June 19, 1962 P. E. LINVILLE 3,040,295

ILLUMINATED ELEVATOR SIGHT GUARD

Filed Dec. 8, 1959 2 Sheets-Sheet 1

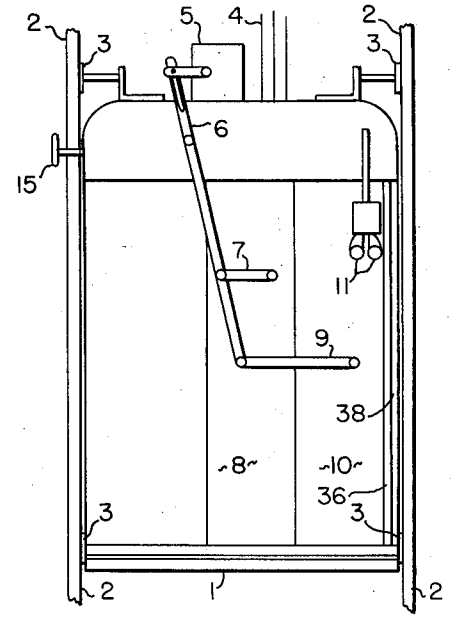


Fig. II

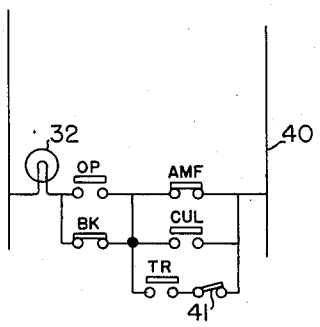


Fig. VII

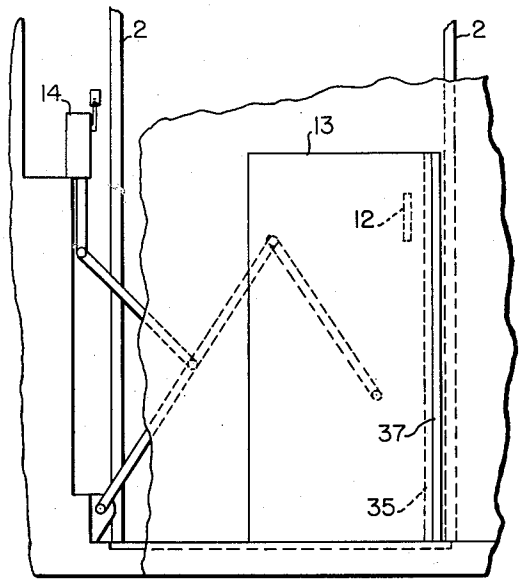


Fig. I

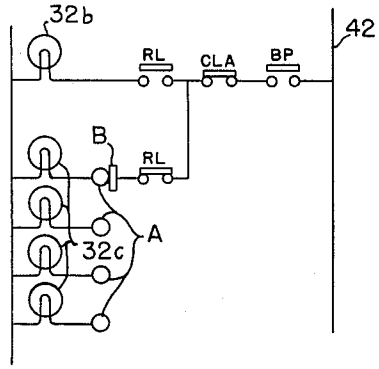


Fig. VIII

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ILLUMINATED ELEVATOR SIGHT GUARD

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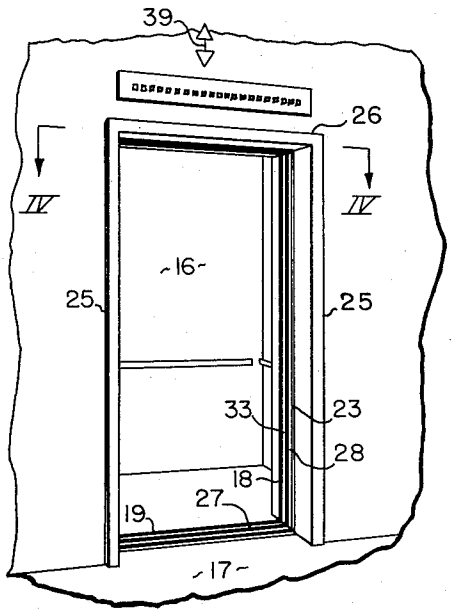


