opposite end of the arm carries a forked spring mounting two silver contacts associated with contacts fixed to the collar 80. The arm is biased by a spring which is bolted to a terminal. The door zone switches, Fig. 7 (not shown) each comprise a springbiased arm having at one end an insulating button engageable by contacts 70, and at the other a contact which co-operates with a fixed contact. Brushes 185-187, 190-194, each comprise a carbon contact mounted on a leaf spring which is secured to a bracket bolted to section 175, Fig. 12 (not shown). Brush 195 has a longer contact than the other brushes. A plunger type brush 213 is mounted between brushes 193 and 194. The stationary contacts engaged by brushes 185-187, 190-194, each have a rounded silver tip, those engaged by brush 195 have a flat contact surface, Fig. 13 (not shown). The direction switches each comprise a contact 227 (Fig. 14) and a U-shaped member 228 carrying a contact tip 230 biased by spring 231 to engage a contact tip 232 on the end of spring 233. The movement of spring 233 is limited by member 235.

Probable Assignee: WAYGOOD OTIS LTD

Earliest Publication Date: 19530429

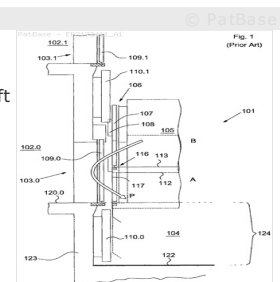
73) Family number: 44849629 (EP2172411B1)

LIFT SYSTEM WITH POSITION-DEPENDANT DOOR LOCK

Abstract: The elevator system (101) has an elevator shaft (104) with a lower shaft door (103.0) and an upper shaft door (103.1), each with a shaft door base (120) and one or two shaft door wings (109.0,109.1). An elevator cabin (105) is provided for the transport of passengers, where a cabin door (106) and a cabin floor (112) are provided. The cabin door or the shaft door wings are blocked when the elevator cabin is located outside a normal stop position.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20100407



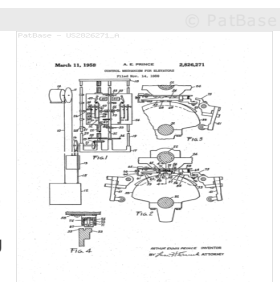
74) Family number: 22405035 (US2826271A)

CONTROL MECHANISM FOR ELEVATORS

Abstract: Source: US2826271A (Claim 1) 1. Control mechanism for an elevator system in which actuating mechanism is provided for moving the elevator car, said control mechanism comprising a first member, at least a portion of which is of magnetizable material, means for rotating said first member at a speed proportional to the speed of said car, a crosshead, means for moving said crosshead along a path parallel to the axis of rotation of said first member in accordance with car movement, a second member mounted on said crosshead for movement toward said first member, a permanent magnet mounted on said second member in a position of magnetic attractive relationship with said portion of magnetizable material on said first member as said crosshead reaches a certain point in its movement, said second member being movable by said attraction as said point is reached, and switching means actuable by said movement of said second member as said attraction takes place.

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19580311



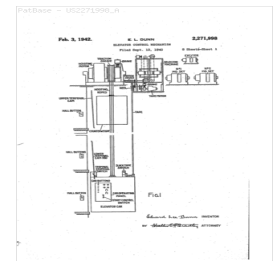
75) Family number: 21062211 (US2271998A)

ELEVATOR CONTROL MECHANISM

Abstract: Source: US2271998A 1. Vliat is claimed is: I, Control mechanism for an elevator Cer comprising, a plurality of switches for controlling acceleration of the car, and means dependent on car movement during starting of the car from

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19420203



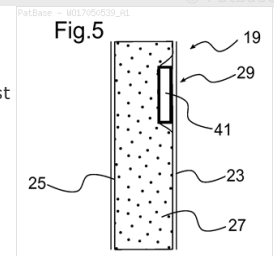
76) Family number: 65321152 (WO17050539A1)

PLANAR ELEVATOR CAR ELEMENT FOR AN ELEVATOR INSTALLATION

Abstract: The invention relates to a planar elevator car element (19) for an elevator installation, comprising a first cover layer (23), a second cover layer (25), and an intermediate layer (27), which is arranged between the first cover layer (23) and the second cover layer (25), wherein the intermediate layer (27) has a lesser density than the first cover layer (23). Furthermore, a first reinforcing structure (29) is inserted between the first cover layer (23) and the second cover layer (25), the course of which reinforcing structure is adapted to the forces that act on the planar car element (19).

