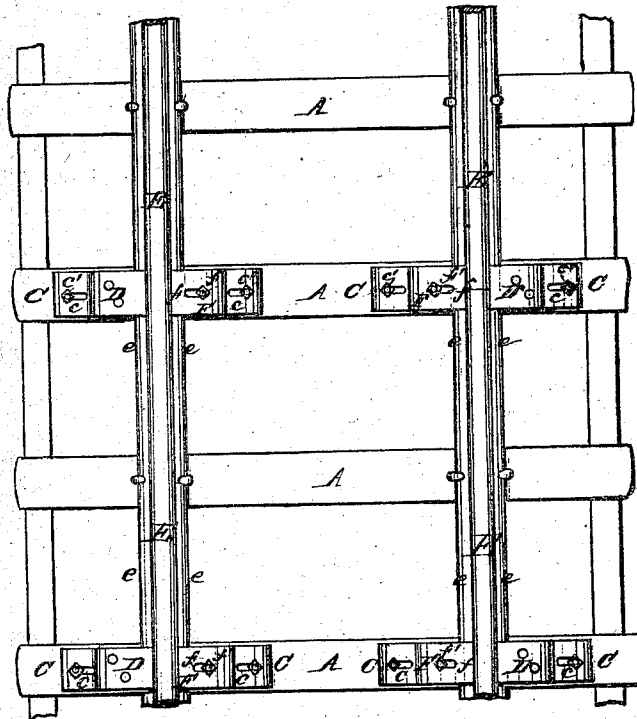


*S. M. Richards,*

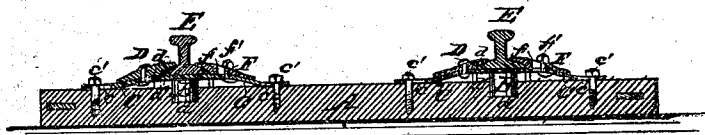
*Railway Track.*

*No. 105371.*

*Patented July 12, 1870.*



*Figure 1.*



*Figure 2.*

*Witnesses:*

*J. W. Herthel.*

*Robert Burns.*

*Inventor.*

*Stephen M. Richards*  
*by his attys*  
*Herthel & C.*

# United States Patent Office.

STEPHEN M. RICHARDS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HIMSELF  
AND EDGAR R. MOFFATT, OF SAME PLACE.

Letters Patent No. 105,371, dated July 12, 1870.

## IMPROVEMENT IN RAILWAY-TRACKS.

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, STEPHEN M. RICHARDS, of St. Louis, in the county of St. Louis and State of Missouri, have made a certain new and useful improved Railway-Track; and I do hereby declare that the following is a full and true description thereof, reference being had to the accompanying drawing and the letters of reference marked thereon.

This invention has for its object the formation of a smooth and even road-bed for railway purposes; and

The nature of said invention consists in supporting the rails in spring attachments upon rubber bearings, the different parts being properly secured to the cross-ties, as will hereinafter more fully appear.

To enable those herein skilled to make and use my said invention, I will now more fully describe the same.

Of the drawing—

Figure 1 represents a top plan, and

Figure 2, a section.

In the usual application of this invention for supporting rails, I arrange, in the usual cross-ties A, the mortises *a*, into which I fit rubber cushions or bearings B, projecting sufficiently beyond the surface of the ties to at all times bear against the contiguous surface of the steel spring C.

The mortises may be simply cylindrical, and the rubber bearings B will then be of similar form, fitting said mortises.

By preference, the rubber bearings should be arranged in each cross-tie A.

The springs C are provided, at their ends, with slots *c*.

A pin, C', passing through said slots, secures said springs to the cross-tie A, as clearly shown in the figures.

Securely bolted to the springs C, I arrange the upper chair-piece D.

This has an end projection, *d*, forming a recess, *d'*.

The ordinary rail E is then placed on the springs C, its flange, *e*, engaging in the recess *d'* of the chair-piece D.

Said rail E is then properly secured in position by a second chair-piece, F, corresponding in construction to the piece D.

In order, however, to allow for lateral play, caused by the depression of the rail E, I provide said chair-piece F with a suitable slot, *f*, in which a screw-bolt, *f'*, secures the same to the spring C.

Any lateral play on the part of the spring C is, furthermore, regulated by the slots *c*, on each end thereof, as plainly shown in fig. 1.

The rail E may furthermore be secured to the remaining cross-ties by spikes, in manner usual.

Owing to the elasticity of the spring and bearing attachments which support the rails, it is plain that the trains receive an easy gliding motion, so favorable to economy of operation and safety, and that many of the inconveniences and dangers consequent upon the unequal wear or depression in railway-tracks are thus necessarily obviated.

Having thus fully described my said invention,

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

1. The ties A, mortises *a*, and rubber cushions B, combined with the steel spring C, substantially as set forth.

2. The steel spring C, fixed chair-piece D, and adjustable piece F, combined with the rail E, substantially as set forth.

In testimony of said invention I have hereunto set my hand in presence of—

STEPHEN M. RICHARDS.

Witnesses:

L. V. MORSE,

C. H. PEPPER.