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(54) **LATCHABLE SLIDE UNIT FOR SLIDINGLY SUPPORTING ELEVATOR DOORS**

VERRIEGELBARE FÜHRUNGSEINRICHTUNG ZUM VERSCHIEBBAREN AUFHÄNGEN VON
AUFZUGSTÜR EN

SUPPORT VERROUILLABLE A GLISSIERE POUR LES PORTES D'ASCENSEUR COULISSANTES

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Description

[0001] This invention relates to a latchable slide unit for sliding by supporting elevator doors in an elevator shaft, that occupies a smaller room than the conventional ones, on the wall placed above the bay; it refers too to a door transport carriage that, assembled into that set, can be adapted to doors of different measures, makes easier its assembling and mounting and permits to carry out the adjustments and regulations with great facility.

[0002] The building lifts have a cabin which shifts upwards and downwards through the lift shaft which in each floor has a wall opening fitted with floor doors.

[0003] These doors are mounted on transport carriages which shift on guide bars that bear a rail in the middle and are usually placed facing the vertical hole, on the small piece of wall that is between the top of the opening and the level of the upper floor.

[0004] A latchable slide unit for elevator doors according to the preamble of claim 1 is described in FR 2,719,573, such a device comprising a guide rail having an elongate guide track which is intended to be mounted in use on an inner wall of an elevator shaft. In order to allow the blocking and unblocking mechanism, a blocking device consists of a striker capable of selectively interlocking with a mechanical latch, which is carried by a transport carriage of the sliding mechanism. In such a document the mechanical latch is positioned outside the guide rail. Due to the fact that the room between the top of the wall opening and the level of the upper floor is limited, positioning of the latch outside the guide rail compels the guide rail to be constructed with a small height and then less resistant.

[0005] So, the conventional devices known at present need a special place for the blocking assembly (the hook, that slides together with the doors) and besides an additional room to mount other parts, e.g. the safety electrical contacts. Due to this, the total height of the device is too much with respect to the room that exists above the wall opening. This makes necessary to reduce the height of the rail or of the guide bar where the carriages that carry the doors run. The result is that the rail turns to be a structurally weaker element. To solve this problem, specially when the mechanism works on heavy or big doors, an additional profile is installed which is a complement of the existing rail, with the corresponding addition of costs and time wasting.

[0006] As regards the conventional transporting carriages, they consist of a fixed assemblage on which the wheels are mounted. In this way, the manufacturer must have carriages to cover different measures, according to the measure of the door they are going to be applied.

[0007] Besides, the existing carriages have their door mounting side facing the wall opening, which originates that the assembling operations must be done within the tiny room delimited by the wall beside the said opening with the additional complication that certain assembling pieces must be mounted from the opposite side, that is,

behind the carriage. Another common difficulty is that the accuracy in assembling previous to the doors mounting, must be corrected by means of regulations the said mounting, which means a waste of time.

[0008] An additional restriction of the conventional systems is that, in the case of fire, to avoid the fall of the doors and the consequent propagation of the fire through the wall opening, they require an additional hooking means, which must be added to the doors transport carriage structure.

[0009] The purpose of the present invention is to provide a set for the assembling of lift doors that, on the wall placed above the wall opening, occupies a smaller room than that of the conventional sets due to the fact that it bears a guiding means open lengthwise for the running of the latching device. The present invention refers too to a lift doors transporting carriage with an extensible assemblage which can be adapted to doors of different sizes, and with rolling frames which make unlevelled supports, what constitutes a facility for the assembling and mounting and permits to make adjustments and regulations.

[0010] Therefore the present invention relates to a latchable slide unit for slidingly supporting elevator doors in a elevator shaft, said slide unit comprising:

- a longitudinally extending guide rail having two parallel elongate guide members spaced apart such that the inner lateral faces thereof constitute side walls of a central open channel opening outwardly at the front of the guide rail;
- at least one transport carriage for use engaged with said guide rail in order to slidingly support an elevator door panel suspendable therefrom, each of said at least one transport carriages comprising at least one rolling assembly adapted to engage guide tracks constituted by the outer lateral face of the respective elongate member, such that the transport carriage is retained upon the guide rail for sliding displacement longitudinally therealong, whereby a latching device is mounted on said at least one transport carriage for sliding displacement together therewith and so as to pivot relative thereto about an axis substantially perpendicular to the direction of longitudinal displacement; and at least one electrical switch means;

characterized in

that the at least one electrical switch means is mounted inside the central channel of said guide rail, and that the latching device of said at least one transport carriage is received within said central channel for longitudinal displacement therein, the latching and unlatching operations between the latching device and the electrical switch means thus being accomplished within the confines of said central channel.

[0011] The latchable slide unit of the present invention consists of an open profile or rail, inside which are

placed the electrical switch means and the opening permits the shifting of the hook of the latching device inside the open channel of the guide rail.

[0012] Due to the fact that the latching mechanism is implemented within such a channel the advantage is that given the same size of wall opening for the doors, it is possible to increase the height of the guide rail and hence render it more resistant.

[0013] Other advantages are the reduction of the assembling, adjustment and repairing time and the diminishing of costs, due to the fact that it is not necessary to add reinforcing profiles, particularly in the case of very big and heavy doors.

