WILLIAM C. BIBB.

Improvement in Railways.

No. 118,330. Patented Aug. 22, 1871.

Fig. 1.

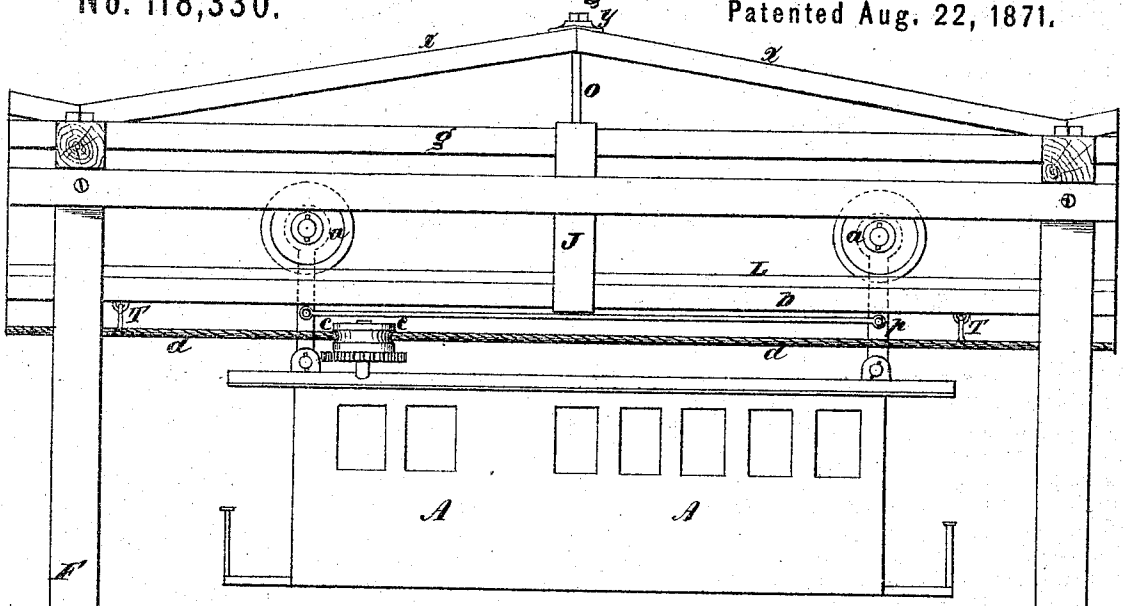


Fig. 2.

