

LaF. PARKER.
 Operating Cars on Tramways or Railways.
 No. 224,347. Patented Feb. 10, 1880.

Fig. 1.

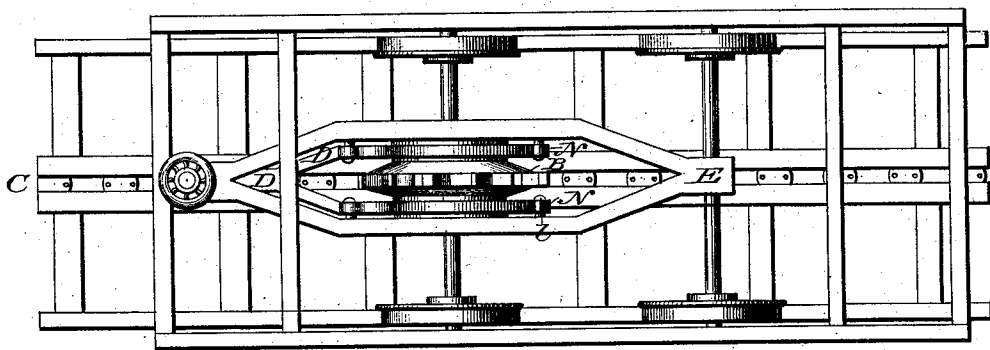
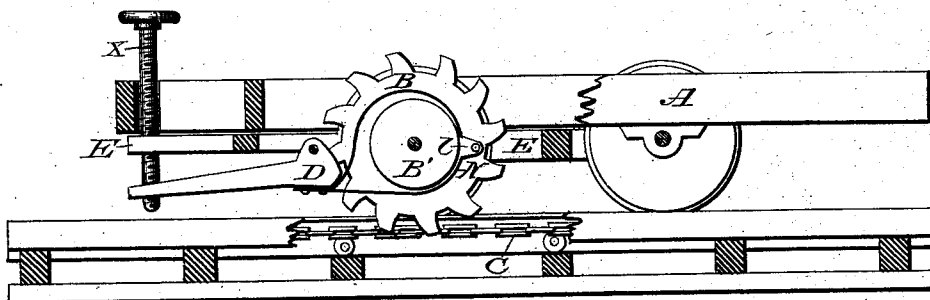


Fig. 2.



Witnesses:
 Alexander Scott
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LA FAYETTE PARKER, OF DAVENPORT, IOWA.

OPERATING CARS ON TRAMWAYS OR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 224,347, dated February 10, 1880.

Application filed March 12, 1879.

To all whom it may concern:

Be it known that I, LA FAYETTE PARKER, of the city of Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements for Operating Cars on Tram or Rail Ways; and I do hereby declare that the following is a full description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters having reference to like parts wherever they occur.

To enable those skilled in the art to use my invention, I proceed to describe it.

The object of my invention is to enable the running of cars on tram or rail ways without the passage of horses or steam through the streets where they are objectionable, as well as to cheapen the cost of operating such ways.

Figure 1 of drawings hereto annexed is a view from above of the body, wheels, and gear of my car on the track as constructed. Fig. 2 is a side view of the same with a section left out, so as to expose sprocket-wheel B, brake N, lever D, and chain C.

In constructing my tram or rail way, I do it in the ordinary manner of a double-track railway, except that I place midway between the tracks two parallel timbers or iron bars, forming a slotted channel with opening sufficient to receive teeth of sprocket-wheel, fitted for the purpose at such a distance apart as will receive a chain of size and strength to draw the cars. Between these timbers I place a chain on rollers, covering the opening, except about an inch in the center to receive the sprocket-wheel B, with straps of iron spiked to the top of timbers.

The chain C is an endless chain passing around a windlass at the ends of road or of sections, and is kept in motion at the speed the cars are required to run by means of a stationary engine operating these windlasses at one or both ends of the road.

I construct my cars in the ordinary manner, except that I place a sprocket-wheel, B, on the axle-tree loose if wheels of the car are tight, or vice versa. This sprocket-wheel is of size to reach into links of chain, and is free to revolve by movement of chain when car is standing still. I also place, in connection with both axle-trees, inclosing sprocket-wheel B, as seen in Fig. 1, yoke E, extending to front of car to receive screw-shaft *x*. Yoke E is loose on axle-tree. Attached to this

yoke E, by means of the bifurcated lever D, are two brake-straps, N N, passing around flange B' on sprocket-wheel B, and also around pin *l* on yoke E. One of these brakes may be dispensed with for light work, or sprocket-wheel may be located on independent shaft. These brakes may, by means of screw *x* raising lever D, be tightened on flange B' of sprocket-wheel B at will of manager, so as to stop its revolutions, and thus cause the car to be drawn forward by means of chain, if in motion, by the then rigid sprocket-wheel B.

The general operation of my tram or rail way is as follows: The car being on the track, and the spurs of the sprocket-wheel B being in the links of the chain C, and motion imparted to chain by stationary engines turning windlass at the end of the track, the brake is applied to sprocket-wheel B as gradually as desired, causing it to cease revolving, and the car is drawn forward at the speed of chain.

In order to stop the car the brake is loosened on sprocket-wheel and the ordinary brake is applied to car-wheels.

At the end of the route the double track unites in a single track, onto which the car runs beyond the windlass by its momentum, where it may be turned around or not, as desired.

The railroad-track is raised near the end of chain or before windlass is reached, so that sprocket-wheel is raised out of links of chain, and when it comes down the same incline to start out the wheel is taken by the chain when it reaches it. This is facilitated by the chain being suspended on rollers that will give to pressure for a little way.

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

1. The combination of the toothed wheel with traction-chain traveling in the slotted channel in the roadway and a brake mechanism, substantially as described.

2. The combination of the yoke E upon the car-axes with brake-straps N, bifurcated brake-lever D, sprocket-wheel B, and traveling chain, all substantially as described.

3. The combination of the toothed sprocket-wheel B with the bifurcated lever D, the brake-flanges B', brake-straps N N, and vertical screw-shaft *x*, all substantially as shown and described.

Attest: LA FAYETTE PARKER.

M. E. PARKER,

H. P. W. CLOSE.