

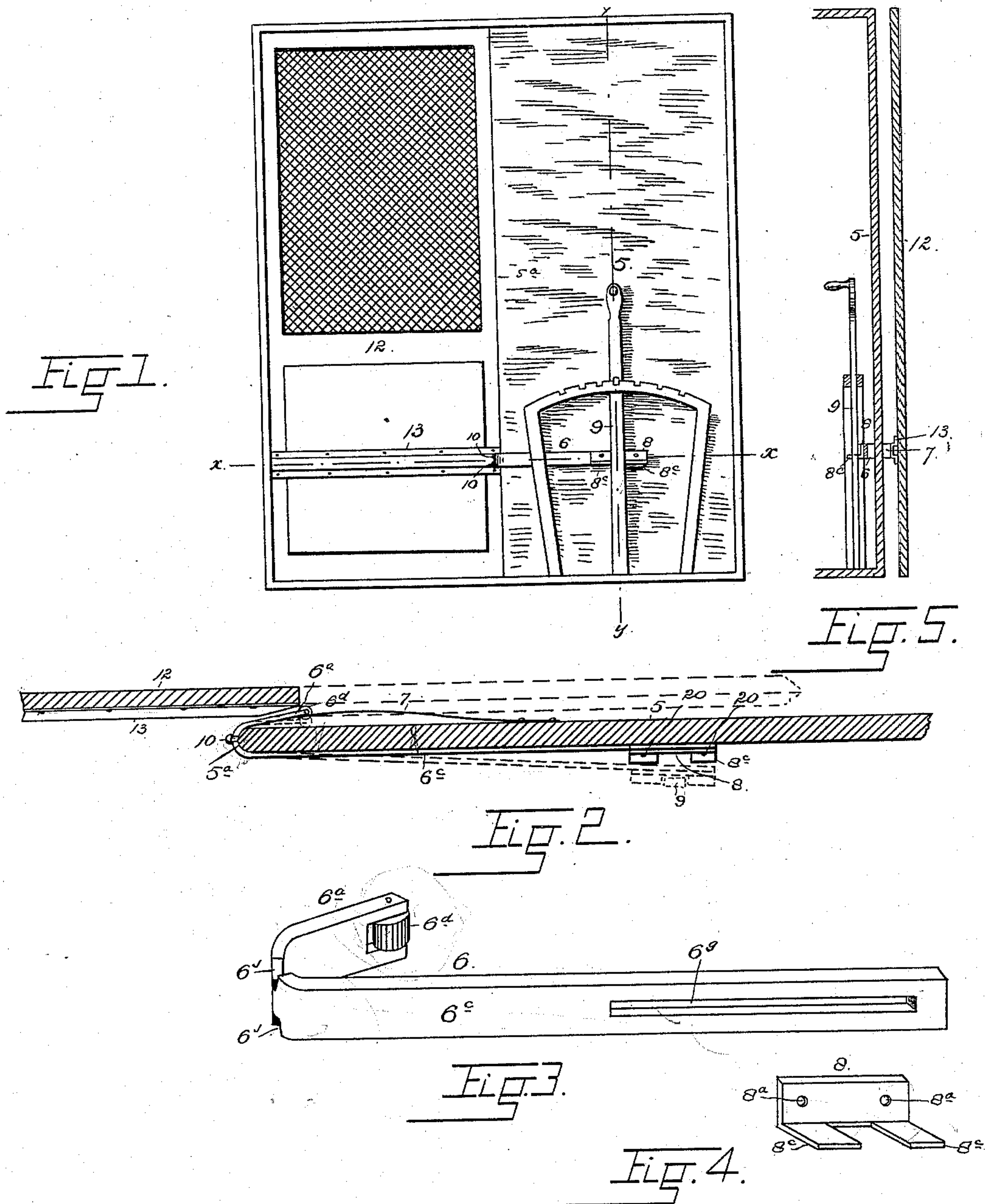
(No Model.)

J. W. PETTEE & E. E. HERSH.

AUTOMATIC LOCK FOR ELEVATOR CONTROLLER LEVERS.

No. 533,372.

Patented Jan. 29, 1895.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN W. PETTEE AND ELMER E. HERSH, OF DENVER, COLORADO, ASSIGNORS
OF THREE-FIFTHS TO FRANK E. EDBROOKE, CHAUNCEY HALE, AND
FREDERICK C. FARMER, OF SAME PLACE.

