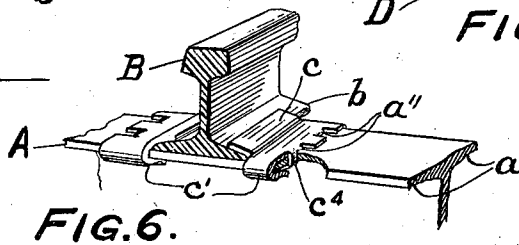
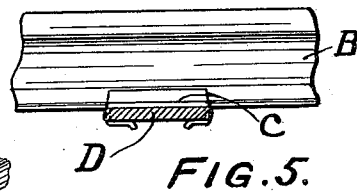
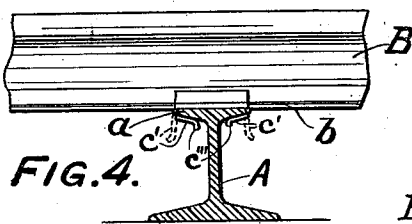
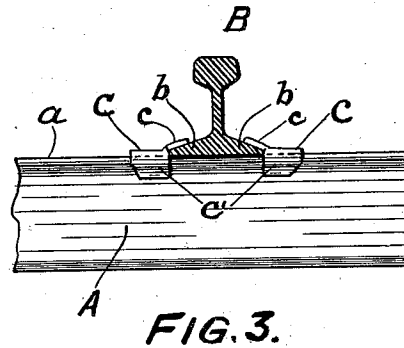
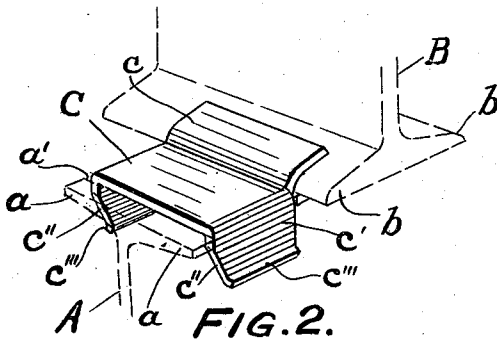
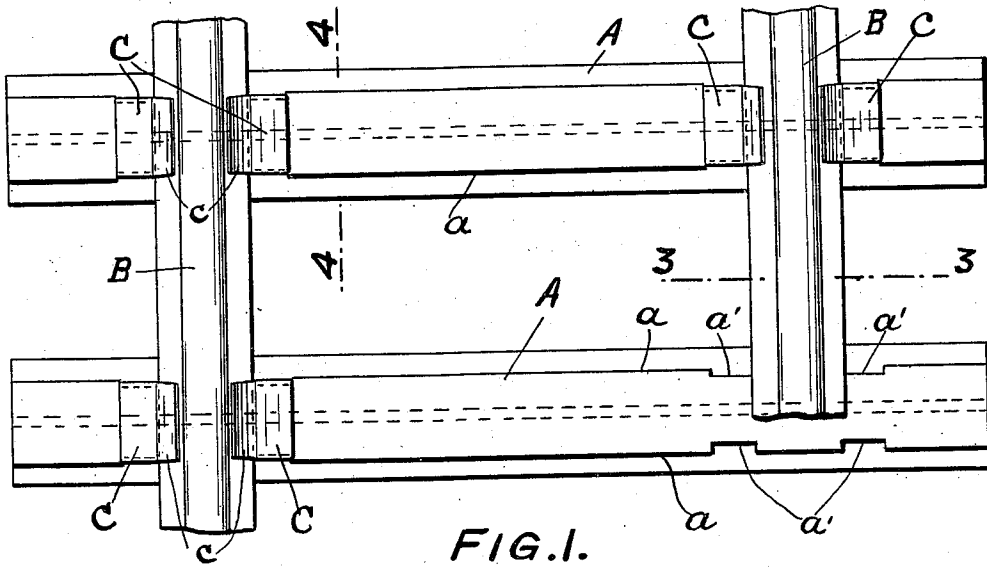


J. J. WHITE.
RAILWAY RAIL FASTENER.
APPLICATION FILED MAR. 9, 1911.

1,001,234.

Patented Aug. 22, 1911.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH J. WHITE, OF NEW LISBON, NEW JERSEY.

RAILWAY-RAIL FASTENER.

