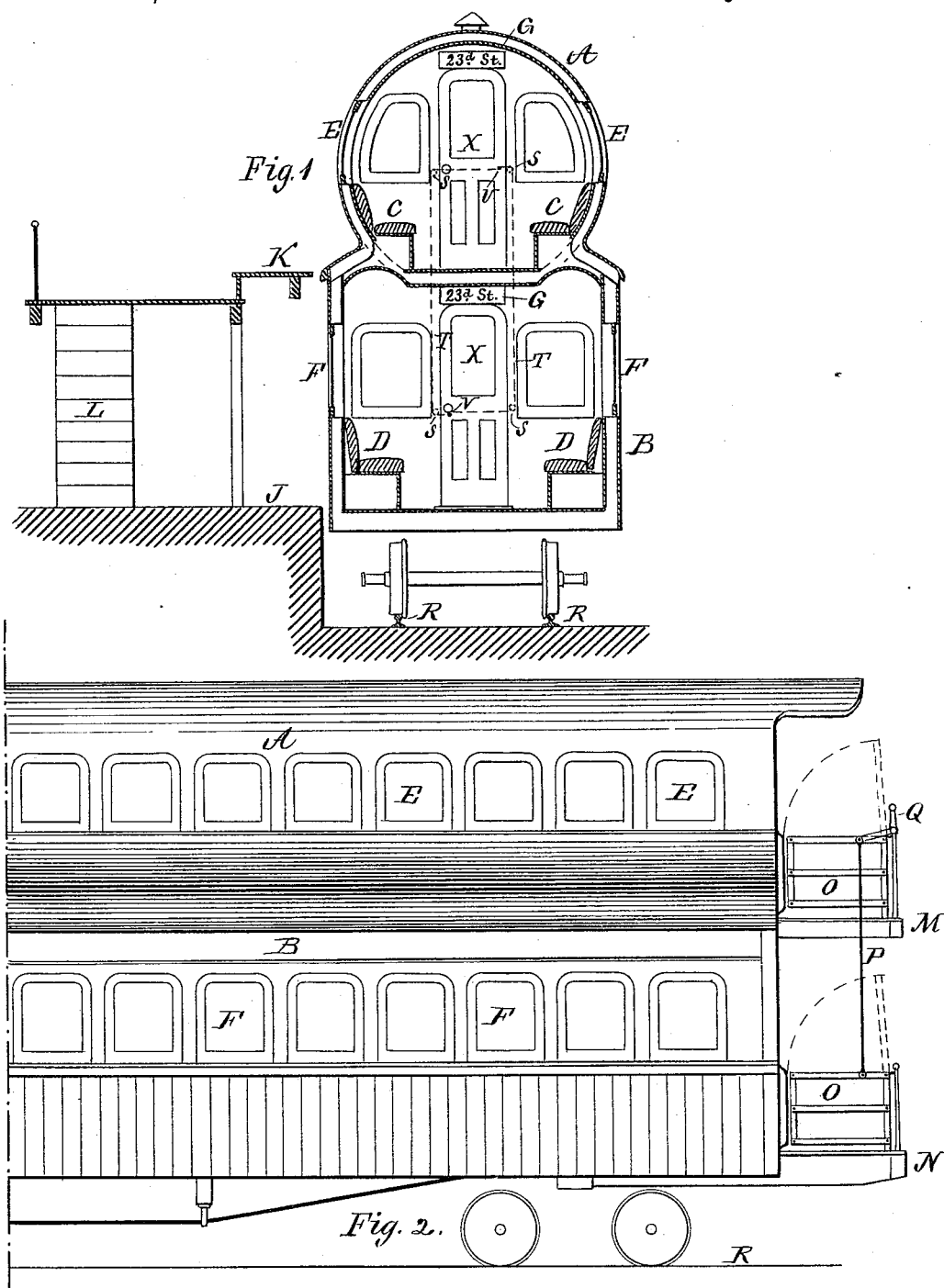


(No Model.)

A. K. MANSFIELD.
PASSENGER CAR AND STATION.

No. 386,331.

Patented July 17, 1888.



Witnesses:

Geo. L. Mansfield.
T. L. Mansfield.

Inventor:

Albert K. Mansfield.

UNITED STATES PATENT OFFICE.

ALBERT K. MANSFIELD, OF NEW YORK, N. Y.

PASSENGER CAR AND STATION.

SPECIFICATION forming part of Letters Patent No. 386,331, dated July 17, 1888.

Application filed January 7, 1888. Serial No. 260,103. (No model.)

To all whom it may concern:

Be it known that I, ALBERT K. MANSFIELD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Railway Passenger Cars and Stations, of which the following is a specification.

My invention relates to improvements in passenger-cars for suburban or rapid-transit railways, and in the relation of such cars to the passenger stations on said railways.

The objects of my improvements are to increase the carrying capacity of such cars, and to provide means for more rapid entrance and exit to and from the cars at stations. I accomplish these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a cross-section through the car and the platforms at a station, and Fig. 2 is a half-side elevation of the car.

A B is the car, in which A is the upper and B the lower compartment.

C C are seats in the upper and D D are seats in the lower compartment.

E E are windows in the upper and F F windows in the lower compartment.

J is the lower station-platform, from which passengers enter the lower compartment, B, and K is the upper platform, from which the upper compartment, A, may be reached.

L is a staircase extending from one of these platforms to the other.

M is the upper and N the lower car platform.

O O are car-platform gates, which are connected with each other by the rod P, and arranged to be operated together by means of the crank or lever Q.

R R are rails of the track on which the car rides.

S S are pulleys, and T T cords passing over the pulleys, and attached to each door X X of the car, whereby opening or closing one door will have the same effect on the other. These cords are both attached to the upper door at U and to the lower at V.

The shape of the top story of the car is cylindrical. This is for strength, symmetry, and ease of construction. The floor of the upper story is one story in height (that is, more than

man's height) above the floor of the lower story or compartment. A staircase may or may not be provided within the car. In using cars of this kind in rapid-transit trains, passengers who are about to take the train, in large numbers, would naturally distribute themselves over both platforms and thereby stand a better chance of securing seats. This enables the train to make better time, for the doors of both upper and lower compartments being used the number of entrances or exits is twice as great as in ordinary cars. Therefore the time required to make such exits or entrances need be but half as much.

No greater number of attendants need be used on trains of these cars than on ordinary trains, for an attendant may operate both upper and lower doors as well as both upper and lower gates from either platform by the mechanism shown. I prefer to use the upper platform for this purpose.

The announcement of stations and changes of cars may be made by means of suitable annunciators or speaking-tubes.

Other methods of connecting the doors or the gates together will readily suggest themselves to mechanics.

What I claim as my invention is—

1. The combination of railway R R, the two-story passenger-car A B, and platforms J and K, arranged one above the other, substantially as and for the purpose set forth.

2. A compartment-car, A B, having compartments vertically above each other, one story apart, the upper story being completely inclosed with side and end walls and roof, and having independent end platforms, M and N, at each end for each story, the whole supported on wheels, substantially as set forth.

3. In a two story car, the platform-gates O O, arranged one above the other, and connected together by a suitable connection, P, so as to be operated in unison, in combination with platforms M and N, substantially as described.

In testimony whereof I hereunto subscribe my name.

ALBERT K. MANSFIELD.

Witnesses:

J. C. LULLEY,

S. F. MORRIS.