[0014] As these latchable slide units are apt to the cabin, employing similar means for the cabin and floors doors (in the case the cabin bears a latching unit) it permits the production of a sole system and the reduction in the manufacturing costs.

[0015] As regards the transport carriage, an advantage is that its assemblage is extensible, formed by rolling frames fixed through a joining means supplied with position regulation means. This permits to extend or contract the assemblage to adapt it to different width doors. The use of the same pieces for carriages of different measures contributes to reduce the production costs.

[0016] A fundamental advantage is given by the angled support bracket placed in the lower part of the principal vertical wall of each rolling frame. This makes easier the assembly not only in the workshop but in the building itself because the doors can be mounted simply by leaning the connecting auxiliary piece on the said angled support bracket.

[0017] Besides, the connecting and regulation means are placed on the side of the lift shaft from where, if necessary, it is possible to work much more comfortably than in conventional systems where the mentioned means are placed on the other side, that is, on the side of the wall above the wall opening where the room is very reduced. In addition, the existence of an auxiliary connecting piece between the angled support bracket and the door, gives the possibility to mount the door panels with no need of regulation using the fixed connecting means, in case the elements employed in this process have been manufactured and mounted correctly. If, by any case, there had been a mistake during these processes, it can be corrected using the adjustable connecting means.

[0018] The principal advantage of this system is the saving of time employed in regulation when the job has been done correctly.

[0019] Finally there must be pointed out that the transport carriage mentioned is apt to bear fire safety devices, as, for example, a hooking piece with the carriage mounting guide.

[0020] This hook (flange or fold) is formed by the interconnection means between the rolling frames and it keeps unhooked from the guide by the presence of the

carriage plastic wheels which, on burning, melt, producing the hooking that avoids the fall of the doors panels.

[0021] To clarify and for a better understanding of the invention objet, it is illustrated by various drawings which represent it only to exemplify, not to restrain or condition.

[0022] Drawing 1 is a perspective view that permits to observe the form of the latchable slide unit for elevator doors as well as the blocking and electrical safety devices inside it.

[0023] Drawing 2 is a perspective view in which can be seen the present latchable slide unit and the small room it occupies on the wall between the wall opening for the doors and the upper floor level. Also the transport carriage can be seen in this drawing.

[0024] Drawing 3 is a perspective view that corresponds to the transport carriage different pieces.

[0025] Drawing 4 is a rear elevation view of the transport carriage in which can be seen the regulation means of the interconnection piece between the two rolling frames. At the bottom of the second rolling frame the auxiliary piece of connection with the door can be seen.

[0026] In the different drawings, the same reference numbers indicate the same or corresponding parts and the joints of various elements have been pointed out with letters. In drawings 1 and 2 can be observed the present latchable slide unit for sliding by supporting elevator doors which guide rail (a) is destined to the mounting and putting on the track of the transport carriages (b) of the doors (d). This guide rail (a) is fixed to the wall (8) adjacent to the upper part of a wall opening corresponding to a landing door, although it is apt too to be applied to the cabin wall opening. In a preferred way of execution, the guide rail (a) of mounting and putting on the track of the carriages (b) consists of a lengthwise profile (1) which back wall (2) is closed and its front part is open.

[0027] The closed back wall (2) of the profile (1) is externally linked to the mounting means which connect the profile (1) to the building wall (8) placed between the top of the wall opening (9) and the upper floor level (10). The front part of the above mentioned lengthwise profile (1) is open due to the fact that it forms an opening or longitudinal passage (3).

[0028] Between the back wall (2) and the front part with the central open channel (3) are the upper and lower edges of the profile which constitute elongate guide tracks (4) on which run the wheels (20) of the transport carriages (b) of the doors (d).

[0029] On its side, the electrical switch means (5) consists of an electrical switch placed within the limits of the profile (1), more precisely, fixed to the interior surface of the back wall (2).

[0030] The present way of execution does not exclude other ways. For example: one in which the guide rail (a) of mounting and putting on the track is formed by two profiles close one from the other and parallel mounted. These, are separated in a measure at least equivalent to the diameter of the axis (7) of the latching device (6)

provided by the carriage (b), and delimit an open cavity in which interior is the electrical switch means (5).

[0031] In any case the condition always is the presence of an opening or longitudinal passage (3) of motion of the blocking device (6) and that the electrical switch means (5) is placed within the limits of the guide rail (a) of mounting and putting on the track.

[0032] In drawing 2 can be seen the guide rail (a) which bears mounted a transporting carriage (b) includes a rolling combination (c) that, in the present way of performance, consists of a train of two rolling frames (e), (f). Each one of these rolling frames - first (e) and second (f) rolling frames - has a principal vertical body (11) in which is mounted a wheels set (20) which sliding track is constituted by the guide rail (a) of mounting and shifting. In drawings 3 and 4 is detailed the carriage (b) constitution, which rolling combination (c), in this case, is an extensible train since both rolling frames (e) (f) are joined, in their upper part, by an interconnecting means (13) which has position regulation devices (14).

[0033] In its lower part, the rolling frame (e), (f) presents a lower folding (15) which affects its principal body (11) in a way that results angled (12) respect to the principal body (11). This angled support bracket (12) constitutes a support destined to the respective door (d) mounting.

