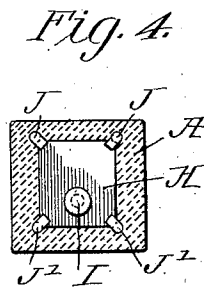
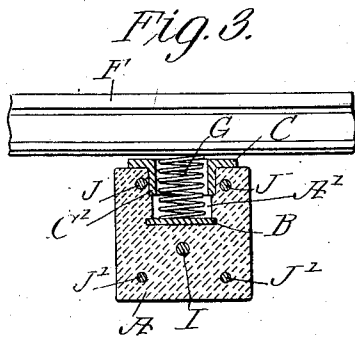
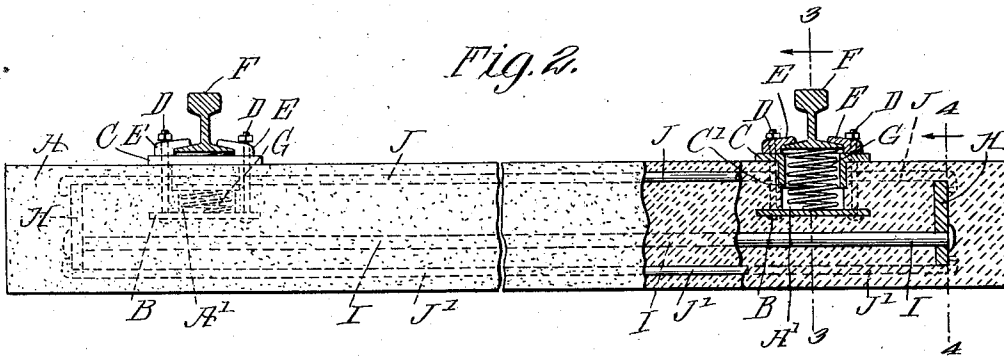
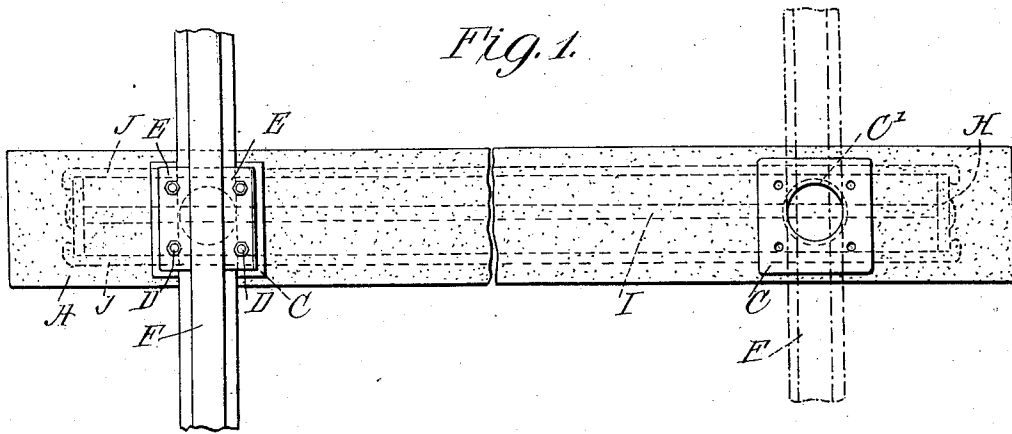


J. H. MAY.
RAILROAD TIE.
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1,047,964.

Patented Dec. 24, 1912.



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RAILROAD-TIE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN H. MAY, a citizen of the United States, and a resident of Napa, in the county of Napa and State of California, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention is a shock-absorbing railroad tie of reinforced concrete; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing Figure 1 is a top plan view and Fig. 2 is an elevation, partly in section, of a tie embodying my invention. Fig. 3 is a detail cross section on about line 3—3 of Fig. 2. Fig. 4 is a detail cross section on about line 4—4 of Fig. 2.

The body A of the tie is of concrete and is provided in its upper side near its ends with recesses A'. Shock absorbers are provided in connection with these recesses and include a base plate B, a top plate C and bolts D arranged as best shown in Figs. 2 and 3. The base plate B is at the base of recess A' and extends laterally beyond the walls of said recesses as shown in Figs. 2 and 3 and the bolts D extend upwardly from the base plate B through the top plate C and above the same to secure the rail clamps E which lap upon and hold the rail F, the overlapping portion of the rail clamps E being spaced sufficiently above the top plate C to permit a vertical play of the rail F which rests upon and is cushioned by the spring G which spring rests at its lower end upon the base plate B as shown in Fig. 2 of the drawing.

The top plate C has a depending cylindrical portion C' which fits within the upper end of the recess A' and guides the spring G, in the operation of the invention, and also braces the top plate C from shifting laterally.

The bolts D, it will be noticed, operate to secure the parts B, C and E securely together and through the clamps D to secure the rail F upon its cushioning spring.

Within the tie A and between the ends of the same and the adjacent shock absorbers I provide vertically edgewise head plates H which are held together by a connecting rod I which extends between the said plates H

and below the shock absorbers. The plates H are also connected at their several corners by upper and lower rods J and J', the said rods J and J' extending within the concrete tie and with the upper rods J alongside shock absorbers and the rods J and J' are hooked at their ends to overlap and engage with the head plates H when the parts are coupled up for use as shown in Figs. 1, 2 and 4 of the drawing.

As will be noticed from Figs. 2, 3 and 4, the upper rods J are slightly larger in cross-section than the lower ones J'. This construction efficiently reinforces the body of the tie from end to end overcoming any tendency of the same to break and also braces and serves as a reinforcement for the shock absorbing devices before described.

By my invention I seek to provide a tie that will stand heavy traffic and in carrying out this feature of the invention the shock absorber operates to absorb a large portion of the shock and this, together with the reinforcement of the tie as described, provides a tie which will stand heavy traffic without breaking and will prevent rails from spreading.

I claim:

1. A railroad tie comprising a tie proper, a base plate therein, a top plate resting upon the tie and having a well or cylindrical portion depending in the tie above the base plate, bolts extending between the base plate and top plate and projecting above the latter, rail clamps held by the said bolts, a spring in the well and projecting above the same and resting at its lower end upon the base plate, and a rail on the spring and held by the rail clamps, substantially as set forth.

2. In a railroad tie, the combination of a tie proper having a recess, a base plate at the lower end of the recess, a top plate having a well depending in the recess, bolts extending between the base and top plates and projecting above the top plate, rail clamps secured by said bolts, a rail held by said clamps and a spring between the rail and base plate, substantially as set forth.

JOHN H. MAY.

Witnesses:

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