

No. 610,670.

Patented Sept. 13, 1898.

G. W. CLINE.
METAL RAILWAY TIE.
(Application filed Apr. 11, 1898.)

(No Model.)

Fig. 1

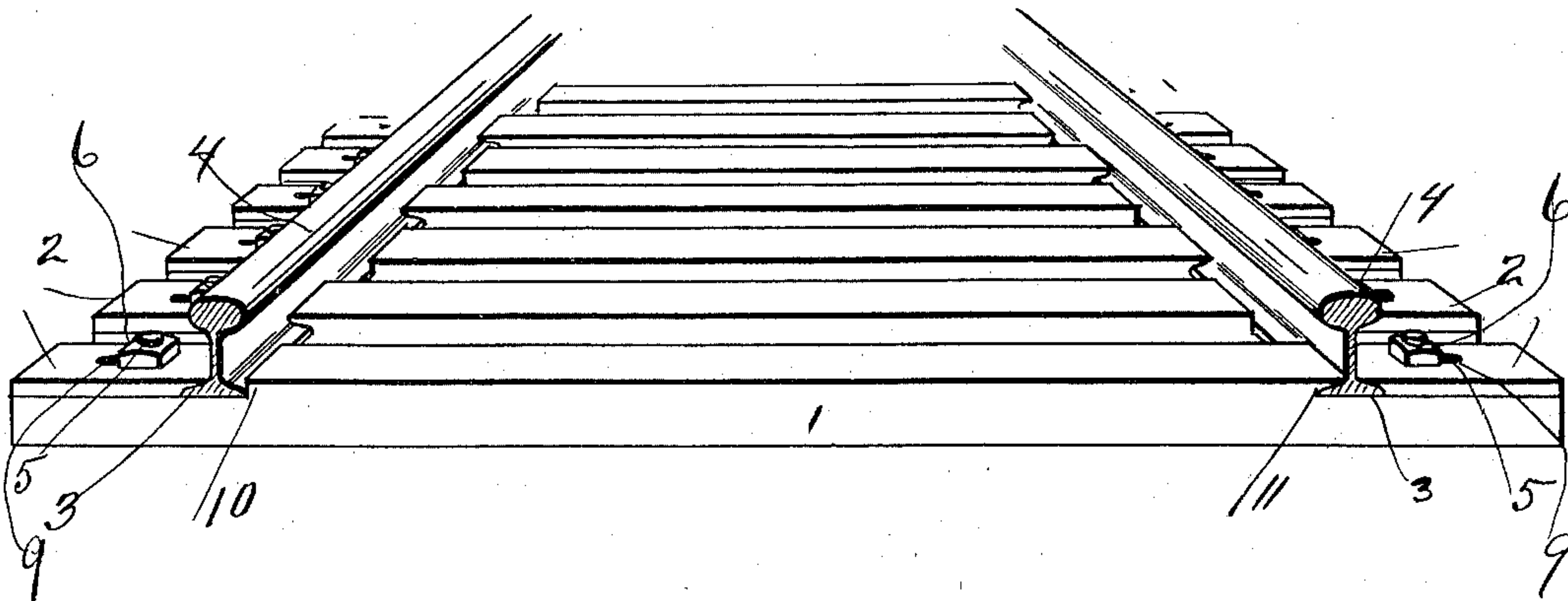


Fig. 2

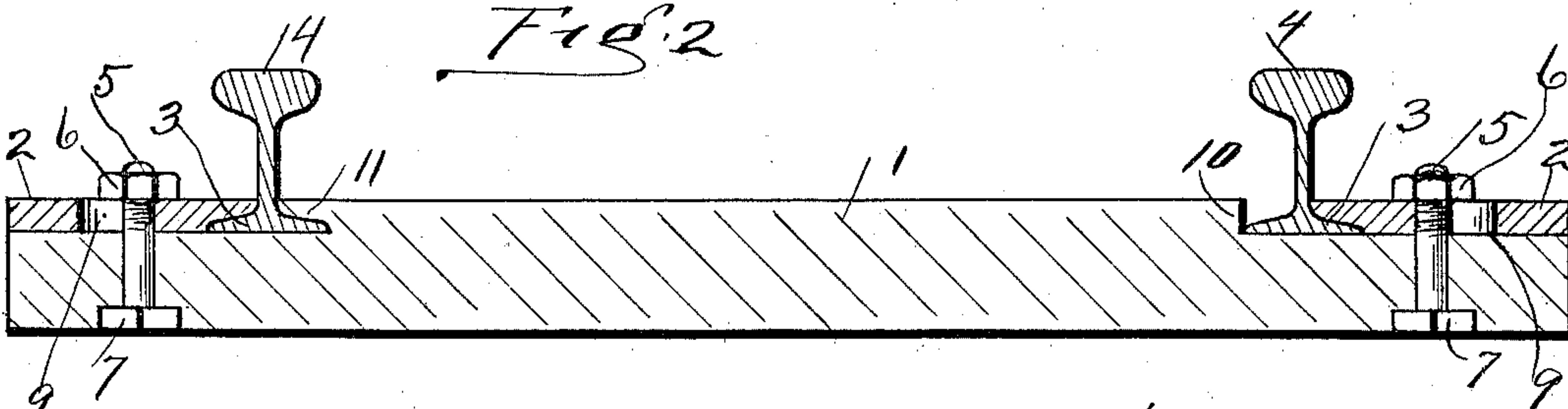


Fig. 3