[0034] The lower folding (15) is projected in a way that slants the guide rail (a) beneath it. So, the angled support bracket (12) is placed in an intermediate position between the transport carriage (b) combination (c) and the wall opening (9) for installation. More precisely, the angled support bracket (12) includes a vertical wall placed between the plane of the principal vertical wall (11) of the respective rolling basis (e) (f) and the plane that contains the wall opening (9) and the adjacent wall (8).

[0035] In the angled support bracket (12) there are a pair of pins [bolts] or mounting means (16) for the door panel (d) mounting. In this way the mounting is performed by means of the connection of an auxiliary mounting piece (17). This piece forms a second angled configuration (17') and of the same sense as that of the support (12).

[0036] The lower end (22) of the mounting auxiliary piece (17) is linked to a connecting profile (23) which projects from the upper part of the door panel (d).

[0037] The opening or longitudinal passage or central open channel (3) of the guide rail (a) permits the sliding of the latching device (6) which shifts together with the transport carriage (b) on which it is mounted.

[0038] The disposition of the electrical switch means (5) within the limits of the profile (1) permits all the set to occupy a reduced place on the wall (8) situated between the wall opening (9) and the level of the upper floor (10).

[0039] The extensible rolling combination (c) is formed by a train with two rolling frames (e), (f) linked through a connecting means (13) provided with regulat-

ing means (14).

[0040] Due to these (14) the length of the combination (c) can be extended or contracted withdrawing or approaching the rolling frame (e), (f) one with the other. This allows to adapt the carriage to different doors (d) widths.

[0041] Besides, the angled support bracket (12) for the door, slants the guide rail or mounting guide (a), projecting itself beneath it and remaining in an intermediate position between the combination (c) and the wall opening for installation. On this side, the auxiliary piece (17) of door (d) mounting projects itself beneath the angled support bracket (12) for the door and is placed in an intermediate position between the said bracket (12) and the above mentioned wall opening (9). Consequently the doors (d) are mounted in an adjacent position as regards the opening (9) and the wall (8) around it.

[0042] Nevertheless, as the mounting (16), connection and regulating (18) (19) means project themselves and remain exposed in a position opposite to the wall (8) and the wall opening (9) - that is, facing the shaft by which the cabin shifts - the regulation and adjustment operations can be comfortably done from that side.

[0043] Besides, the presence of the angled support bracket (12) facilitates the door (d) mounting too, by the simple leaning against the transport carriage (b), when the mounting of the assembly is done before the mounting in the wall opening (9).

[0044] Finally, it has been foreseen an execution form in which the combination (c) of the mentioned transporting carriage bears fire safety means. On the same side where the wheels (20), manufactured in plastic, are mounted, the combination (c) has a fixing means - a folding or fringe formed by the connection means (13). When the fire melts the wheels (20) and consequently, the combination (c) descends, it remains fixed to the guide rail (a). In this way the combination (c) stays attached to the guide rail (a) and keeps the doors (d) panels in front of the wall opening (9).

Undoubtedly, when this invention is constructed, different building and shape changes can be introduced within the ambit of the following claims.

[0045] Reference Numerals in Drawings:

- (a) Guide rail or guide rail of mounting and putting on track.
- (b) Transport carriages of doors panels
- (c) Transport carriage (b) rolling combination .
- (d) Elevator door (panel).
- (e) First rolling frame.
- (f) Assemblage second rolling frame.

(1) Longitudinal open profile that constitutes the guiding means (a).

(2) Back wall for mounting the profile.

(3) Lengthwise passage or opening or central open channel for the latching device (6)].

(4) Rolling tracks of the carriages (b) wheels

- (20).
 (5) Electrical switch means.
 (6) Latching device [hook].
 (6') Drive end of the latching device (6) for the driving of the electrical device (5). 5
 (7) Axle of the latching device (6) [articulated in the combination (c)].
 (8) Adjacent wall heated between the top of the wall opening and the upper floor level (10)]. 10
 (9) Wall opening for installation of elevator doors.
 (10) Level of the upper floor delimiting the adjacent wall (8).
 (11) Principal vertical body of the rolling frame (e) (f). 15
 (12) Angled support brackets
 (13) Connecting means between the rolling frames (e) (f).
 (14) Position regulation devices of the connecting means (13). 20
 (14') Position fixing devices of the rolling frames (e) (f).
 (15) Inferior folding which delimits the angled support bracket (12).
 (16) Assembling threaded bolts or mounting means in the angled support bracket (12) 25
 (17) Door (d) connecting auxiliary piece in the support bracket (12).
 (17') Second fall formed by the auxiliary piece (17). 30
 (18) Fixed connecting means of the auxiliary piece (17).
 (19) Connection adjustable means of the auxiliary piece (17).
 (20) Rolling combination wheels (c). 35
 (21) Upper end of the auxiliary piece (17).
 (22) Lower end of the auxiliary piece (17).
 (23) Connecting profile in the door panel (d).

