A. R. CLINE.

METALLIC RAIL TIE AND RAIL FASTENING.

APPLICATION FILED DEC. 8, 1908.

929,915. Patented Aug. 3, 1909.

Fig. 1.

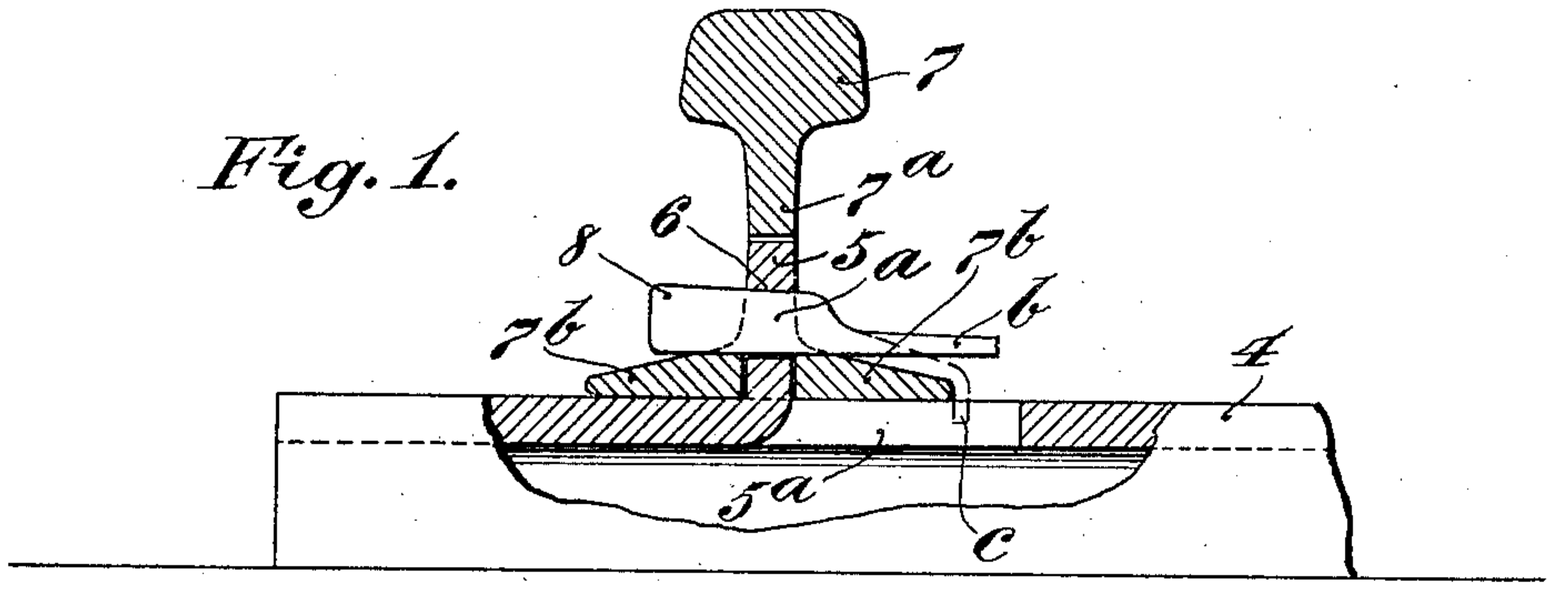


Fig. 2.