Fig. III

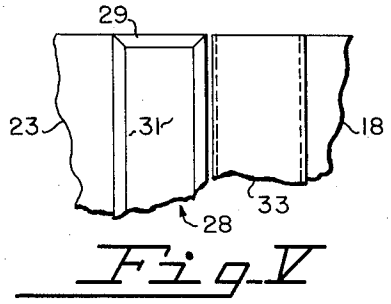


Fig. V

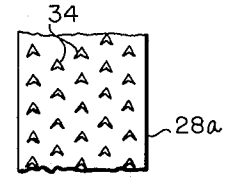


Fig. VI

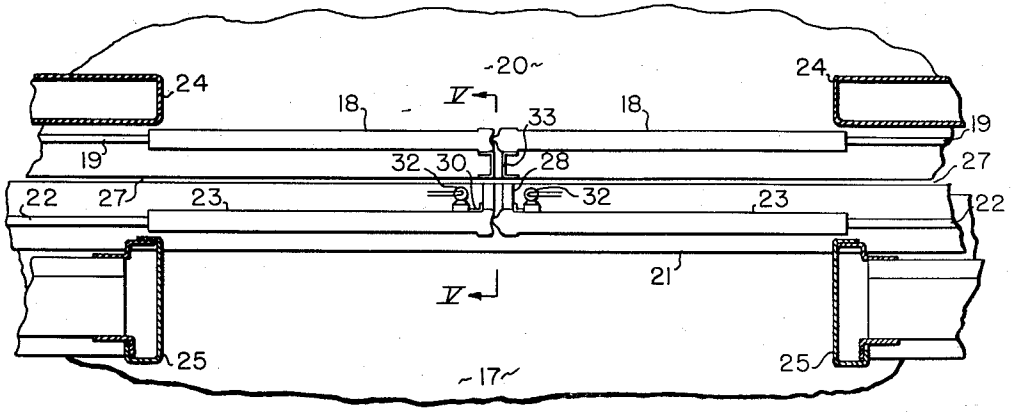


Fig. IV

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3,040,295

ILLUMINATED ELEVATOR SIGHT GUARD

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Filed Dec. 8, 1959, Ser. No. 858,089
17 Claims. (Cl. 340—19)

This invention relates to new techniques of illuminating door entrances.

The new techniques of illumination are particularly well suited for illuminating entrances to elevator cars while, for example, the cars with their doors open are present at landings or when they have accepted calls, means being provided according to the invention for illuminating the entrances which function also as "sight guards."

Elevator car doorways and hoistway or landing door entrances usually are equipped with laterally sliding doors. The doors may be either of the center opening type, in which the doorways are at the centers of the car and hoistway entrances and pairs of doors slide apart in opposite directions to open the doorways, or they may be of the side opening type, in which the car doorway is at one side of the car and the hoistway entrances are at one side of the hoistway and one or more doors slide to the other side of the car and hoistway to open the doorways.

Side opening doors usually are in pairs, one of the doors of each pair traveling at twice the speed of its companion door so that, while a pair of doors can close a doorway the width of which is nearly two-thirds of the width of a car or hoistway, they overlap when open to occupy slightly more than one-third the width of the car or hoistway.

When a car is standing at a hoistway entrance the car doors are spaced from the hoistway doors. Hence, passengers entering and leaving the car can see into the hoistway unless sight or vision guards are provided to conceal the space between the car doors and the hoistway doors. Such sight guards usually consist of vertical strips, which heretofore have been designed with various cross sectional shapes, which are secured to the leading edges of the car doors or the hoistway doors or both and which almost completely shut off from view the space between the car doors and the hoistway doors. Prior sight guards consist of opaque strips which form dark vertical expanses that, if they have been illuminated at all, have been illuminated inefficiently and unattractively by means of spot lights. This illumination from the front makes apparent to passengers entering and leaving the car any relatively large space between the car doors and the hoistway doors not shut off from view because of normal dimensional tolerances in the sizes and positions of the sight guards and the doors associated therewith.

