(No Model.)

W. J. OGDEN.

ELECTRIC RAILWAY SYSTEM.

No. 468,575. Patented Feb. 9, 1892.

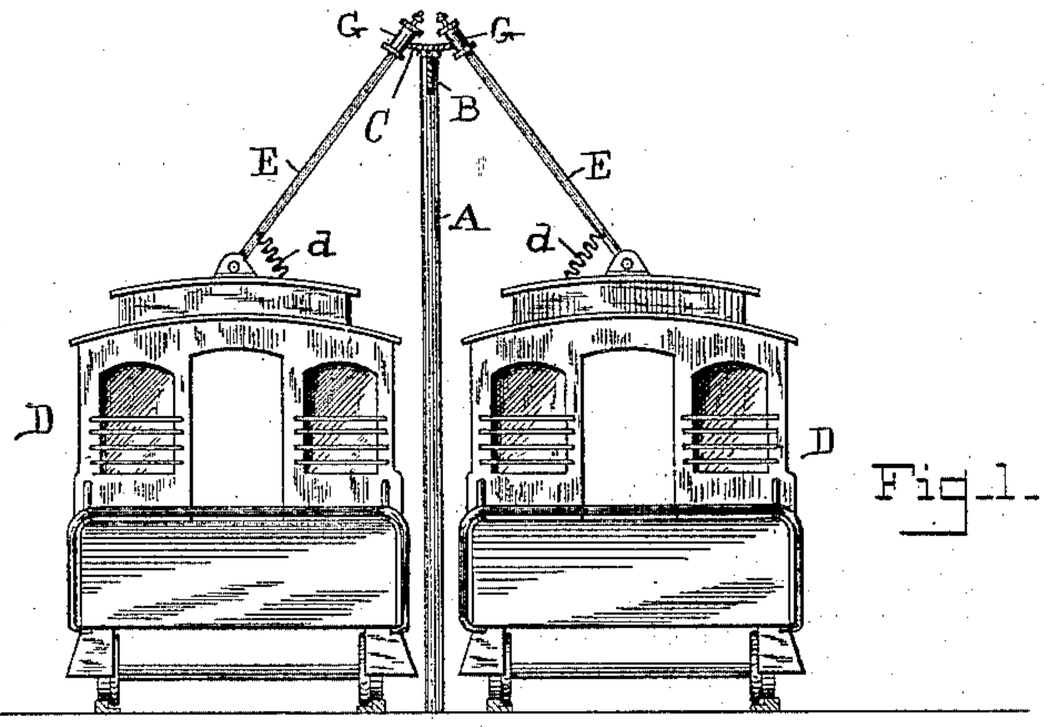

Fig. 1.

