

M. P. TURNER.

Street Car.

No. 99,732.

Patented Feb. 8, 1870.

Fig: 1.

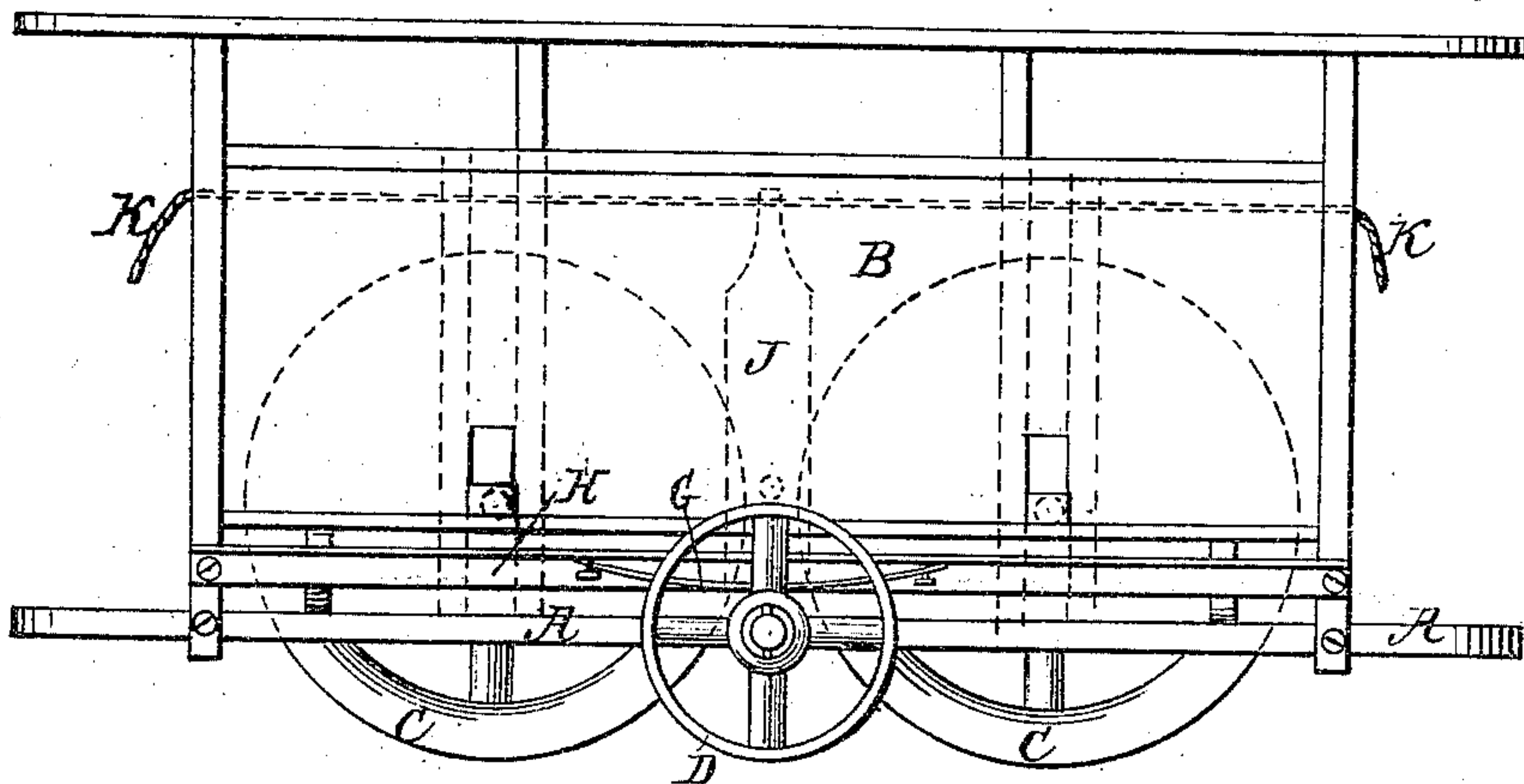