Whenever more than one elevator is employed in a bank of elevators, it is customary to have only one car selected at the terminal floor as the next scheduled car to leaving that floor. The selected one of the cars is often shown by means of lighted signs or "lanterns" located above the terminal door entrances and which may read "This Car Up" or "Next Car Up" or similar wording. Often, however, the waiting passengers pay little attention to such signs because the signs are located considerably above the normal line of vision. It has been observed that quite often passengers waiting at the terminal floor who wish to travel to other floors either hesitate to get into the proper car or have gotten into cars traveling in the direction opposite to which they wish to go or have gotten into cars not yet selected for loading. This has happened chiefly because they did not look up to observe the indicating signs. It also has been observed that quite often passengers waiting at floors other than the terminal floor either hesitate to get into a stopped car or have gotten into a car traveling in the direction opposite to the one in which they wish to go.

It is, accordingly, the salient object of this invention to provide new techniques of illuminating door entrances.

Another object of the invention is to provide improved means for illuminating entrances to elevator cars.

A further object of the invention is to provide, in systems having a plurality of elevators, elevator door entrance illumination which directs attention to the car selected for loading at the terminal floor.

A still further object of the invention is to provide elevator door entrance illumination which functions as directional illumination at all landings.

Another object of the invention is to provide an illuminated sight guard which functions both as means for shutting an elevator hatchway off from view, i.e., as a vision guard, and as an improved means for illuminating the entrance to the elevator car.

Still another object of the invention is to provide improved elevator sight guards which can be manufactured and assembled with relatively large dimensional tolerances but which nevertheless completely shut off from view spaces between the car doors and the landing doors.

Another object of the invention is to provide a sight guard, illuminated from within or behind, that functions both as a sight guard and to illuminate a substantial portion of the vertical side of an elevator car entrance associated with such sight guard while the car with its doors open is at a landing or when it has accepted a call.

Other objects and advantages of the invention will become apparent upon perusal of the following description as illustrated by the accompanying drawings in which:

FIG. I is a simplified schematic view of a landing door of the side opening type at an elevator shaft incorporating the illuminated sight guards of the invention;

FIG. II is a simplified schematic view of an elevator car which is located in an elevator shaft above the landing door which is illustrated in FIG. I and which also incorporates the illuminated sight guards of the invention;

FIG. III is a perspective view, as seen from a landing, of the interior of an elevator car at the landing, the car and landing doors being of the center opening type and incorporating translucent or transparent illuminated sight guards;

FIG. IV is an enlarged horizontal sectional view taken along the line IV—IV of FIG. III when the doors are closed;

FIG. V is a fragmentary, enlarged elevational view as seen from a position along the line V—V of FIG. IV;

FIG. VI is a fragmentary elevational view corresponding to FIG. V of a modified illuminated sight guard which is formed of opaque material in contrast to the translucent or transparent illuminated sight guards that are illustrated in FIGS. I–V;

FIG. VII is an electrical circuit for illuminating sight guards; and

FIG. VIII is an electrical circuit for providing elevator door entrance illumination which functions as directional illumination at all landings.

The following description and the accompanying drawings are to be taken as illustrative of the invention but are not to impose limitations on its scope.

Referring to FIGS. I anl II, an elevator car **1** is guided, according to usual practice, by hatchway rails **2** running vertically along the sides of the hatchway and engaging guide shoes **3** attached to the car **1**. The car is supported by cables **4** running up the hatchway to drive equipment, not shown.

