

No. 845,215.

PATENTED FEB. 26, 1907.

W. T. BROWN.
TRACK FASTENING.
APPLICATION FILED MAY 5, 1906.

Fig. 1.

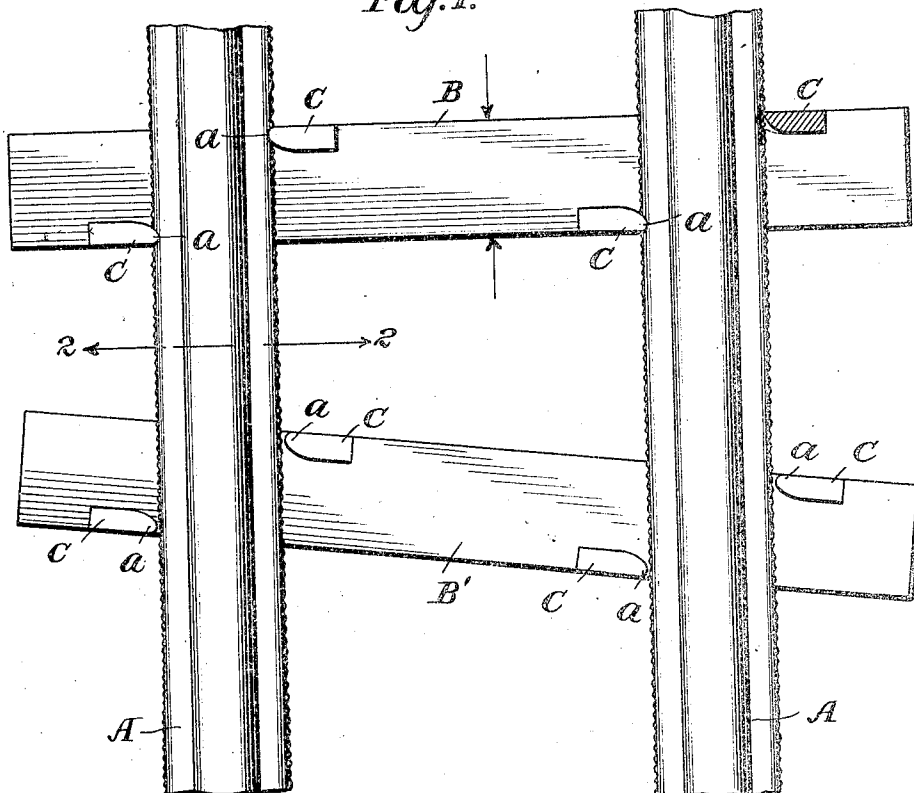


Fig. 2.

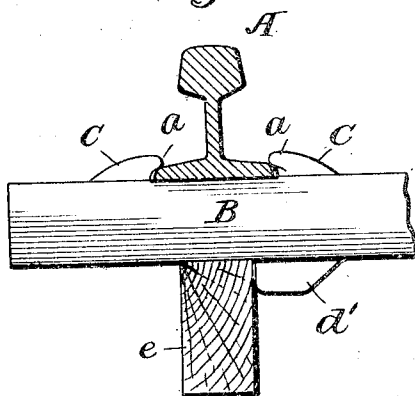
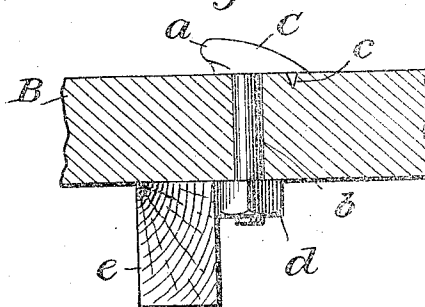


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM T. BROWN, OF ATLANTA, GEORGIA.

TRACK-FASTENING.

No. 845,215.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed May 5, 1906. Serial No. 315,371.

To all whom it may concern:

Be it known that I, WILLIAM T. BROWN, a citizen of the United States, residing at No. 557 Central avenue, Atlanta, Fulton county, Georgia, have invented certain new and useful improvements in Track-Fastenings, of which the following is a specification.

