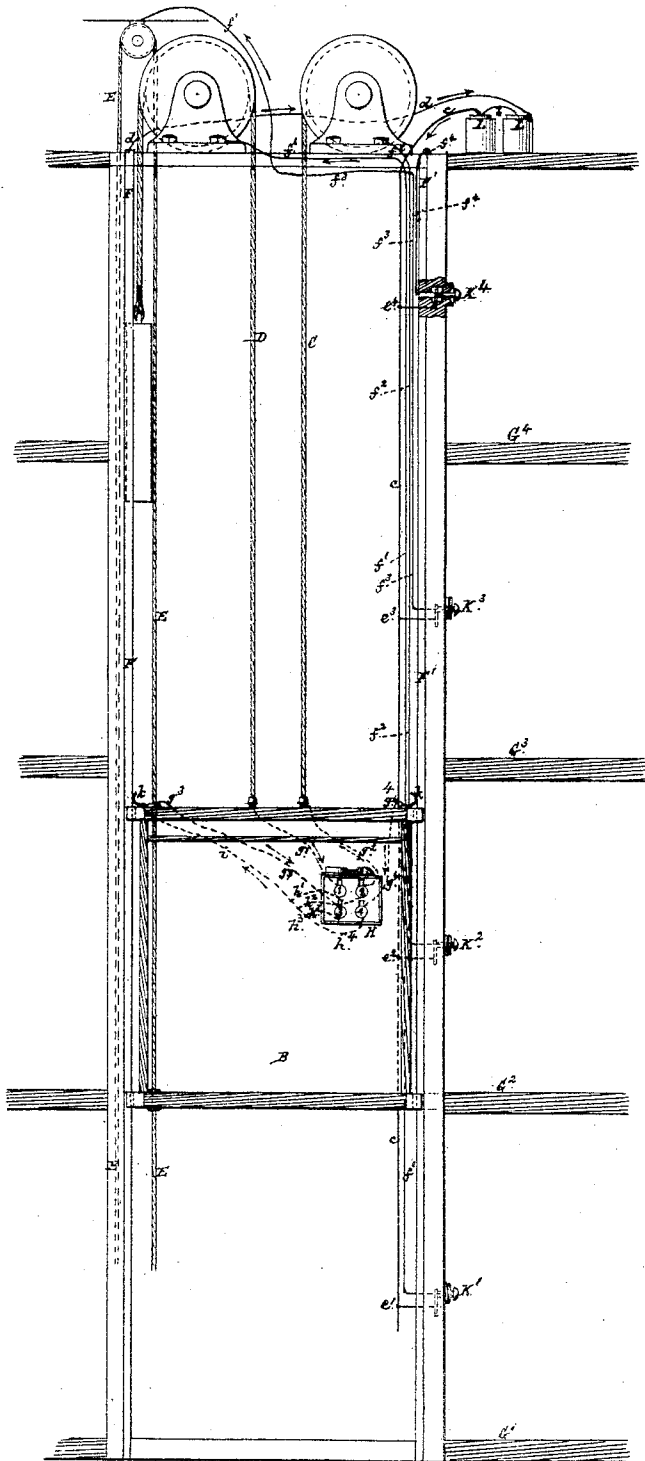


J. H. COREY.

Electrical Indicators for Elevators.

No. 137,422.

Patented April 1, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES H. COREY, OF NEW YORK, N. Y.

IMPROVEMENT IN ELECTRICAL INDICATORS FOR ELEVATORS.

Specification forming part of Letters Patent No. **137,422**, dated April 1, 1873; application filed November 14, 1872.

To all whom it may concern:

Be it known that I, JAMES H. COREY, of the city, county, and State of New York, have invented an Improvement in Electric Indicators for Elevators, of which the following is a specification:

This invention relates to a combination, with the car or platform of an elevator, of an indicator therein or thereon, acting either by visible or audible signals, or both, and operated by electrical impulse from each or any of the several floors of a building, whereby the attendant in charge of the car may be informed of the particular floor or story on or at which the car is required. My improvement consists in a system of electrical connections whereby certain or each of the several ropes and guide-posts of the elevator may be used for establishing the circuit, thus dispensing with the employment of a number of flexible or movable metallic conductors arranged to lead from the indicator to the several floors and in connection with the operating-battery, as in a previous pending application for patent by me.

