No. 788,322. PATENTED APR. 25, 1905.

C. MEHRING.

RAILROAD SYSTEM.

APPLICATION FILED JUNE 28, 1904.

2 SHEETS—SHEET 1.

Fig. 1

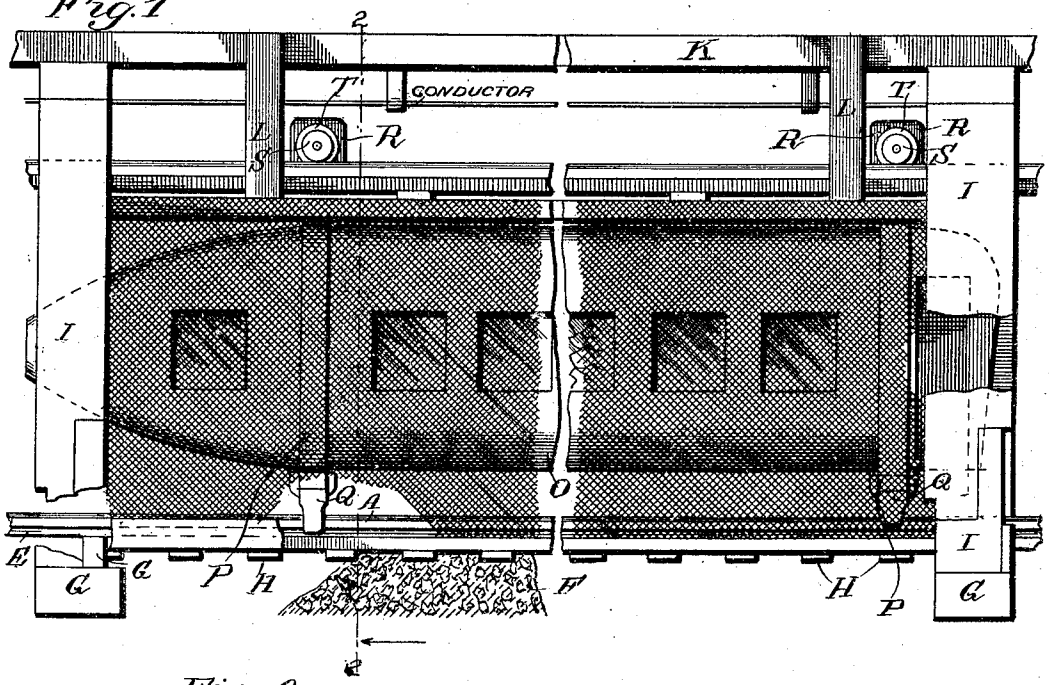


Fig. 2

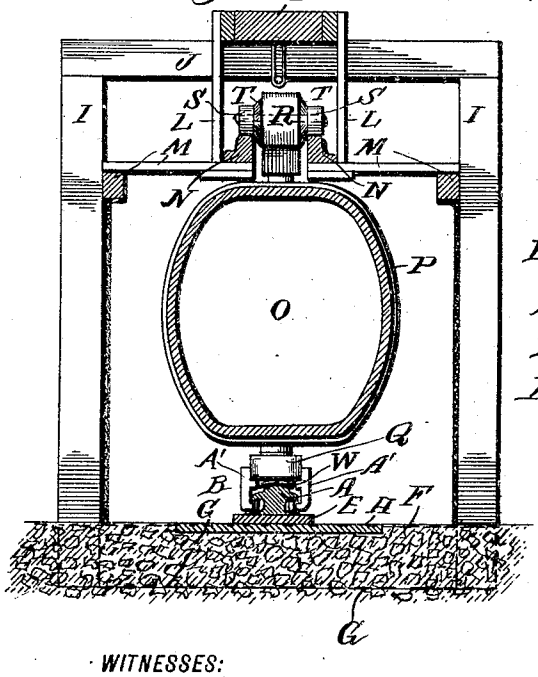
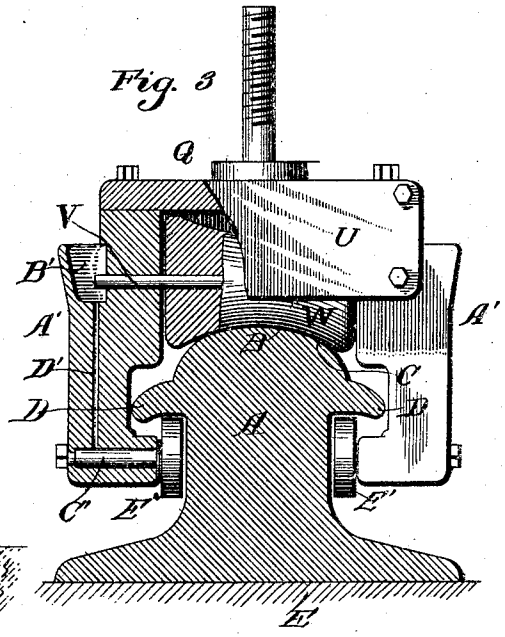


