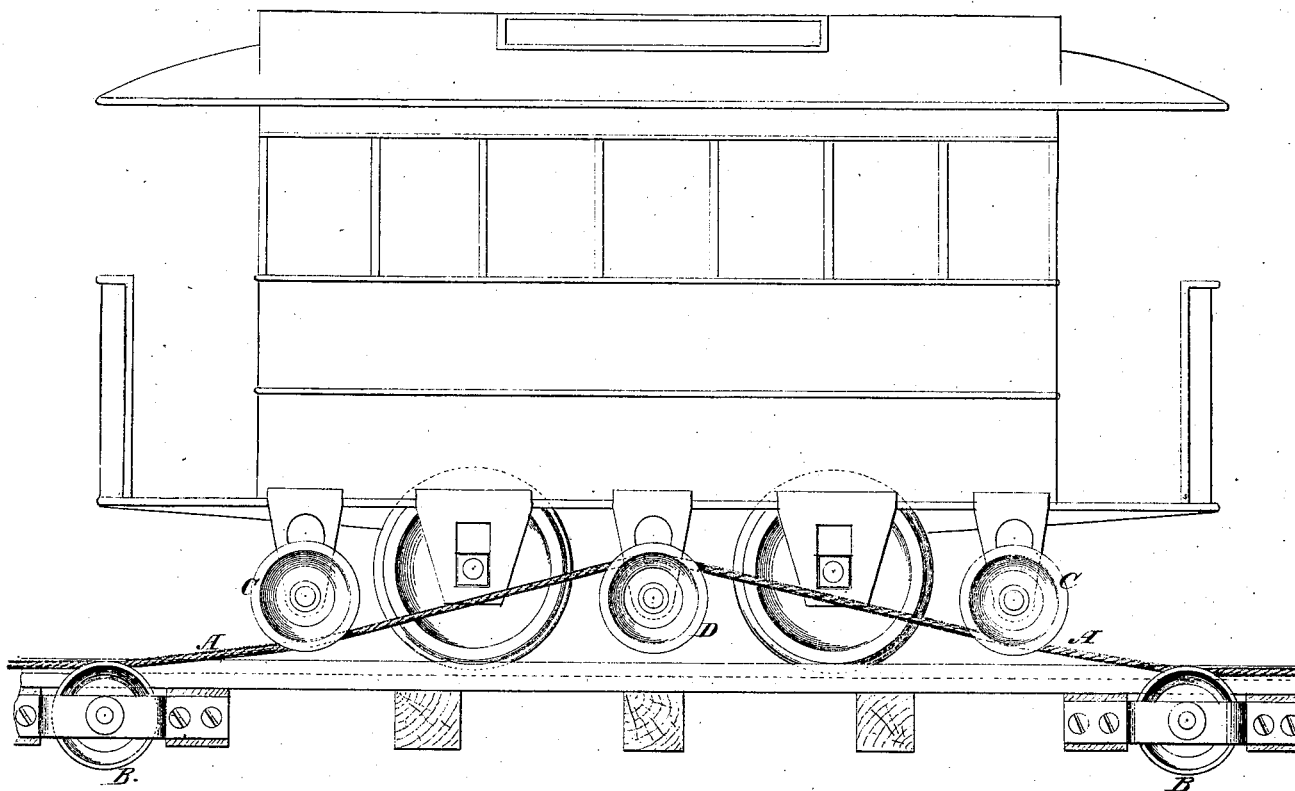


# John Roy. Propelling Apparatus for Cars.

110501

PATENTED DEC 27 1870



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN ROY, OF NEW ORLEANS, LOUISIANA.

## IMPROVEMENT IN PROPELLING APPARATUS FOR CARS.

Specification forming part of Letters Patent No. 110,501, dated December 27, 1870.

*To all whom it may concern:*

Be it known that I, JOHN ROY, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Propelling Apparatus for Street-Cars, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in apparatus for propelling street-cars by means of a traction-rope worked along the track, either above or under the ground, by means of stationary engines or other power; and it consists in the application to the car, either at one or both sides or between the sides, of traction-wheels, preferably three in a row, so arranged that the rope will work under the two end wheels, to be prevented from rising above the ground either in front or rear of the car and over the center wheel, so as to impart rotary motion to them, which, being arrested by brakes, will cause the car to be drawn along by the friction of the rope on the wheels, all as hereinafter more fully described.

The drawing is a side elevation of a car with my improved propelling apparatus attached. In this case the propelling-rope A is represented as running along the outside of the track above the ground on the friction-rollers B, placed at suitable intervals along the track.

C represents grooved traction-wheels suspended at the side of the car, one at each end, and D is another at or about the center between the ones C. The rope A, passing under the wheels C and over D, will have such friction on them as to cause them to revolve with considerable force, and by the end wheels, C, it will be prevented from rising at either end of the car above the wheels B. The wheels C and

D or their shafts are to have friction-brakes applied to them, so that by arresting their motion and causing the rope to adhere to them the car will be drawn along by the friction thereof, either fast or slow, according to the measure of the resistance applied to them through the said brakes. If they are wholly prevented from revolving, the car will move with the same speed as that of the rope. When the brakes are released from these wheels and the ordinary brakes applied to the supporting-wheels of the car the latter will stop without interrupting the action of the rope. I propose to arrange these wheels and the propelling-rope outside of the car and the track so that the road may also be used for cars drawn by animals at the same time; but I may locate them at the center or between the rails, as I prefer. The same result may be attained by the use of one wheel on the car for the rope, the latter being wound once around the wheel from the bottom over the top and back again; but I prefer to use three wheels, as here shown.

I propose to arrange the center wheel so that it can be adjusted up and down to facilitate the application of the rope to the top of it; and in order to overcome the inertia of the car at starting and reduce the speed while increasing the power around curves, this wheel will act as a band-wheel, driving the necessary gearing in connection with the supporting-wheels of the car.

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

The grooved and suspended friction-wheels C C D applied to street-cars, as and for the purpose described.

JOHN ROY.

Witnesses:

JAMES DARE,  
E. B. BISHOP.