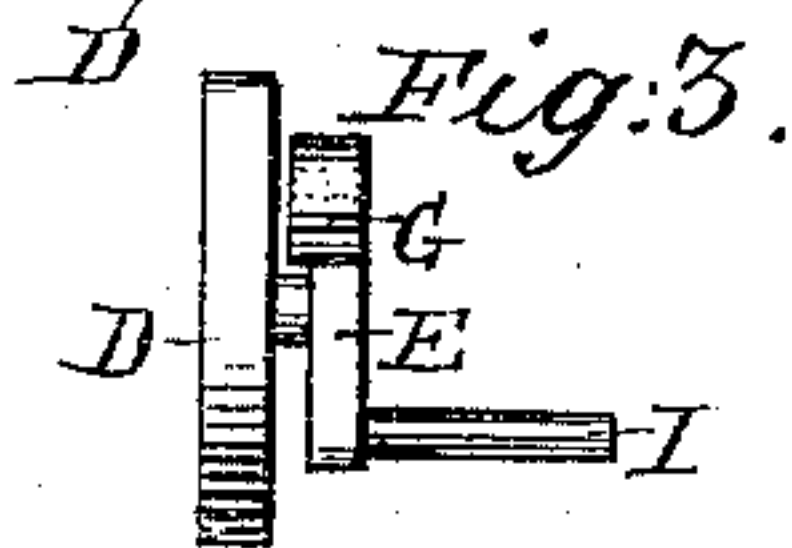
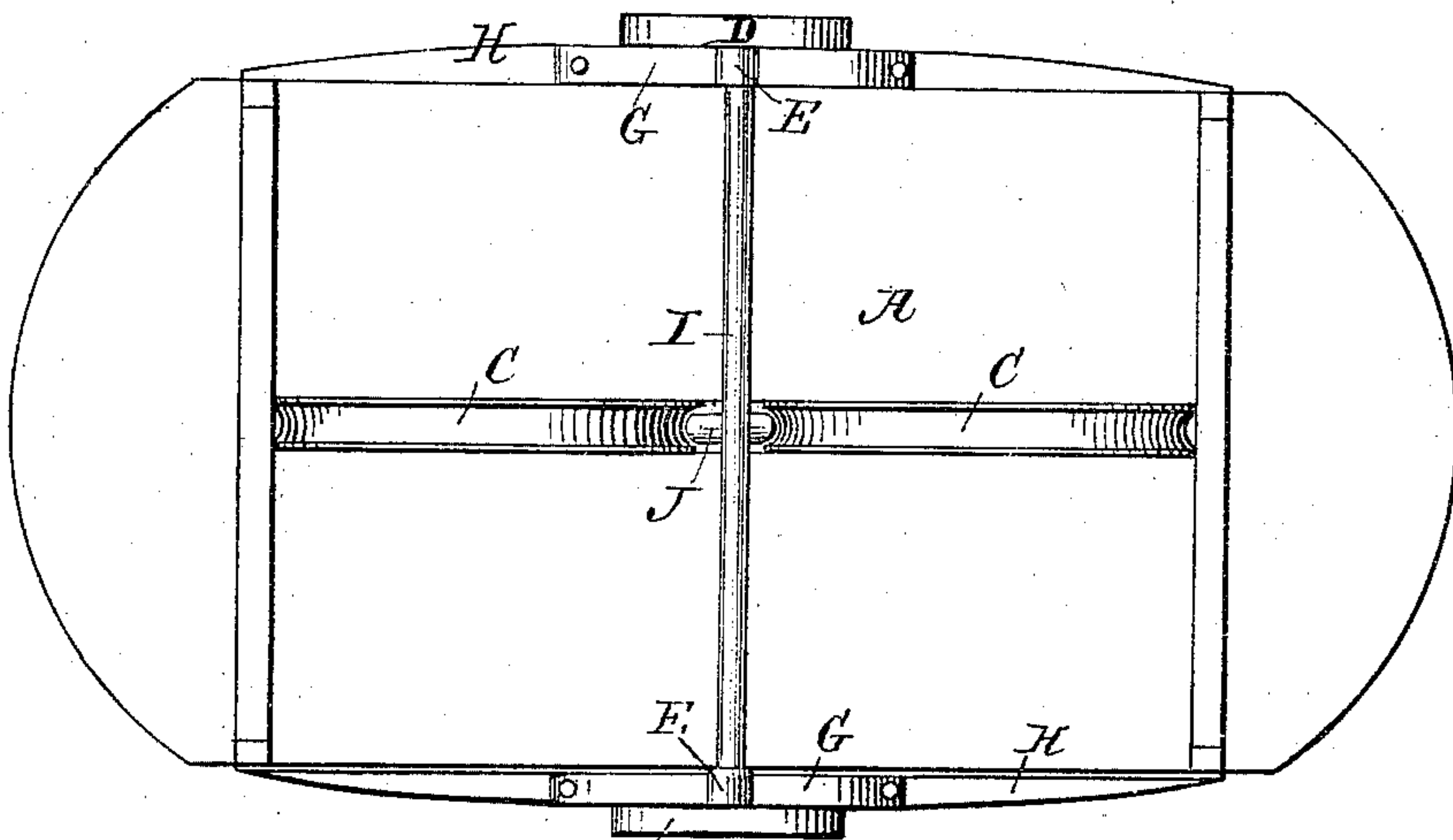


Fig: 2.



