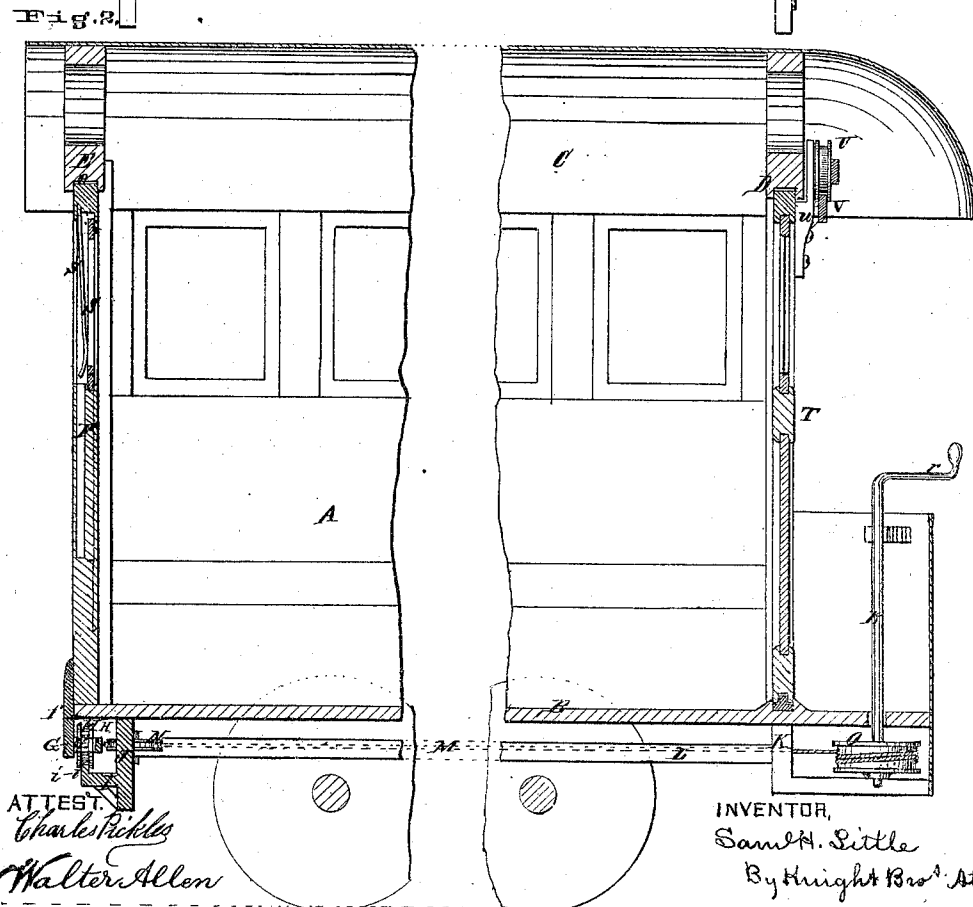
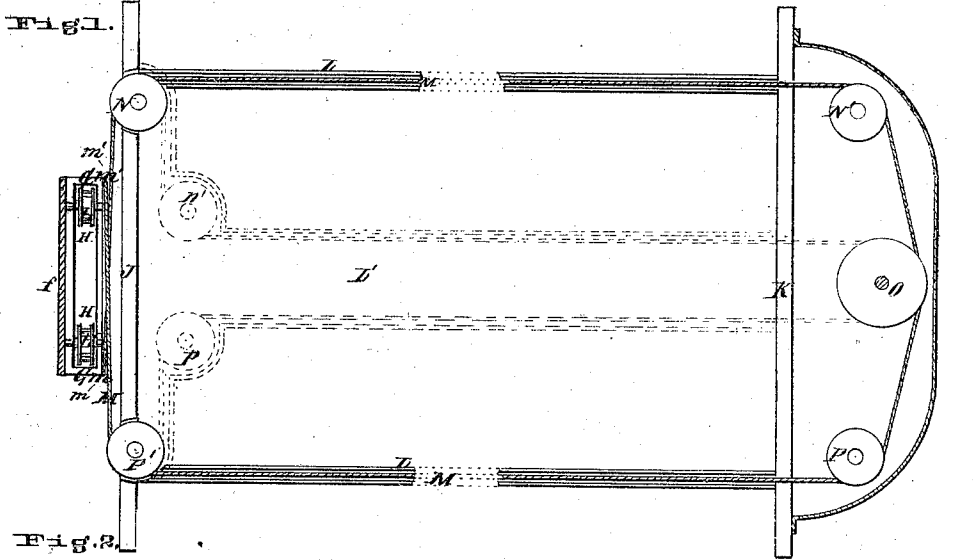


