

(No Model.)

W. R. McDOWELL.
RAILROAD TIE AND FASTENING.

No. 586,103.

Patented July 13, 1897.

Fig. 1.

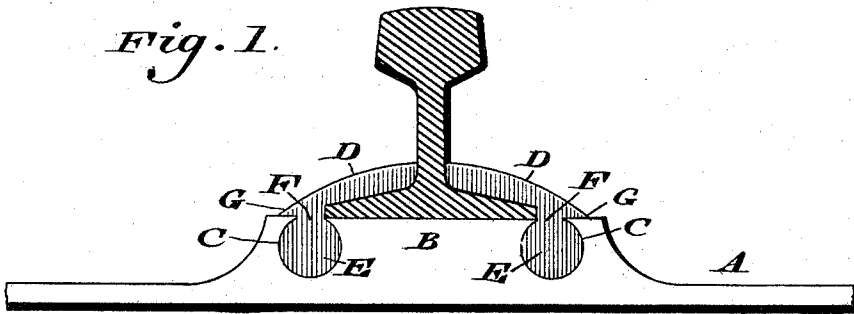


Fig. 2.

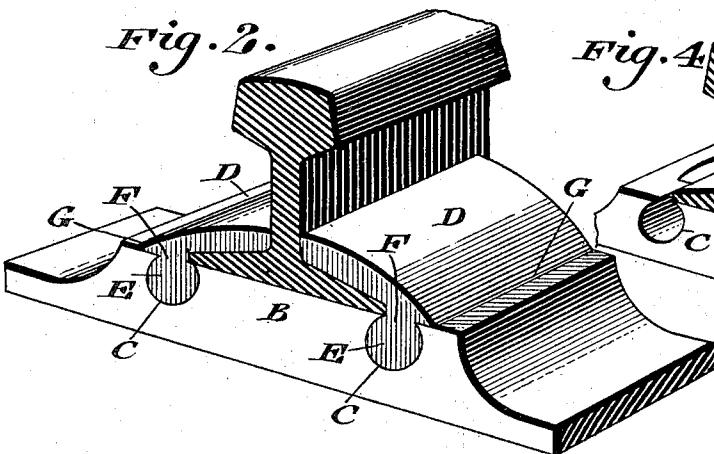


Fig. 4.

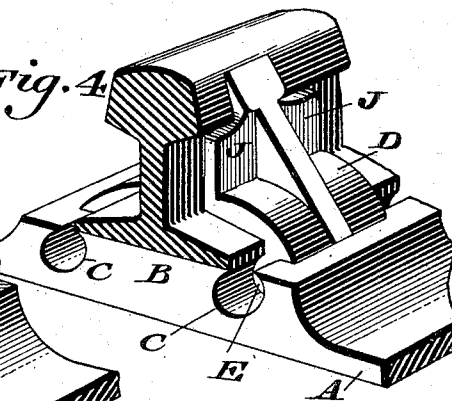
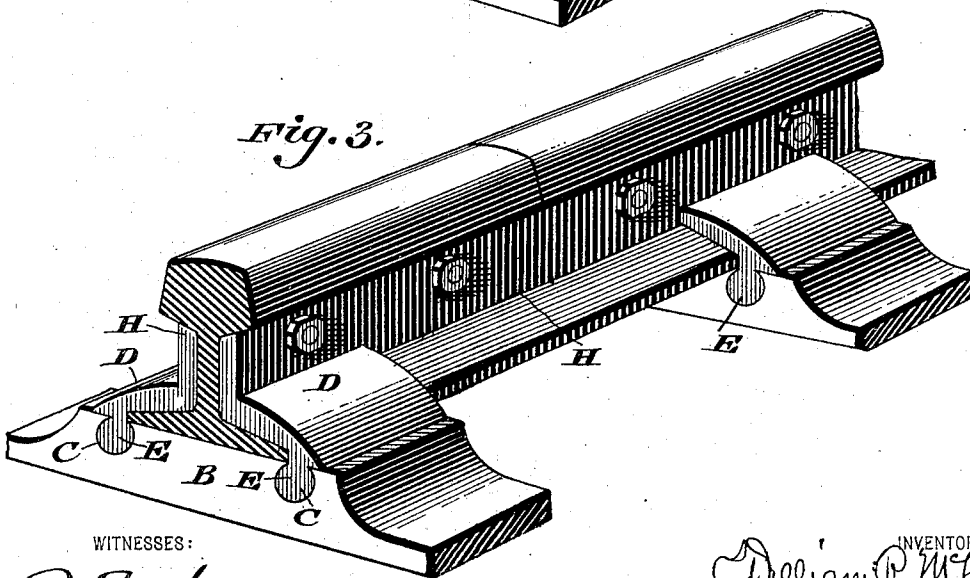


Fig. 3.



