N. H. FOGG.

SAFETY-CHECKS FOR ELEVATORS.

No. 186,241. Patented Jan. 16, 1877.

Fig. 2.

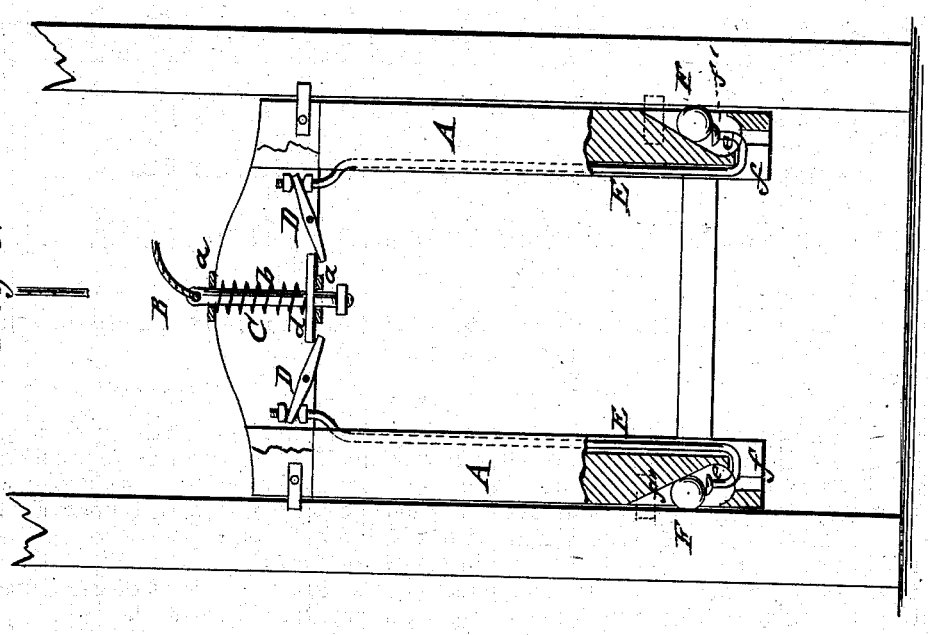
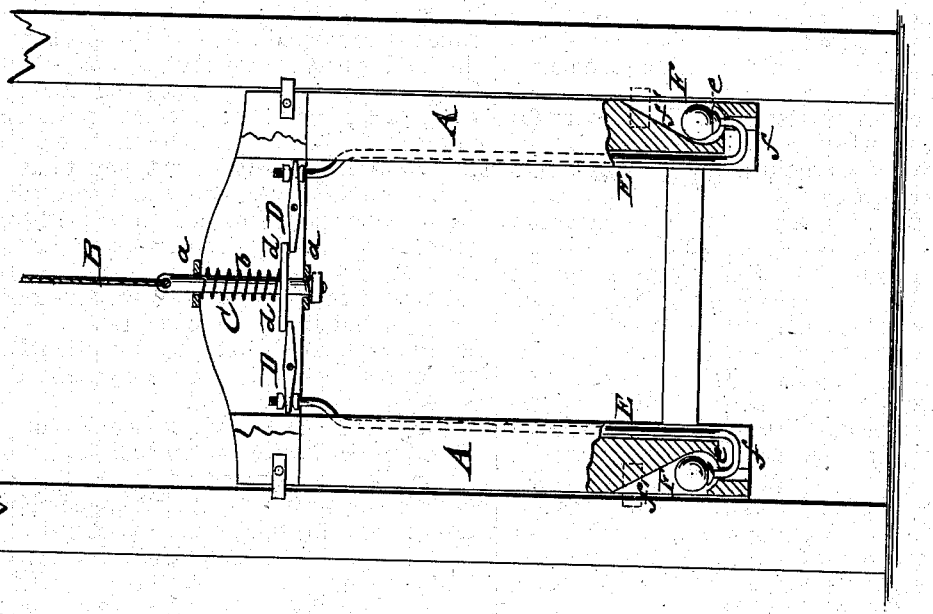


Fig. 1.



WITNESSES:

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UNITED STATES PATENT OFFICE.

NATHAN H. FOGG, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SAFETY-CHECKS FOR ELEVATORS.

Specification forming part of Letters Patent No. **186,241**, dated January 16, 1877; application filed December 4, 1876.

To all whom it may concern:

Be it known that I, NATHAN H. FOGG, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Safety-Check for Elevators, of which the following is a specification:

In the accompanying drawing, Figures 1 and 2 represent sectional front elevations of an elevator with my improved safety-check attached, showing the same, respectively, in normal state and as thrown in action on the breaking of the rope.

Similar letters of reference indicate corresponding parts.

The invention relates to a safety device for elevators, by which a positive stopping of the car is obtained at the instant of the breaking of the suspension-rope.

In the drawing, A represents an elevator-car, which is suspended from a rope, B, attached to a bolt, C, that slides in top guides *a* of the car. A spiral spring, *b*, is placed around the bolt C, between the top guide *a* of the same and a fixed plate, *d*, of the bolt, the spring being compressed when the car is suspended from the rope, the weight of the car resting then on the nut or collar at the lower end of the bolt. The fixed plate *d* bears on symmetrically-fulcrumed levers D, to whose outer ends vertical rods E are hung, that extend in suitable recesses or grooves of the car downward to the lower part of the same, being there curved upward and provided with cup-shaped seats *e* for the rubber balls F. The car A is provided at the lower end with recesses *f*, to admit the inserting of the seats, and with inclined receptacles or pockets *f'*, in which the rubber balls are guided.

When the car is suspended normally from the rope the balls are supported on their seats in a state of rest, as shown in Fig. 1; but the instant that the rope breaks or gets detached from the bolt the action of the spiral spring throws the actuating-plate downward, and the levers and ball-carrying rods upward, the balls being thrown off their seats and wedged between the inclined sides of the pockets and the guide-posts of the elevator, as shown in Fig. 2, so as to stop thereby the car by the wedge action of the pockets and posts on the rubber balls in reliable and effective manner.

I am aware that it is not new to use two spring-pressed levers connected with the lifting mechanism at one end, and at the other with a sliding wedge or cam near the top of car. My safety-check, being arranged at the bottom of car, cannot give way or collapse, being supported by the platform.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The rods E E, curved at the bottom, and there provided with rubber balls F, in combination with an elevator, having pockets *f*, levers D, and spring-bolt C, arranged substantially as and for the purpose specified.

NATHAN H. FOGG.

Witnesses:

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