S. H. LITTLE.
Street Railway Cars.

No. 140,052.

Patented June 17, 1873.



ATTEST,
Charles Rickles
Walter Allen

INVENTOR,
Saml H. Little
By Knight Bros. Atty's.

Scale 1/4" = 1'

UNITED STATES PATENT OFFICE.

SAMUEL H. LITTLE, ROSEMOND, ILLINOIS.

IMPROVEMENT IN STREET-RAILWAY CARS.

Specification forming part of Letters Patent No. **140,052**, dated June 17, 1873; application filed January 29, 1872.

To all whom it may concern:

Be it known that I, SAMUEL H. LITTLE, of Rosemond, Christian county, Illinois, have invented a certain Improvement in Street-Cars, of which the following is a specification:

This improvement relates to the manner of constructing, hanging, and operating the doors of street railway cars. The first part of my invention consists in the manner of supporting the rear door of the car. This door rests on pulleys upon a track beneath the floor of the car, so that no dirt will collect upon the track from the feet of persons entering. The second part of my invention consists in the manner of moving the door by cords that pass from the bottom of the door around pulleys and to a drum beneath the feet of the driver, the door being outside the rear wall and opening to either side.

Figure 1 is a plan of the pulleys and the cord by which the rear door is operated. Fig. 2 is a longitudinal section at the center of the car.

A (Fig. 2) is the side-wall, B the floor, C the roof, D the front wall, and E the rear wall. F is the rear door, whose top slides in a groove, *e*. At the bottom of the door is a bracket, *f*, to which is attached a rectangular frame, G, to which the grooved rollers H are journaled. This frame is beneath the floor, and the rollers H travel on a rail, *i*, upon a bracket, I, secured to the cross-timber J, the latter being connected to the cross-timber K (at the front of the car) by trunks or pipes L, forming guides and supports for the cord M. The end *m* of

the cord is attached to one end of the frame G, and, passing around the pulleys N and N', it is coiled around the drum O, or attached thereto, and from the drum the cord passes around the pulleys P and P', and the end *m'* is attached to the frame G at the opposite end to that *m*, so that, supposing the door to be closed, it is opened by turning the drum J in either direction. The drum is upon a shaft, R, ending above in a hand crank, *r*, by which the driver turns the drum.

In dotted lines in Figure 1 is shown a modification, in which a single central trunk L' is used in place of the two trunks L, and the positions of the two pulleys N' P are changed to the positions shown at *n' p*, the course of the cord being indicated by dotted lines.

I do not in this application claim broadly operating the sliding door of a car by means of an endless cord.

I claim as my invention—

1. In a street-railway car, the combination of the sliding door F, bracket *f*, roller-frame G, rollers H, and rail *i* beneath the floor, all substantially as and for the purposes set forth.

2. The combination of the door F with the track *i* beneath the floor; the cord M, pulleys N N', drum O, and pulleys P P', all arranged substantially as described.

In testimony of which invention I have hereunto set my hand.

SAML. H. LITTLE.

Witnesses:

SAML. KNIGHT,

CHARLES PICKLES.