No. 744,055. PATENTED NOV. 17, 1903.

W. EMBLEY & A. A. SHOBE.

ELECTRIC RAILWAY SYSTEM.

APPLICATION FILED APR. 10, 1903.

NO MODEL.

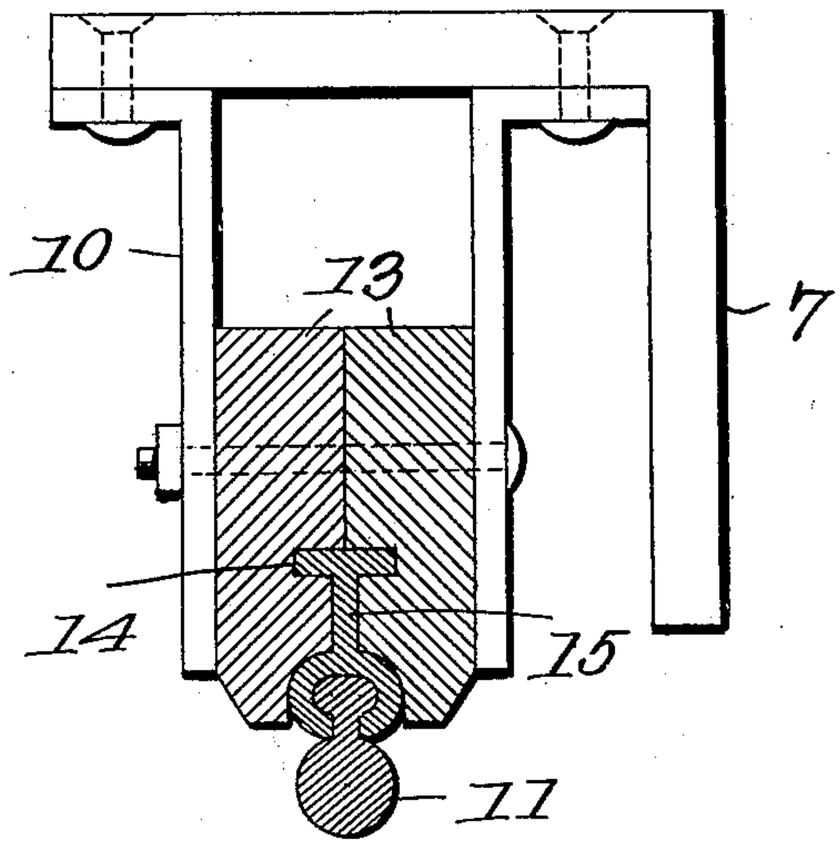

Fig. 1.

