2 Sheets--Sheet 1

C. McWAYNE.

Single-Rail Railway-Car.

No. 163,227. Patented May 11, 1875.

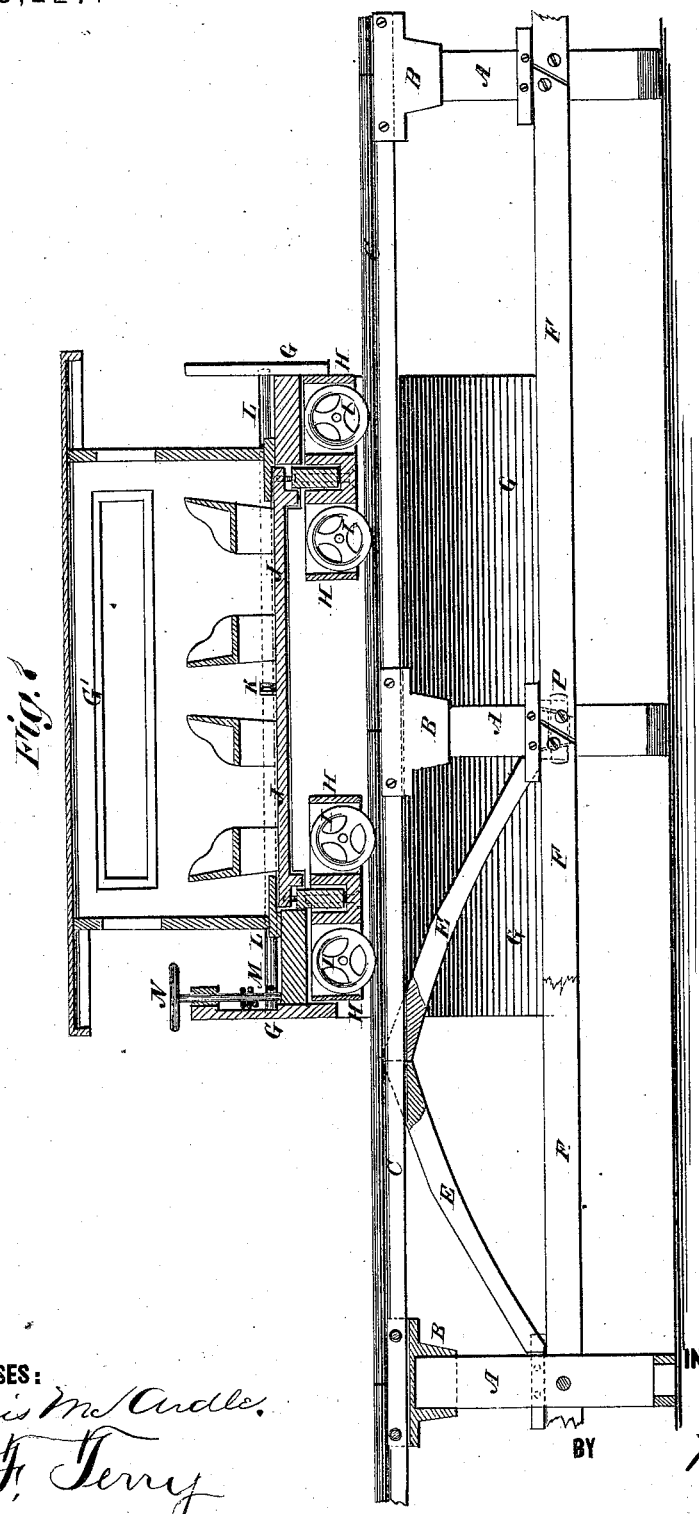


Fig. 1.

WITNESSES:

Francis McArdle.

A. F. Terry

INVENTOR:

C. McWayne

BY

Munn & Co.

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2 Sheets--Sheet 2.

C. McWAYNE.

Single-Rail Railway-Car.

No. 163,227. Patented May 11, 1875.

Fig. 2.

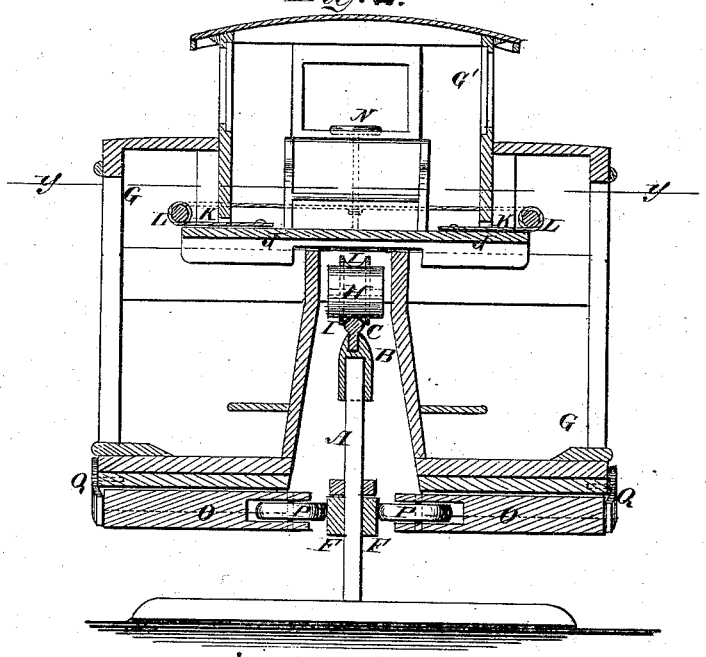
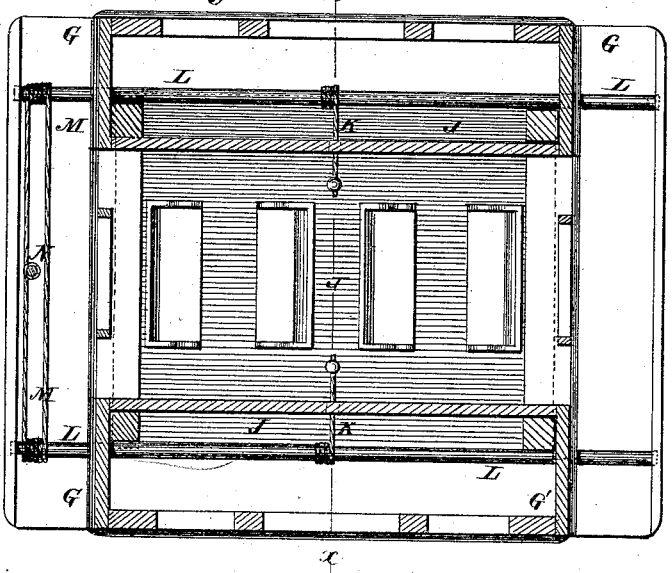