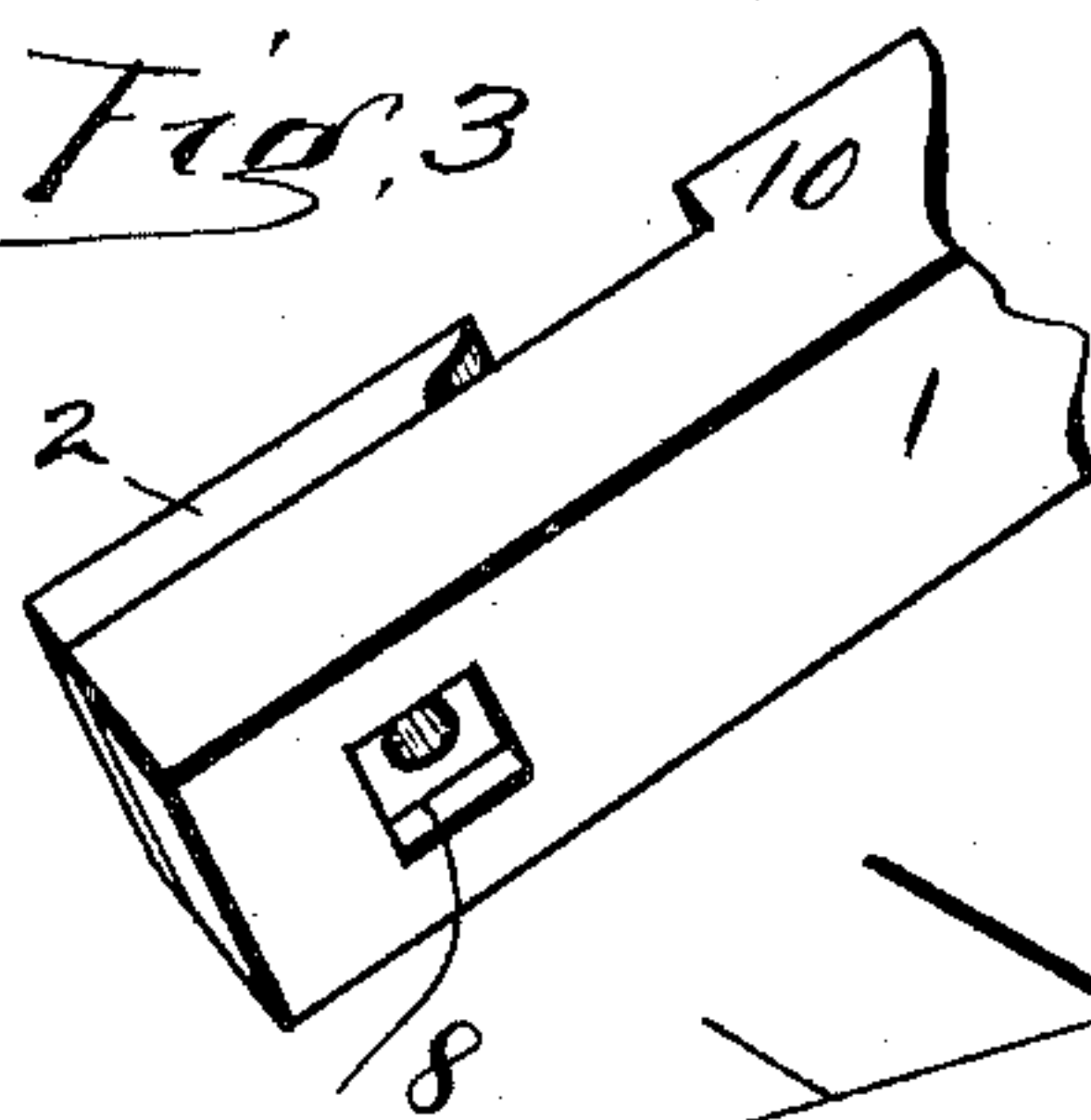


Fig. 5

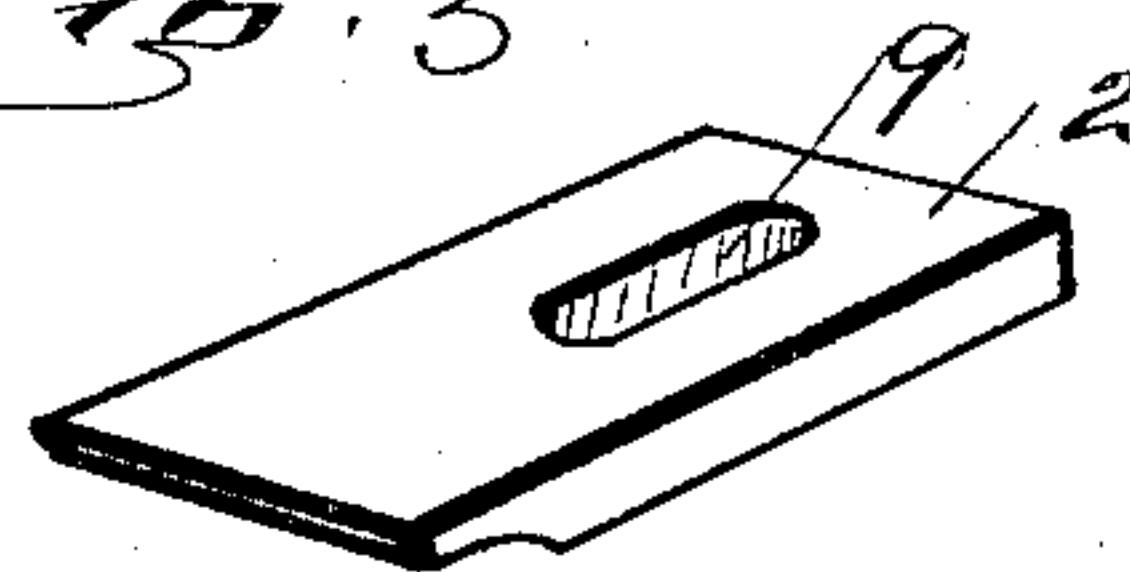
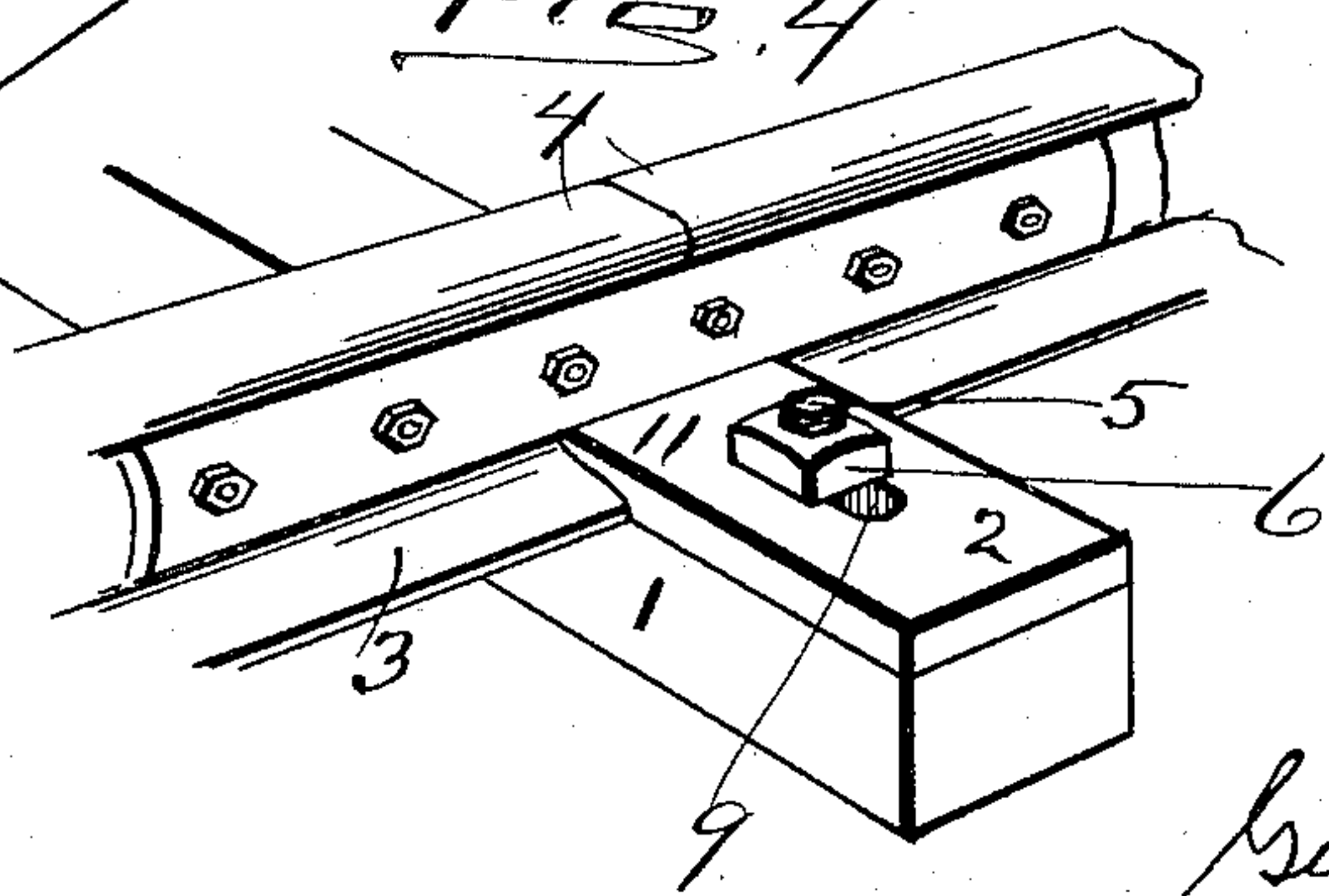


