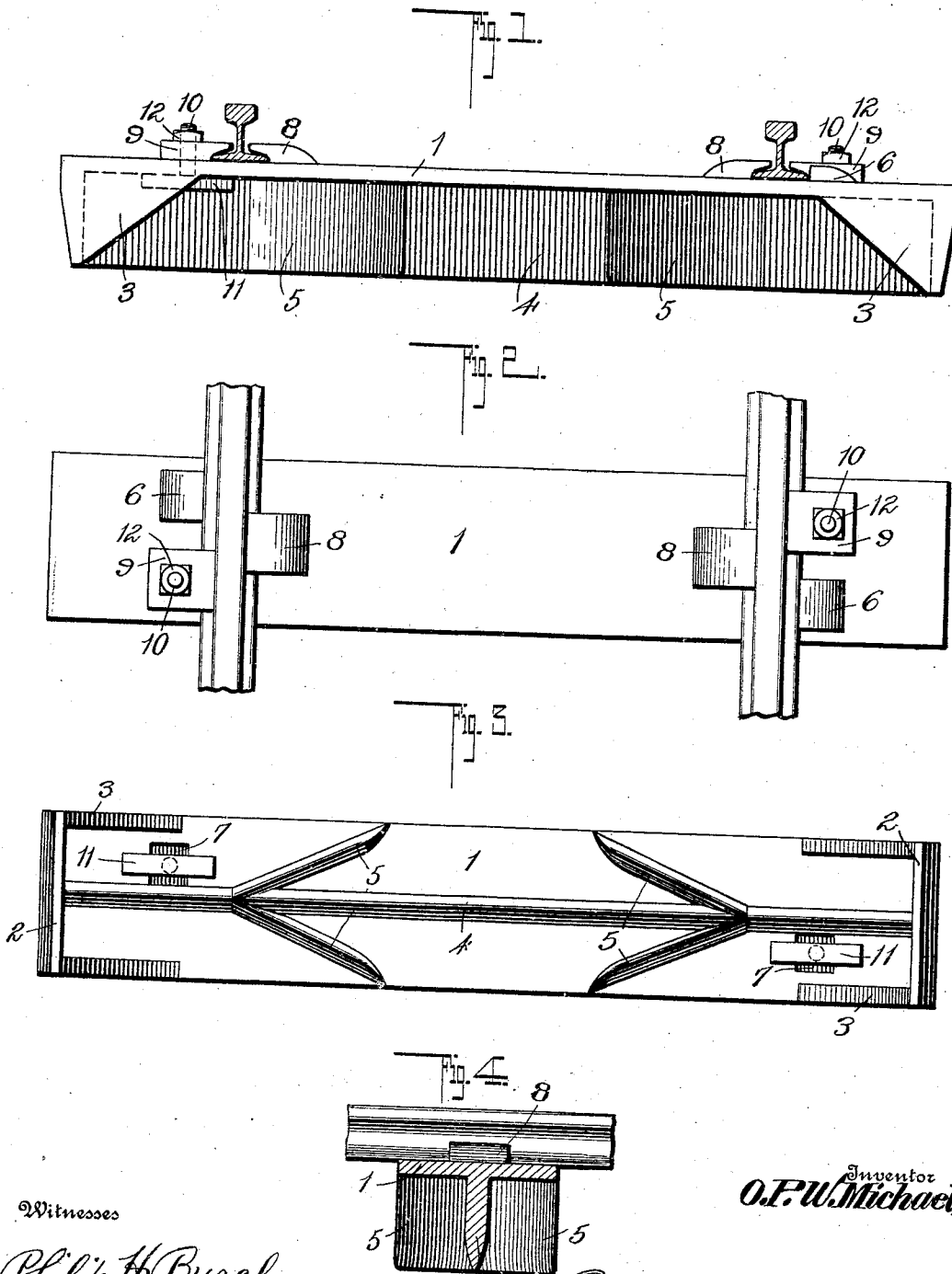


O. P. W. MICHAEL.
METALLIC RAILWAY CROSS TIE.
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945,040.

Patented Jan. 4, 1910.



Witnesses

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OLLIE P. W. MICHAEL, OF COFFEYVILLE, KANSAS.

METALLIC RAILWAY CROSS-TIE.

945,040.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed February 13, 1909. Serial No. 477,630.

To all whom it may concern:

Be it known that I, OLLIE P. W. MICHAEL, a citizen of the United States, residing at Coffeyville, in the county of Montgomery and State of Kansas, have invented a new and useful Improvement in Metallic Railway Cross-Ties, of which the following is a specification.

This invention relates to a metallic railway tie by means of which the rails can be securely fastened in their proper position with respect to each other, and secured so that all danger of the rails spreading or turning over or becoming dislocated in any manner is entirely avoided.

A further object of the invention is to secure the maximum strength with the minimum weight of metal, thus providing a metal tie which will be strong and durable and at the same time which will be sufficiently light for handling and at a cost which will not exceed that of a wooden tie.

With these objects in view the invention consists of a tie constructed as hereinafter described, pointed out in the claim and shown in the accompanying drawings, in which,

Figure 1 is a side elevation of the tie. Fig. 2 is a plan view. Fig. 3 is an inverted plan view. Fig. 4 is a central transverse section.

In these drawings, 1 represents the body portion of the tie which is provided at its ends with depending vertical flanges 2 braced by corner flanges 3. The end flanges are connected by a centrally arranged longitudinally extending web 4, and upon opposite sides of the longitudinal center of the tie oppositely extending branch webs 5 are placed, said branch webs diverging toward the center of the tie. Upon the upper face

of the tie are formed two upwardly projecting blocks 6 against which the outer sides of the rail bases rest, and in transverse alinement with these blocks the tie is provided with perforations 7. Off-set with respect to the blocks 6 are over-hanging clamping blocks 8 which engage respectively the inner faces of the rail bases. The outer faces or sides of the rail bases are gripped by removable clamping blocks 9 which fit in the perforations 7 and are locked by bolts 10 the heads 11 of which are elongated and rest upon the under face of the tie and upon opposite sides of said perforations. These bolts extend through the perforations and through the clamping blocks 9 and suitable nuts 12 work upon the outer upper ends of said bolts.

When the tie is placed in position the end flanges and the webs are embedded into the road bed and when in such position the tie can not move either endwise or sidewise. The rails will be firmly held, and at the same time can be readily removed when it is necessary to replace a rail. The other advantages of this tie will be obvious to those familiar with inventions of this class.

What I claim is:—

A metal tie consisting of a body portion, depending end flanges, corner flanges bracing the end flanges, a centrally arranged web connecting the end flanges, diverging webs arranged upon opposite sides of the central web and upon opposite sides of the longitudinal center of the tie, and means for securing a rail upon said tie.

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Witnesses:

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