Claims

1. A latchable slide unit for slidably supporting elevator doors in a elevator shaft, said slide unit comprising: 45
- a longitudinally extending guide rail (a) having two parallel elongate guide members spaced apart such that the inner lateral faces thereof constitute side walls of a central open channel (3) opening outwardly at the front of the guide rail; 50
 - at least one transport carriage (b) for use engaged with said guide rail (a) in order to slidably support an elevator door panel (d) suspendable therefrom, each of said at least one transport carriages(b) comprising at least one rolling assembly (e, f) adapted to engage guide 55

tracks (4) constituted by the outer lateral face of the respective elongate member, such that the transport carriage (b) is retained upon the guide rail (a) for sliding displacement longitudinally therealong, whereby a latching device (6) is mounted on said at least one transport carriage (b) for sliding displacement together therewith and so as to pivot relative thereto about an axis (7) substantially perpendicular to the direction of longitudinal displacement; and at least one electrical switch means;

characterized in

- that** the at least one electrical switch means (5) is mounted inside the central channel (3) of said guide rail (a); and that the latching device (6) of said at least one transport carriage (b) is received within said central channel(3) for longitudinal displacement therein, the latching and unlatching operations between the latching device and the electrical switch means thus being accomplished within the confines of said central channel (3).
2. The latchable slide unit according to claim 1 wherein the guide rail (a) consists of one long shaped profile having the elongate guide track (4) for supporting and guiding said at least one transport carriage (b).
 3. The latchable slide unit according to claim 1 wherein the guide rail (a) consists of two adjacent long shaped profiles having the elongate guide track (4) for supporting and guiding said at least one transport carriage (b).
 4. The latchable slide unit according to any one of the preceding claims wherein the latching device (6) consists of a hook carried by the at least one transport carriage (b).
 5. The latchable slide unit according to any one of the preceding claims wherein the electrical switch means (5) consists of a switch placed inside the limits of the guide rail (a).
 6. The latchable slide unit according to any one of the preceding claims wherein the at least one transport carriage (b) is provided with a support bracket (12) being angled such that the portion thereof adapted to support an elevator door is located between said rolling assembly (e,f) and the inner wall of the elevator shaft and having mounting means (16) being adapted to be releasably connected with a connecting auxiliary piece (17) being angled in a respective opposite configuration of the support bracket (12) and adapted to be connected to a connecting profile (23) in the door panel (d).

7. The latchable slide unit according to any one of the preceding claims wherein the rolling assembly (e,f) consists of a train of, at least, two rolling bases linked by interconnection means (13).
8. The latchable slide unit according to any one of the preceding claims wherein the rolling assembly (e,f) consists of an extensible train of at least two rolling frames linked by interconnection means (13) bearing position regulation means (14).
9. The latchable slide unit according to any one of the preceding claims wherein the rolling assembly (e,f) bears fire safety means.

Patentansprüche

1. Verriegelbare Gleiteinheit zum verschiebbaren Tragen von Aufzugstüren in einem Aufzugsschacht, wobei die Gleiteinheit aufweist:

- eine sich in Längsrichtung erstreckende Führungsschiene (a) mit zwei parallelen langen Führungselementen, die derart beabstandet sind, dass die inneren Seitenflächen davon Seitenwände eines zentralen offenen Kanals (3) bilden, der sich an der Vorderseite der Führungsschiene nach außen öffnet;
- wenigstens einen Transportschlitten (b), der zum Gebrauch mit der Führungsschiene (a) in Eingriff steht, um ein daran aufgehängbares Aufzugstürfeld (d) verschiebbar zu tragen, wobei jeder des wenigstens einen Transportschlittens (b) wenigstens einen Rollaufbau (e, f) aufweist, der zum Eingriff mit Führungsspuren (4) ausgebildet ist, die durch die äußere Seitenfläche des jeweiligen langen Elements gebildet sind, sodass der Transportschlitten (b) zur Gleitverschiebung in Längsrichtung daran entlang auf der Führungsschiene (a) gehalten ist, wobei eine Verriegelungsvorrichtung (6) an dem wenigstens einen Transportschlitten (B) zur Gleitverschiebung zusammen damit und so, dass sie relativ dazu um eine Achse (7) im Wesentlichen senkrecht zu der Richtung der Längsverschiebung schwenkbar ist, befestigt ist; und
- wenigstens eine elektrische Schalteinrichtung,

dadurch gekennzeichnet,

dass die wenigstens eine elektrische Schalteinrichtung (5) innerhalb des zentralen Kanals (3) der Führungsschiene (a) befestigt ist, und

dass die Verriegelungsvorrichtung (6) des wenigstens einen Transportschlittens (b) in dem zentralen Kanal (3) zur Längsverschiebung darin aufgenommen ist, wobei die Verriegelungs- und Entriegelungsvorgänge zwischen der Verriegelungsvor-

richtung und der elektrischen Schalteinrichtung somit in den Grenzen des zentralen Kanals (3) geleistet werden.