The elevator car **1** is equipped with a door operating mechanism **5** that includes a pivoted lever **6** connected

through a link 7 to a first door 8 and through a second link 9 to a second door 10, the doors being of the side opening type. Since the distance from the fulcrum of the lever 6 to the links 7 and 9 is different the travel of the doors 8 and 10 is also different. This allows the doors to overlap each other in open position and close in slightly overlapping position to close the entire rectangular door opening of the elevator car 1. The fast moving car door 10 carries a pair of rollers 11 in position to embrace vertically extending vanes 12 one of which is fixed to each hatchway or landing door 13 of the side opening type. Only one landing door 13 is shown for simplicity of illustration, it being understood that there is a plurality of landing doors 13 one for each of the rectangular landing door openings defined by the hatchway and a plurality of vanes 12 which are embraced by the rollers 11 during travel of the elevator car 1. The rollers 11 and their mounting means are conventional and, therefore, are shown in more or less schematic fashion in FIG. II. Whenever the elevator car reaches a hatchway entrance frome either direction and the car door opening is in registry with the landing door opening, a landing door interlock 14 for that entrance is unlatched, by means of an ordinary solenoid-operated retiring cam 15 carried by the car, and the car doors are opened. Movement of the fast moving car door 10 carries a roller 11 against the vane 12 that is fixed to the landing door 13 so that the landing door moves to the left, as viewed in FIG. I, in unison with the car door 10. A detailed description and drawings of the landing door interlock and its operation are contained in copending application Serial No. 671,040 filed July 10, 1957, in the name of D.L. Baker.

Referring to FIGS. III and IV, an elevator car 16 is stopped at a landing 17 with its doors 18 open. The doors 18 are of the center opening type and travel in a groove 19 formed in a car door sill 20. The car doors 18 are shown open in FIG. III and closed in FIG. IV. A landing door sill 21 defines a groove 22 which guides a pair of landing doors 23 which also are of the center opening type. The landing doors 23 also are shown open in FIG. III and closed in FIG. IV. The respective car and landing doors move together as one in opening and closing when the elevator car is at a landing and when the car door opening is in registry with the landing door opening, as described in connection with FIGS. I and II, the car door opening being defined by the car door sill 20, vertical door frame members 24 and a horizontal door frame member which is not shown and the landing door opening being defined by the landing door sill 21, vertical door frame members 25 and a horizontal door frame member 26. When the door sills 20 and 21 are juxtaposed only a clearance space 27 exists therebetween which is so small that passengers cannot look down into the hatchway.

Passengers, however, could see into the hatchway by looking between the car doors and the landing doors which necessarily are relatively widely spaced to provide room for the door operating mechanism such as is shown in FIGS. I and II unless sight guards are provided to conceal the space between the car doors and the landing doors. Such sight guards consist of vertical strips which are secured to the leading edges of the car doors or the hatchway doors or both and which almost completely shut off from view the space between the car doors and the hatchway doors. Such sight guards, heretofore, consisted of opaque strips which form dark vertical expanses that, if they have been illuminated at all, have been illuminated at all, have been illuminated inefficiently and unattractively by means of spot lights. This illumination from the front makes apparent to passengers entering and leaving the car any relatively large space between the car doors and the hatchway doors not shut off from view because of normal dimensional tolerances in the sizes and positions of the sight guards and the doors associated therewith.

The leading edges of the landing doors 23 are each

provided with an illuminated sight guard 28 of the invention. The sight guard 28 includes a metal frame 29 which is secured to its respective door 23 by means of brackets 30 and which supports an elongated vertical strip 31 of transparent or translucent material, such as Lucite. As seen in FIG. V, the frame 29 embraces only front and back edges of the transparent or translucent vertical strip 31 so that illumination from a source 32 carried by the door 23 and located at the back of the sight guard 28 shines through the sight guard 28 to illuminate the full height of the vertical side of the entrance. The source 32 may consist of as many lamps as provide a suitable level of illumination. Since there is an illuminated sight guard 28 and a light source therefor on each of the leading edges of the landing doors 23, both of the vertical sides of the car entrance are illuminated when the doors are in their open positions as shown in FIG. III.

A sight guard 33 also is secured to each of the leading edges of the car doors 18; these guards can have the same structure as the sight guards 28 in which case the sight guards 33 are illuminated by means of the adjacent sources 32 or the door sight guards 33 can be formed from the usual opaque metal strips in which case the illuminated landing door sight guards 28 are the only sources of entrance illumination. In either case, new techniques are used for illuminating entrances to elevator cars while, for example, the cars with their doors open are present at landings. These techniques are applicable to any system having door entrances.