Probable Assignee: THYSSENKRUPP AG

Earliest Publication Date: 20170330



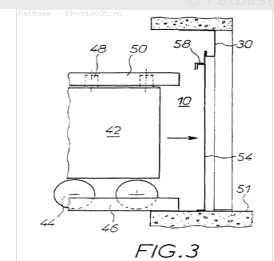
77) Family number: 12635421 (EP0918035B1)

ELEVATOR PLANT WITH A CONTROL CABINET INTEGRATED WITHIN THE SHAFT

Abstract: Lift machinery may be located within the lift shaft when additional accommodation is not available. The control cupboard (42) may be carried on rollers and rails (44, 46) and normally be located within the lift shaft at an intermediate floor. When required, the cupboard may be withdrawn to the landing (51) by removing a panel (54) which automatically isolates the lift

Probable Assignee: ARNOULT SERGE

Earliest Publication Date: 19990526



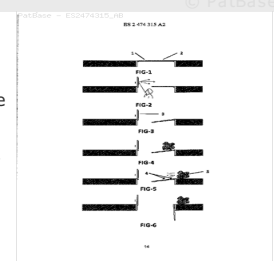
78) Family number: 56850145 (ES2474315R)

ESTRUCTURA PERFECCIONADA DE SISTEMA DE ACCESO PARA RESCATE Y/O MANTENIMIENTO EN INSTALACIONES DE APARATOS ELEVADORES SIN ACCESO A ELEMENTOS COMUNES

Abstract: Source: ES2474315R La presente invencion, estructura perfeccionada de sistema de acceso para rescate y/o mantenimiento en instalaciones de aparatos elevadores sin acceso a elementos comunes, se encuentra constituida por una novedosa y original estructura de un sistema de acceso para mantenimiento y/o rescate para instalaciones de aparatos elevadores, mediante trampillas que sustentan dos subestructuras u hojas batientes (1) y (2) de apertura en distinto sentido, colocadas a distintos niveles dentro de un pasillo vertical de acceso y paso restringido del personal de mantenimiento y rescate, mediante escaleras de tipo gato (ancladas a la pared), estando la que bate hacia arriba (1) provista de un espejo (3) de observacion de una posible ocupacion del rellano inmediatamente superior y de prevencion de posibles caidas de objetos (5) o personas mediante dos o mas toques anti-caida (4), pudiendo ser liberada la trampilla desde la parte inferior por el tecnico de mantenimiento mediante llaves especiales.

Probable Assignee: VASCO ARAGONESA DE RESTAURACIONES TERMICAS S L

Earliest Publication Date: 20140708



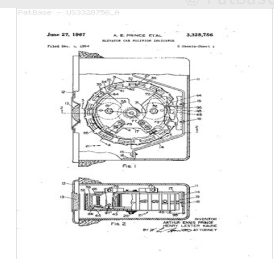
79) Family number: 22962039 (US3328756A)

ELEVATOR CAR POSITION INDICATOR

Abstract: Source: US3328756A ABSTRACT OF THE DISCLOSURE A rotary indicator actuated electromagnetically through discrete angular increments in response to the position of the elevator car.

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19670627



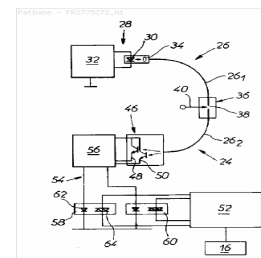
80) Family number: 14337420 (FR2775272A)

OPTICAL SECURITY SYSTEM FOR LIFTS WHICH DOES NOT NEED POTENTIALLY DANGEROUS ELECTRIC CIRCUITS OR SPACE FOR CABLE TROUGHS. THE SYSTEM HAS A LONG LIFE AND IS LIGHT AND COMPACT.

Abstract: Source: FR2775272A A light emitter (28) typically mounted on the lift carriage (12) supplies light to an optical fibre (26) which extends along the length of the lift shaft (14) to a receiver (46) and security circuit (52). Optical interruptors (36) are located along the length of the optical fibre (26) and respond to security elements (40) which signal parameters such as end of travel or non alignment causing the security circuit (52) to stop the motor (16)

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19990827



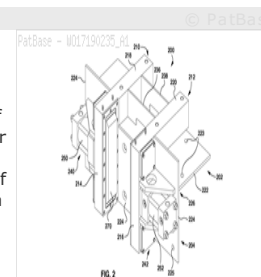
81) Family number: 67441067 (WO17190235A1)

EMERGENCY BRAKING SYSTEM FOR MINE SHAFT CONVEYANCE

Abstract: In one aspect, a clamp for **installation** onto an **elevator** car as part of an emergency braking system comprises: a clamp body having an L-shaped profile with a vertical portion for attachment to an elevator car wall of the elevator car and horizontal portion for attachment to an elevator car roof or an elevator car floor of the elevator car; and a pair of opposing brakes disposed on the vertical portion of the clamp body for clamping a mine shaft guide between the brakes for emergency braking. In another aspect, a method of activating an emergency brake of an elevator car comprises: sensing a load of the elevator car; based on the sensed load, dynamically determining a rate at which an emergency brake shall be incrementally engaged; and upon detecting a freefall or overspeed condition of the elevator car, incrementally engaging the emergency brake at the dynamically determined rate.