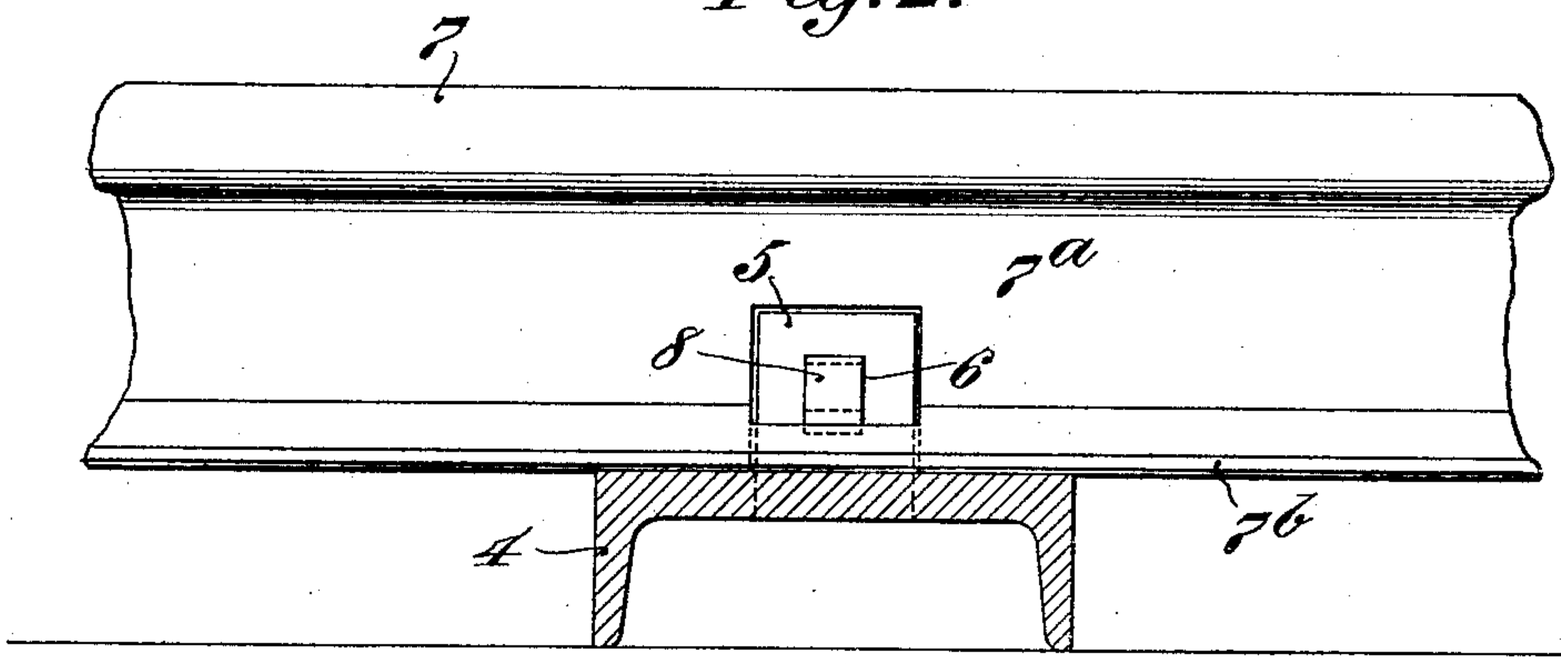
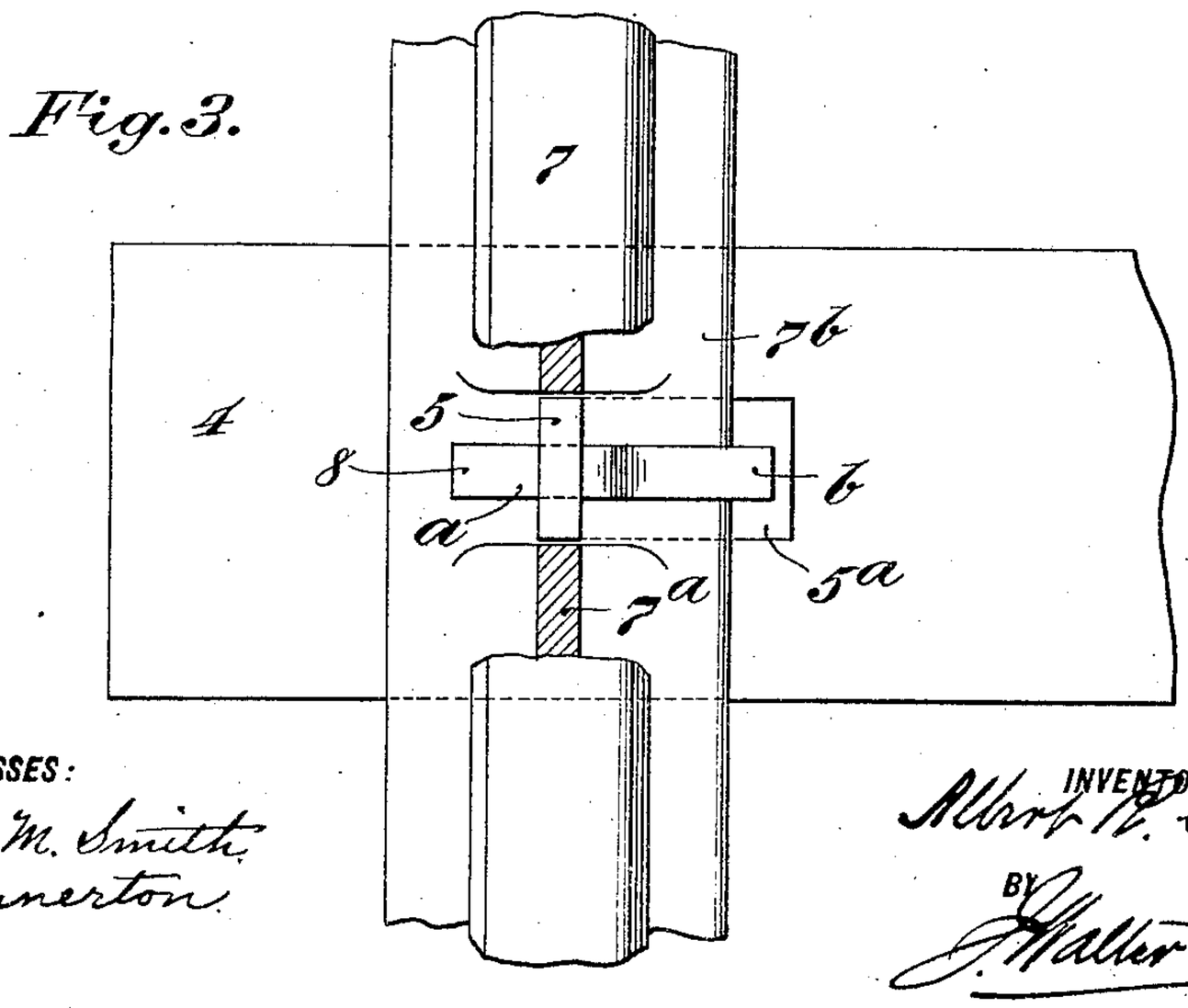


