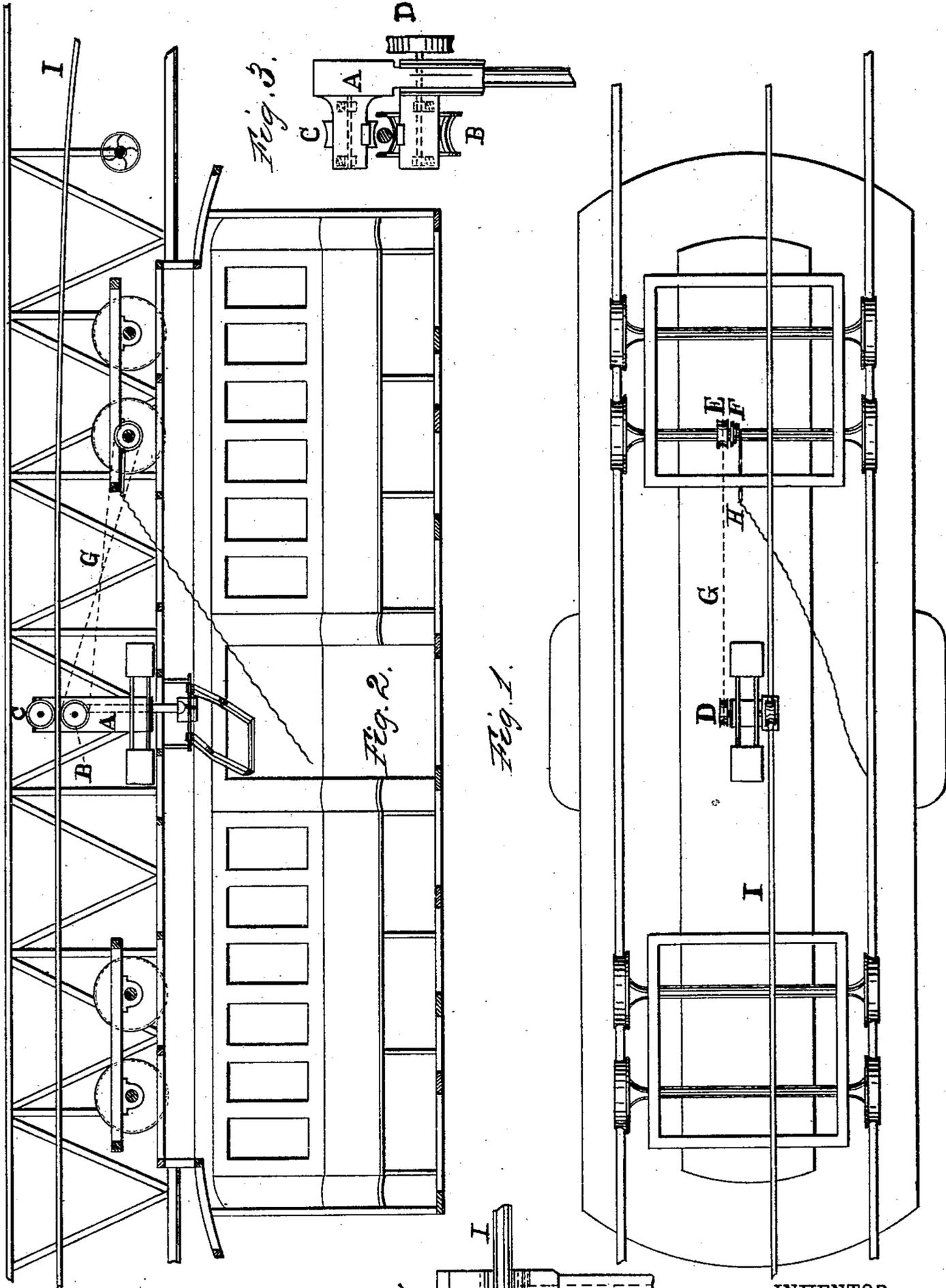


(No Model.)