Probable Assignee: WABI IRON AND STEEL CORP

Earliest Publication Date: 20171109



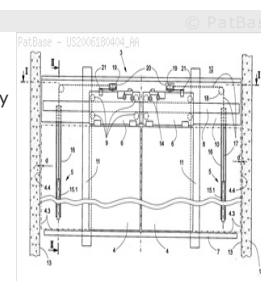
82) Family number: 33087258 (US2006180404A)

ELEVATOR INSTALLATION WITH HOISTWAY DOOR AND DOOR-CLOSING DEVICE

Abstract: Source: US2006180404A An **elevator installation** has an **elevator** hoistway with at least one hoistway door. The hoistway door has at least one horizontally movable hoistway-door panel and a door-closing device with an energy store to cause a closing movement of the hoistway-door panel, the energy store being arranged in a space between the opened hoistway-door panel and the hoistway wall on the hoistway-door side.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20060621



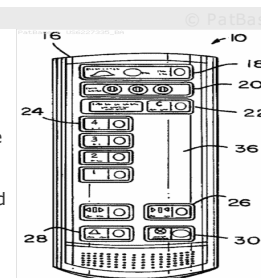
83) Family number: 15364735 (US6227335B)

ELEVATOR CAR OPERATING PANEL

Abstract: Source: US6227335B An elevator car operating assembly is of a modular construction which allows customization of the assembly for a given installation. An inner frame is provided upon which the car operating controls are mounted. The inner frame is constructed to mount a variety of controls in predetermined positions. The controls are mounted thereon as appropriate for the **elevator installation**. A circuit board mounts to a rear face of the inner frame, and interfaces with the controls assembled on the inner frame. The circuit board preferably is pre-fabricated to interface with each operating control which can be mounted to the inner frame. An insert is located on a front face of the inner frame. The insert is customized to the installation, and has apertures aligned with the operating controls utilized; the remaining component-mounting apertures on the inner panel are covered by the insert, whereby a finished appearance to the assembly is provided. An outer frame surrounds the inner frame and mounts the assembly to the elevator car wall.

Probable Assignee: INVENTIO AG

Earliest Publication Date: 20010508



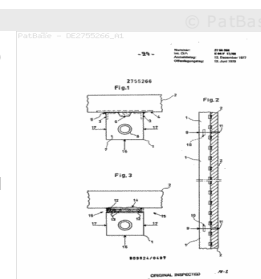
84) Family number: 1680188 (DE2755266A1)

AUFZUGSCHACHT, GEBILDET AUS AUFZUGSCHACHTBAUSTEINEN BLOCK ASSEMBLED REINFORCED CONCRETE LIFT SHAFT - HAS VERTICAL REINFORCED CONCRETE BARS ON INSIDE OF WALLS FACILITATING ALIGNMENT

Abstract: Source: DE2755266A1 Patentansprüche: Aufzugschacht, gebildet aus vorfabrizierten, ringfoermigen und stockwerkshohen Aufzugschachtbausteinen, dadurch gekennzeichnet, dass die Aufzugschachtbausteine mit Stahlbetonschienen ausgestattet sind, welche je nach Aufzugschachtbausteinausfuhr- ung in vorbestimmter Anzahl und Lage an die Innenseite der Stahlbetonschachtwaende kontinuierlich fest und ortsgenau senkrecht verlaufend befestigt sind, wobei die obere und die untere Stossflaeche der Stahlbetonschienen, in der jeweils eine Zentrierbuchse eingelassen ist, die obere und die untere Stossflaeche der Jeweiligen Schachtwand um einen vorbestimmten Betrag ueberragen und Jeweils eine gemeinsame horizontale Ebene bilden, so dass unter Zuhilfenahme von Zentrierstiften die Aufzugschachtbausteine ohne Ausrichtarbeiten uebereinandergesetzt einen lotrechten Aufzugschacht ergeben, wobei die Stahlbetonschienen auch als FWhr- ungsschienenbahnen fuer die Aufzugkabine und das Gegengewicht eingesetzt werden und zusaetzlich, durch die kontinuierlich feste Verbindung zur Schachtwand, die Steifigkeit derselben erhoehrt 2. The lift shaft is made up from annular storey-high building blocks. These are fitted with reinforced-concrete bars (1), fixed in pre-determined numbers and positions to the inside of the reinforced-concrete shaft walls. A centering socket (8) is let into the bars' top and bottom abutting faces (7) which overlap faces of the shaft wall section concerned. This forms a common horizontal plane, producing a vertical shaft, with the aid of centering lugs but without alignment work. The bars also provide guide rail tracks for lift cabin and counterweight, and contribute to structural rigidity.

Probable Assignee: BRODTHAGE DIETER

Earliest Publication Date: 19790613



ELEVATOR SIGNALING SYSTEM

Abstract: Source: US1851488A 1. In an elevator sirvnal system for a plurality of cars, II lureility of signals at each of u plurality ol) landin s, one for each of said cams, a signal circuit gor each of said signals, cur-controlled switching mechanism for each of said cars for completin the landing signal circuits for the car for which it is provided, circuit controlling means for the signal circuits for each landing and having actuating means common to all of the cars, and means responsive to the completion of the signal circuit for but one of the cars for a landing for causing operation of the circuit controlling means for that landing by its actuating means to open the corresponding circuits for all the other cars for that landing and to thereafter maintain said circuits f0r_ the other cars open during the time that such one circuit is maintained completed.

Probable Assignee: OTIS ELEVATOR CO

Earliest Publication Date: 19320329

