J. W. KENDRICK.

RAILWAY TIE PLATE.

APPLICATION FILED MAR. 26, 1912.

1,077,720.

Patented Nov. 4, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

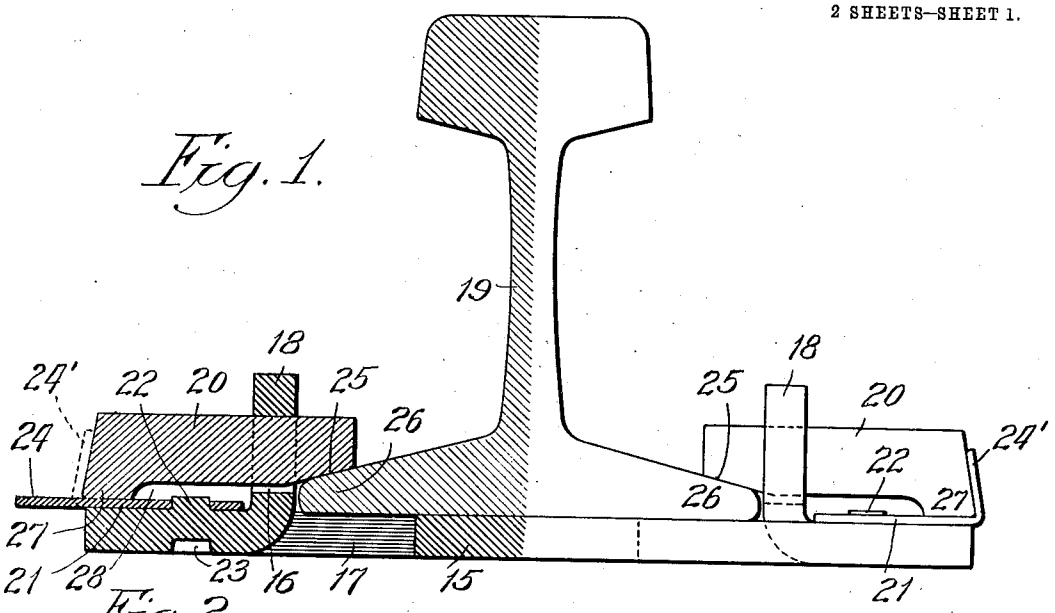
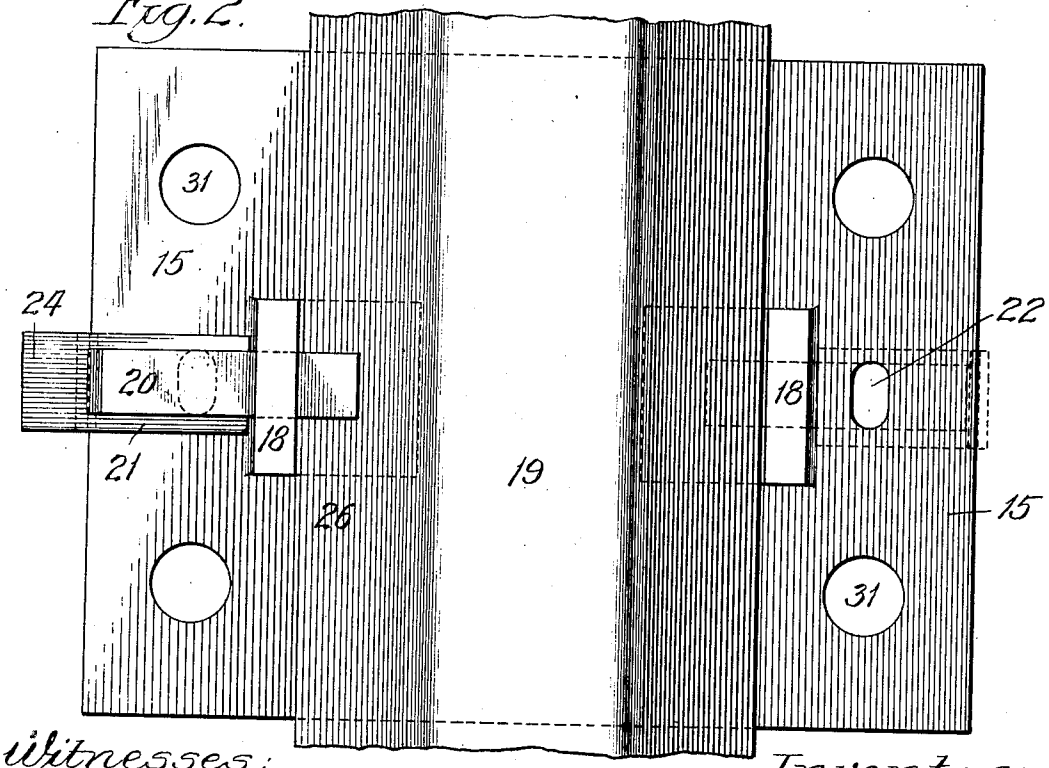


Fig. 2.