1,001,234.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed March 9, 1911. Serial No. 613,372.

To all whom it may concern:

Be it known that I, JOSEPH J. WHITE, a citizen of the United States, residing at New Lisbon, Burlington county, New Jersey, have invented a new Railway-Rail Fastener, of which the following is a specification.

This invention relates to means for fastening flanged members together and it is designed primarily for securing railway rails to cross-ties having flanged heads.

Characteristic features of the fastener are its simple construction, ready application and security in operation.

The character of my improvements are fully disclosed in the following description and the accompanying drawings in illustration thereof.

In the drawings, Figure 1 is a plan view of a section of track comprising metal cross-ties having notched top flanges in combination with rails and fasteners connecting them; Fig. 2 is a perspective view of the fastener in the form in which it is applied prior to being fixed to the tie; Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1, showing a side of the tie with the fasteners engaged thereto and the end of a rail engaged thereon; Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1, showing a section of the tie, with end view of the fastener secured thereto and the rail secured thereon; Fig. 5 is a sectional view representing a bearing plate or flat tie in combination with a rail section and a fastener securing them together, and Fig. 6 is a perspective view of a flanged tie head section with a rail section thereon and a modified form of fastener applied thereto.

As illustrated in Figs. 1, 2, 3 and 4, metal cross-ties A have their head flanges *a* provided with the recesses or notches *a'*, disposed so that such notches shall lie on either side of the respective rails B in juxtaposition to the base flanges *b* thereof.

The fastener C is seated on the head of the tie A and has a lip or flange *c*, which fits over the rail flange *b*, and the lugs or flanges *c'* which fit in the notches *a'*, the lugs having the inclined wedging edges *c''* which facilitate their entry into the notches and draw the fastener into firm engagement with the rail. The fastener, having been seated, has its lugs *c* (which are preferably in engagement with a flange *b*) turned under the flanges *a*, the lugs having the outwardly turned ends *c'''* to facilitate their engage-

ment by a suitable tool, such as a jack adapted for forcing the lugs in to lock the fastener in position and drawing them out to disengage it.

As illustrated in Fig. 5, the rail B is engaged by the fastener C to a flat tie D such as is commonly used about industrial plants.

As illustrated in Fig. 6, the tie A has the recess *a''* in its top flange *a* and the fastener C has thereon the lugs *c'* which are adapted for entry into these recesses, for securing the fastener to the tie and taking the lateral thrust of the rail, the fastener having the lip *c* for engaging the rail flange *b* and the lugs *c'* for engaging the tie flanges *a* either with or without the notches *a'*.

It will be observed that my fastener has characteristics of a double pronged spike adapted to be forced into position to effect a firm engagement of the rail, one edge of each prong engaging the edge of a rail flange and the other edge engaging the tie flange within the notch.

Having described my invention, I claim:

1. The combination of a tie having flanges with notches therein, a rail having flanges supported by said tie adjacent to said notches, and a fastener having a lip adapted to engage said rail and lugs adapted to be forced into said notches against said rail flanges and to be bent around said tie flanges.

2. The combination of a tie having a head comprising oppositely extending flanges with one or more holes therein, a rail having a base comprising a flange supported by said head, and a fastener having lugs bent around said head flanges, a lip engaging said base flange, and means comprising a lug or lugs engaged in said hole or holes whereby said fastener is interlocked with said head against longitudinal movement thereon.

3. The combination of a tie having a recess therein, a rail supported by said tie, and a fastener engaging said tie and rail together, said fastener having a wedging lug adapted to enter said recess and draw said fastener toward said rail.

4. The combination of a tie having a head with flanges thereon, a rail having a base with flanges thereon, and a fastener having a lug engaging one of said rail flanges and lugs bent around said head flanges, said last named lugs having outwardly turned extremities, for the purpose specified.

5. A tie having one or more recesses in the body thereof and one or more edge notches, a rail, and a fastener having means for engaging said rail, a lug or lugs for entering into said recess or recesses, and a
5 lug or lugs for engaging said notch or notches, said last named lugs being bent so as to fix said fastener to said tie.

In witness whereof I have hereunto set my name this sixth day of March, 1911, in the presence of the subscribing witnesses.

JOSEPH J. WHITE.

Witnesses:

J. H. KELSEY,

Jos. G. DENNY, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."