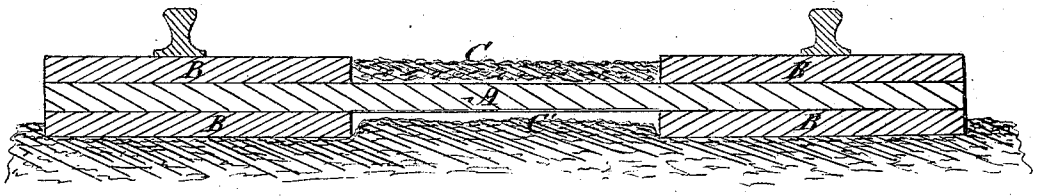
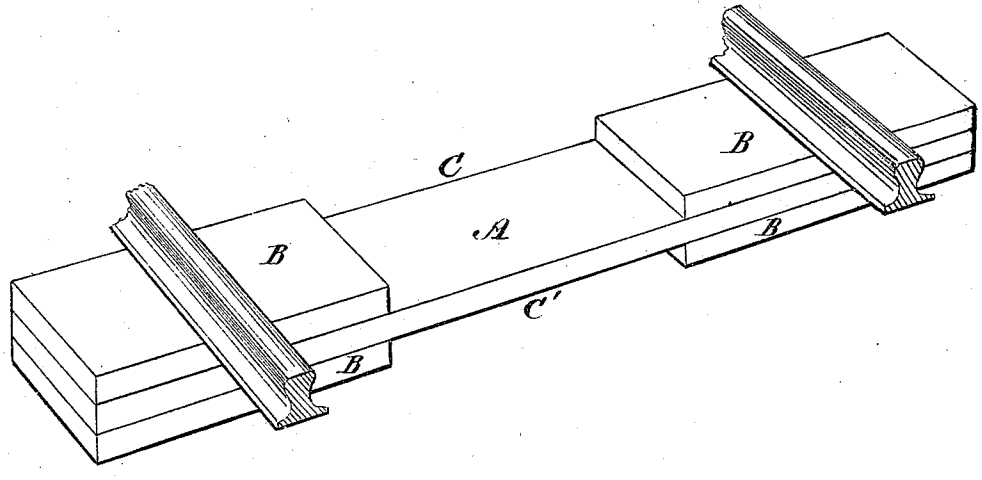
A. B. TRIPLER.

Improvement in Railway-Tie.

No. 126,127. Patented April 23, 1872.





Witnesses.
K. Uppermann.
Chas. E. Uppermann

Inventor.
A. B. Tripler
By his Attorney,
F. H. Uppermann.

UNITED STATES PATENT OFFICE.

ARCHIBALD B. TRIPLER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY TIES.

Specification forming part of Letters Patent No. 126,127, dated April 23, 1872.

To all whom it may concern:

Be it known that I, ARCHIBALD B. TRIPLER, of the city and county of Philadelphia and State of Pennsylvania, have invented a certain new and Improved Railroad Tie, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing which makes part of this specification, and in which—

Figure 1 represents a longitudinal vertical section of a railroad tie, embracing my improvements, on the road-bed, the upper central space being represented as filled with ballast, and the under space partially filled with the dirt of the road-bed, as will be hereinafter explained. Fig. 2 is a perspective view of said tie, showing more fully its construction.

My invention relates to railroad ties; and it consists in constructing the same of a series of wooden slabs or timbers in such manner that each end of the tie shall, by being tree-nailed or otherwise united, be of the required thickness, while a space is left in the central portion of the tie, both above and beneath the central slab connecting the ends on which the rails are laid, for a purpose to be hereinafter described.

In the accompanying drawing, A represents the central slab of the tie; and B, the slabs forming, in connection with the said central portion, the ends on which the rails are laid. It will be seen that each slab B extends about one-third of the length of the tie, leaving in the central portion thereof a space, C C′, also about one-third its length, both above and below the connecting-timber A. From this construction it will be observed that the ends of the tie are of the required thickness to receive the rails, while its intermediate portion—that is to say, the portion between the rails—is of such a construction as that, while it is as firm, horizontally, as a solid tie, it admits of such a disposition of ballast as will remedy the many serious objections which may be urged against the solid tie.

It is a fact well known to engineers and other railroad employés that the "rolling" of the cars is occasioned in a great measure by the uneven settling of the ties on the road-bed. The pressure is exerted on the ends of the ties, carrying them down into the bed, while their center retains its position as laid, because of the resistance of the road-bed. Hence the frequent necessity for leveling—taking away from the middle and placing under the ends—which consumes much time and labor. Again, a solid tie as usually laid, becoming rotten or cut by the rail, the whole of it has to be removed and a new one substituted. The construction of my tie remedies these difficulties, besides possessing advantages which are of much importance to railroad interests. It possesses great elasticity, thereby greatly lessening the ordinary wear and tear of the rolling stock of a road. It is easily and quickly repaired. Should it become cut or rotten, one workman can do in a short time all that is required to repair it by removing the faulty section and inserting a new one in its stead. By my construction of sectional tie, the space C′ left in the center beneath the central connecting-slab does not come in contact with the road-bed until its ends have been depressed by the passing trains, and the whole of it settles without straining, whereby it assumes a horizontal and firm position. The space C above said connecting-slab also allows the tie to have a greater amount of ballast than the solid tie, giving it increased solidity and steadiness in its center, while its ends are elastic by reason of its sectional construction. Besides the advantages above enumerated is the saving of timber in the construction of the ties herein referred to, a point not to be overlooked in view of its decreasing scarcity throughout the country.

The slabs composing my sectional tie may be submitted to a bath of antiseptic materials to preserve them; but as this was the subject-matter of former Letters Patent, granted to me June 28, 1870, it need not be further described or referred to.

Having described my invention, I claim—

The sectional railroad tie herein described and shown, the same consisting of slabs so united together horizontally, by tree-nailing or otherwise, as that spaces may be left between the ends receiving the rails, both above and below the connecting section or sections, for the purpose herein described.

In testimony whereof I have hereunto signed my name.

ARCHIBALD B. TRIPLER.

Witnesses:

EDM. F. BROWN,

CHAS. E. UPPERMAN.