G. F. FOLSOM.

Railroad Track Tie and Support.

No. 210,681. Patented Dec. 10, 1878.

Fig. 1.

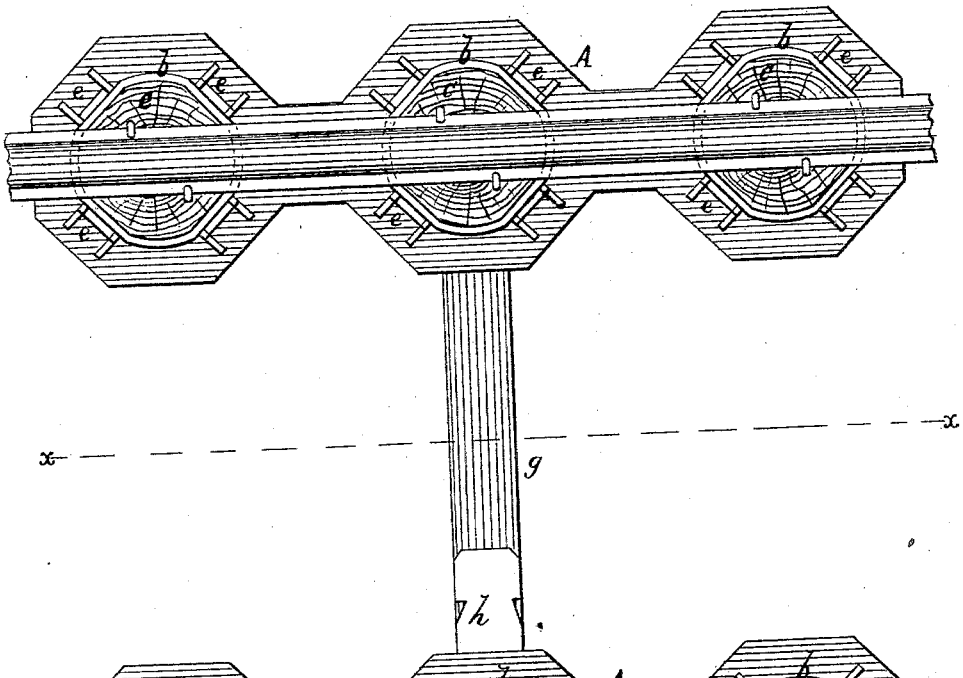


Fig. 2.

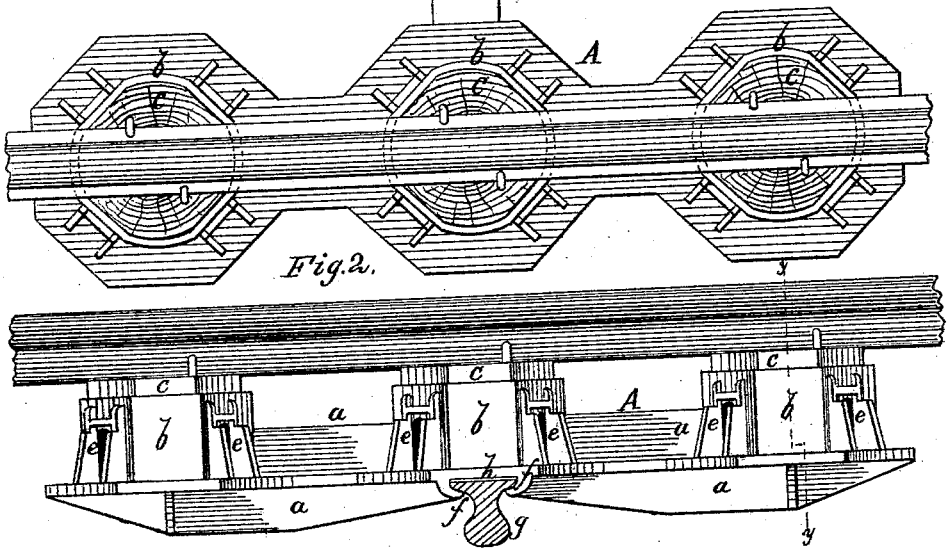
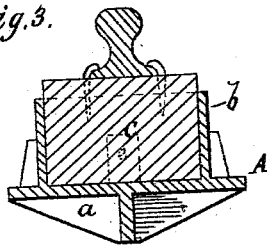


Fig. 3.