In addition to the feature of illuminating the car entrances efficiently and attractively, another feature of the illuminated sight guards is in the high level of illumination provided at the spaces between the sight guards on the car doors and on the landing doors. As seen in plan in FIG. IV, such spaces are in registry with and have the same width as the space 27 between the door sills 20 and 21, the spaces between the sight guards on the car doors and on the landing doors usually being so small that passengers cannot see into the hatchway even if no illumination for the sight guards is provided. However, because of the normal dimensional tolerances in the sizes and positions of the sight guards and the doors associated therewith the spaces between the sight guards on the car doors and on the landing doors in the prior art and in the elevators shown in FIGS. I–V when not illuminated sometimes are large enough for passengers to see into the hatchways. The prior art sight guards were either not illuminated at all or else were illuminated from the front which made apparent to passengers entering and leaving the car any relatively large spaces between the sight guards through which they could view the hatchway. At best, these spaces were unattractive. In contrast, the spaces between the sight guards 28 on the landing doors 23 and the sight guards 33 on the car doors 18 are brightly illuminated from behind to provide a contrast in light intensity which makes it impossible for the eye to discern beyond such spaces even should they happen to be relatively widely spaced. Hence, the illuminated sight guards of the invention in addition to featuring the double function of acting as vision guards and as entrance illuminators have the advantage that they can be manufactured and assembled with relatively large dimensional tolerances and nevertheless always completely shut off from view spaces between the car doors and the landing doors. The illuminated sight guards can be secured to the leading edges of the car doors or the landing doors or both.

FIG. VI corresponds to FIG. V; it shows a modified illuminated sight guard 28*a* formed of opaque material in contrast to the transparent or translucent strip 31 of the illuminated sight guard 28. The opaque sight guard 28*a* defines a plurality of openings 34 which are formed by partially punching out and bending back sections of the opaque material so that light from a light source located behind the opaque material shines through the

openings 34 and illuminates the front of the opaque material. Hence, the illuminated sight guards of the invention can be constructed of transparent or translucent or opaque materials.

Alternatively, instead of being illuminated from behind, the illuminated sight guards can be illuminated from within. A sight guard 35 is secured to the leading edge of the landing door 13 shown in FIG. I; it comprises a panelescent lamp or lamps. A similar sight guard 36 is secured to the leading edge of the car door 10. Also, similar sight guards 37 and 38 are secured to the landing door jamb and to the car door jamb, respectively. The illuminated sight guards 35, 36, 37 and 38 function in the same manner as the illuminated sight guards 28, the only differences being that the sight guards 35, 36, 37 and 38 are illuminated from within instead of from behind and the sight guards 37 and 38, being on the door jambs, do not move as one with the doors.

The elevator shown in FIGS. III and IV may be employed in a bank of elevators. In such a system, it is customary to have only one car selected at a dispatching terminal as the next scheduled car to leave that landing. The selected one of the cars is shown by means of a lighted sign or lantern 39 (FIG. III) located above each of the terminal floor entrances and which reads "This Car Up" or "Next Car Up." The sources 32 for the illuminated sight guards 28 on the hall doors 23 at the terminal floor entrances are wired into the electrical circuits for the respective signs or lanterns to illuminate with, or instead of, such signs or lanterns. Hence, the sight guards remain dark when the car stops at the terminal floor and is still set for down travel or else is waiting to be selected for loading and are selectively illuminated to indicate the next car to be dispatched. It is not necessary that the sight guards be made actually dark; they can be dimmed by altering the voltage or by reducing the number of lit lamps. In addition to functioning as illuminators for the entrances, the illuminated sight guards 28 serve to direct attention to the car selected for up loading at the lobby or lower dispatching landing.

