

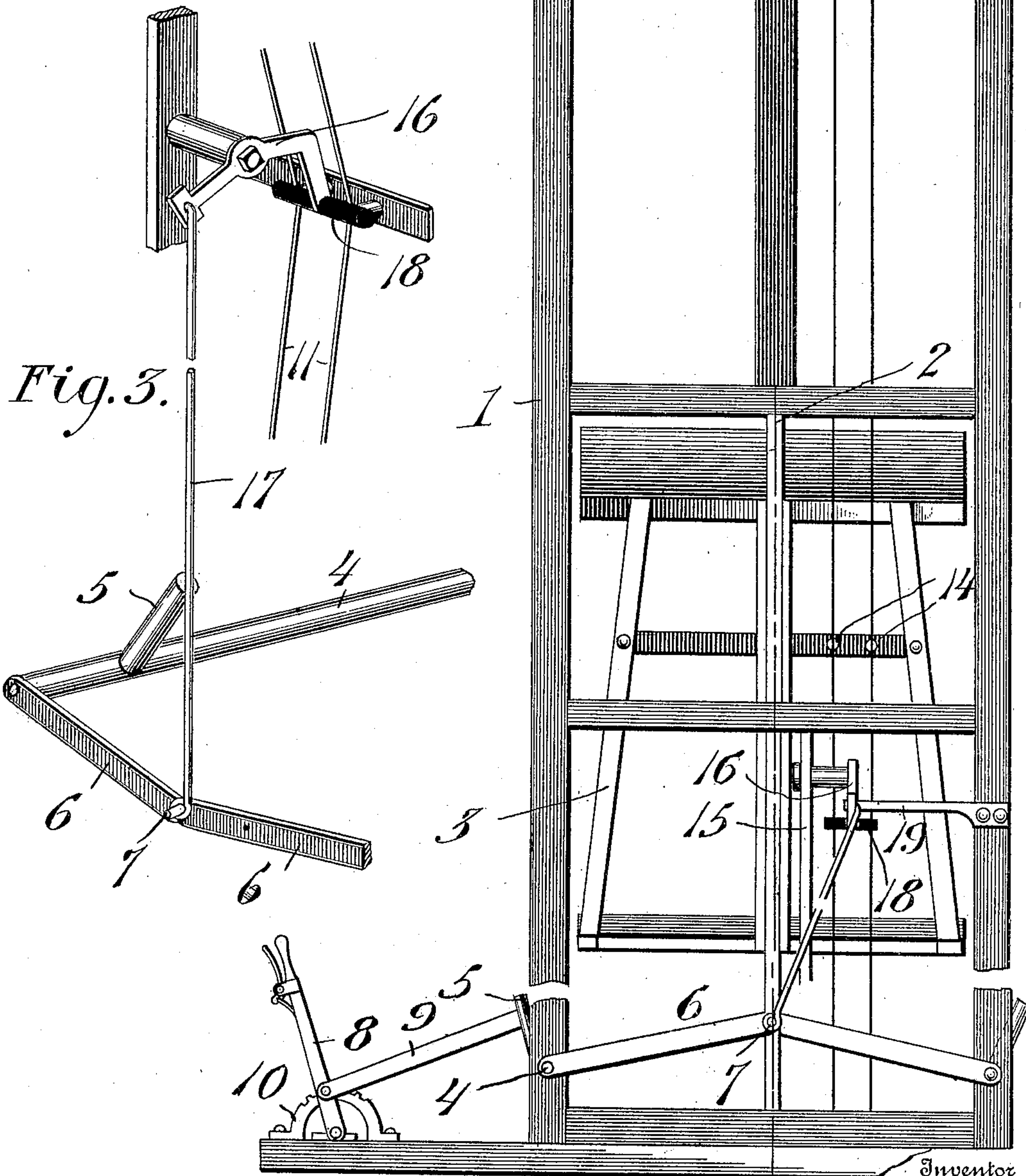
No. 837,888.

PATENTED DEC. 4, 1906.

C. SCHAELLING.  
ELEVATOR ATTACHMENT.  
APPLICATION FILED NOV. 25, 1905.

2 SHEETS—SHEET 1.

*Fig. 1.*



Witnesses

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Charles<sup>2</sup> Schaelling.

