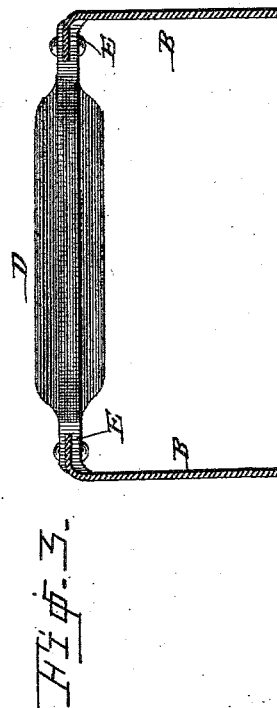


Patented Aug. 5, 1884.



Charles S. Westbrook
INVENTOR.
By Louis Bagger & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES S. WESTBROOK, OF SPRAGUEVILLE, NEW YORK.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 302,966, dated August 5, 1884.

Application filed December 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. WESTBROOK, a citizen of the United States, and a resident of Spragueville, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Railway-Ties; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a railway-tie embodying my improvement. Fig. 2 is a similar view showing a modified construction of the same, and Fig. 3 is a cross-section showing the bridge which constitutes my improvement made separate from and attached to the body of the tie.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to metallic railway-ties made of sheet metal, malleable iron, or cast-iron; and it consists in so constructing the body of the tie that the ballast or road-filling may be suitably tamped and compacted underneath the body of the tie without at the same time weakening the construction of the same.

I have in another application shown and described a railway-tie invented by me, which consists of a flat top part, A, and parallel side flanges, B, constructed in like manner, substantially as shown in the annexed drawings, to which reference is made, and having an opening, C, in its top part. By means of this opening, which extends between the chairs for fastening the rails to the tie, the ballast or road-filling may be tamped and compacted underneath the tie and against its side flanges, so as to fix it thoroughly in the road-bed of

the permanent way, which cannot well be done where the top of the tie is made in a solid piece. I have found by experience, however, that in certain cases, especially where the body of the tie is constructed of sheet metal of a comparatively light grade, for the purpose of reducing its weight as well as cost of manufacture, it becomes desirable to strengthen the top part of the tie, especially as to lateral strain, or strain exercised against the side flanges by tamping or compacting the ballast, and I therefore construct the top of the tie with a bridge or cross-brace, D, connecting the horizontal side flanges, E E, and either made in one piece with the body of the tie, as shown in Fig. 1, or in a separate piece, bolted to the flanges E E on opposite sides, as shown in Figs. 2 and 3. While this bridge will not materially interfere with the tamping or compacting of the ballast underneath the tie, it will greatly increase its strength and durability by connecting those parts of the top of the tie which are midway between the rail-chairs. The bolt-holes F (shown on opposite sides of the central aperture, C) are for the attachment of the rail-chairs.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

A metallic railway-tie having an opening approximating the width of the tie, and extending between the rail-chairs, and provided with a bridge or cross-brace spanning said opening, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES S. WESTBROOK.

Witnesses:

MARION A. BACON,

HARRIET E. WESTBROOK.