S. EISNAUGLE.

RAIL FASTENING.

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1,044,034.

Patented Nov. 12, 1912.

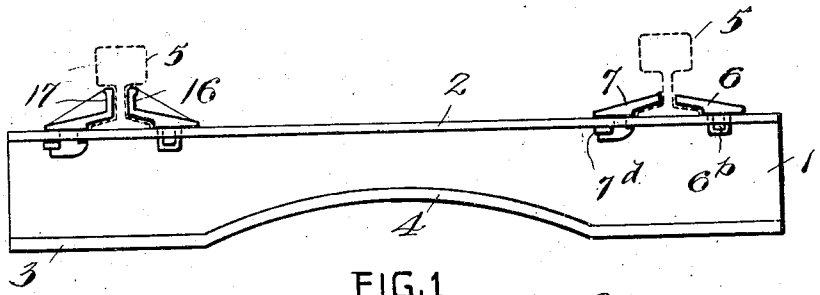

FIG. 1

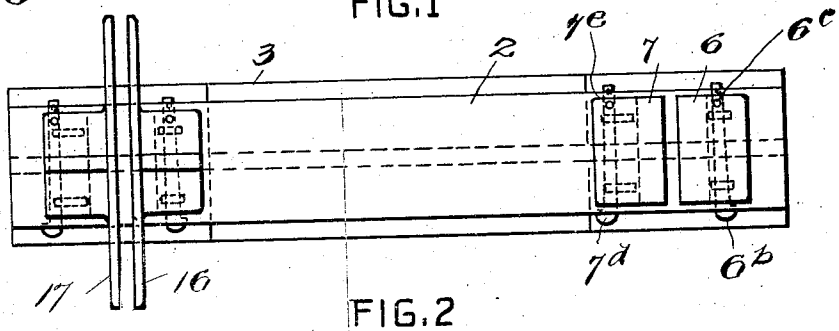

FIG. 2

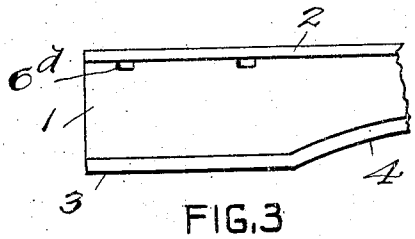

FIG. 3

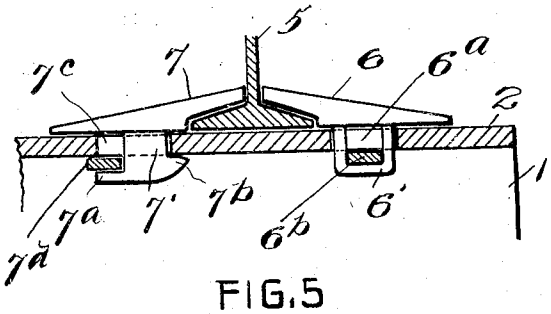

FIG. 5

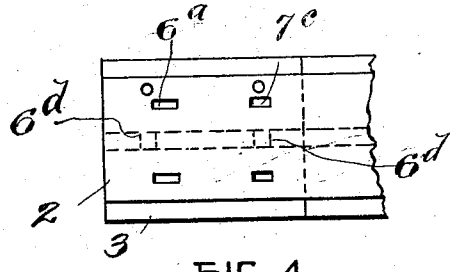

FIG. 4

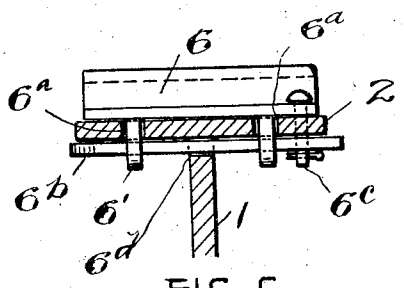

FIG. 6

WITNESSES:

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RAIL-FASTENING.

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To all whom it may concern:

Be it known that I, SHERMAN EISNAUGLE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Rail-Fastenings, of which the following is a specification.

The present invention relates to improvements in rail fastenings for railway rails, and is designed to provide a rail fastening device for use in connection with metallic railway ties which will be comparatively inexpensive of production, durable, and simple in construction and operation.

The invention consists essentially in the novel combinations and arrangements of the clamp plates adapted to overlie the base flange of a rail and the devices by which these clamp plates are secured to the tie.

In the accompanying drawings I have illustrated one example and a modified form of clamp plate, and the means for securing the plates to the ties, constructed according to the best modes I have so far devised for the practical application of the principles of the invention.

In the drawings:—Figure 1 illustrates a side elevation of a tie with the rail shown in dotted lines, and at the left it shows the form of clamp plate used at a rail joint, the right end showing the usual form of fastening the plate to the tie and clamping the rail to the tie. Fig. 2 is a top plan view of Fig. 1. Fig. 3 is a view of one end of the tie. Fig. 4 is a top plan view of Fig. 3. Fig. 5 is an enlarged detail sectional view of the tie showing the plate securing means, and Fig. 6 is a detail sectional view at right angles to Fig. 5.

In the preferred embodiment of my invention as illustrated in the drawings, the rail fastening device is shown in connection with a metallic tie, as 1, which is preferably of an I-beam, formed with the upper flanges 2, 2, and base flanges 3, 3, and the curved under surface 4 of the beam 1 is designed to resist side thrust, it being understood of course that the base flanges and web of the tie are embedded in track ballast of the railroad. The rails 5 (dotted lines Fig. 1) are secured on the upper surface of the upper flanges 2 by means of pairs of clamp plates 6 and 7, and the clamp plates are in turn attachable to the web and upper flange of the tie. The clamp plate 6 is provided at its underside with a loop 6′ adapted to pass through the slot or opening 6^a in the upper flange 2 of the tie. By means of the wedge bar 6^b and its pin 6^c which holds the wedge against displacement after passing through the slot 6^d in the web 1 of the tie and the two loops 6′, the clamp plate is securely held to the tie and the rail in turn is held to the tie by the extension of the clamp plate. The clamping plate 7 which is located directly opposite the plate 6 is arranged and constructed to be adjustable, and for this purpose is provided with an integral lug 7′ arranged in pairs at the underside of the plate. The lug 7′ is provided with a toe 7^a and a heel 7^b, which it will be noted in Fig. 5 provide a foot of greater length than the length of the slots 7^c in the tie flange 2, and through which the foot is passed. By means of the wedge bar 7^d which is passed through the slot 6^d in the web of the tie and rests on the toe 7^a of the lugs 7 this clamp plate may be adjusted and held in position, the bolt 7^e preventing withdrawal of the wedge bar.

In Fig. 1 at the left where a rail joint is illustrated, the plates 6 and 7 are formed with long bars 16 and 17 to serve the purpose of the customary fish plates.

In use, the clamp plates 6 are always used on the right side of the rail, in order to prevent unintentional or accidental change of gage between the rails. While the adjustable or sliding clamp plate 7 is used at a point on the rail opposite the plate 6.

In using the invention in connection with switches sidings, cross-overs, etc., it will be understood that the holes as 6^a, 6^c and 7^c are to be located at the required points in the ties.

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

The combination in a rail fastening with

a tie having a flat head and vertical web, of a clamp plate formed with lugs passed through slots in said head, and each said lug formed with a toe at its ends, one toe on each lug engaging the under surface of the head, and a wedge bar passed through a slot in the web and engaging the second pair of toes and under surface of the head.

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

SHERMAN EISNAUGLE.

Witnesses:
BERT GROSHEL,
H. V. COOK.