

N. NOLAN.
 Device for Operating Elevators by Railway-Cars.
 No. 225,158. Patented Mar. 2, 1880.

Fig. 1.

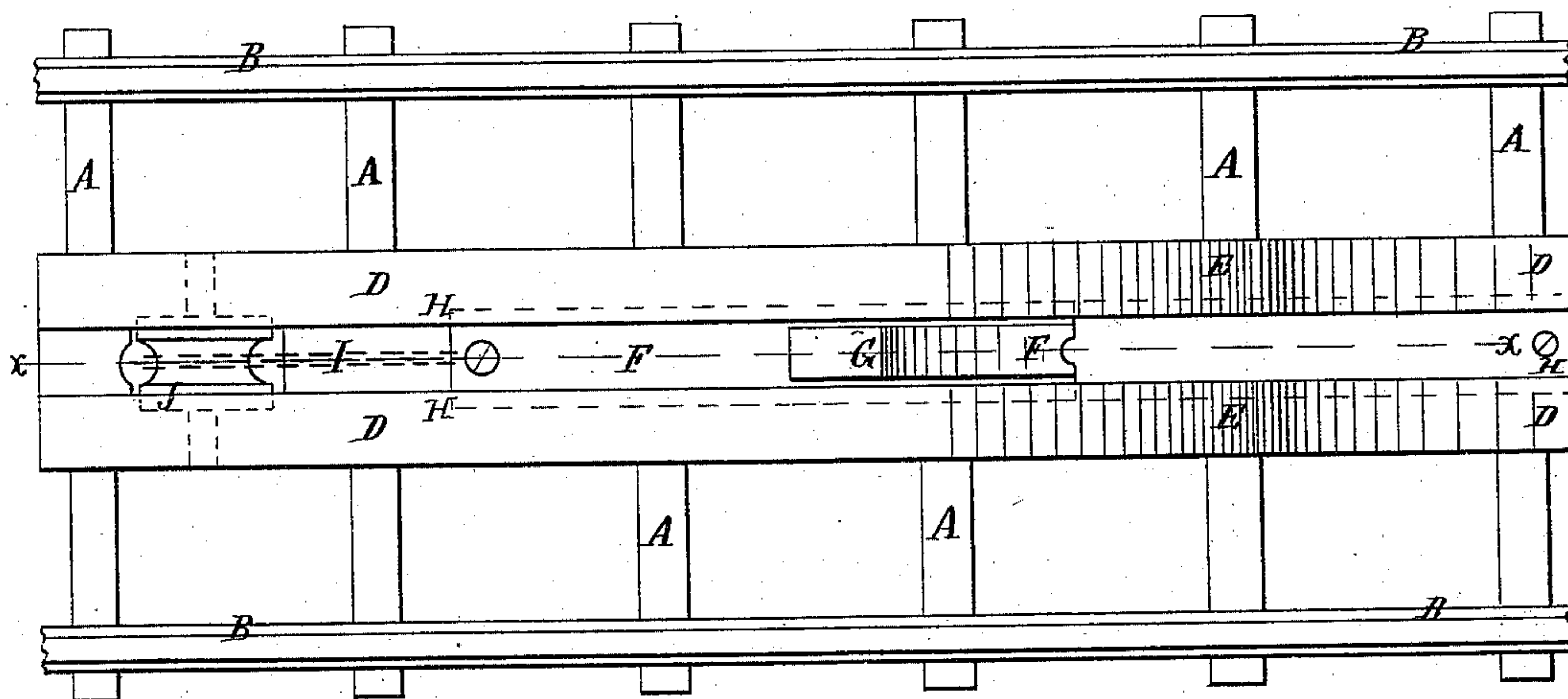


Fig. 2.