2. Verriegelbare Gleiteinheit nach Anspruch 1, bei welcher die Führungsschiene (a) aus einem langen Formprofil mit der langen Führungsspur (4) zum Tragen und Führen des wenigstens einen Transportschlittens (b) aufgebaut ist.
3. Verriegelbare Gleiteinheit nach Anspruch 1, bei welcher die Führungsschiene (a) aus zwei benachbarten langen Formprofilen mit der langen Führungsspur (4) zum Tragen und Führen des wenigstens einen Transportschlittens (b) aufgebaut ist.
4. Verriegelbare Gleiteinheit nach einem der vorhergehenden Ansprüche, bei welcher die Verriegelungsvorrichtung (6) aus einem Haken aufgebaut ist, der durch den wenigstens einen Transportschlitten (b) getragen ist.
5. Verriegelbare Gleiteinheit nach einem der vorhergehenden Ansprüche, bei welcher die elektrische Schalteinrichtung (5) aus einem innerhalb der Grenzen der Führungsschiene (a) platzierten Schalter aufgebaut ist.
6. Verriegelbare Gleiteinheit nach einem der vorhergehenden Ansprüche, bei welcher der wenigstens eine Transportschlitten (b) mit einer Tragklammer (12) versehen ist, die derart gewinkelt ist, dass der zum Tragen einer Aufzugstür ausgebildete Abschnitt davon zwischen dem Rollaufbau (e, f) und der Innenwand des Aufzugsschachts angeordnet ist, und die eine Befestigungseinrichtung (16) aufweist, die so ausgebildet ist, dass sie mit einem Verbindungshilfsstück (17) lösbar verbunden ist, das in einer jeweiligen Gegenkonstruktion der Tragklammer (12) gewinkelt ist und ausgebildet ist, um mit einem Verbindungsprofil (23) in dem Türfeld (d) verbunden zu werden.
7. Verriegelbare Gleiteinheit nach einem der vorhergehenden Ansprüche, bei welcher der Rollaufbau (e, f) aus einem Zug von wenigstens zwei durch eine Verbindungseinrichtung (13) miteinander verbundenen Rollbasen aufgebaut ist.
8. Verriegelbare Gleiteinheit nach einem der vorhergehenden Ansprüche, bei welcher der Rollaufbau (e, f) aus einem verlängerbaren Zug von wenigstens zwei durch eine Verbindungseinrichtung (13), die eine Positionsregleinrichtung (14) trägt, verbundenen Rollrahmen aufgebaut ist.
9. Verriegelbare Gleiteinheit nach einem der vorhergehenden Ansprüche, bei welcher der Rollaufbau

(e, f) eine Feuerschutzeinrichtung trägt.

Revendications

1. Unité de coulissement verrouillable pour supporter de façon coulissante des portes d'ascenseur dans une cage d'ascenseur, ladite unité de coulissement comprenant :

- un rail de guidage (a) s'étendant longitudinalement, ayant deux éléments de guidage allongés parallèles, espacés l'un de l'autre de telle sorte que les faces latérales internes de ceux-ci constituent des parois latérales d'un canal ouvert central (3) s'ouvrant vers l'extérieur à l'avant du rail de guidage ;
- au moins un chariot de transport (b) pour l'utilisation engagé avec ledit rail de guidage (a) de façon à supporter de façon coulissante un panneau de porte d'ascenseur (d) pouvant être suspendu à celui-ci, ledit chariot de transport ou chacun desdits chariots de transport (b) comprenant au moins un ensemble de roulement (e, f) adapté pour engager des voies de guidage (4) constituées par la face latérale externe de l'élément allongé respectif, de telle sorte que le chariot de transport (b) soit retenu sur le rail de guidage (a) en vue d'un déplacement par coulissement longitudinalement le long de celui-ci, un dispositif de verrouillage (6) étant monté sur ledit ou lesdits chariots de transport (b) en vue d'un déplacement par coulissement conjointement avec lui ou avec eux de façon à pivoter par rapport à lui ou à eux autour d'un axe (7) sensiblement perpendiculairement à la direction du déplacement longitudinal ; et au moins un moyen de commutation électrique ;

caractérisé par le fait

que le ou les moyens de commutation électrique (5) sont montés à l'intérieur du canal central (3) dudit rail de guidage (a) ; et que le dispositif de verrouillage (6) dudit ou desdits chariots de transport (b) est reçu à l'intérieur dudit canal central (3) en vue d'un déplacement longitudinal dans celui-ci, les opérations de verrouillage et de déverrouillage entre le dispositif de verrouillage et les moyens de commutation électrique étant ainsi accomplies à l'intérieur des limites dudit canal central (3).

2. Unité de coulissement verrouillable selon la revendication 1, dans laquelle le rail de guidage (a) consiste en un profilé de forme longue ayant la voie de guidage allongée (4) pour supporter et guider ledit ou lesdits chariots de transport (b).

3. Unité de coulissement verrouillable selon la revendication 1, dans laquelle le rail de guidage (a) consiste en deux profilés de forme longue adjacents ayant la voie de guidage allongée (4) pour supporter et guider ledit ou lesdits chariots de transport (b).

4. Unité de coulissement verrouillable selon l'une quelconque des revendications précédentes, dans laquelle le dispositif de verrouillage (6) consiste en un crochet porté par le ou les chariots de transport (b).

5. Unité de coulissement verrouillable selon l'une quelconque des revendications précédentes, dans laquelle le moyen de commutation électrique (5) consiste en un commutateur placé à l'intérieur des limites du rail de guidage (a).

6. Unité de coulissement verrouillable selon l'une quelconque des revendications précédentes, dans laquelle le ou les chariots de transport (b) sont dotés d'une patte de support (12) qui est inclinée de telle sorte que la partie de celle-ci adaptée pour supporter une porte d'ascenseur est située entre ledit ensemble de roulement (e, f) et la paroi interne de la cage d'ascenseur, et ayant des moyens de montage (16) qui sont adaptés pour être connectés de façon libérable avec une pièce auxiliaire de connexion (17) qui est inclinée dans une configuration opposée respective de la patte de support (12) et adaptée pour être connectée à un profilé de connexion (23) dans le panneau de porte (d).