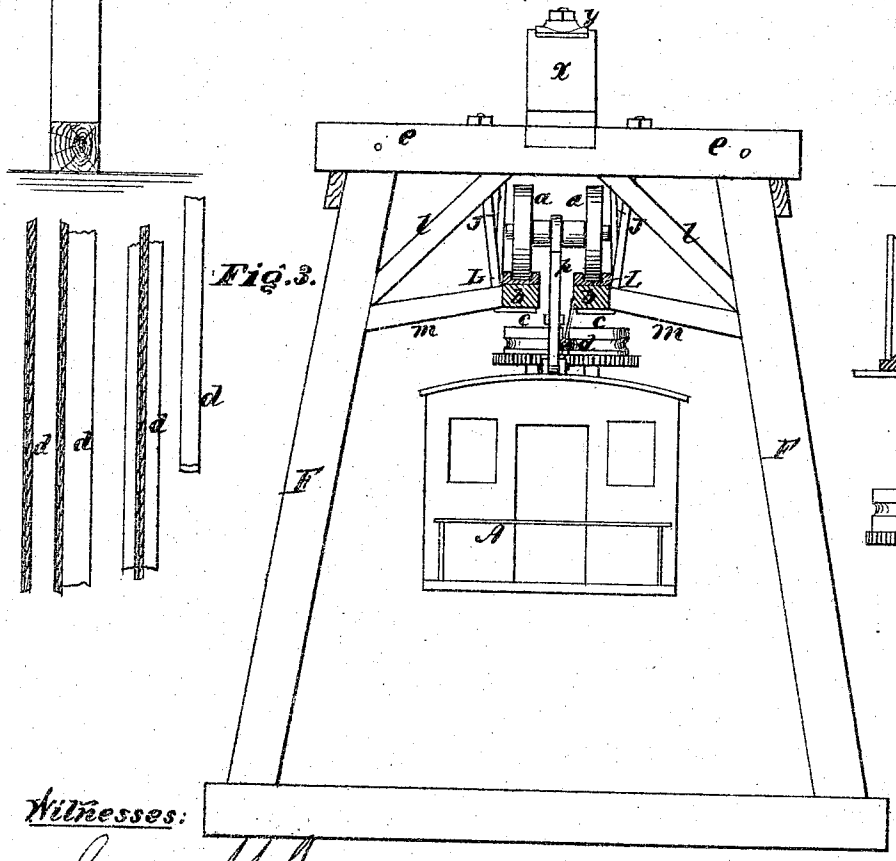


Fig. 3.

Fig. 5.

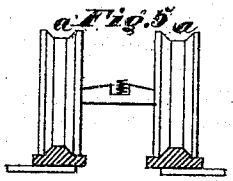
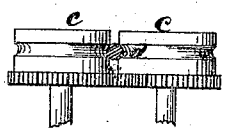


Fig. 4.



Witnesses:

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Inventor.

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UNITED STATES PATENT OFFICE.

WILLIAM C. BIBB, OF MADISON, GEORGIA.

IMPROVEMENT IN RAILWAYS.

Specification forming part of Letters Patent No. 118,330, dated August 22, 1871.

To all whom it may concern:

Be it known that I, WILLIAM C. BIBB, of Madison, in the county of Morgan, State of Georgia, have invented certain Improvements in Operating Railways by the use of pulleys and ropes or bands, actuated by power on board of cars.

The object of my invention is to reduce the cost of construction by being able to ascend steeper grades, and thereby approximating more nearly an air line. By the use of lighter locomotives, consequent upon applying direct traction, the track is preserved, and the cars, being guided by a fixed rope, are in less danger of being thrown from the track.

My plan is illustrated as applied to elevated railways by the accompanying drawing, to wit: Figure 1 is a side elevation of elevated railway. Fig. 2 is an end view of same. Fig. 3 is the form of rope or band used. Fig. 4 are grooved pulleys with rope between. Fig. 5 is an end view of wheels and rails.

F F *g* is a frame, braced by *x x* on top, and supporting track L, on which the wheels *a a* rest, and to their axles is suspended the car A A. To the beam L the rope *d d* is attached and suspended by the flaps T T, and passes through grooves in the pulleys *c c*. When it is desired to move the car A A the pulleys *c c* are made to revolve inwardly on one another by the application of power on board of car A A, when, by the pressure given, as well by a set-screw as by the shape of the grooves on the pulleys *c c* acting upon the rope or band, a sufficient degree of traction power is obtained to move the car forward. The traction power may be increased by increasing the number of pulleys and ropes, and shape of grooves, combined with pressure. The rope or band is intended to be of wire or other elastic material, to obviate the objections to the use of a third rail as in vogue in Europe. It is intended to extend the whole length of the railway, and may be placed at the top, bottom, or sides of the car. To revolve the pulleys a cog-wheel is fixed upon the shaft of each pulley and works into its opposite, and the whole actuated by a driving-wheel geared or connected with the engine on board.

I claim as my invention—

1. The driving-wheels *c c*, having grooved peripheries acting upon fixed rope or band, being in relation substantially as described to the track and locomotive of a railway, as set forth.

2. The rope or band suspended by flaps to a beam, or an equivalent, the flange of one or both wheels, outwardly, being turned down to permit the flap to pass between, substantially as and for the purpose set forth.

3. The driving-wheels *c c*, acting on the suspended rope or band, and having cogged wheels fixed upon them, as shown, substantially as and for the purposes set forth.

WILLIAM C. BIBB.

Witnesses:

CHARLES H. ANDREWS,
ALBERT E. ANDREWS.