Fig. 3.



WITNESSES:

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METALLIC RAIL-TIE AND RAIL-FASTENING.

No. 929,915. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed December 8, 1908. Serial No. 466,453.

To all whom it may concern:

Be it known that I, ALBERT R. CLINE, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Rail-Ties and Rail-Fastenings, of which the following is a specification.

My invention relates to a metallic rail tie adapted to hold a rail thereto and to means for detachably fastening the rail and tie firmly or securely to each other, against possible displacement or turning of one with respect to the other; and in such connection my invention relates more particularly to the constructive arrangement of the metallic tie and rail and of detachable fastening means to both tie and rail for holding firmly and securely the same together against turning or movement of one with respect to the other or the displacement of the rail when mounted upon the tie, without dismembering the rail and tie combined, in operative position.

The nature and scope of my present invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, in which—

Figure 1, is a view partly in broken side elevation and section of the metallic tie and in cross-section a rail fitted to an integral perforated projection of said tie and also showing the detachable fastening means extending through both tie and rail, in assembled engagement for use, to firmly or securely hold the rail to the tie when it has been caused to assume the bent form in broken outline shown spanning the base of the rail and projecting into the opening formed from the tie-projection fitting the rail. Fig. 2, is a view in transverse section of the metallic tie with the integral perforated projection and in longitudinal side elevation a rail, cut out to receive the tie-projection; and Fig. 3, is a top or plan view of the tie and rail formation of my invention, broken away, to display more fully the manner in which the fastening means is keyed to both rail and tie for firmly holding both together, in practical use.

Referring to the drawings 4, is an inverted channeled bar tie adapted to be seated in a suitable foundation and having punched up therefrom, rectangular-shaped projections 5, each having preferably a square-shaped aperture 6 therein, as clearly shown in Fig. 2.

7, is the rail cut away in the web-portion 7^a, and base 7^b, in portions throughout the length of each section of the rails and to correspond in shape with the apertured tie-projection 5, so as to readily permit of the same being fitted to place in the web-openings 7^a, of the rail as clearly illustrated in Figs. 1 and 2.

8, is fastening-means, consisting of a rectangular shaped plug or block *a*, having a recessed tapering end *b*, arranged so as to permit of the ready bending of the tapering portion thereof, as in Fig. 1, down on to the base 7^b, of the rail 7, and to assume ultimately, in operative position, the form as at *c*, in Fig. 1, in a portion of the opening 5^a, provided by punching the apertured projection 5, from the metallic tie 4. It will be seen from Fig. 1, that when fastening means 8, in the form, clearly illustrated in Fig. 1, is brought into the condition as so illustrated, the tie 4, and rail 7, will be firmly or securely held to each other against displacement, movement or turning of one with respect to the other, for practical use.

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

1. The combination with a metallic tie having integral perforated projections, of a rail with complemental-shaped openings formed in the web portions thereof and detachable means for locking one to the other, substantially as described.

2. The combination with a metallic tie having integral perforated vertical projections, of a rail with rectangular-shaped openings in the web portion thereof and means fitting both the tie-projection and base of said rail in position, substantially as and for the purposes described.

3. The combination with a metallic tie having an integral vertical rectangular-shaped projection with a square-shaped opening, of a rail, whereof the web is pro-

vided with rectangular shaped openings extending through the base thereof and means for detachably locking the tie-projection and rail to each other against displacement or movement while in position, substantially as described.

In witness whereof, I have hereunto set my signature in the presence of two subscribing witnesses.

ALBERT R. CLINE.

Witnesses:
J. WALTER DOUGLASS,
THOMAS M. SMITH.