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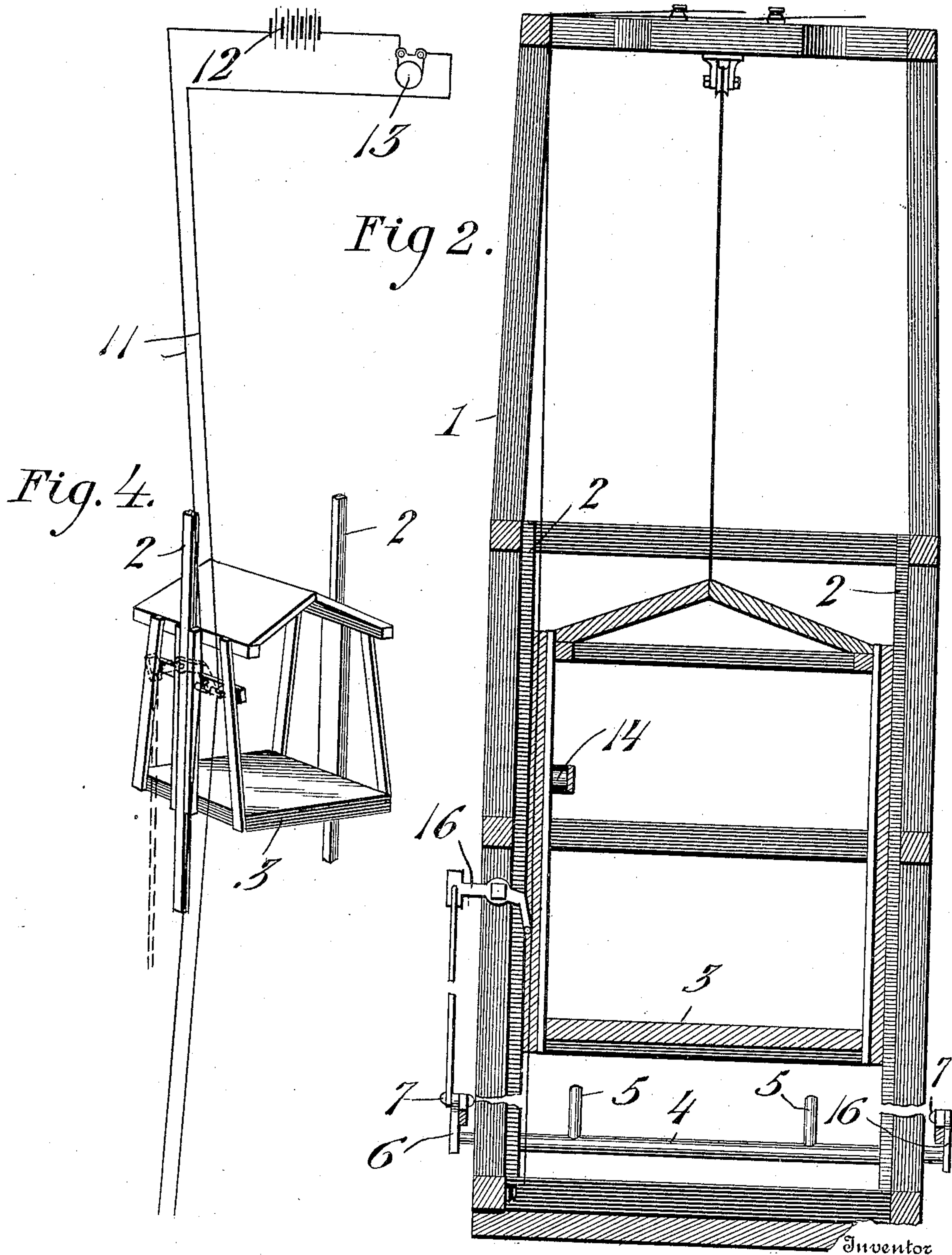
Attorney

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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

CHARLES SCHAELLING, OF EUREKA, UTAH.

## ELEVATOR ATTACHMENT.

No. 837,888.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed November 25, 1905. Serial No. 289,092.

*To all whom it may concern:*

Be it known that I, CHARLES SCHAELLING, a citizen of the United States, residing at Eureka, in the county of Juab and State of Utah, have invented new and useful Improvements in Elevator Attachments, of which the following is a specification.

This invention relates to signals for use in connection with mine-elevators, and has for its objects to produce a comparatively simple device of this character which may be inexpensively installed for use, one whereby due warning will be given of the fact in the event of the car-receiving chairs being disposed within the shaft, and one wherein the movements of the chairs automatically controls the setting of the signal.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of an elevator equipped with a signal embodying the invention. Fig. 2 is a vertical longitudinal section taken on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of a portion of one of the chairs and showing the connection between the same and the signal-setting lever. Fig. 4 is a detail perspective view of the cage and showing the signal-circuit.

