

B. TATHAM & J. W. BRITTIN.
 Improvement in Safety Catch for Platform Elevators.
 No. 124,864.

Patented March 19, 1872.

Fig. 1.

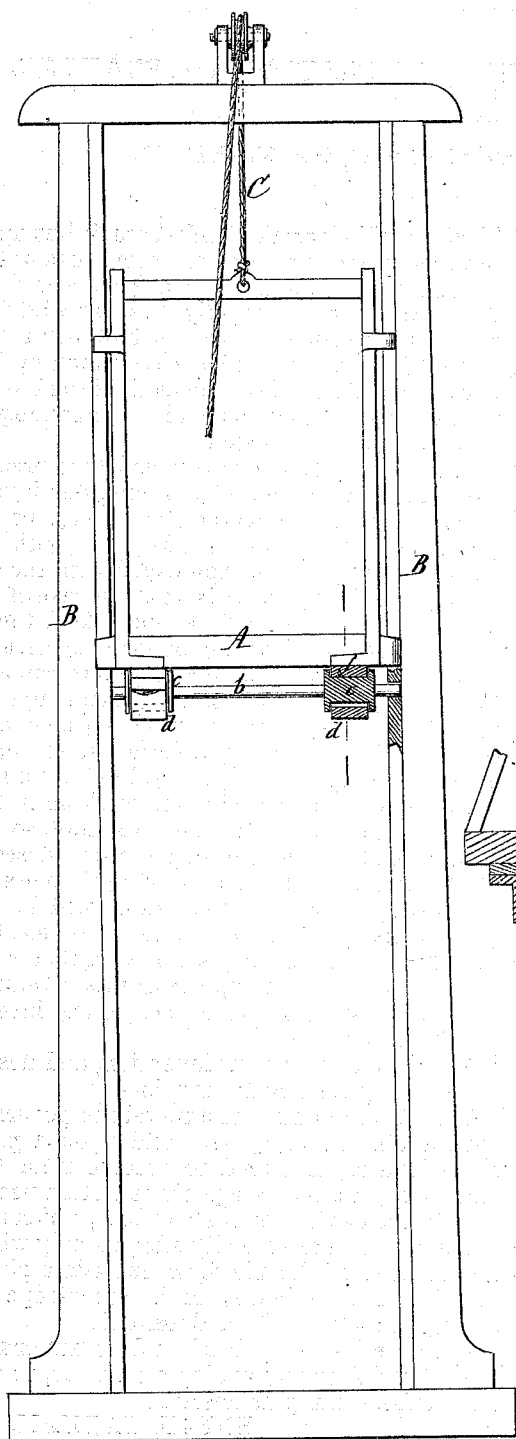


Fig. 2.

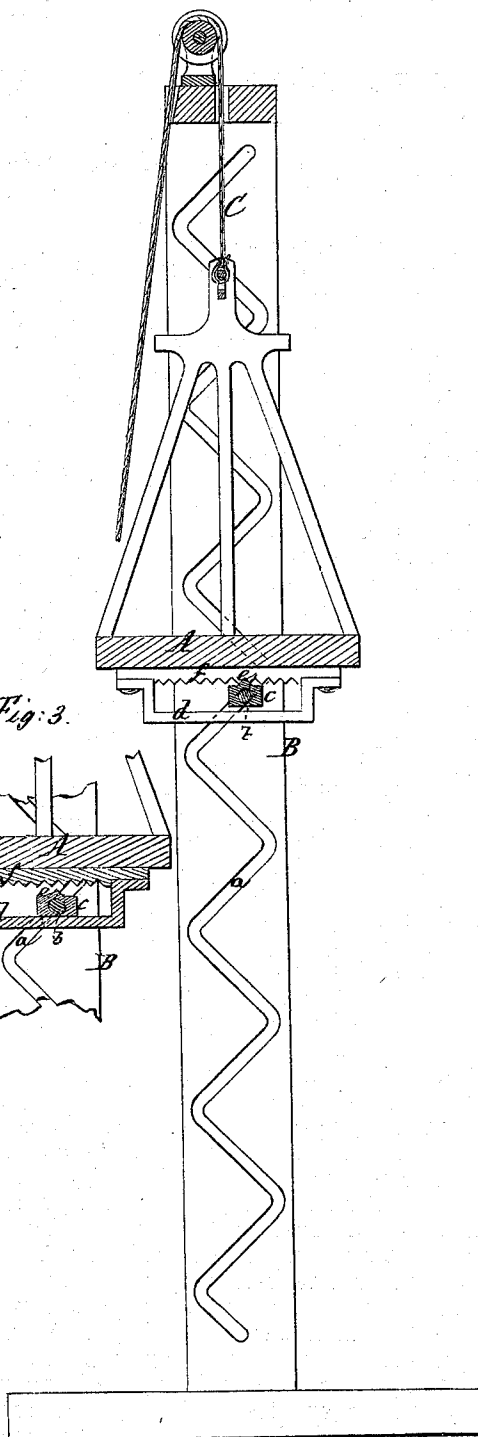
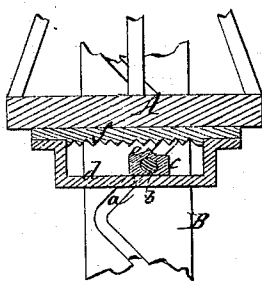