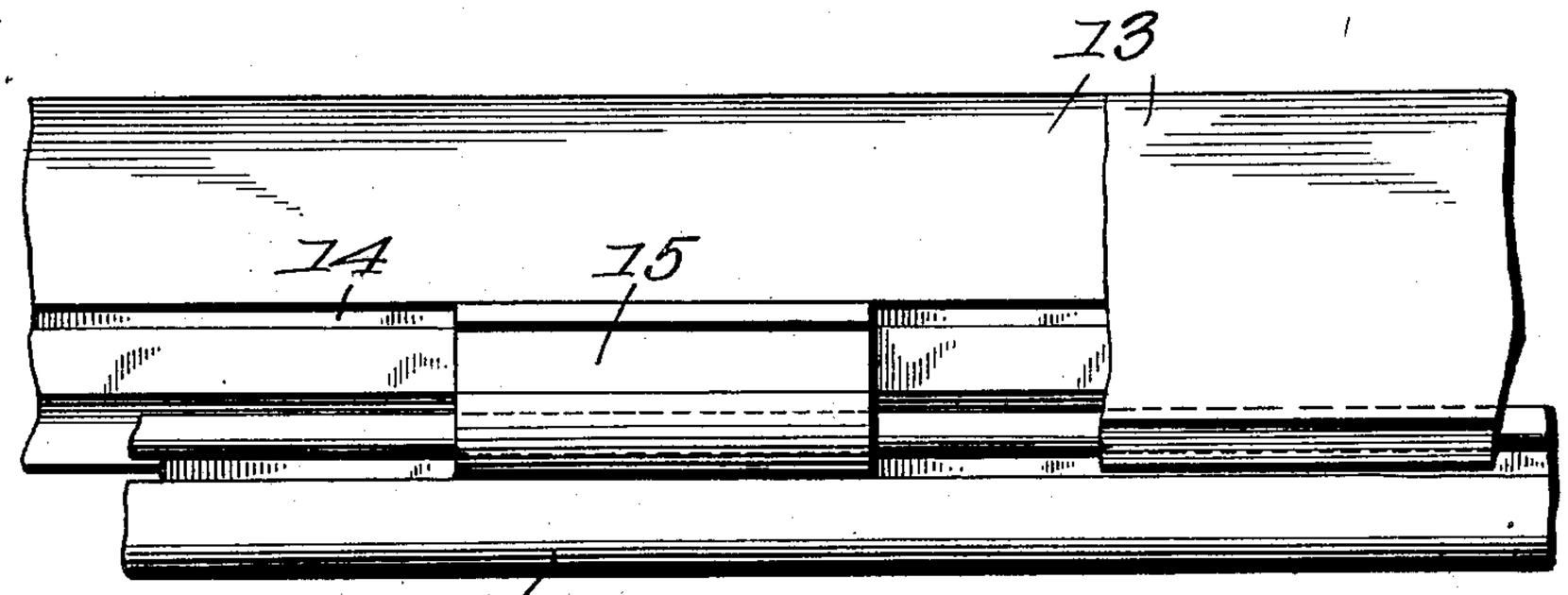

Fig. 2.

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No. 744,055. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM EMBLEY AND ABRAHAM A. SHOBE, OF JERSEYVILLE, ILLINOIS.

ELECTRIC-RAILWAY SYSTEM.

SPECIFICATION forming part of Letters Patent No. 744,055, dated November 17, 1903.

Application filed April 10, 1903. Serial No. 152,079. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM EMBLEY and ABRAHAM A. SHOBE, citizens of the United States, residing at Jerseyville, in the county of Jersey and State of Illinois, have invented a new and useful Electric-Railway System, of which the following is a specification.

This invention relates to certain improvements in electric-railway systems, and has for its principal object to provide a system in which a continuous-current conductor is arranged and supported as to permit free expansion and contraction due to thermal changes without injuring the conductor or its connections and without such distortion as would tend to impair the contact of the movable trolley to convey the current to and from the car motor or motors.

A still further object of the invention is to provide improved supporting means for the current-conductors, the supporting devices being of simple and economical construction and readily attached to the conductors in such manner as to permit free longitudinal movement of the latter during the preliminary running of the conductor, as well as subsequent movement due to expansion or contraction.

With these and other objects in view, as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the proportions, size, form, and minor details of the construction may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a transverse sectional elevation illustrating the current-conductor and its supporting means arranged and constructed in accordance with the invention. Fig. 2 is a side elevation of the same, a portion of the support being broken away in order to more clearly illustrate the invention.

Similar numerals of reference are employed to indicate corresponding parts throughout both figures of the drawings.

The current-conductors may be supported either overhead or underground, and in Fig. 1 is shown a support in the form of a bracket 7. On the under sides of the brackets are secured hangers 10, which serve as supports for the conductors and their connected parts. The conductor 11 is formed of a continuous length of wire of the cross-sectional contour shown in Fig. 1, being provided with grooves in its opposite sides for the reception of supporting-hangers. The conductor-supports are formed of two oppositely-disposed bars 13, preferably of wood or other suitable non-conducting material, made in sections of convenient length and coated with a suitable paint or preserving compound. The adjacent faces of the bars are provided with longitudinal slots 14 for the reception of the upper transverse cross-bar of the T-shaped hangers 15. The lower ends of the hangers are yoke-like in form and are bent to engage the grooves formed in the opposite sides of the current-conductor. The construction is such as to permit free sliding movement of the hangers in the grooves of the wooden supporting-bars and permits of the placing of the wire in proper position during the preliminary installation, as well as allowing subsequent longitudinal movement of the wire due to expansion and contraction, thus preventing breakage from this cause, and further preventing such distortion of the wire as to impair the contact of the traveling current-collectors.

Having thus described the invention, what is claimed is—

1. In electric-railway systems, a continuous-current conductor, an insulating-support coextensive with the conductor, and a plurality of hangers carried by the support and connected to the conductor, said hangers being free to slide longitudinally of said support.

2. In electric-railway systems, a grooved support, a plurality of hangers carried thereby and free to slide longitudinally of the support, and a current-conductor with which said hangers are engaged.

3. In electric-railway systems, a pair of supporting-bars having grooves in their adjacent faces, conductor-hangers each having an up-

per member extending into the grooves and free to slide longitudinally thereof, the lower ends of the hangers being provided with conductor-clamping arms, and a current-conductor having oppositely-disposed grooves for the reception of said arms.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM EMBLEY.
ABRAHAM A. SHOBE.

Witnesses:
W. H. SCHROEDER,
LYMAN T. WAGGONER.