In prior elevator systems, the waiting passengers paid little attention to the "This Car Up" or "Next Car Up" signs because the signs are placed considerably above the normal line of vision. It has been observed in prior systems that quite often passengers waiting at the terminal floor who wish to travel to other floors either hesitate to get into the proper car or have gotten into cars traveling in the direction opposite to which they wish to go or have gotten into cars not yet selected for travel. This has happened chiefly because they did not look up to observe the indicating signs. In contrast, waiting passengers move quickly and confidently into the proper cars in systems employing the illuminated sight guards of the invention which serve to direct attention to the car selected for up loading at the lobby or lower dispatching landing. The additional entrance lighting seems to give the passengers the needed assurance and attract them to the available car. This greatly speeds up the overall operation particularly in automatic elevator systems. Illuminated sight guards can be used as illuminators and as vision guards on the landing doors in all of the landings above and below the terminal floor.

It is to be understood that the foregoing and the following description relating to the electrical circuitry for the rear illuminated transparent or translucent sight guards shown in FIGS. III and IV apply also to the inside illuminated transparent or translucent sight guards shown in FIGS. I and II and to the rear illuminated opaque sight guard shown in FIG. VI.

The circuit shown in FIG. VII is used when the illuminated sight guards and their light sources are carried by the leading edges of the car doors 18. In such case, the sight guards 33 on the doors 18 are constructed and illuminated in the same manner as are the sight guards 28 hereinbefore described, the sources 32 being carried by the car doors instead of by the landing doors. This arrangement has the advantage that one set of illuminated sight guards on the car doors functions as illuminators for the entrances at all floors.

In operation with reference to FIG. VII, when the elevator car approaches any landing from either direction except the terminal landing, a door opening relay having normally open contacts OP is energized as the doors begin to open and is deenergized when the doors are fully open. Energization of the door opening relay causes its contacts OP to close and a circuit from a lead 40 connected to a suitable source of current is closed, current flowing from the lead 40 through a normally closed relay contact AMF and now closed relay contact OP to light the lamps in the source 32. The relay contact AMF is operated by an above main floor relay which is always deenergized while the elevator car is above the terminal floor. Hence, the sight guards are illuminated as soon as the doors begin to open.

Before the door opening relay contacts OP open which occurs when the doors are fully open, a brake relay having normally closed contacts BK is deenergized which occurs as the brake for the car 16 is set. Deenergization of the brake relay allows its contacts BK to close. The brake relay contacts BK bypass the relay contacts OP so that the circuit to the source 32 stays closed after the relay contacts OP open. Hence, when the car stops and the doors open, the sight guards illuminate the entrance to the car. The illuminated door edges introduce a safety factor into the system, since passengers are more apt to notice bright door edges than they are to notice dark door edges as the doors close.

When the elevator approaches the terminal floor, the above main floor relay is energized and its contacts AMF open. Current, however, still can flow from the lead 40 through a closed knife switch 41 and a normally open door timer contact TR which is closed at this time and then through the OP and BK contacts as hereinbefore described. The TR contact is operated by a door timer relay which is a slow drop out relay and which is operated as shown and described in U.S. Patent No. 2,758,676, issued on August 14, 1956, to W. A. Nikazy. Thus, when the car stops at the terminal floor and the doors open, the sight guards illuminate the entrance to the car.

After the car has stopped at the terminal floor and after an interval timed, after the last passenger leaves the car, by the door timer relay the door timer relay is deenergized and its normally open TR contacts open. The lights then go out or are dimmed to discourage passengers from entering the car until the car is assigned by the dispatcher as the next to be loaded.

When the dispatcher assigns the car as the next to be dispatched, an up loading relay CUL is energized and its normally open contacts CUL close. This establishes a circuit through the CUL contacts and the brake relay contacts BK lighting the lights to direct attention to the car seleced for loading at the lobby or lower dispatching landing. Thus, one set of illuminated sight guards on the car doors functions as vision guards at every floor, as entrance illuminators at every floor and as indicators to indicate the next car to be dispatched from the terminal floor.