7. Unité de coulissement verrouillable selon l'une quelconque des revendications précédentes, dans laquelle l'ensemble de roulement (e, f) consiste en un train d'au moins deux bases de roulement liées par des moyens d'interconnexion (13).

8. Unité de coulissement verrouillable selon l'une quelconque des revendications précédentes, dans laquelle l'ensemble de roulement (e, f) consiste en un train extensible d'au moins deux cadres de roulement liés par des moyens d'interconnexion (13) portant des moyens (14) de réglage de position.

9. Unité de coulissement verrouillable selon l'une quelconque des revendications précédentes, dans laquelle l'ensemble de roulement (e, f) porte des moyens de sécurité incendie.

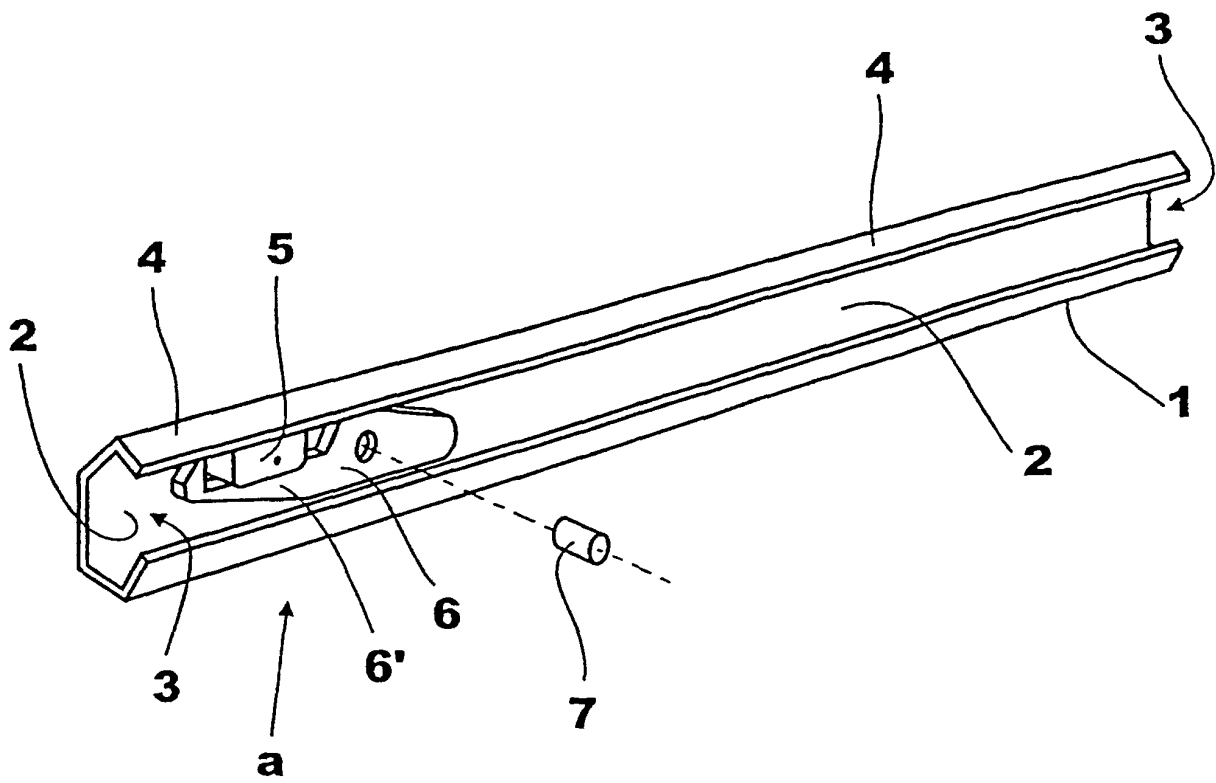


FIG. 1

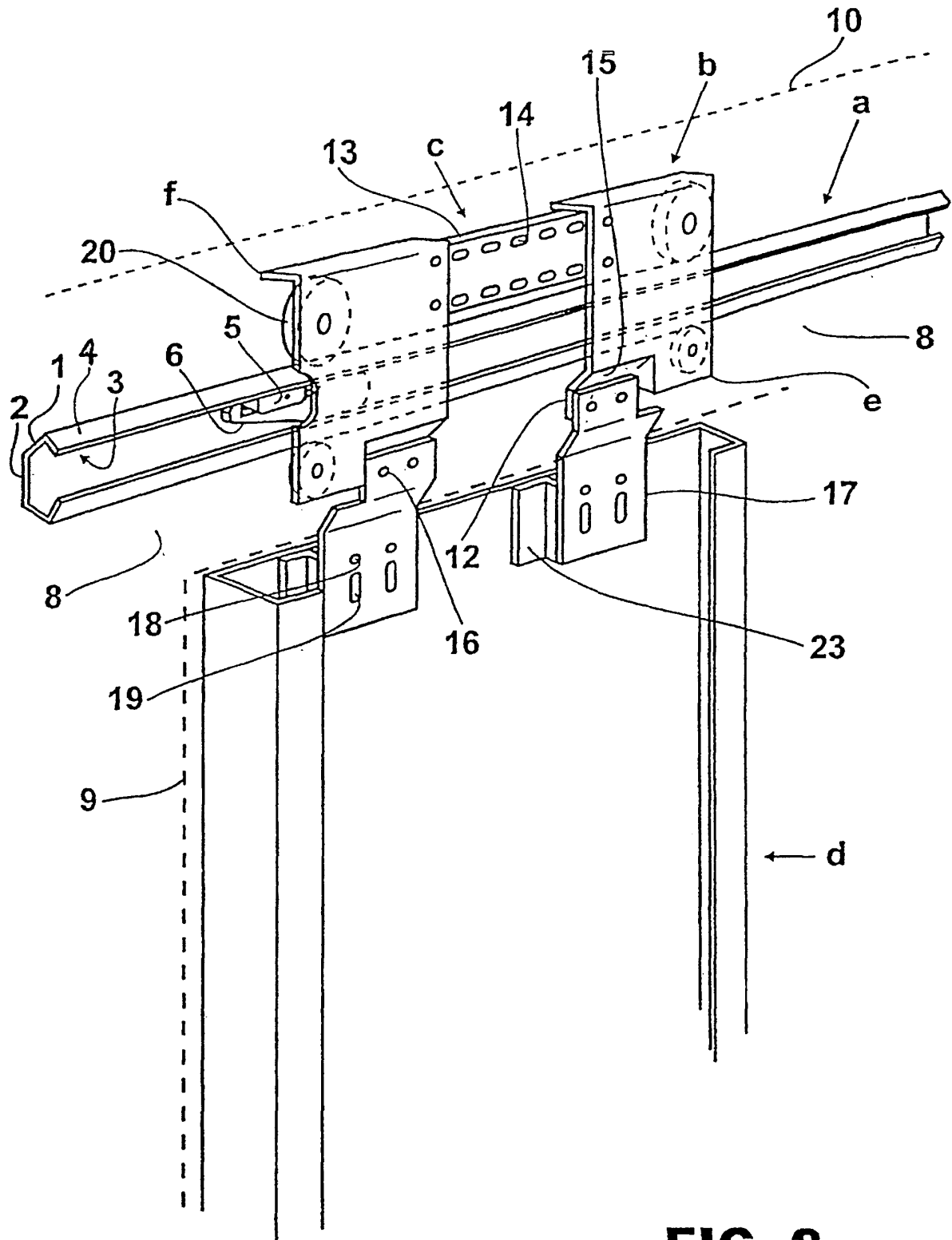


FIG. 2

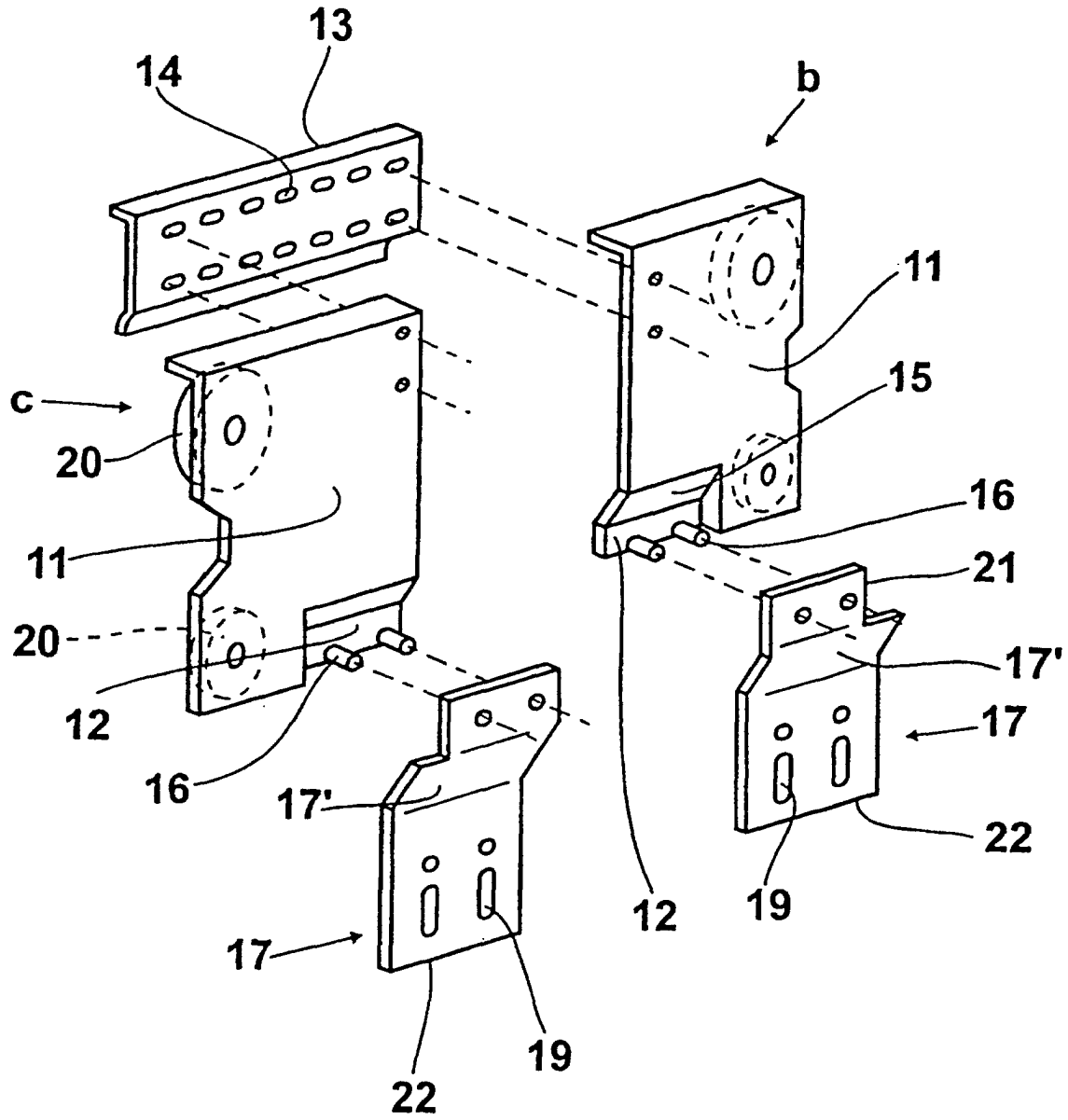


FIG. 3

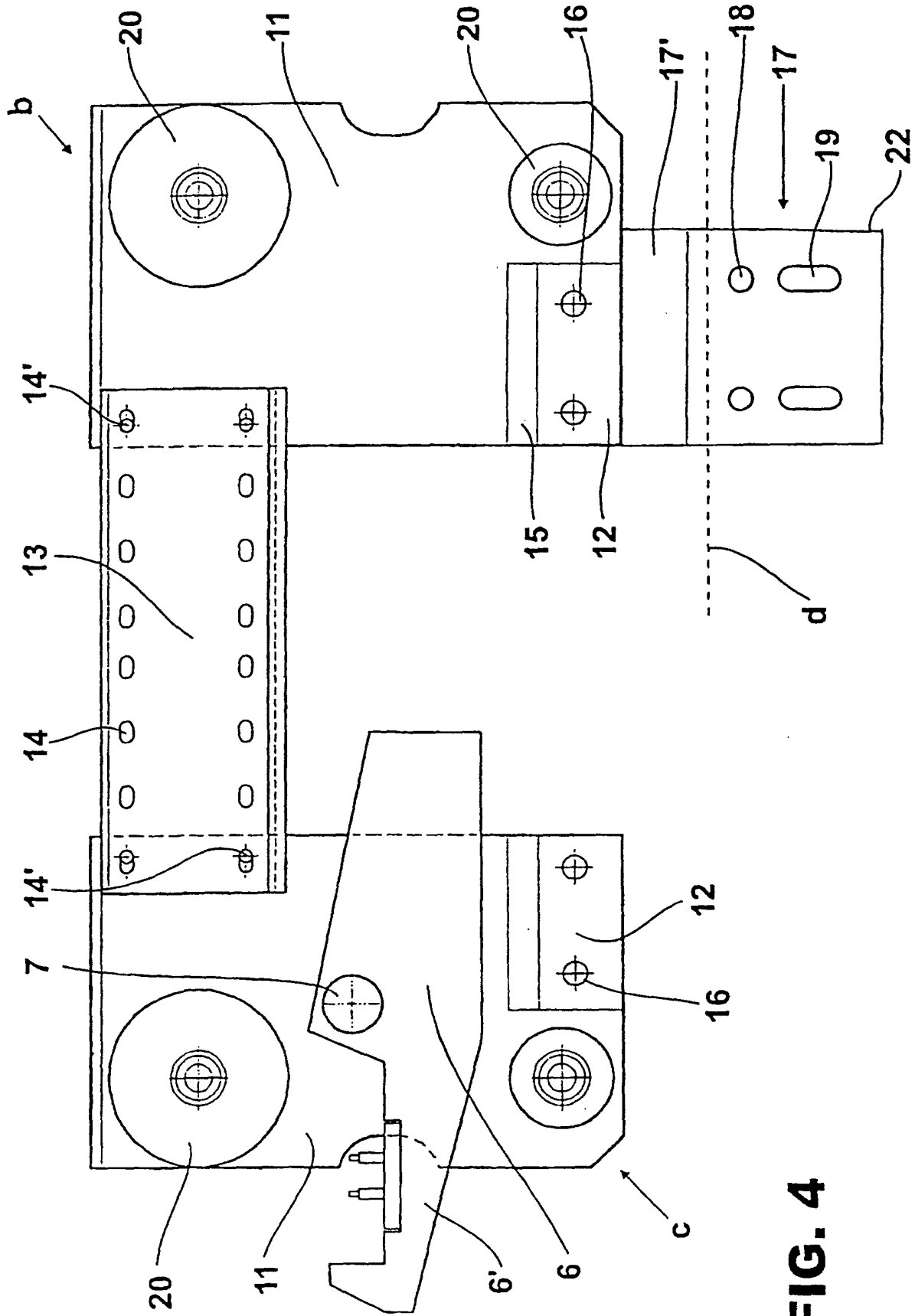


FIG. 4