Witnesses:

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RAILWAY TIE PLATE.

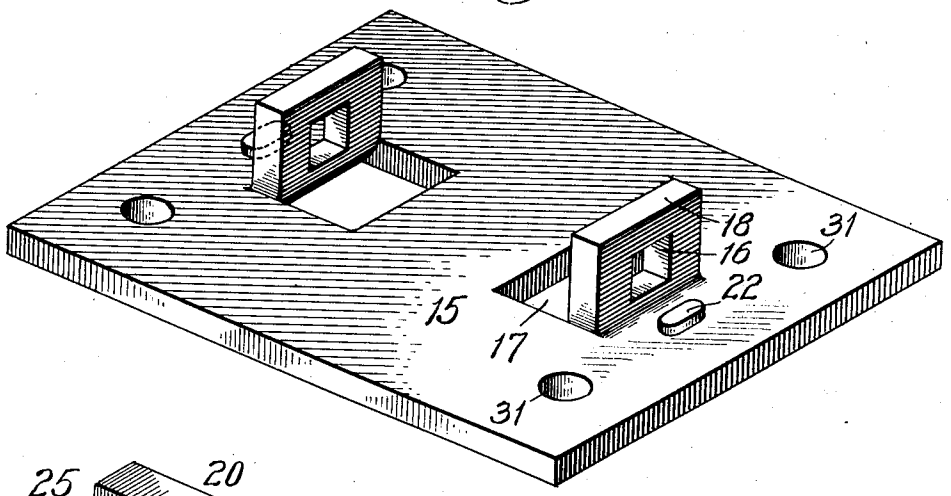
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2 SHEETS—SHEET 2.

Fig. 3.



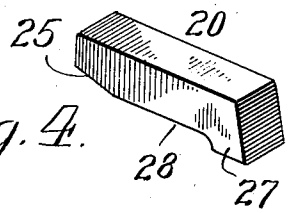
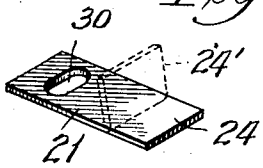


Fig. 4.

Fig. 5.



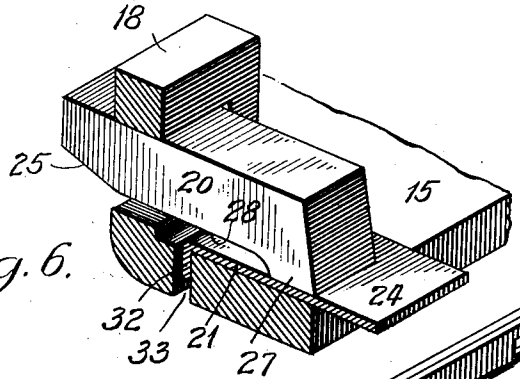
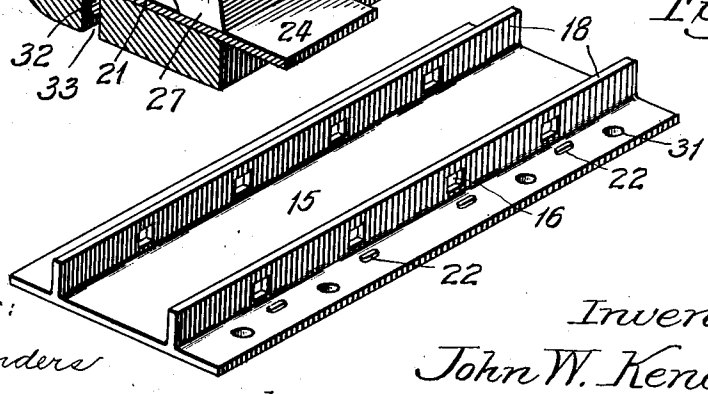


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN W. KENDRICK, OF CHICAGO, ILLINOIS.

RAILWAY-TIE PLATE.

1,077,720. Specification of Letters Patent. Patented Nov. 4, 1913.

Application filed March 26, 1912. Serial No. 686,244.

To all whom it may concern:

Be it known that I, JOHN W. KENDRICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway-Tie Plates, of which the following is a specification.

The principal object of my invention is to provide a new and improved tie plate to go between a railway rail and the ties thereunder.