Fig. 4



WITNESSES
J. R. Bond.

INVENTOR
George W. Cline
BY *Fred W. Bond*

ATTY.

UNITED STATES PATENT OFFICE.

GEORGE W. CLINE, OF CANTON, OHIO.

METAL RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 610,670, dated September 13, 1898.

Application filed April 11, 1898. Serial No. 677,152. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CLINE, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Metal Railway-Ties; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a view showing a portion of a railway-track and the ties properly located to hold the rails. Fig. 2 is a longitudinal section of a railway-tie, showing the rails properly attached. Fig. 3 is a view showing a portion of the railway-tie and illustrating the bottom or under side thereof, also showing the locking-plate. Fig. 4 is a view showing the tie located at a joint. Fig. 5 is a detached view of a locking-plate.

The present invention has relation to metal railway-ties; and it consists in the novel arrangement hereinafter described, and particularly pointed out in the claim.

Similar numbers of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the railway-tie, which is formed of metal and of the desired length and size to properly support and connect the rails of a railway-track. Upon each end of the ties 1 are located the locking-plates 2, which locking-plates are beveled upon their inner ends, said beveled ends corresponding substantially with the bevel of the upper side of the railway-rail flange 3.

For the purpose of providing a means for holding the locking-plates 2 in proper position to bind the flanges of the railway-rails 4 the clamping-bolts 5 are provided, and for the purpose of preventing the bolts from turning at the time the nuts 6 are turned the heads 7 are angular and are seated in the angular recesses 8, formed in the bottom of the ties 1. For the purpose of providing a means for moving the locking-plates endwise toward the flanges of the railway-rails they are each provided with the slots 9, through which slots the clamping-bolts 5 are passed.

Each railway-tie is provided with the square shoulder 10 and the lip 11, which lip comes over the inner flange 3 of the railway-rail 4,

said lip being for the purpose of assisting in holding the railway-rails 4 in proper position. In use the ties are so laid that the square shoulders 10 and the lips 11 alternate, as illustrated in Fig. 1, and are so arranged to provide a means for removing the ties 1. It will be understood that if lips are formed upon each end of the railway-ties no single tie could be removed without displacing the rails; but by providing the square shoulders 10 the locking-plates 2 can be removed, and the end of the tie provided with the square shoulder 10 can be lowered by removing its foundation until the square shoulder 10 comes below the flange of the railway-rail, after which the tie can be moved endwise until the lip 11 is disengaged from the flange over which it rests.

It will be understood that the locking-plates 2 are to be brought securely against the outer flanges of the railway-rails and secured in that position by means of the clamping-bolts.

I prefer to cast the ties 1; but I do not desire to be confined to this manner, as it will be understood that the ties may be otherwise formed without departing from the nature of my invention.

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

As an improved article of manufacture, a railway-tie formed of metal and the top or upper side thereof provided with cut-out portions at its ends, one end of said cut-out portion at one end of the tie provided with the square shoulder 10, and the overlapping lip 11 formed upon the opposite end of the tie, locking-plates located upon the upper side of the tie and upon the cut-out portions, and provided with slots and beveled inner ends, and clamping-bolts having their heads seated into recesses formed in the bottom or under side of the tie and below the cut-out portions, said ties having a reverse arrangement alternately with respect to each other, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. CLINE.

Witnesses:

J. A. JEFFERS,
F. W. BOND.