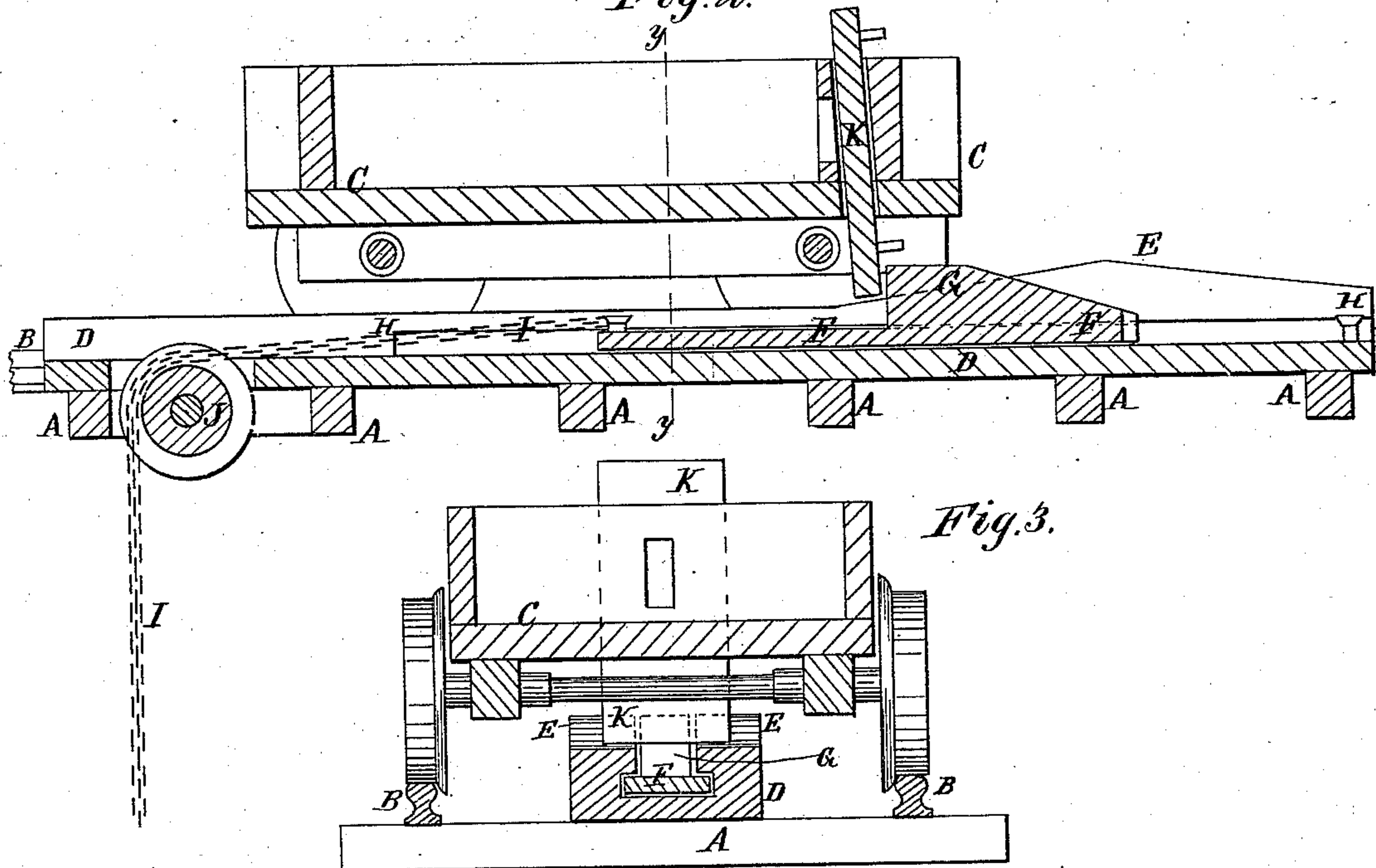


Fig. 3.

