C. M. SMITH.

METALLIC TIE.

APPLICATION FILED FEB. 15, 1913.

1,069,484. Patented Aug. 5, 1913.

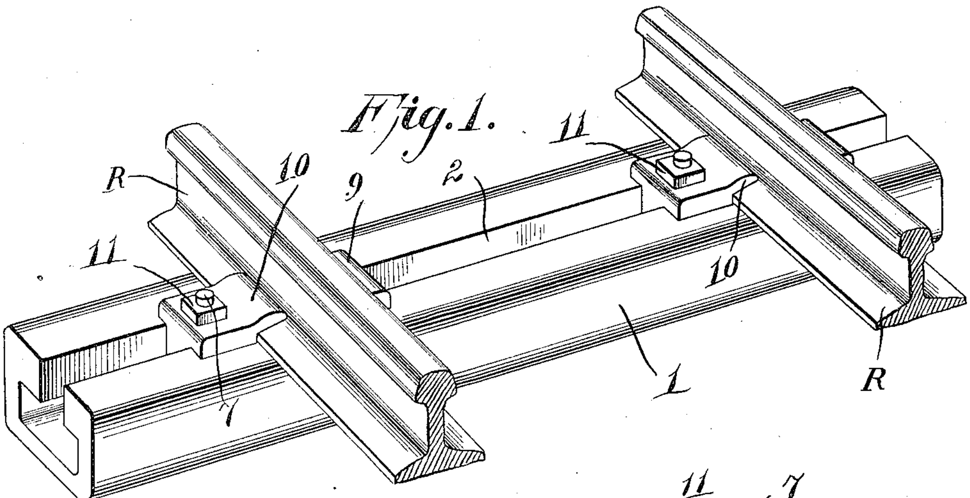

Fig. 1.

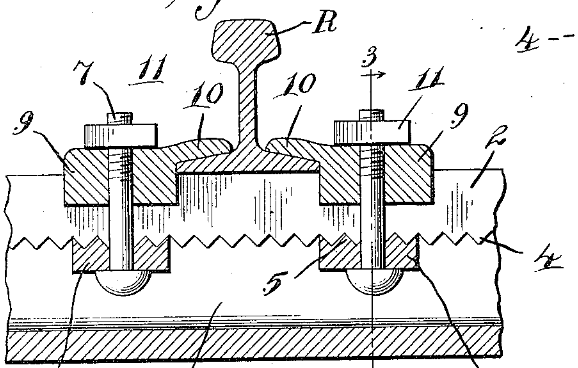

Fig. 2.

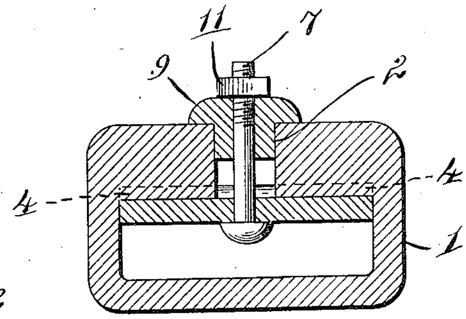

Fig. 3.

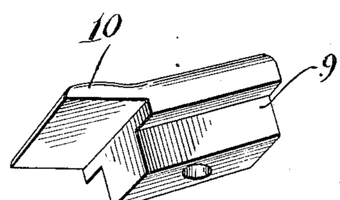

Fig. 4.

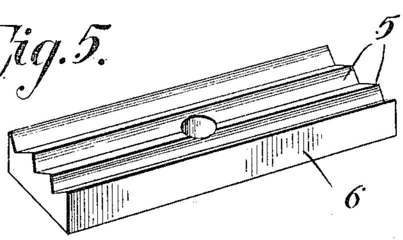

Fig. 5.

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UNITED STATES PATENT OFFICE.

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METALLIC TIE.

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To all whom it may concern:

Be it known that I, CHARLEY M. SMITH, a citizen of the United States, residing at Leesburg, in the county of Highland and State of Ohio, have invented new and useful Improvements in Metallic Ties, of which the following is a specification.

The present invention relates to improvements in metallic ties for railway rails.

In carrying out the invention it is my purpose to provide a metallic tie for rails which may be embedded within the roadbed against movement, and which is provided with removable and adjustable means whereby the rails are secured on the tie without the employment of the ordinary spikes.

With the above recited object in view, and others which will appear as the nature of the invention is more fully understood, the improvement resides in the novel construction, combination and operative arrangement of parts set forth in the following description and falling within the scope of the appended claim.

In the drawing there has been illustrated a satisfactory reduction of my improvement to practice, and in the said drawings, Figure 1 is a perspective view of a tie constructed in accordance with my invention and illustrating the same supporting a pair of railway rails, Fig. 2 is a vertical central longitudinal sectional view taken through one end of the tie, through one of the rails and through the attaching members for the rails, Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2, Fig. 4 is a perspective view of one of the rail clamps, and Fig. 5 is a similar view of the block member for the clamp.

Referring now to the drawing in detail, the numeral 1 designates my improved tie. This tie is formed from metal, and may be cast or molded. The tie comprises a rectangular hollow member having its top centrally formed with a slot which extends through the entire length of the tie. The upper wall of the top, which is divided by the slot 2, is preferably of a greater thickness than the thickness of the remainder of the tie, and the underface of said top is provided, adjacent its opposite ends, with spaced teeth 4. These teeth are adapted to co-act with teeth 5 provided upon blocks 6, and said blocks are formed with openings for the reception of bolts 7 which extend through the slot or opening 2.

The numerals 9 designate the rail clamps. These clamps have their heads formed with rail flange-engaging ends 10, and the clamps are of a greater width than the distance between the walls of the top provided by the slot or opening 2. The clamps are, however, centrally formed with depending portions which are of a width corresponding with the distance between the walls formed by the slot of the top, so that when said clamps are in position, the contacting sides of the depending central portions or tongues and the vertically straight walls to the opposite sides of the slot 2 will prevent a lateral movement of the clamps. The clamps are provided with suitable openings through which extend the bolts of the block, and the numerals 11 designate nuts for the bolts. By such an arrangement, it will be noted that the rails R may be clamped upon the tie, adjacent the opposite end of the tie, at a desired spaced relation with each other, as the clamps are longitudinally movable of the ties. It is also thought from the above description, taken in connection with the accompanying drawings, that the simplicity and advantages of the device will be apparent without further detail description.

Having thus described the invention, what I claim as new is:

In a device for the purpose set forth, a metallic tie comprising a hollow rectangular member having an enlarged top that is centrally provided with a longitudinally extending slot, the underface of the top being provided with transverse teeth, blocks arranged in pairs adjacent the ends of the tie and positioned within the tie, said blocks having teeth adapted to co-act with the teeth of the underface of the top of the tie, rail clamps arranged upon the top of the tie, each of said clamps including a head having a rail flange-engaging lip, each of

the clamps being centrally provided with a depending tongue which is of a width corresponding to the distance between the walls provided by the slot of the ties, and adjustable and removable elements co-acting between the blocks and clamps for forcing the clamps into engagement with the base flanges of the rails and the teeth of the blocks into engagement with the teeth upon the underface of the top of the tie.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLEY M. SMITH.

Witnesses:
H. C. KEEN,
D. C. COX.