By this improvement I simplify the electrical connections by utilizing the mechanical means necessary for the working of the elevator, and do away with much or any liability to derangement of the conductors, besides being enabled to leave the interior of the car free from obstruction by the conductors and accessible if desired from all sides of it.

The accompanying drawing, which forms part of this specification, represents a sectional elevation of a hoistway intersecting a series of floors, and cab of an elevator therein, together with an electro-magnetic indicator arranged within the cab, and certain wires or conductors used in part to form the circuit and serving to connect the indicator with circuit-closers on the different floors, and, through the ropes or guides of the elevator, or both, with a battery having a fixed relation and common to all the wires leading to or from the several floors.

A is the hoistway, and B the cab or traveling platform of the elevator. C is the hoisting-rope; D, the counterbalance-rope of the cab; and E, the guide-rope, by which the attendant in charge of the cab is enabled to stop or start and control the movement up or down

of the cab, all as in other elevators. F F' are the guides, arranged either up the sides or corners of the hoistway to steady and direct the cab in its travel, and which, as well as the ropes, are of metal, suitably insulated, to form electric conductors. G¹ G² G³ G⁴ represent different floors of a building intersected by the hoistway, and from each of which it is desired to establish communication with the attendant in the cab by means of an electro-magnetic indicator, H, within or on the cab, and circuit-closers K¹ K² K³ K⁴ at the different floors. Said indicator may either be a visible or audible one, or both, and of any suitable construction; thus it may be similar to those now used in hotels for signaling from any one or more of the apartments to the office or other part of the hotel, and be provided with a series of numbered signals, 1 2 3 4, which correspond with the rooms or floors G¹ G² G³ G⁴, and which are, respectively, exposed or adjusted to direct attention accordingly as the circuit is closed at any one or more of the floors. L L are cups, connected by a wire, b, and forming the two poles of the battery with which the wires c d are connected, respectively. Said battery is preferably arranged above or at top of the hoistway; but it may be at the bottom, or otherwise disposed. The one battery-wire, c, runs down the side of the hoistway and has branch wires e¹ e² e³ e⁴ to the circuit-closers K¹ K² K³ K⁴. The other battery-wire, d, connects with the one guide F of the hoistway. Arranged up or down the side of the hoistway are floor-wires f¹ f² f³ f⁴ connecting at their one end with the circuit-closers K¹ K² K³ K⁴ at the several floors, respectively, and at their other end with the ropes or guides of the elevator, or with supports in electrical connection therewith; thus, the one wire f¹ connects with the balance-rope D through its overhead drum or pulley; the wire f² with the hoisting-rope C; the wire f³ with the guide-rope E; and the wire f⁴ with the fixed guide F'. The balance-rope D, hoisting-rope C, guide-rope E, and guide-post F' thus serve, when the circuit-closers K¹ K² K³ K⁴ are operated, as conductors in connection with the battery-wire c and floor wires or conductors f¹ f² f³ f⁴ to carry the current by or through branch wires g¹ g² g³ g⁴ from the battery to the one end or pole

of the several magnets, respectively, which control the signals 1 2 3 4 of the indicator H, the other ends or poles of said magnets being connected, to complete the circuit, by branch wires h^1 , h^2 , h^3 , h^4 , and i with the guide-post F and battery-wire d . The wires g^4 and i may connect with the fixed guides F F' by sliding springs, clips, or dogs $k k$ carried by the cab. When a bell is used in addition to the signals 1 2 3 4 suitable connections are made with the magnets or wires connecting therewith to sound it as the current is passed through each or all of them.

Of course the disposition of the several conductors may be changed, and it is not necessary that all the working ropes and guide-posts of the elevator should be used. For an audible signal only, when it is not necessary to indicate the particular floor from which the call is made, then the two guide-posts, or ei-

ther two of the ropes, or one guide-post and one rope will answer to complete the circuit; but for a visible signal announcing the particular floor at which the cab is wanted, all the ropes and guide-posts may be used, as hereinbefore described. Furthermore, the invention is not restricted to signaling from any particular number of floors.

What is here claimed, and desired to be secured by Letters Patent, is—

The employment of the guide-posts and working ropes of the elevator, or either, as conductors for operating, by electrical impulse from each or any of the several floors, an indicator carried by the cab or traveling platform, substantially as specified.

JAS. H. COREY.

Witnesses:

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