My invention relates to means for securing rails to cross-ties without the use of spikes, and consists in providing each cross-tie with two pairs of diagonally-arranged lugs adapted to engage the flanges of the rails when the ties are brought at right angles thereto, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a pair of rails and two cross-ties embodying my improvement. Fig. 2 is a section on the line 2 2, Fig. 1; and Fig. 3 is a sectional view illustrating one means of connecting a lug with a wooden cross-tie.

The combined tie and rail clamp or fastener consists of a bar B, which may be of wood or metal and of any desired construction and which is provided with two pairs of lugs C, each pair arranged diagonally upon a line parallel to the diagonal line upon which the other pair is arranged, and these lugs are provided with overhanging lips and with sharp edges below said lips a.

Each pair of lugs is so arranged that they will receive the base of the rail between them, and when the bar or tie is at right angles to the rails the sharpened edges of all of the lugs will engage the edges of the lower flanges of the rails, as shown at the top in Fig. 1. In this position the engagement is such that the sharpened edges will tend to bite forcibly the edges of the rail-flanges, and to secure a better hold it is preferable that the edges of the rail-flanges shall be serrated or roughened, as illustrated, although this is not always absolutely necessary.

To connect and support the rails, the cross-tie is brought beneath the same to the position shown in connection with the tie B', Fig. 1, when each pair of lugs will be so far separated in respect to the base of the adjacent rail that the latter may be readily received between them; but as the tie is brought to a right-angle position in respect to the rails each pair of lugs is brought to a position to grip between them the flanges of the rail, the lips a overhanging the flanges and the sharp-

ened edges of the lugs biting into the edges of the rail, so that any pressure in either direction indicated by the arrows, Fig. 1, will have no tendency to separate the ties from the rails, which are therefore securely locked to the ties, but without the necessity of spiking or danger of the securing devices becoming loose. In fact, the only way in which any loosening can occur is to remove the ballast to permit the tie to be canted to the position shown by the tie B', Fig. 1, and it will be seen that by removing the ballast and carrying the tie to this position one or more ties may be readily disconnected, but that when replaced and carried to the position shown at the top, Fig. 1, the tamping of the ballast against the tie will insure its secure and continued attachment to the rails.

In case of wooden ties lugs may be provided with stems b integral therewith, as shown in Fig. 3, and passing through openings in the ties and secured by keys or nuts or otherwise, the projections c adapted to be driven into the ties to prevent turning. When the ties are of metal, either forged or cast, the lugs are formed integral with the ties.

The nuts d constitute projections below the ties, or projections d' may be formed on the ties, and these will fit between stringers e on bridges or wherever stringers are used and hold the ties securely in position longitudinally.

Without limiting myself to the precise construction and arrangement shown, I claim—

1. A combined railway-tie and clamp consisting of a bar provided with two pairs of lugs having lips a, each pair arranged diagonally on a line parallel to that of the other pair, and the proximate edges of the lugs of each pair sharpened to engage and bite the edge of a rail-flange.

2. A combined tie and rail-clamp consisting of a bar having formed therein and integral therewith two pairs of diagonally-arranged lugs, the proximate edges of each pair sharpened to engage the edge of a rail-flange, and each lug with a lip a.

3. The combination with the rails of a railway having bottom flanges with serrations at the edges, of a cross-tie consisting of a bar having two pairs of lipped lugs diagonally arranged to receive the base of the rail between them and to engage the edges thereof when

the bar is at right angles to the rails, the edges of the lugs engaging the rail being sharpened for the purpose specified.

4. The combination with the rails of a rail-
5 way having bottom flanges with serrations at the edges, of a cross-tie consisting of a bar having two pairs of lipped lugs diagonally arranged to receive the base of the rail between them and to engage the edges thereof when
10 the bar is at right angles to the rails, the

edges of the lugs engaging the rail being sharpened, and the lugs on the bottom of the tie.

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

WILLIAM T. BROWN.

Witnesses:

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M. D. BERRIEN