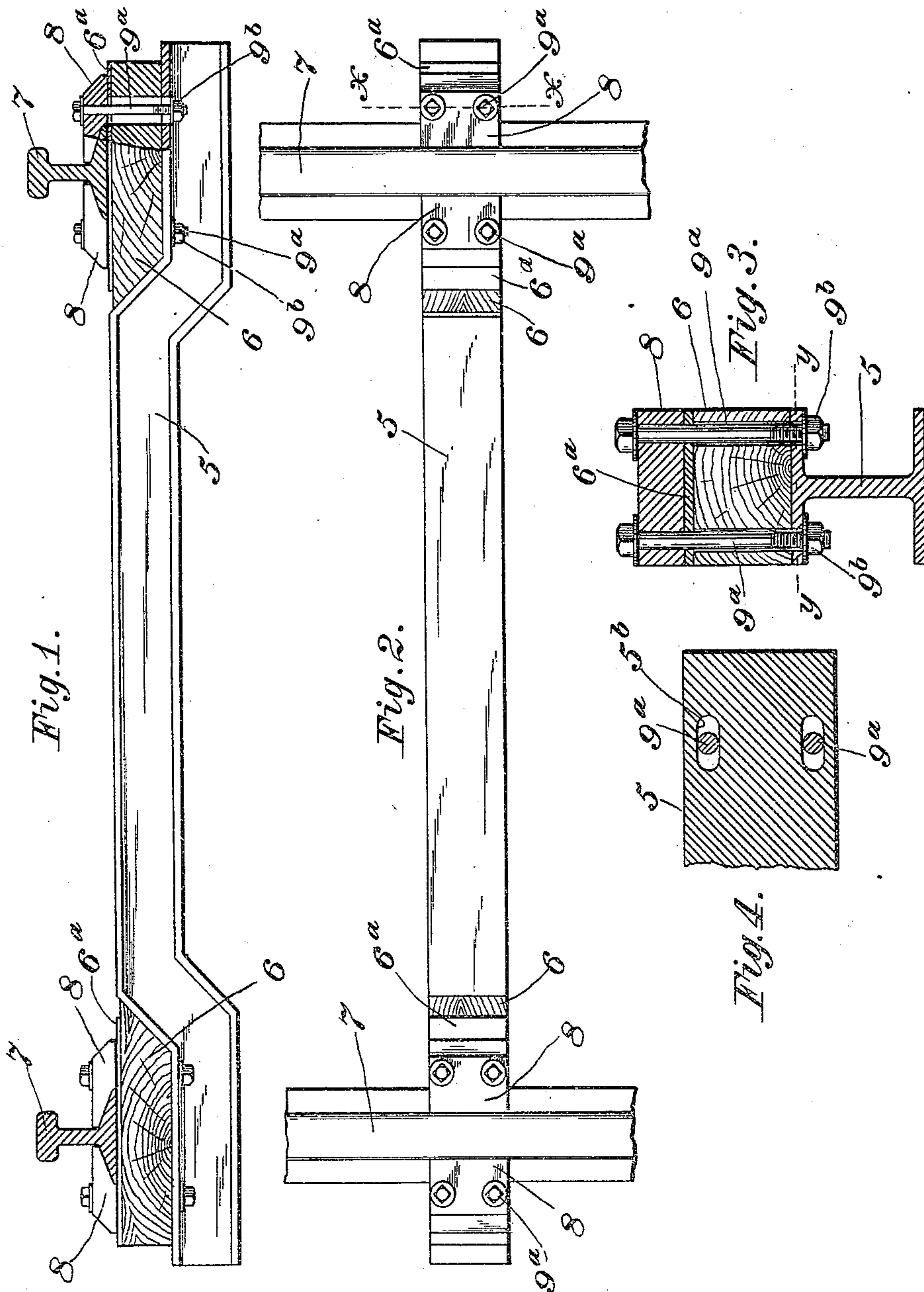


J. HORNUNG.
RAILROAD TIE.

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951,277.

Patented Mar. 8, 1910.



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UNITED STATES PATENT OFFICE.

JOHN HORNUNG, OF DRESDEN, OHIO.

RAILROAD-TIE.

951,277.

Specification of Letters Patent.

Patented Mar. 8, 1910.