The circuit shown in FIG. VIII, which is disclosed in detail in U.S. application No. 808,290, filed on March 30, 1959, in the name of R. A. Burgy and entitled Elevator Controls, is used when the illuminated sight guards and their light sources are carried by the car doors and by all of the landing doors. This arrangement is of particular value when used for directional illumination of the entrances. The illumination from the car door sight guard preferably is of a color different from that of the landing door sight guards to differentiate between up and down directions of travel, the colors being imparted either by colored lamps in the sources or by colored transparent or translucent strips 31 in the sight guards. This arrange-

ment is especially useful to indicate whether or not a car at the terminal floor is going to the basement. It is not necessary, however, that different colors be used, illumination of car door sight guards or landing door sight guards being sufficient to indicate direction. Also, the physical shapes of the guards may be different, one shape or form indicating up travel and another shape or form indicating down travel.

In the circuit shown in FIG. VIII, source *32b* is carried one by each of the car doors and sources *32c* are carried one by each of the landing doors. The single source *32b* represents two sources carried by the car doors and each of the sources *32c* represents two sources for a particular set of landing doors, each of the sources *32c* being energized when the car is at its respective floor by current flowing through its respective contact segment A on a floor selector machine. Brush B on the floor selector machine contacts that one of the contact segments A which corresponds to the particular selected floor.

In operation, if the car door sight guards are the "down" indicators, if the landing door sight guards are the "up" indicators, and if the car is set to travel or is traveling in the up direction, a direction throw over relay closes the lower one of its contacts RL and opens its upper one of its contacts RL as viewed in FIG. VIII. When the car approaches the selected landing, a door closing relay is deenergized and its normally closed contacts CLA close and current flows from a lead **42** connected to a suitable source of current through a closed relay contact BP, closed contacts CLA and closed contacts RL to energize that one of the light sources *32c* which is in circuit with the brush B. Relay CLA is energized as the start of the car is initiated and the door closing operation begun. Contact BP is operated by a by-pass relay which is a load actuated switch operating when the car is loaded to capacity. Contact BP disables the indicators and discourages further loading of the car. When the car stops and the doors open, the landing door sight guards illuminate the entrance with light having a particular color that indicates "up" travel. This cycle is repeated as long as the car is set for up travel.

When the car is set ot travel or is traveling in the down direction, the direction throw over relay closes the upper one of its contacts RL and opens its lower one of its contacts RL as viewed in FIG. VIII. When the car approaches the selected landing, the door closing relay is deenergized and its normally closed contacts CLA close and current flows through the closed relay contact BP, closed contacts CLA and closed contacts RL to energize the light source *32b*. When the car stops and the doors open, the car door sight guards illuminate the entrance with light having a particular color that indicates "down" travel. This cycle is repeated as long as the car is set for down travel.

Various modifications in details of construction may be made without departing from the spirit and scope of the invention.

Having described the invention, I claim:

1. An elevator system comprising a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, light source means, and elongated illuminating means illuminated by the light source means for illuminating; while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open, a substantial portion of at least one of the vertical sides of such registered openings, the elongated illuminating means being juxtaposed and generally parallel to said at least one of the vertical sides of said registered openings and located at least partly between the light source means and said registered openings.

2. An elevator system according to claim 1 wherein the illuminating means is carried by the car door means.

3. An elevator system according to claim 1 wherein the illuminating means is carried by the landing door means.

4. An elevator system according to claim 1 wherein the illuminating means is located partly on the car and partly at each of the floors.

5. An elevator system comprising a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, light source means, and elongated illuminated means illuminated by the light source means for shutting the hatchway off from view while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open and also for illuminating, while the hatchway is shut off from view, a substantial portion of at least one of the vertical sides of such registered openings, the elongated illuminated means being juxtaposed and generally parallel to said at least one of the vertical sides of said registered openings and located at least partly between the light source means and said registered openings.

6. An elevator system comprising a car defining a car opening, a car door having a leading edge for the car door opening, a hatchway extending between a plurality of floors and providing a path of travel for the car, the hatchway defining a landing-door opening at each of the floors, a landing door having a leading edge for each of the landing door openings, light source means, and an elongated illuminated member illuminated by the light source means and secured to the leading edge of a door for illuminating the opening at such door and for shutting off from view space adjacent such door, the elongated illuminated member being juxtaposed and generally parallel to said leading edge to which it is secured and located at least partly between the light source means and said illuminated door opening.