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RAILROAD-TIE AND FASTENING.

SPECIFICATION forming part of Letters Patent No. 586,103, dated July 13, 1897.

Application filed May 29, 1896. Serial No. 593,579. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. McDOWELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Railroad-Ties and Fastenings, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel railroad-tie formed of metal, with recesses or grooves in the upper face of the ends thereof and cheek-pieces provided with tongues to enter said grooves, so that said pieces may be interlocked with the tie and clamp the rail firmly in position thereon without liability to be displaced or overturned, said cheek-piece also projecting outwardly from said tongues, so as to overlap the latter and rest on the tie beyond said tongues, thus forming means for shedding water and preventing the same from entering said grooves, said parts being formed and arranged as hereinafter described and claimed.

Figure 1 represents a side view of a railroad-tie and fastening embodying my invention. Figs. 2, 3, and 4 represent perspective views of different portions thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a cross-tie formed of metal, the end portions of the same being elevated, forming the beds B. In the upper faces of said beds are transversely-extending recesses C C, which are so disposed that they occupy positions on opposite sides of the base of the railroad-rail which is rested on said beds, it being noticed that said recesses are open at top, the openings being narrower than the transverse diameters of said recesses.

D designates cheek-pieces which are adapted to rest partly on the base of the rail and partly on the beds B. Depending from the under side of said cheek-pieces are longitudinally-extending tongues E, which are adapted to enter the recesses or grooves C in the beds B, it being noticed that said grooves are set in from the outer edges of the cheek-pieces and that the portions of said tongues where they join the cheek-pieces form the

necks F, the inner walls of which are vertical, said necks occupying openings of the recesses or grooves C, whereby the cheek-pieces are interlocked with the beds B and prevented from rising as well as shifting laterally, by which provision the cheek-pieces firmly clamp the rail and retain the same rigidly in position, it being also noticed that the tendency of the cheek-pieces to turn in the recesses or grooves C is prevented by the abutment of the outer portion G of the cheek-pieces on the top of the bed, which portions project laterally from the necks F, while constituting the outer ends proper of the cheek-pieces. Each cheek-piece thus consists of upper and lower portions, the upper portion resting on one side of the base of the rail, while the lower portion rests on the top of the tie. The sides of the base of the rail enter the grooves existing at the inner sides of the necks F of the tongues E. By these provisions there are no open joints between the various parts, while the lower portions of the cheek-pieces prevent any rising of the said pieces, while acting as sheds or deflectors for directing water from the recesses C, the effect of which is evident.

When it is desired to displace the cheek-pieces, it is necessary to slide or move the same in a direction parallel with the rail, whereby the tongues E leave the grooves or recesses C, and thus the cheek-pieces are disconnected from the rail and tie, it being evident that when the parts are restored to their operative position the outer portions of the cheek-pieces outwardly overlap or overhang the walls of the recesses or grooves C, while the inner portions thereof inwardly overlap or overhang said wall, and as said outer portions abut against or rest upon the top of the ties outward from said grooves, as has been stated, they form stops, whereby the tongues are prevented from turning in the recesses and the cheek-pieces thus remain flat and immovable on the ties and base of the rail, securely holding the latter.

In Fig. 3 I show a fish-plate H, formed or connected with the cheek-pieces D, and in Fig. 4 I show the brace or support J, a portion of which rests against the side of the bed and rail and the other portion beneath the

head thereof, thus firmly supporting and holding the rail, while the cheek-pieces clamp the rail to the tie that holds the same in a firm and durable manner.

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

1. In a railroad-tie and fastening, a tie having a transversely-extending recess having a narrow opening at top and a cheek-piece having a tongue on its under side between the ends of said piece adapted to fill said recess, the outer portion of said piece outwardly overhanging the wall of said recess, and the inner portion of said piece inwardly overhanging said wall.

2. A cheek-piece having a tongue on its under side with a narrow connecting-neck, the outer portion of said piece being adapted to rest on a tie in which said tongue is inserted, and the inner portion of the piece being adapted to rest on the base of a rail

seated on said tie, said outer portion being adapted to outwardly overhang the wall of the recess in which said tongue is inserted, said neck having on one side a vertical wall. 25

3. A tie having a recess therein, and a cheek-piece having a depending tongue, and neck joining said tongue with said piece, said neck having a vertical wall on side thereof the sides of said neck being adapted to receive the side of the base of the rail and the upper ends of the wall of said recess, the outer portion of said cheek-piece outwardly overhanging said wall and the inner portion thereof inwardly overhanging said wall, the said tongue being adapted to be inserted transversely in the recess in said tie and to fill the same. 30 35

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