L. J. WING.
CABLE RAILROAD.

No. 257,121.

Patented Apr. 25, 1882.



WITNESSES:

J. A. Reed
Henry P. Cromwell

Fig. 4.

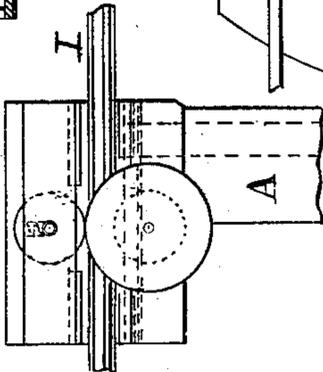


Fig. 1.

Fig. 2.

Fig. 3.

INVENTOR:

Levi J. Wing

ATTORNEY.

UNITED STATES PATENT OFFICE.

LEVI J. WING, OF BROOKLYN, NEW YORK.

CABLE RAILROAD.

SPECIFICATION forming part of Letters Patent No. 257,121, dated April 25, 1882.

Application filed September 10, 1881. (No model.)

To all whom it may concern:

Be it known that I, LEVI J. WING, of the city of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Cable Railroads, of which the following is a specification.

In operating railroads where the cars are propelled by a moving cable the inability to make up time when lost by a car or train from any cause—that is, the lack of some way to run a car or train faster than the cable—has been a serious objection to the general use of cable roads in large cities. Hence the object of my invention is to overcome this objection; and it consists in so combining one or more pairs of the wheels that support the car on the track with rolling sheaves that grasp the moving cable in such a manner that the friction of the wheels upon the track serves as a driving agent to set in motion the rolling sheaves to increase the speed of the car, as will hereinafter appear.

Figure 1 is a plan view of the top of a car in elevated railroads, where the car is suspended underneath the tracks, and shows cable, truck, gripping-clutch, and accelerating mechanism. Fig. 2 is a side view of the same. Figs. 3 and 4 are enlarged views of the gripping-clutch and accelerating mechanism.

Similar letters refer to similar parts.

Letters A, B, and C represent my gripping attachment, as fully set forth in application for improvements in elevated railroads filed by me April 4, 1881, serial number 30,832. B and C are compression-sheaves of said gripping attachment. D is a pulley or sheave on the lengthened shaft of sheave B. E is a sheave, and F a friction-pulley on the axle of the car-truck. G is a belt or chain connecting sheave E with sheave D on the gripping-clutch. H is an ordinary shifting-lever, &c., for the friction-pulley F, to apply it frictionally to pulley E. I is the cable.

The operation is as follows: The car is propelled by fastening on the moving cable with the gripping attachment, and carried along, as usual, at, say, ten miles an hour. When it is desirable to run the car faster than the cable is moving the clamping-jaws are loosened sufficiently to allow the cable to pass between them, but still held firmly by the compression-pulleys, the friction-pulley is applied to sheave E, which causes compression-pulleys B and C to revolve forward on the cable, and by the traction thereof carry the car along as much faster than the cable as sheaves B and C shall revolve, and thus increase the speed of the car or train.

The compression-pulleys can be separate from the clamping or gripping attachments, and in any available form, so as to move forward on the cable when the power is applied.

What I claim, and desire to secure by Letters Patent, is—

1. In a railroad where the cars are propelled by a moving cable, the method of accelerating or increasing the speed of the car or train, which consists in so combining one or more pairs of the wheels that support the car on the track with rolling sheaves that grasp the cable that the friction of the wheels upon the track shall serve as a driving agent to set in motion the rolling sheaves to increase the speed of the car, as specified.

2. The combination of a moving cable, a car, a clamping device, and compression-pulleys arranged to act on the moving cable, said pulleys being operated by connection with one or more pairs of the supporting-wheels or the axle of the truck for the purpose of increasing the speed of the car or train without increasing the speed of the moving cable, substantially as set forth.

LEVI J. WING.

Witnesses:

JOHN A. REED,

HENRY P. CALDWELL.