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To all whom it may concern:

Be it known that I, JOHN HORNUNG, a citizen of the United States, residing at Dresden, in the county of Muskingum and State of Ohio, have invented a certain new and useful Improvement in Railroad-Ties, of which the following is a specification.

The present invention is an improvement upon or modification of the construction shown in my Letters Patent of the United States, No. 918,554, dated April 20, 1909, and among its chief objects is to make the body more rigid when in the road bed and the bolts securing the cushioning blocks more accessible.

The invention is embodied in the construction hereinafter particularly set forth and pointed out in the claims, the invention not being confined in its embodiment to precisely the form of the parts shown.

In the accompanying drawings: Figure 1 is a side elevation of the tie, the rails thereon being in section as are also other parts; Fig. 2 is a top plan view of the same; Fig. 3 is a vertical section on the line $x-x$ Fig. 2, Fig. 4 is a partial section horizontally on the line $y-y$, Fig. 3.

Like characters of reference in the several views designate corresponding parts.

In said views the character 5 designates the tie body which consists of a piece of iron or steel I-beam of the proper length pressed or bent downward to extend outwardly at its ends to form seats for cushioning blocks 6 of wood or other suitable cushioning material. In the present instance as distinguished from the construction shown in my said former patent, the I-beam is bent at its ends flatwise of the flanges of the beam or so that the seat for the cushioning block is formed on the flange instead of between the flanges at one side of the beam. The blocks 6 can each be beveled at its inner end as indicated in Fig. 1 to conform to the downwardly inclined surface presented at the bent portion of the I-beam. But said blocks can be cut off square at both ends.

The character 7 designates the rails each of which is held at each side by metallic clamping blocks 8 held down on the flange of the rail by means of bolts 9^a passed downward through the clamping block through the cushioning block and the corresponding flange of the body and secured by a nut 9^b. The bolt holes in the tie body 5 and block 6 are preferably elongated, as seen at 5^b in

Fig. 4, so that the rails can be shifted laterally to obtain the proper gage of road and allow for expansion and contraction. Because the nuts are under the flanges they are readily accessible by removing a little of the ballast.

To afford a more extended bearing to take the pressure of the rails on the cushioning blocks a thin metallic plate 6^a can be placed on top of the block under the rails. The bolts 9^a can obviously be threaded into the flanges and the nuts 9^b dispensed with.

The bolt holes in the cushioning blocks can be either circular and of a diameter to just receive the bolts, or they can be elongated like the holes in the tie body 5. If they be made circular and the bolts fit closely in them the said blocks will, of course, be shifted with the bolts if they be shifted. If the bolt holes in the cushioning blocks be made circular, as stated, the block should be made short enough to allow shifting inward if necessary.

The form of the tie body when suitably embedded in the ballast prevents shifting of the tie in the road bed, or lifting upward.

The cushioning blocks are not necessarily made of natural wood. They can be made of any suitable cushioning material, macerated wood fiber or papier mâché, for example.

With my construction of tie body old wooden ties can be saved and when these are cut up into the smaller pieces they are admirably adapted to form the cushioning blocks herein referred to.

What I claim is:

1. A railroad tie, comprising, in combination, a tie body consisting of a piece of I-beam bent downward and to extend outward flatwise of the flanges thereof at its ends to form seats, and cushioning blocks on said seats with means for securing them thereon.

2. A railroad tie, comprising, in combination a piece of I-beam bent downward to extend outward flatwise of the flanges thereof at its ends to form seats, cushioning blocks in said seats, metallic blocks to engage the bases of the rails, and securing means engaging the tie body, the cushioning blocks, and the said metallic blocks.

3. A railroad tie, comprising, in combination, a tie-body consisting of a piece of I-beam bent downward to extend outward flatwise of the flanges thereof at its ends to form seats, rail-receiving cushioning blocks on

said seats, means on said cushioning blocks to engage the rail and laterally adjustable bolts to secure the cushioning block, the rail engaging means and the tie-body together.

- 5 4. A railroad tie, comprising, in combination, a tie-body consisting of a piece of I-beam bent downward to extend outward flatwise of the flanges thereof at its ends to form

seats, rail-receiving cushioning blocks on said seats, and means engaging the flanges 10 of the tie-body to secure the rail to the cushioning block.

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