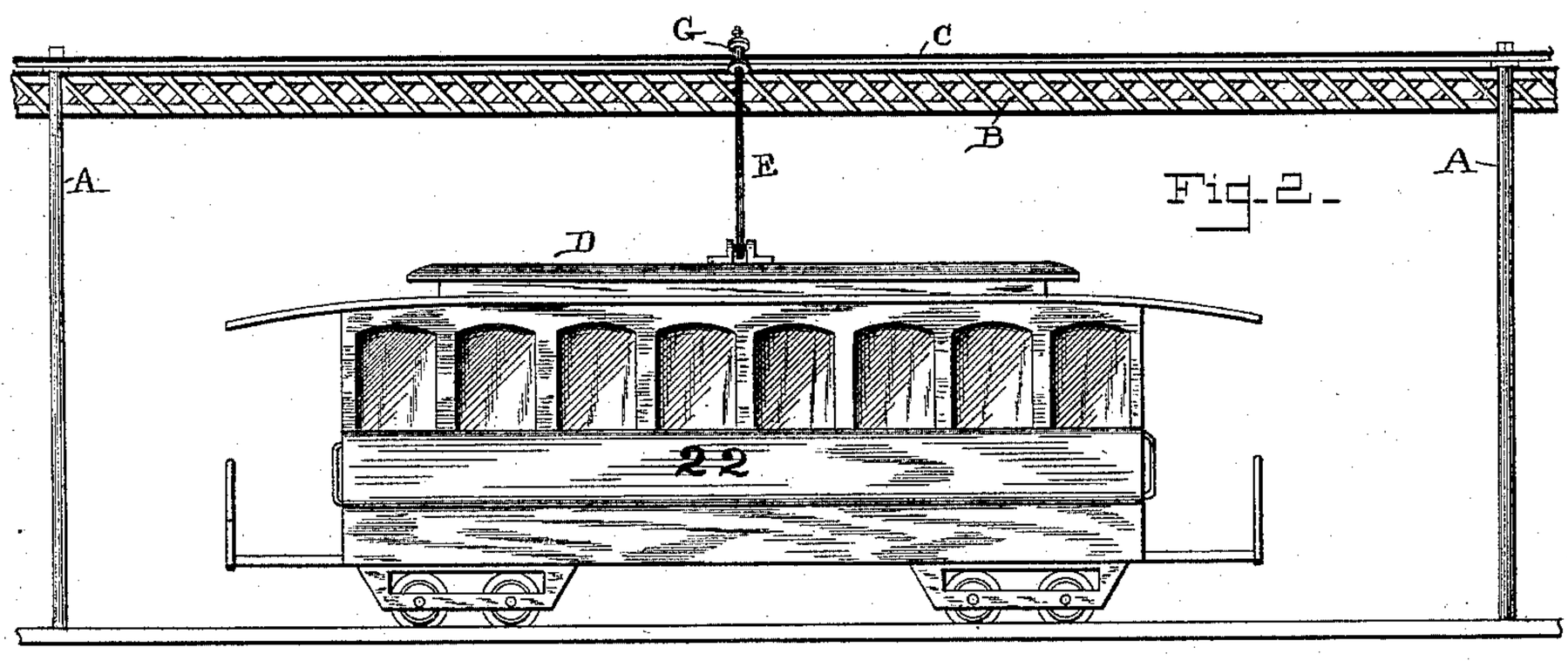

Fig. 2.

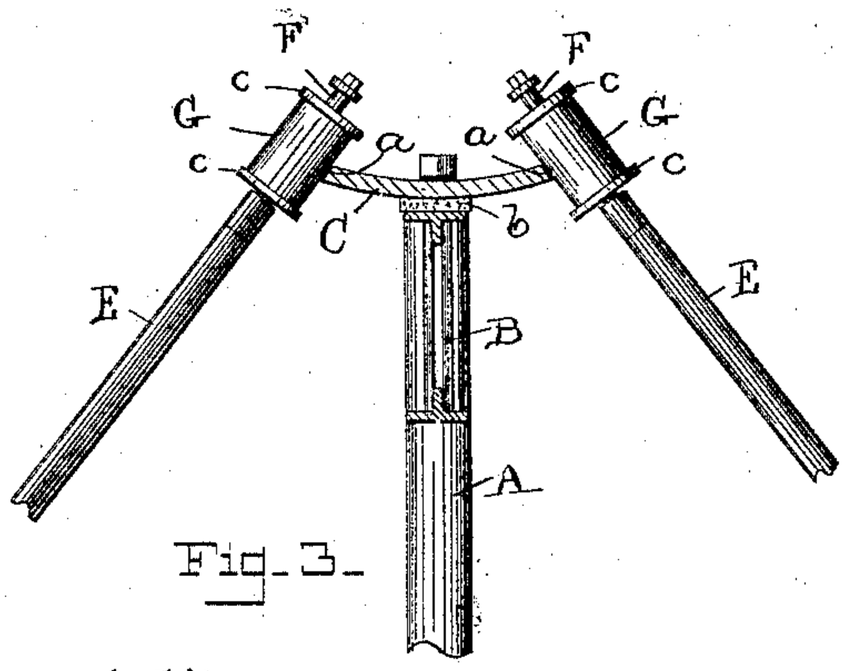

Fig. 3.

