W. EPPELSHEIMER.

TRAMWAY-TRACKS FOR WIRE-ROPE RAILROADS.

No. 193,757. Patented July 31, 1877.

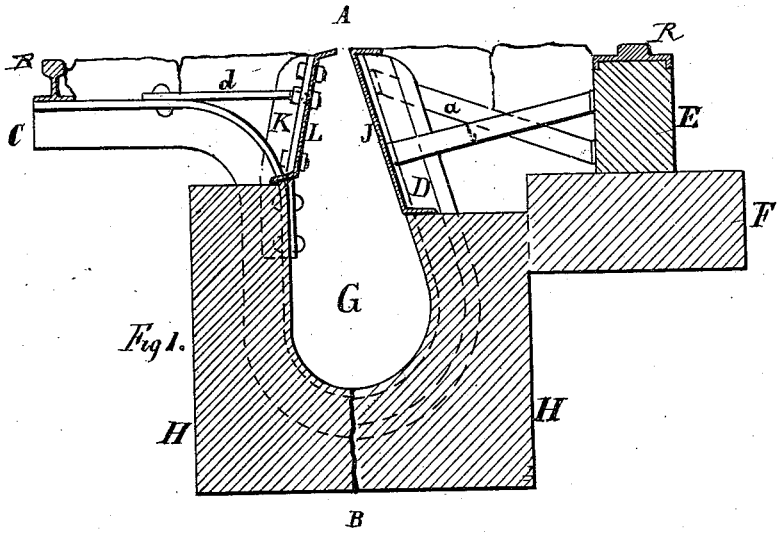

Fig 1.

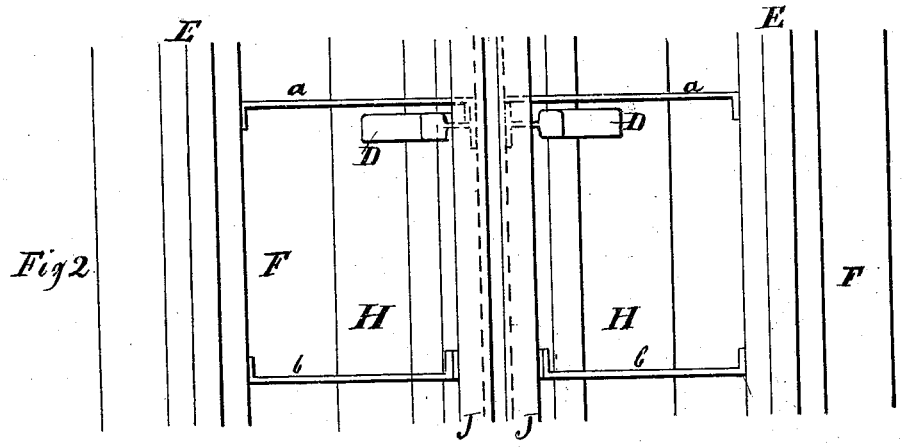

Fig 2.

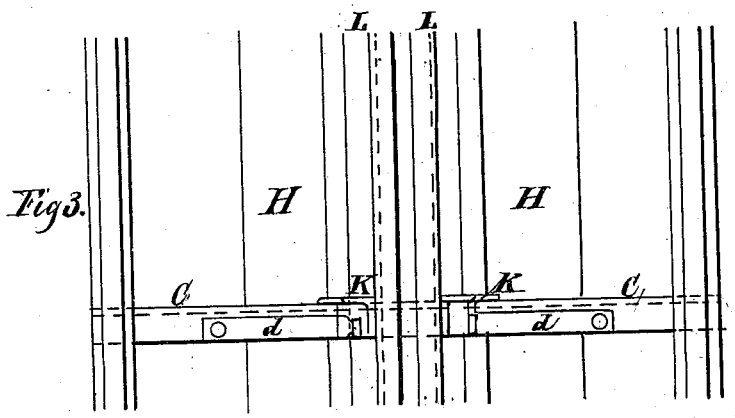

Fig 3.

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WILLIAM EPPELSHEIMER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN TRAMWAY-TRACKS FOR WIRE-ROPE RAILROADS.

Specification forming part of Letters Patent No. 193,757, dated July 31, 1877; application filed January 18, 1877.

To all whom it may concern:

Be it known that I, WILLIAM EPPELSHEIMER, of San Francisco, in the county of San Francisco and State of California, have invented a new Construction for a Tramway or Tram-Road upon which the Cars are Propelled by a Rope, Chain, Band, &c., which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates, principally, to an improved construction of the tube or tunnel in which the rope travels. The cars to be propelled are usually attached to the rope by a griping apparatus.

The object of my invention is to construct a track, or rather a tube, more durable and cheaper than heretofore, which were principally made of cast-iron and wood, and the lower portion lined with sheet-iron or wood.

My invention consists, mainly, in making the sides and the lower part of the tube or tunnel of concrete, béton, brick-work, asphaltum, or of any artificial compound. The upper part I make of wrought-iron, suitably shaped; the single parts of the construction to be connected with each other and to the rails by bolts, rivets, and suitable braces.

Referring to the accompanying drawing, Figure 1 is a cross-section, showing two modes of construction. The left-hand side shows a track built with ties C, conforming to the shape of the tube, and the right-hand side shows one without a tie, strengthened by rings D, of suitable iron, braced to the stringers. It is obvious that, in whatever way the track will be constructed, both sides will be perfectly symmetrical to the center line A B. Fig. 2 is a ground plan, showing a piece of the track constructed as represented in Fig. 1 at the right-hand side of the line A B. Fig. 3 is a ground plan, showing a piece of the track constructed as represented in Fig. 1 at the left-hand side of the line A B.

The right-hand side of Fig. 1 and ground plan, Fig. 2, show a track, in which E E are stringers, on top of which rest the rails in the usual way. E E are laid on short ties or a concrete foundation, F F. The lower part of the tube G, in which the rope travels, is made of concrete, béton, brick-work, asphaltum, or any artificial mixture, H H. The upper part of the tube is formed by suitable shaped wrought-iron bars or beams J J. They form the slot through which the shank of the connecting or griping apparatus of the vehicles travels. J J are fastened to strong wrought-iron rings D. (Old railway-bars may be used advantageously.) The rings forming stiffening-ribs are embedded in the concrete at suitable intervals, and the upper part of rings D are tied by bars *a a b b* to the stringers.

The left-hand side of Fig. 1 and ground plan, Fig. 3, represent a track with cross-ties C, on which the rails are fastened, with or without stringers, as the case may be. They are placed at suitable intervals, and are embedded in the concrete H H. The rings D, which are used in the former construction, are not used here. The upper part of the tube G is formed by suitable bars or beams L L, corresponding to those of J J, used in the other construction. L L is fastened to K K, which are riveted to C, and are further tied to C by *d d*.

It is obvious that the lower part of the tube may be made in its place, or be manufactured outside and be put there, as circumstances make it desirable. The shape of the tube may also be changed.

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

1. In a tramway-track for wire-rope railroads, a tube to receive the rope or cable, made of concrete or equivalent material, open at the top, and combined with iron ribs, substantially as set forth.

2. The combination of the rails R, ties C, and open tube H, of concrete or equivalent material, substantially as and for the purposes herein set forth.

3. The combination of the tie C with the upright K and the brace or tie-rod *d*, substantially as shown and described.

WILLIAM EPPELSHEIMER.

Witnesses:

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