

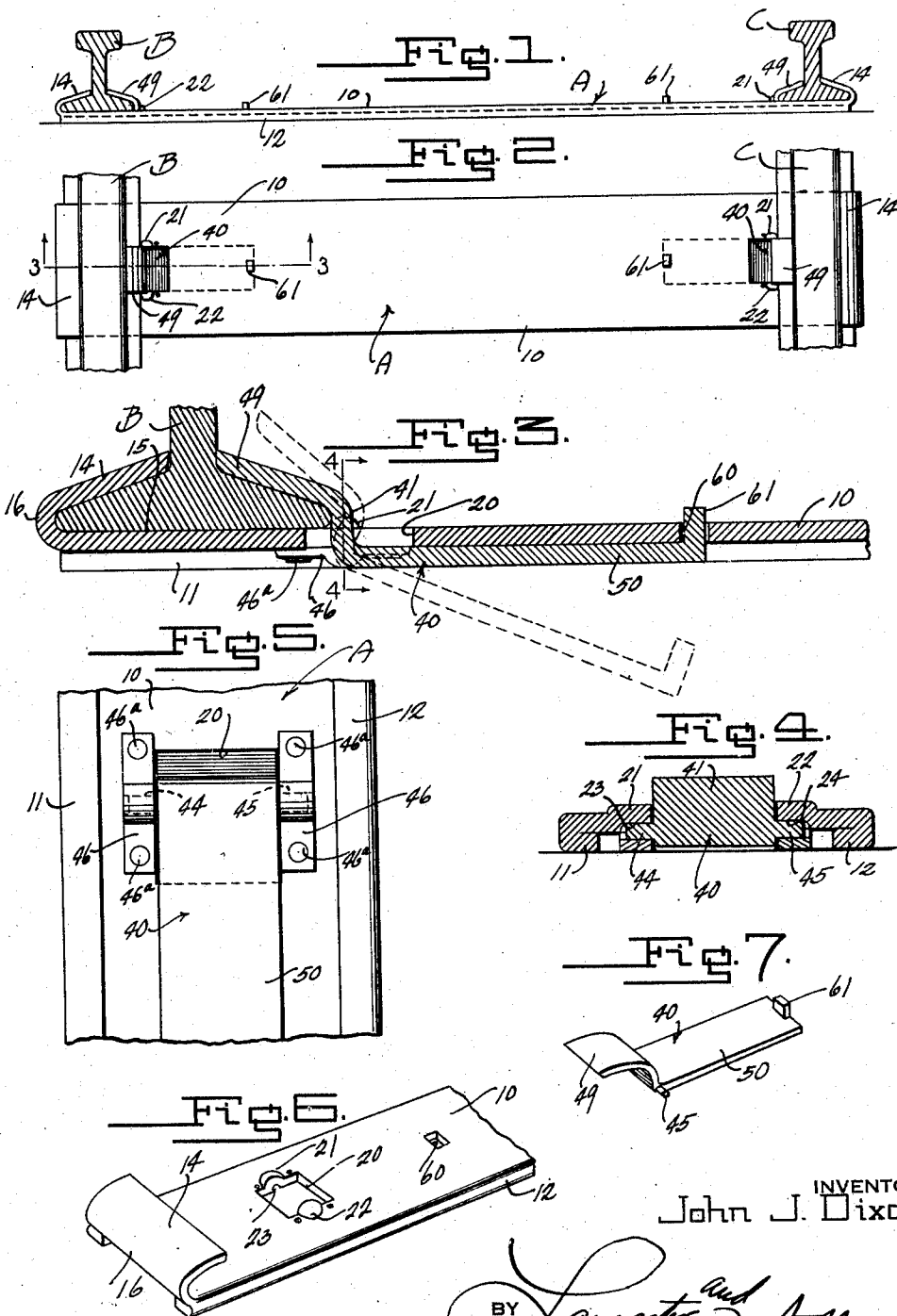
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RAILWAY TRACK TIE

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UNITED STATES PATENT OFFICE

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RAILWAY-TRACK TIE

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This invention relates to improvements in metallic railway ties.

The primary object of this invention is the provision of a relatively simple type of metallic railway tie adaptable for industrial use, such as in mining roadbeds and the like, which may be economically fabricated for quick and efficient attachment.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and wherein similar reference characters designate corresponding parts throughout the several views—

Figure 1 is a cross sectional view taken through the rails of a railway roadbed, showing the support of the same upon the improved metallic industrial tie.

Figure 2 is a fragmentary plan view of the rails and their application to the improved tie.

Figure 3 is an enlarged fragmentary sectional view showing the manner of application of the tie parts to a rail base, the view being taken substantially on the line 3—3 of Figure 2.

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 3.

Figure 5 is a fragmentary bottom plan view of the tie and rail clamp.