Fig. 3.



Witness:
 E. J. Kastenhuber
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UNITED STATES PATENT OFFICE.

BENJAMIN TATHAM, OF NEW YORK, AND JOHN W. BRITTIN, OF BROOKLYN,
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IMPROVEMENT IN SAFETY-CATCHES FOR PLATFORM-ELEVATORS.

Specification forming part of Letters Patent No. 124,864, dated March 19, 1872.

To all whom it may concern:

Be it known that we, BENJAMIN TATHAM, of the city, county, and State of New York, and JOHN W. BRITTIN, of Brooklyn, in the county of Kings and State of New York have invented a new and useful Governor for Platform-Elevators; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The principle of our invention consists in combining with and arranging upon a platform-elevator, a mechanical automatic governor, to limit the velocity of its descent by a positive motion, imparted to it by contact with the stationary frame-work, and which shall operate to arrest the descent only when it exceeds a given velocity, the action of said governor being entirely independent from the elevator rope.

The accompanying drawing represents one modification of our invention. Figure 1 is a sectional front view. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a detached sectional view.

Similar letters indicate corresponding parts.

Letter A, Fig. 1, represents the platform, which is moved up and down between the stationary frame B B by the rope C. On the sides of the stationary frame we arrange zigzag channels *a a*, and within these channels the ends of the governor—a strong round bar, *b*—suspended upon guides *d* at a short distance below the platform and extending across its center, freely travel. On this bar are mounted blocks, *c*, upon the upper surface of which we form one or more teeth, *e*, as seen in Figs. 2 and 3. Within these blocks the bar will freely revolve. To the under side of the platform are secured two rack-bars, *f f*, one above each of the blocks *c*. The racks correspond with the teeth of the blocks, and with them operate as a self-acting stop to the motion of the bar *b*. As the platform descends with ordinary velocity, the bar and its blocks will describe a constant reciprocating motion upon the guide *d*, corresponding with the shape of the channels and preserving their relative distance below the platform, so that the teeth of the

blocks *c* will clear the rack-bars *f*; but upon the breaking of the rope or other parts of the apparatus, by which the platform would be free to descend too rapidly, the bar *b* having a greater distance to travel, and being impeded in its course, will be overtaken by the platform, and as soon as the teeth of the blocks are received in the racks, all further motion will be instantly arrested.

We do not confine ourselves to the precise mechanism described, of applying our invention to platform-elevators, as it may be arranged in various forms. The bar with its automatic stop may be connected with the upper part of the platform, so that in case of accident the platform will be suspended therefrom; or the governor may be made by a frame suspended below or above the platform, and furnished with sliding bolts working upon a system of cams on the stationary frame, and the necessary stopping apparatus; or racks may be formed on said frame, having pinion-wheels upon one or more bars working in the racks as the platform descends, and so arranged that, by the fall or too rapid descent of the platform, the motion of these bolts or pinion-wheels or their equivalent, will be automatically stopped, and thereby prevent the further descent of the platform. Other variations in the mode of applying this invention will readily suggest themselves to any intelligent mechanic.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination of a travelling governor with automatic stop, with and upon a platform-elevator, arranged to receive from the stationary frame-work a positive motion necessary to the descent of the platform, which motion shall be automatically stopped only when the descent of the platform exceeds a given velocity, independently of hoisting-rope or springs, substantially as described.

2. The self-acting bar *b* and its automatic stops *e* and *f*, or any analogous device, to operate substantially as described.

BENJN. TATHAM.

JOHN W. BRITTIN.

Witnesses:

HUGH MCGRAW,
J. W. STANTON.