7. An elevator system according to claim 6 wherein the illuminated member is secured to the leading edge of the car door.

8. An elevator system according to claim 6 wherein an illuminated member is secured to the leading edge of each of the landing doors.

9. An elevator system according to claim 6 wherein an illuminated member is secured to the leading edge of all of the doors.

10. An elevator system according to claim 6 wherein the member is illuminated from behind.

11. An elevator system according to claim 6 wherein the member is opaque and defines a plurality of openings that are illuminated from behind.

12. An elevator system according to claim 6 wherein the member is illuminated from within.

13. In a bank of elevators, an elevator system comprising, in combination, a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors one of which is a terminal floor and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, light source means, and elongated illuminated means illuminated by the light source means for illuminating, operable while the car door opening is in registry with the terminal floor landing door opening and the respective door means for such registered openings are open and after the car is selected for loading, a substantial portion of at least one of the vertical sides of such registered openings to illuminate such registered openings and to indicate that the car is next to be dispatched,

the elongated illuminated means being juxtaposed and generally parallel to said at least one of the vertical sides of said registered openings and located at least partly between the light source means and said registered openings.

14. In a bank of elevators, an elevator system comprising, in combination, a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors one of which is a terminal floor and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, illuminating means carried by the car, and an operating circuit for the illuminating means including means for closing the circuit to energize the illuminating means while the car door opening is in registry with any one of the landing door openings and the respective door means for such registered openings are open for illuminating such registered openings, means operable after the car is stopped at the terminal floor with the respective door means open for an interval for breaking the circuit to the illuminating means to discourage passengers from entering the car until the car is assigned as the next to be loaded, and means operable while the car is stopped at the terminal floor with the respective door means open and after the car is selected for loading for reclosing the circuit to energize the illuminating means again for illuminating the registered openings and to indicate that the car is next to be dispatched.

15. An elevator system comprising a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, first illuminating means carried by the car producing an illumination that indicates travel of the car in a first direction, second illuminating means at each of the floors producing an illumination that indicates travel of the car in a second direction, and circuit means, operable while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open and when the car is set to travel in the first direction, for closing the circuit to the first illuminating means and opening the circuit to the second illuminating means, whereby the first illuminating means illuminates a substantial portion of at least one of the vertical sides of such registered openings with light as a directional indication, the circuit means also being operable while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open and when the car is set to travel in the second direction for closing the circuit to that one of the second illuminating means at the respective floor and opening the circuit to the first illuminating means, whereby such one of the second illuminating means illuminates a substantial portion of at least one of the vertical sides of such registered openings with light as a directional indication.

16. An elevator system comprising a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, first illuminating means carried by the car producing an illumination having a first color that indicates travel of the car in a first direction, second illuminating means at each of the floors producing an illumination having a second color that indicates travel of the car in a second direction, and circuit means, operable while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open and when the car is set to travel in the first direction, for closing the circuit to the first illuminating means and opening the circuit to the second illuminating means, whereby the first illuminating means illuminates a substantial portion of at least one of the vertical sides of such registered openings with light of the first color as a directional indication, the circuit means also being operable while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open and when the car is set to travel in the second direction for closing the circuit to that one of the second illuminating means at the respective floor and opening the circuit to the first illuminating means, whereby such one of the second illuminating means illuminates a substantial portion of at least one of the vertical sides of such registered openings with light of the second color as a directional indication.

17. An elevator system comprising a car defining a car door opening having vertical sides, car door means for the car door opening, a hatchway extending between a plurality of floors and providing a path of travel for the car, the hatchway defining a landing door opening having vertical sides at each of the floors, landing door means for each of the landing door openings, light source means, and elongated directional indicators illuminated by the light source means, operable while the car door opening is in registry with one of the landing door openings and the respective door means for such registered openings are open, for illuminating a substantial portion of at least one of the vertical sides of such registered openings as a directional indication, the elongated directional indicators being juxtaposed and generally parallel to said at least one of the vertical sides of said registered openings and located at least partly between the light source means and said registered openings.

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