(No Model.)

H. THIELSEN.

RAILROAD CROSS TIE.

No. 317,244. Patented May 5, 1885.

Fig. 1.

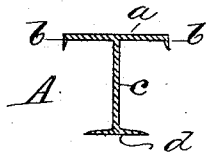


Fig. 2.

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HANS THIELSEN, OF PORTLAND, OREGON.

RAILROAD CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 317,244, dated May 5, 1885.

Application filed September 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, HANS THIELSEN, of Portland, Multnomah county, Oregon, have invented certain new and useful Improvements in Railroad Cross-Ties, of which the following is a specification.

This invention relates to an improved T-shaped metallic railroad-tie, the object being to impart greater strength and stability to the tie with but little increase of material as compared with ordinary T-shaped ties, and with less expense than is possible by merely enlarging the size of the tie.

The invention is illustrated in the annexed drawings, in which Figure 1 is a cross-section of my improved T-shaped metallic railroad-tie. Fig. 2 is a perspective view of the tie, with track-irons attached.

The metallic railroad-tie A is made T-shaped in cross-section, and consists of an upper horizontal plate, *a*, having a longitudinal rib or flange, *b*, along the lower side on each edge, and a central vertical web, *c*, provided at the bottom with a bilaterally-extended plate or foot, *d*, that forms the base of the tie.

B B represent track-irons, that may be secured to the upper face of the tie by bolts and nuts, as shown in Fig. 2, or in any convenient and well-known manner.

By providing a T-shaped metallic tie with a longitudinal rib or flange, *b b*, on each edge of the upper plate, and forming a foot, *d*, on the web or vertical portion of the tie, all tendency to buckle or bend when subjected to great strain or under variations in temperature will be obviated. I thus obtain a metallic tie of great strength and stability with less additional material than would be required for increasing the size of the tie in all its parts, and with better results in the way of lightness, durability, and saving in expense. A railroad-tie of this construction is also more readily and quickly set, thus diminishing the labor and facilitating the speed of track-laying. It also provides additional security against settling or heaving of the track, and is therefore safer and more economical than ties of the ordinary construction.

It is obvious that this method of construction is applicable to all T-shaped metallic railroad-ties, whether made in one or two lengths or sections. When made in two sections or halves, the horizontal parts may be connected on a level with each other by any suitable fastening.

I am aware that T-shaped metallic railroad-ties have heretofore been made with depending ribs or flanges and with lugs for securing the track-iron; also, that such ties have been made with one or more ribs on both their upper and lower surfaces, the upper ribs being slotted or cut away at proper points to receive the lower portions of the track-irons. These forms of construction, however, I do not claim; but,

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

A T-shaped metallic railroad-tie consisting of a horizontal plate, *a*, having a longitudinal rib or flange, *b b*, on the lower side of each edge, and a vertical portion or web, *c*, provided with a foot, *d*, substantially as shown and described.

HANS THIELSEN.

Witnesses:
D. GIBSON,
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