Figure 6 is a perspective view of an end of the rail tie, showing the manner in which the same is formed.

Figure 7 is a perspective view of the improved pivoted rail clamp.

In the drawing, wherein for the purpose of illustration is shown only a preferred embodiment of the invention, the letter A may generally designate the improved tie, which is adapted to support thereon rails B and C in a properly spaced relation, immovably thereon.

The tie A preferably is of steel, iron, or any other approved metal, and the same comprises a channel-shaped body including a relatively broad body 10 having the depending side flanges 11 and 12 which are doubled beneath the body 10, and adapted to seat upon

the road bed, as is shown in Figure 4 of the drawing. The tie is preferably bent from flat plate material, of any proper thickness, consistent with other characteristics of the metal, and the ends of the body 10 are bent in an overhanging flanged relation to provide rail anchoring flanges 14 at the ends of the body 10, which overhang the rail seating portions 15 at the ends of the body 10, in a preferably divergent relation from the bend or bight 16, as is shown in Figure 3 of the drawing.

At the inner sides of the rail seating portions 15, the body 10 of the tie is properly stamped to provide an opening 20 there-through, with raised portions 21 and 22 at opposite sides of the opening providing elongated sockets 23 and 24 respectively beneath the body 10, extending to the edges defining the sides of the opening 20.

At the inner sides of each of the rail seats 15 of the tie body 10 are provided pivoted rail clamps 40, each of which includes a body 41 disposed within the opening 20 of the body 10 between the raised portions 21 and 22; said body 41 having aligning spindles or lugs 44 and 45 adapted to seat in the socket openings 23 and 24. Side bearing plates 46 are riveted at 46^a to the underside of the tie body 10 to hold the lugs 44 and 45 in a pivoted bearing relation beneath the tie body. The body 40 at the end thereof facing the respective rail seating portions 15 of the tie body 10 is provided with a rail base engaging flange 49 above the top surface of the tie body 10, and in overhanging convergent relation with respect to the rail seating surface 15, as shown in Figure 3 of the drawing. The pivoted clamp 40 furthermore includes a relatively long shank 50 at the opposite side of the pivot with respect to the rail base engaging flange 49, lying beneath the tie body 10, and adapted to fit in abutment beneath the tie body 10 when the clamp 40 is in a rail base clamping position, as shown in Figure 3. In this position the lower surfaces of the tie flanges 11 and 12 and shank 50 are flush.

The matter of application with respect to the improved tie will be apparent. The rails are assembled so that the flanges 14 on the

- ends of the tie body engage the outer base flanges of the rails B and C, and the tie so positioned upon the roadbed that the material thereof will hold the shanks 50 against the lower surface of the tie body 10 and clamp the flanges 49 thereof against the inner base flanges of the respective rails, as shown in Figure 3.
- The tie body 10 is provided with openings 60, thru which reduced extensions 61, which are transversely mounted on the free ends of the shanks 50, project, as shown in Figures 2 and 3, to enable an easy release of the clamp, should the same stick for any reason.
- Various changes in the shape, size, and arrangement of parts may be made in the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.
- I claim:
1. In a metallic industrial tie the combination of a tie body having end rail anchoring flanges thereon, the tie body inwardly of each of said flanges in spaced relation therewith having an opening with facing sockets at opposite sides thereof, and clamps having lugs pivoted in said sockets, each clamp including a flange extending from the pivoted portion thereof towards the adjacent flange first mentioned, in overhanging relation with the tie body, and a shank opposite the pivot of the clamp extending beneath the tie body in position to be engaged by the roadbed to hold the flange of the clamp against a rail.
 2. In a metallic industrial tie construction the combination of an elongated metal tie body having depending road engaging flanges along the opposite side edges thereof, the ends of the tie body having upturned overhanging integral and stationary rail anchoring flanges thereon, the said road engaging flanges terminating short of said rail anchoring flanges, and rail anchor clamps movably connected upon the tie body in spaced relation between said rail anchoring flanges.
 3. In a metallic industrial tie the combination of an elongated metal tie body having depending road engaging flanges along the opposite longitudinal sides thereof, the ends of the tie body having upturned overhanging integral rail anchoring flanges thereon, the tie body inwardly of the rail anchoring flanges having openings therethrough, rail clamps pivoted on horizontal axes on the bottom of said tie body adjacent each of said openings, each of the rail clamps extending upwardly through an opening and each rail clamp including a rail engaging flange extending in an operating relation towards the adjacent rail anchor flange, each clamp furthermore including a shank at the opposite side of its pivotal axis from the rail engaging flanges of the respective clamps disposed in an operating relation beneath the tie body for abutment thereagainst, the road bed engaging flanges of the tie body being of such height that a normal road bed will engage the shanks of the clamp beneath the tie body for holding said clamps in rail base engaging position.
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