Referring to the drawings, 1 designates an elevator-shaft including vertical guides 2, between which there is arranged for travel a car or cage 3, there being journaled in the framework of the shaft 1 and at opposite sides thereof rock-shafts 4, equipped with chair-arms 5 and connected for simultaneous movement by means of pairs of links 6, fixed, respectively, upon the ends of the shafts 4 and having their meeting ends pivotally connected, as at 7. The chairs are adapted for operation by means of a lever 8, connected with one of the shafts 4 by means of a link 9 for moving the arms 5 into and out of position within the shaft 1, there being provided a rack 10, adapted for engagement by a suitable pawl on the lever to fix the latter against movement for maintaining the chair in adjusted positions. The foregoing parts may all be of the usual or any appropriate construction and material and are adapted in practice to perform their usual functions.

Extended downward through the shaft 1 and connected at their lower ends with one of the frame-beams is a pair of wires 11,

which, in conjunction with a battery 12, constitutes a normally open electric circuit, including a signaling-bell 13, situated at the engineer's station at the top of the shaft, there being carried by the car 3 a pair of electrically-connected contact-pieces 14, designed to contact, respectively, with the wires 11 and complete the circuit through the latter, while pivoted to a portion 15 of the framework of the shaft at a point above and suitably remote from the chairs 5 is a rocking member or lever 16, having its outer end connected by a rod or element 17 with the links 6 at their pivotal point 7 and provided at its inner end with an insulated contact-piece 18, adapted to bridge the wires 11 and to bear upon both of said wires for moving them to contacting position, as hereinafter explained. The lever 16 is acted upon and maintained in normal position by a leaf-spring 19, fixed at one end to the framework of shaft 1.

In practice the shaft 1 will be equipped with a plurality of sets of chairs 5, disposed, respectively, at the different levels in the shaft, it being understood that when the car is to be brought to rest at any determined level the lever 8 will be operated for rocking the shafts 4 and projecting the chair-arms 5 into the shaft within the path of the car, which will when stopped rest upon said arms. As the shafts 4 are rocked for swinging the arms inward the pivotal point 7 of the links will move downward, thus serving through the medium of the rod 17, to rock the lever 16 on its pivot, whereupon the wires 11 will be forced outward in the shaft by means of the insulated piece 18 and within the path of the contact-pieces 14, whereby as the car descends the pieces 14 in contact with the wires 11 will complete the circuit and ring the bell 13, thus warning the engineer of the fact that the car is approaching the chairs 5 and in order that the car may be brought to a proper stop. It is to be understood in this connection that the setting-lever 16 is disposed a sufficient distance above the point of location of the chair-arms to give ample time within which to check the speed of the car before reaching said arms and, furthermore, that whenever the chairs are positioned to contact with the car the lever 16 will be set for moving the wires to position for contact with the pieces 14, while, on the other hand, when the chairs occupy the position illustrated in Fig. 1 and out



of the path of the car the wires will be maintained in position for non-contact with the pieces 14. Thus it will be seen that in the event of the attendant failing to move the  
5 chairs 5 to non-danger position or, that is, out of the path of the car the parts of the mechanism will be set, and as the car descends the shaft the alarm will be sounded at the engineer's station, thus to permit of the  
10 car being stopped before reaching the chairs, and consequently obviating liability of an accident.

Having thus described my invention, what I claim is—

15 1. In a device of the class described and in combination with an elevator-shaft, a car movable therein, chair members adapted for movement to a position within the shaft for receiving the car, a circuit comprising a pair  
20 of wires, a signal included in said circuit, a contact member on the car, a rocking member carrying an insulated bar adapted to engage and press the wires into the path of the contact member, and means controlled by the

movements of the chair members for operating the rocking member to move the wires to contacting position. 25

2. In a device of the class described and in combination with an elevator-shaft, a car arranged for movement therein, electrically-  
30 connected contact-pieces carried by the car, a circuit including a signal and comprising wires extended into the shaft, chair members adapted for movement into the shaft to receive the car, links connecting the chair  
35 members, a rocking member having an insulated bar adapted to engage and press the wires into the path of the contact-pieces, and connections between the links for operating the former to move the wires to contacting  
40 position.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES SCHAELLING.

Witnesses:

H. F. FULLRIDE,  
G. W. OWEN.