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GEORGE F. FOLSOM, OF BOSTON HIGHLANDS, MASSACHUSETTS.

IMPROVEMENT IN RAILROAD-TRACK TIE AND SUPPORT.

Specification forming part of Letters Patent No. **210,681**, dated December 10, 1878; application filed November 15, 1878.

To all whom it may concern:

Be it known that I, GEORGE F. FOLSOM, of Boston Highlands, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Railroad-Track Tie and Support, of which the following is a specification.

The object of my invention is to construct the road-bed of railways in a manner so as to combine the elastic feature of wooden ties with the less perishable nature of iron, and so that the wooden parts may be renewed without disturbing the solidity of the road-bed.

My invention consists in a foundation of cast-iron extending beneath each track and connected by iron cross-ties. The castings are formed with sockets at suitable distances apart for wooden blocks, on and to which the rails are spiked, and the sockets have side openings, into which a crow-bar can be inserted for removing the wooden blocks when they need renewal.

In the accompanying drawing, Figure 1 is a plan view of my improved railroad-track tie and support. Fig. 2 is a sectional elevation on the line *x x* of Fig. 1. Fig. 3 is a vertical section across one socket on the line *y y*.

Similar letters of reference indicate corresponding parts.

A A are the cast-iron foundation-pieces of the track, which are made in sections of convenient length for handling, each section containing one or more sockets, *b*, upon the upper side. These castings A are to be made as light as possible consistent with strength, and I prefer to construct them, as shown, in the form of plates, to obtain a broad bearing on the ground, strengthened by flanges *a a*.

The sockets *b*, which are formed in one piece with A, are about the same distance apart that it is usual to place wooden ties, and in each socket is placed a wooden block, *c*, that sits tightly in the socket and projects slightly above the upper edge of the same. The sockets and blocks are large enough to present a firm bearing-surface for the rails *d* that are spiked to blocks *c*. They are set in the sockets with the grain of the wood running in a vertical direction.

In the side of each socket *b* openings *e* are formed, preferably four, at equal distances apart. These openings permit the application of a crow-bar to the wooden blocks *c*, for the purpose of removing them from their sockets when they need replacing by new ones.

The sections A will be tied together in pairs by cross-ties, as shown at *g*. For this purpose there are dovetail recesses *f* formed at the under side of sections A, which recesses are adapted to receive the flanges of an ordinary railroad-rail, as shown, which rail serves as the tie and is held in place by keys *h*. This construction enables me to use old rails for the ties.

In using the above-described devices the castings A are to be sunk in the gravel-bed of the roadway; but the projecting ends of blocks *c* will be above the earth-line. The perishable portion of the support—that is, the wooden blocks—are thus placed in best possible position for preservation, and may be renewed without disturbing the gravel-bed.

This support combines the advantages of a wooden bearing for the rails, to which they can be spiked, as usual, with a substantial and permanent foundation. The wooden portions requiring renewal form but a small part of the whole, yet answer all the purposes of wooden ties.

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

1. The herein-described support for railroad-rails, consisting of the cast-iron sections A, provided with sockets *b* on the upper part, and with transverse and longitudinal flange *a a* and dovetail recesses *f* on their lower part, substantially as and for the purpose described.

2. In a support for railroad-rails, the sockets *b*, cast in one piece with the foundation A, and formed with openings *e*, for the purposes and substantially as described and shown.

GEORGE FRANKLIN FOLSOM.

Witnesses:
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CHAS. A. STODDARD.