C. R. OTIS.

Improvement in Elevators.

No. 131,897. Patented Oct. 1, 1872.

Fig. 1.

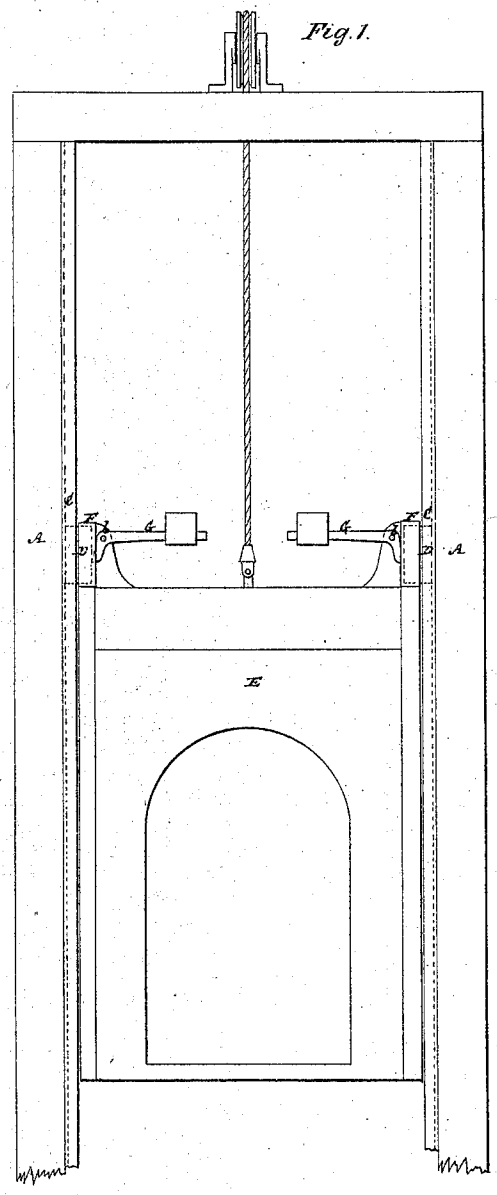


Fig. 2.

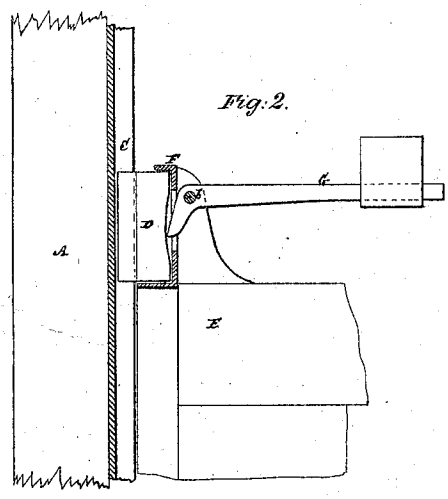
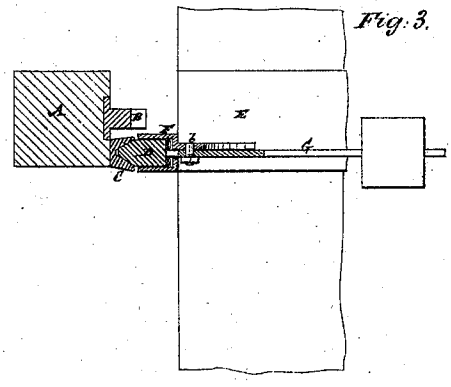


Fig. 3.



Witnesses:

Fred Haynes

Fred Kusel

Charles R. Otis

per Bonnell Allen

& Haynes

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

CHARLES R. OTIS, OF YONKERS, NEW YORK.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **131,897**, dated October 1, 1872.

CASE D.

To all whom it may concern:

Be it known that I, CHARLES R. OTIS, of Yonkers, in the county of Westchester and State of New York, have invented a new and useful Improvement in Guides for Elevators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a side elevation of an elevator with my improvement applied; Fig. 2, a sectional side elevation of the same in part upon a larger scale; and Fig. 3, a horizontal section in part.

Similar letters of reference indicate corresponding parts throughout the drawing.

This invention relates to guides for passenger and other elevators, in which, to obviate noise and rattle or shake of the car between the upright or guide posts of the hoistway guides or slides carried by the car or traveling platform, and capable of motion toward and from the guide-posts, are brought to bear upon the latter or against suitable surfaces connected therewith, and so that in the up-and-down travel of the car or platform a smooth and steady guiding action, free from any tendency to bind, is obtained for the same. The invention consists in a certain combination of weighted levers with the traveling guides or slides for holding the latter in self-adjusting contact with the fixed uprights or grooved attachments connected therewith, whereby a uniform pressure of the guides or slides is obtained under varied adjustments of them in or out, and consequently a much smoother and steadier action secured than when said guides or slides are controlled by springs.

In the accompanying drawing, which forms part of this specification, A A represent the guide-posts or uprights of the hoistway, each of which is provided with a safety ratchet-rail, B, and with a grooved rail, C, for the guides or slides D, carried by the car E, to move up and down within. These slides D are loose-fitting blocks shaped on their outer edges or faces to fit the grooves of the rails C, and are arranged within boxes F on the car in such manner that they are restrained from vertical movement, except in common with the car, but are capable of easy motion in and out from the rails C. Said slides or guides are kept in steady and uniform contact with said rails by means of weighted levers, G, having their fulcrums *b* at back of the boxes F, and formed with toes, which press against the backs of the slides. In this way a uniform pressure of the slides or guides against or within the rails is obtained in or during all self-adjustments of them in or out, which pressure may be increased or diminished by simply shifting the weights on the levers.

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

The combination of the weighted levers G with the loose or freely supported slides D of the car, and the guide-posts A or rails C connected therewith, substantially as specified.

CHAS. R. OTIS.

Witnesses:

JAS. HENDERSON,

EDWARD J. FENNELL.