Fig. 3



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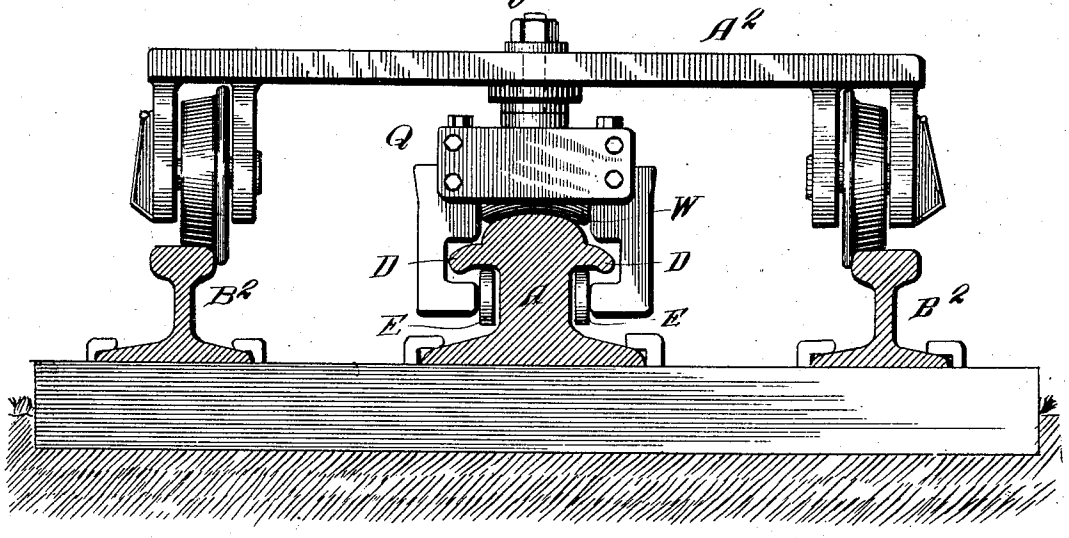
2 SHEETS—SHEET 2.

Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES MEHRING, OF CHARLOTTESVILLE, VIRGINIA.

RAILROAD SYSTEM.

SPECIFICATION forming part of Letters Patent No. 788,322, dated April 25, 1905.

Application filed June 28, 1904. Serial No. 214,502.

To all whom it may concern:

Be it known that I, CHARLES MEHRING, a citizen of the United States, and a resident of Charlottesville, in the county of Albemarle and State of Virginia, have invented certain new and useful Improvements in Railroad Systems, of which the following is a specification.

The invention relates more particularly to single-rail car systems; and the object had in view is to simplify and improve similar railroad systems constructed as heretofore. To that end I have devised the novel single-rail railroad and car system shown in the accompanying drawings and hereinafter fully described, the novel features being pointed out in the appended claim.