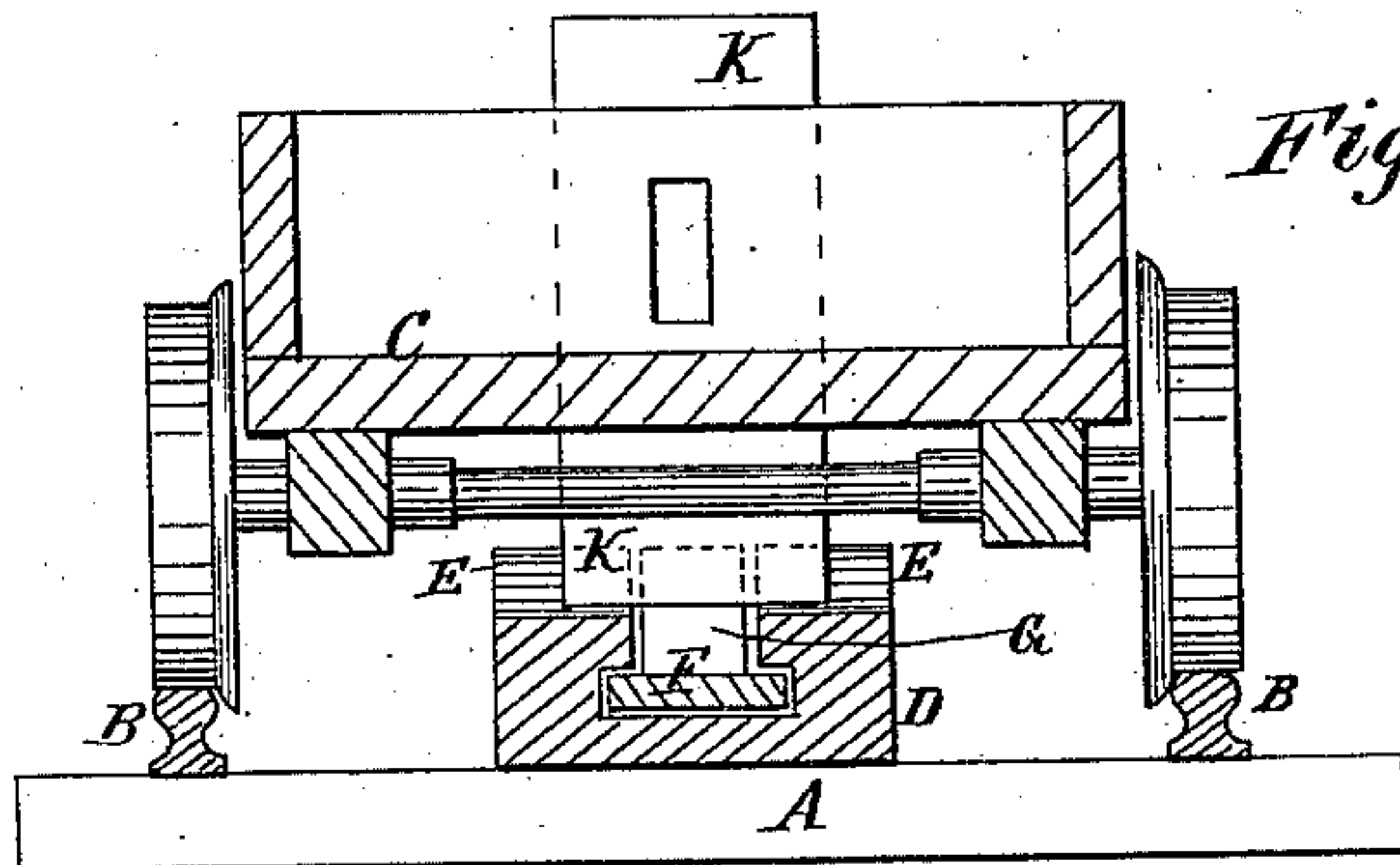
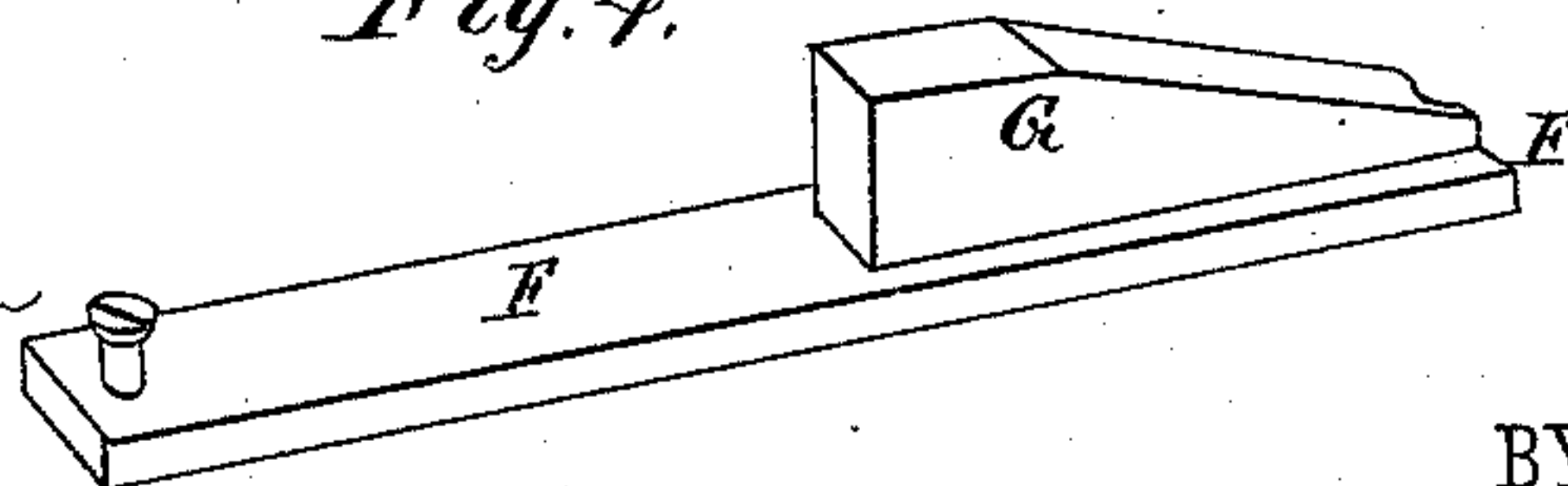