Another object of my invention is to provide a tie plate with wedging means to fasten the rail thereto and a conveniently located fastener for said wedging means.

Still another object of my invention is to provide a tie plate that can be securely fastened to the ties either before or after the ties are laid and having means to secure the rails in place thereafter.

All these objects and others will more clearly appear from the following description and claims, taken with the accompanying drawings in which I have illustrated one specific embodiment of my invention together with certain modifications.

In these drawings—Figure 1 is a view partly in cross section and partly in end elevation of a rail with my improved tie plate thereunder. Fig. 2 is a top plan view of the same. Fig. 3 is a perspective view of the tie plate alone. Fig. 4 is a perspective view of the wedge or key. Fig. 5 is a perspective view of the fastener for the wedge or key. Fig. 6 shows a modified form of fastener with the part of the tie plate engaged by the same. Fig. 7 is a perspective view of a joint plate that may be used in practising my invention.

Referring to the form of my invention illustrated in Figs. 1 to 5 of the drawings, the tie plate 15 may be conveniently described with reference to the order of steps in its manufacture. The plates 15 are cut in rectangular form from sheet metal of the appropriate thickness and first the holes 16 are punched out; these later become lug-perforations. Also, the holes 31 for screw spikes are punched and the little oblong bosses 22 are struck up by making corresponding prints 23 on the under side of the tie plate. Then the lugs 18 are cut out on three sides and bent up, leaving the holes 17 in the tie plates. The rail 19 has a rail base 26 and the lugs 18 are spaced apart so that this rail base 26 fits between them.

The wedge or key 20 has the shape shown in Figs. 1 and 4 of the drawings and is adapted to have its end thrust through the hole 16 in the lug 18 so that its inclined end 25 will engage the rail base 26 with a wedging action. Before the wedge 20 is applied the fastener 21 of malleable metal is applied. This fastener 21 has a hole 30 that engages the boss 22. When the wedge 20 is applied its heel 27 rests upon the fastener 21, the under part of the wedge 20 being cut away as indicated at 28 to clear the boss 22.

The tie plates 15 may be fastened to the ties at the mill or after the ties are laid, as desired. After the tie plates 15 have been applied to the ties and the ties have been laid, the rails are put down between the lugs 18, then the fasteners 21 are applied, and then the wedges 20 are driven in place tightly with a sledge. Thereafter, the projecting ends 24 of the fasteners 21 are bent up, as indicated at 24′ in the drawings, and these hold the wedges 20 in place. The oblong shape of the bosses 22 prevents rotation of the fasteners 21 about the same. The fasteners 21 being made of malleable metal they can be bent up or down several times without breaking. Accordingly, when it is desired to remove and replace a wedge 20, the end 24 of the fastener 21 can be bent down and then bent up again. Also, if a rail should become loose on a tie plate the fastener could be adjusted to secure the wedge in a tighter position.

In Fig. 6 I have shown the fastener 21 with its end toward the rail 32 bent down and engaging the hole 33 in the tie plate, this hole 33 having a non-circular form, so as to prevent rotation of the fastener 21 upon the tie plate.

Fig. 7 shows a joint plate to go under the meeting ends of two consecutive rails. These joint plates are made by rolling a piece of structural iron with a double T section and then cutting the plates off in proper lengths and finishing them, as shown in the drawings. It will be seen that the fastener 21 is below the key 20, and hence does not interfere with driving home the key 20 by means of the sledge.

I claim:

1. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge.

2. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the said base, and a fastener under said wedge, said wedge having a heel resting upon said fastener.

3. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge, said fastener engaging the tie plate at its end toward the rail and having a projecting end away therefrom adapted to hook behind the said wedge.

4. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge engaging the tie plate and the wedge and holding the wedge toward the rail.

5. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge, said fastener consisting of a plate of malleable metal engaging the tie plate and having its outer extremity projecting behind the head of the wedge and adapted to be bent up behind the same.

6. In combination, a rail, a tie plate under the rail with a perforated lug beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge, said tie plate having a boss struck up and said fastener having a hole therethrough engaging said boss, the outer end of the fastener being adapted to engage the outer end of the said wedge.

7. In combination, a rail, a tie plate under the rail with an integral perforated lug projecting up therefrom beside the rail base, a wedge through the perforation in the lug engaging the rail base, and a fastener under said wedge, said fastener consisting of a plate of malleable metal projecting beyond the edge of the tie plate and adapted to have its projecting end bent up behind the head of the wedge.

In testimony whereof, I have subscribed my name.

JOHN W. KENDRICK.

Witnesses:
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EDYTHE M. ANDERSON.