In the drawings, Figure 1 is a view illustrating my invention in side elevation, the car, the trackage, and its support being shown in two sections. Fig. 2 is a transverse sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a view, part in section, showing one supporting-truck; and Fig. 4 is a detail view showing my flanged rail and pivoted truck adapted to surface two-rail systems.

In the preferred embodiment of my invention I employ a single supporting-rail A, having its head B constructed with a convex or rounding tread portion C and projecting side flanges D, the flanges being made concave on their under sides, as shown. The rail A is mounted on a suitable sleeper E, embedded in plastic or concrete material F. The sleeper is arranged upon transversely-disposed base-beams G and provided at intervals on its under side with cross-beams H.

On opposite sides of the rail A, I arrange standing beams I, projecting upwardly from the base-beams G, the standing beams being connected by a horizontally-disposed beam J.

K denotes a suitable bridging-beam connecting the horizontal beams J. The bridging-beam K is located substantially directly over the track-rail A and provides support through means of suitable hangers L with side bracing M of two spaced rails N. The structure above described may be inclosed by wire fabric and is adapted for supporting telegraph, telephone, and other electric conductors.

O denotes the car forming a part of my invention. In the car-body I arrange metallic frames P, constructed in one solid piece or of several members adapted to be bolted together.

The frames P provide bracing-support to the car-body and rigid connection between the supporting-trucks Q and the upper or guiding trucks R.

Two or more guiding-trucks R may be employed. They are secured by suitable pivotal connection to the frames P and located adapted to project up between the spaced rails N, as shown in Fig. 2. On the trucks R, I arrange rollers S, adapted to travel upon the rails N. The rollers have inner flanges T for relieving frictional contact with the inner side of the rails N upon lateral movement of the car when rounding a curve in the trackage.

The supporting-trucks Q have suitable pivotal connection to the under side of the frames P and are constructed with an upper or body portion U, carrying a grooved roller W on an axle V. (See Fig. 3.) The axle ends have bearing in arms A′, depending from the body portion U, and are arranged projecting into recesses B′, wherein suitable lubricating material is placed. At the lower end of the depending arms A′, I arrange rotatable spindles C′, lubricated through passage-ways D′, leading from the recesses B′, as shown in Fig. 3.

Rollers E′ are fixedly secured on the inner or projecting ends of spindles C′ and adapted for engagemont with the under side of the rail-flanges D upon upward or other movement of the supporting-trucks Q, and thereby prevent derailment.

My invention will be understood from the above description. It involves a novel superstructure for a one-rail car system and special means adapted to cars of this character. Obviously the pivoted supporting-trucks Q and flanged rail may be used with two-rail surface systems, and in Fig. 4 of my drawings I show one adaptation thereof. In this the supporting-truck Q is shown depending

from any suitable form of truck-beam A^2, adapted to travel on the flange-rail A and with the latter arranged between two surface rails B^2. I would have it understood that my invention comprehends the attachment of trucks to the cars O similar to the type thereof shown in Fig. 4, and by which means the cars are adapted to be shifted from single-rail systems with overhead structure to two-rail surface systems by the employment of switching means necessary for the purpose. It is further obvious that two track or surface rails may be employed with a superstructure similar to the construction used with the one-rail system.

The leading idea of my invention is the employment of the novel trucks Q, whereby the cars are prevented derailment, and thus rendered secure for speed not safe with railroad systems as they have heretofore been constructed.

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

The combination in a railroad system, of a superstructure, a single track-rail, spaced overhead rails on the superstructure, a car having supporting-trucks consisting of a body portion, a roller on said body portion adapted for rolling action upon the track-rail, depending arms on said body portion having rollers at their lower ends arranged for engagement with the under side of the track-rail head, arms extending upwardly from the top of the car and projecting between the spaced overhead rails, and rollers on the upwardly-extending arms arranged and adapted to travel upon the said overhead rails, substantially as described.

CHARLES MEHRING.

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