Fig. 4.



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NICHOLAS NOLAN, OF NEW YORK, N. Y.

DEVICE FOR OPERATING ELEVATORS BY RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 225,158, dated March 2, 1880.

Application filed November 6, 1879.

To all whom it may concern:

Be it known that I, NICHOLAS NOLAN, of the city, county, and State of New York, have invented a new and Improved Device for Operating Elevators by Railway-Cars, of which the following is a specification.

Figure 1 is a plan view of my improvement. Fig. 2 is a sectional side elevation taken through the line *xx*, Fig. 1. Fig. 3 is a sectional end elevation taken through the line *yy*, Fig. 2. Fig. 4 is a perspective view of the sliding stop.

The object of this invention is to furnish a device for operating elevators, so constructed as to raise the cages of the elevators by the movement of a train of cars, and which is especially designed for operating passenger-elevators at stations upon elevated and underground railways.

The invention consists in combining, with a railroad-track, a sliding bar carrying the elevator-chain, and designed to engage with a catch-bar connected with the engine or car, so that the elevator-cage may be raised by the movement of a train of cars approaching or leaving a station, and devices for properly disengaging said sliding and catch bars, as will be hereinafter fully described.

Similar letters of reference indicate corresponding parts.

A represents the ties, and B the rails, of an ordinary elevated-railroad track. C represents an engine or car running upon the track A B. To the ties A is attached a bar or timber, D, having a deep and wide T-groove formed in it longitudinally. At the end of the grooved bar D are formed projections E inclined in both directions.

F is a bar fitted into and sliding in the groove of the bar D. Upon the forward end of the sliding bar F is formed a projection, G, equal, or nearly equal, in height to the height of the projections of the bar D. The projection G is made with a square shoulder at its inner or rear end, and has its forward end inclined, as shown in Figs. 2 and 4.

The movement of the sliding bar F is limited

by stops H, attached to the end parts of the grooved bar D. To the rear end of the sliding bar F is attached the end of a chain, I, which chain passes over a guide-pulley, J, pivoted to supports attached to the ties A. The other end of the chain I is designed to be connected with an elevator-cage by a spring-connection, to prevent jar when force is first applied to the said elevator.

K is a catch-bar that slides in guides attached to an engine or car, C. The catch-bar K is held up by springs, balancing-weights, or levers, which are not shown in the drawings.

With this construction, when the train is approaching a station where passengers are to be taken or left, the engineer or brakeman pushes down the catch-bar K, so that it will engage with the shoulder of the projection G of the sliding bar F and carry the said sliding bar F forward with the train, raising the cage of the elevator and the passengers contained in it. As the engine or car C, to which the catch-bar K is attached, reaches the projections E, the catch-bar K is raised up by the inclines of the said projections, so as to release the sliding bar F.

The cage of the elevator is designed to be lowered by its own weight, the rapidity of descent being controlled by a brake, in the usual way.

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

1. The combination of the slide F, having projection G, and the vertically-movable catch-bar K, with the T-grooved timber, having a projection, E, on one or both sides of the groove, as and for the purpose specified.

2. The pulley J and the grooved bar D and slide-bar F, moving therein, in combination with the inclined elevations E, for releasing the drop-bar K from the slide-bar F.

NICHOLAS NOLAN.

Witnesses:

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