Fig. 3.



WITNESSES:

Francis McArdle

A. F. Terry

INVENTOR:

Chandler McWayne

BY Munn & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

CHANDLER McWAYNE, OF COLFAX, CALIFORNIA.

IMPROVEMENT IN SINGLE-RAIL-RAILWAY CARS.

Specification forming part of Letters Patent No. **163,227**, dated May 11, 1875; application filed December 5, 1874.

To all whom it may concern:

Be it known that I, CHANDLER McWAYNE, of Colfax, in the county of Placer and State of California, have invented a new and useful Improvement in Single-Rail Railways, of which the following is a specification:

Figure 1, Sheet 1, is a vertical longitudinal section of my improved car, and showing the track in side view. Fig. 2, Sheet 2, is a vertical cross-section of the same, taken through the line *x x*, Fig. 3. Fig. 3, Sheet 2, is a horizontal section of the same, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of single-rail railways, so as to enable the car to be readily balanced upon the rail when in motion, to hold it steady when being loaded and unloaded, and to make the track more secure.

The invention will first be fully described, and then pointed out in the claims.

A are the posts of the track, which are made wide longitudinally with the track, and narrow transversely with the track. Upon the upper ends of the posts A are cross-heads B, running longitudinally with the track, and having deep longitudinal grooves in their upper sides to receive the base of the rails C, which are secured in place in said heads B by bolts, the bolt-holes in the rails being slightly elongated to allow the rails to expand and contract. When the posts A are iron the heads B may be cast upon their upper ends; but when the posts A are wood the heads B are cast with a socket to receive the upper ends of the said posts, to which they are secured by bolts or other convenient means. The rails C are supported midway between the posts A by arched braces E, the upper parts of which are grooved to receive the base of the rails C, and the lower ends of which rest upon shoulders or other supports formed upon or attached to the posts A. To the sides of the posts A are attached flat bars, plates, or rails F, for the horizontal wheels of the cars to bear against, as hereinafter described. G is the car-body, which is made with a deep longitudinal recess extending up from the middle part of the bottom of the car, so that the main weight of the car and load may be below the rail C. H are the trucks, to which the wheels I are pivoted, which are pivoted in the upper part of the recess in the car-body G, and which are made enough narrower than said recess to give them the necessary play for passing around curves, &c.

The main body of the passengers and loading of the car occupy the compartments in the sides of the car below the level of the rails C. In the upper part of the car-body G, directly above the rail, is formed another compartment, the floor J of which slides transversely in ways in the frame-work of the car, so that by moving the said floor toward one side or the other the weight of the passengers or load in said compartment may serve as a counterpoise for balancing the car. To the middle part of the side edges of the floor J are attached ropes or chains K, the other ends of which are attached to the middle parts of the rods or shafts L, which pass longitudinally through the upper side parts of the car-body G, and revolve in bearings attached to the frame-work of said body. To the end parts of the shafts L are attached ropes or chains M, which are also attached to vertical shafts N, placed at the ends of the car-body, and operated by a hand-wheel, in the manner of a brake-shaft. The ropes or chains M are so arranged that when the shaft N is turned they will be wound upon one of the shafts L, and unwound from the other, thus moving the floor J in one or the other direction. The ropes or chains K M may be replaced by equivalent racks and gear-wheels, if desired. O are sliding bars or frames placed in ways in the bottom of the car-body G, and to the inner ends of which are pivoted horizontal wheels P, which rest against the flat rails F. The slides O are held inward, holding the wheels P against the rails or plates F by springs Q, attached to the sides of the bottom of the car-body G, and which press against the outer ends of the said slides O. The springs Q, upon the opposite sides of the car, should be of the same strength, so as to hold the car squarely in position.

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

1. A car-body having longitudinal bottom cavity, provided with aligned vertical truck-wheels, having room for side play in the upper part thereof, and horizontal spring-pressed wheels P P, arranged as shown and described, for the purpose specified.

2. The laterally-sliding floor J in the car-body G, above the recess that receives the trucks and rails, substantially as shown and described.

3. The combination of the shafts L, ropes or chains K and M, and the vertical shaft N with the sliding floor J and the car-body G, substantially as shown and described.

4. The combination of the slides O, horizontal wheels P, and springs Q with the car-body G and the flat rails or plates F, attached to the posts A, substantially as shown and described.

CHANDLER McWAYNE.

Witnesses:
ASA PLANK,
HENRY WALES.