Witnesses
F. Lehmann
C. L. Ours

Inventor
Maklow P. Turner
per Alexander Maslow
Attys

United States Patent Office.

MAHLON P. TURNER, OF DES MOINES, IOWA.

Letters Patent No. 99,732, dated February 8, 1870.

IMPROVED STREET-RAILWAY CAR.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, MAHLON P. TURNER, of Des Moines, in the county of Polk, and in the State of Iowa, have invented certain new and useful Improvement in Railroad or Street-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making part of this specification.

The nature of my invention consists in the construction of a street railroad car, to run upon a single rail, said car being provided with two or more double-flanged rollers or wheels, in combination with outer acting wheels beneath springs, which last wheels are without flanges, and run upon the ground, as more fully hereinafter set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation, and

Figure 2, a bottom view of my car.

Figure 3 is an end view of one of the side wheels, showing the manner of attaching the same.

The car which I have represented in the annexed drawings is open on all sides, but it may of course be enclosed, the same as any ordinary railroad-car, and finished off in any suitable manner.

A represents the bottom of the car, which is provided with a slot or opening running lengthwise through the centre for a suitable distance.

Above this slot, on top of the bottom A, is secured a casing, B, in which are placed two large wheels *c c*, one in front of the other. The axles of these wheels may be placed any desired height above the bottom A, the higher the better, only leaving the necessary space between the bottom of the car and the road-bed.

The main wheels *C C* are provided with flanges, such as are used on ordinary car-wheels, except that there is one flange on each side of the wheel, and the single line of rails necessary fits between said flanges, said wheels therefore guiding the car and sustaining the principal part of the burthen.

On each side of the car is placed a bearing-wheel, *D*, mounted upon an axle or journal extending outward from a vertical bar, *E*, upon the top of which is secured a spring, *G*.

Along the side of the car is secured a bar, *H*, which rests upon the ends of the spring *G*.

The bars *E E* on each side of the car are connected by a rod, *I*, passing under the bottom A between the wheels *C C*.

The side-wheels *D D*, with springs *G G*, properly

adjusted, assisted by the double flange upon the wheels *C C*, operate as a lever power to hold the burthen of the car and contents on the central wheels, and sustaining themselves but little of the burthen, and that only at intervals.

The design is, when the car is on the track and properly balanced, that the side-wheels shall merely touch the surface of the ground, when the springs are sustaining little or no weight.

The seats *J J* are so placed against the casing *B*, enclosing the main wheels, so that the passengers will tend to balance the car and rest as near as possible to the central line of the car, the space between the casing *B* and the top of the car to be used for such packages as may be necessary to convey.

The brake *J* is pivoted within the casing *B*, between the wheels *C C*, and extends far enough above and below the pivot point to operate on both wheels at the same time, from whichever end of the car it is operated.

The upper end of the brake *J* is provided with a rope, *K*, one end of which is passed through each end of the casing *B*, and then through the end of the car, so that the brake can be operated from either end.

In the general construction of the car on the principle of my invention, I am able to operate with a much lighter car, to dispense with one rail in an ordinary railroad, to convey on a plane, or on an ascending grade, a greater burthen than can be conveyed in any other way with the same amount of force.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. A street-railroad car, having centrally-located wheels, and the double-acting brake pivoted as shown, said brake operated through cords *K K*, or equivalent devices arranged in either end of the car, to be within reach of the driver, all substantially as specified.

2. In combination with the car *A* and its centrally placed double flanged wheels *C C*, the employment of two or more flangeless wheels *D D*, shaft or shafts *I*, bars *E E*, and springs *G G*, or their respective equivalents, whereby a street-car is run upon a single line of rail, while the outer wheels rest upon the earth, substantially as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal, this 18th day of October, 1869.

MAHLON P. TURNER. [L. S.]

Witnesses:

GILES H. TURNER,
D. J. GUE.