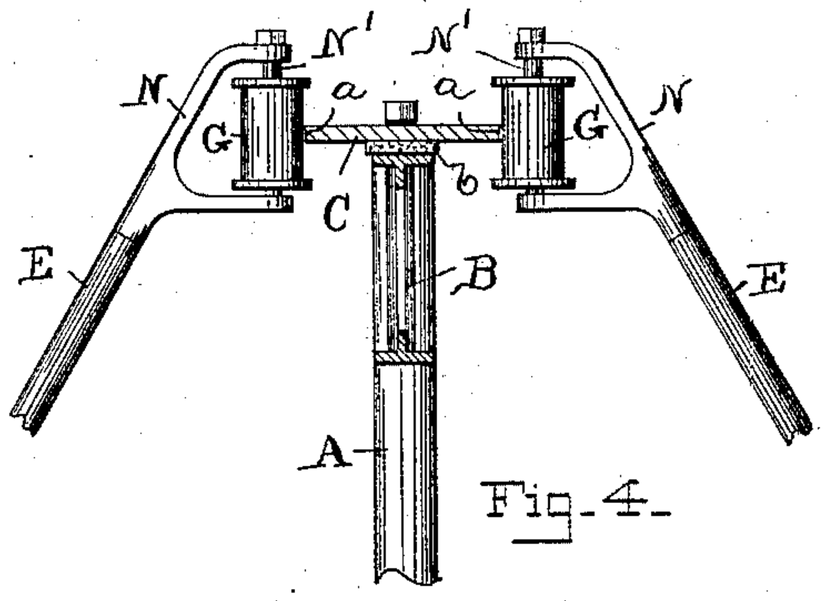

Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM J. OGDEN, OF BALTIMORE, MARYLAND.

ELECTRIC-RAILWAY SYSTEM.

SPECIFICATION forming part of Letters Patent No. 468,575, dated February 9, 1892.

Application filed November 20, 1891. Serial No. 412,477. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. OGDEN, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Electric-Railway Systems, of which the following is a specification.

This invention relates to an improvement in electric-trolley systems for street-railways; and the object is to arrange for a single centrally-located conductor to supply electricity to the cars running on both tracks and in opposite directions on a double-track line.

To this end the invention consists in the novel features of construction and combinations of parts hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a cross-section of a double-track railway, showing my improved arrangement applied thereto; Fig. 2, a side elevation showing the trestle-work which supports the conductor; Fig. 3, an enlarged detail view of the conductor and trolley rollers or spools, and Fig. 4 a similar view showing a modified construction.

Between the two tracks of a double-track system poles or posts A are planted at suitable intervals, and trestle-work B extends between the tops of these posts, spanning from one to another. Along the top rail of this trestle-work is laid the conductor, which in the present instance is a rail C, which, as shown in Fig. 3, is dished toward the middle, in order to throw its opposite edges *a* up into an inclined plane to give a greater contact surface for the trolley wheels or rollers. This conductor-rail is suitably secured to the top rail of the trestle-work with interposed insulation *b*, and it has a width sufficient to permit two trolley wheels or rollers in contact with its opposite edges to pass each other without interfering.

Each car D has an arm E pivoted to its top or roof so as to swing laterally, and, as shown in Fig. 3, this arm has a spindle F on its upper end, which spindle receives a trolley roller or spool G, having end flanges *c*, the axis of the roller or spool being in line with the hinged arm. These trolley-spools travel in contact with the inclined edges *a* of the conductor-rail, and two on opposite sides of the said rail may pass each other freely with sufficient clearance.

In Fig. 4 is illustrated a slightly-different construction, where the conductor-rail is flat and the trolley spools or rollers have a vertical position and are mounted in forked frames N, secured on the ends of the hinged arms and holding the spindles N′ of said spools. With the spools thus held vertical it will be apparent a narrower conductor-rail may be used.

The spools and their spindles are of such length as to allow for variations in the track-bed.

It will be observed that the trolley rollers or spools rest against the conductor by gravity. Springs *d* are also provided, and the contact is thus constant.

The advantage of my system is that I do away altogether with a cross-head on the poles and the two wires supported thereby over each track, which are objectionable because they obstruct the street. The single conductor at the middle and the supporting frame-work occupy a very small part of the street and present little obstruction to traffic.

It is obvious that other forms of conductors may be employed, and also that the trolley roller or spools may be mounted on the hinged arms otherwise than here shown. My invention is not therefore limited in this respect.

The form or construction of trestle-work or frame-work to support the conductor is immaterial, and the invention is not limited in that respect. Any suitable support may be employed.

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

In a double-track system for street-rail-

ways, the combination of a single conductor centrally located between the tracks and having two contact edges and a width to permit two trolley-rollers in contact with opposite edges of said conductor to freely pass each other without contact between them and without leaving the conductor, and arms hinged to the cars, respectively, and each carrying a trolley-roller which rests removably in contact with said conductor.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM J. OGDEN.

Witnesses:

JNO. T. MADDOX,

FRANK P. DAVIS.