AUTOMATIC LOCK FOR ELEVATOR CONTROLLER-LEVERS.

SPECIFICATION forming part of Letters Patent No. 533,372, dated January 29, 1895.

Application filed February 3, 1894. Serial No. 499,047. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. PETTEE and ELMER E. HERSH, citizens of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Automatic Locks for Elevator Controller-Levers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to means for locking the controlling lever of elevators, said locking device being actuated by the doors of the shaft, whereby, when any door is opened to let persons on or off, the lever cannot be moved until said door is closed.

The device consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

Figure 1 is an inner view of the front side of the elevator car, the same being shown in connection with one of the doors of the shaft. Fig. 2 is a section taken through the door, and the front side of the car on the line $x-x$, Fig. 1, but shown on a larger scale, and partly broken away. Fig. 3 is a perspective view of the rocking plate, and Fig. 4 is a similar view of the adjustable locking shoe, shown detached from the plate. Fig. 5 is a section taken on the line $y-y$, Fig. 1.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views, let the numeral 5 designate the front side of the elevator car, or that provided with the opening for the entrance or exit of passengers. To the free vertical edge 5^a of this side of the elevator is attached in any suitable manner a rocking plate 6 composed of an exterior arm 6^a and an interior arm 6^b. The exterior arm is forked to receive a roller 6^d which is pivoted therein, and preferably composed of soft rubber. The function of this roller is to render the move-

ment of the door practically or approximately noiseless.

Attached to the exterior surface of the side 5 of the car is a leaf-spring 7 which is made fast to the car at one extremity, and engages the end of the arm 6^a at its free extremity, whereby the last named arm is normally held outward from the car to its limit of movement, while the arm 6^b is simultaneously held in contact with the interior surface of the side 5 of the car. This arm 6^b may be of any desired length consistent with the performance of its function hereinafter set forth, and is provided with a slot 6^c through which are passed bolts 20 which engage apertures 8^a formed in a shoe 8 provided with lugs or projections 8^c adapted to engage and lock from movement, the lever 9 when the latter is in the position necessary to stop the car. This shoe 8 is secured to the arm 6^b by means of nuts screwed upon the threaded extremities of the fastening bolts. The slot 6^c may be of any desired length. Hence the position of the shoe 8 may be regulated to correspond with the location of the controlling levers of different elevators, assuming that the distance of this lever from the vertical edge 5^a, varies in different elevators. To regulate the shoe, it is only necessary to loosen the nuts on the fastening bolts 20, adjust the shoe to the position desired, and then tighten the nuts. By reason of this feature, the plate 6 may be made of uniform size in all cases, since the position of the locking shoe may be regulated to make up for the differences heretofore mentioned. The plate may be attached to the vertical edge 5^a of the elevator side in any manner which will support the plate in position, and at the same time, allow it the necessary movement in the performance of its function. This may be accomplished by forming outwardly flared recesses 6^j in the opposite edges of the plate, and in line with the edge 5^a in which screws 10 are inserted, said recesses being sufficiently flared to permit the plate the necessary rocking movement incident to the performance of its function.

The doors 12 of the elevator shaft are each provided with a transverse metal cam-track 13 secured to its inner surface, and standing

out therefrom, to engage the roller 6^d. This engagement takes place as soon as the opening movement of the door begins, and continues until the door is again closed. As soon
5 as the cam-track 13 engages the roller 6^d of the exterior arm of the rocking plate, the interior arm 6^c is forced inward sufficiently to cause the locking shoe 8 to engage the lever
10 9, the lugs 8^c embracing the latter on either side, whereby no movement can be effected until the lever is released from the engagement of the shoe, which is accomplished by the spring 7 as soon as the door is closed, since the spring throws the exterior arm of
15 the plate to its outward limit of movement, and draws the interior arm close against the side 5 of the car. The lever is then free to move until the opening movement of the door again begins.

Having thus described our invention, what 20 we claim is—

The combination with the shaft door, the elevator car and the controlling lever, of a rocking plate mounted on the car, and composed of an interior rocking arm, and an 25 exterior arm carrying a roller composed of some yielding material, as soft rubber, whereby the opening of the door is practically or approximately noiseless, substantially as described. 30

In testimony whereof we affix our signatures in the presence of two witnesses.

JOHN W. PETTEE.
ELMER E. HERSH.

Witnesses:

G. J. ROLLANDET,
CHAS. E. DAWSON.