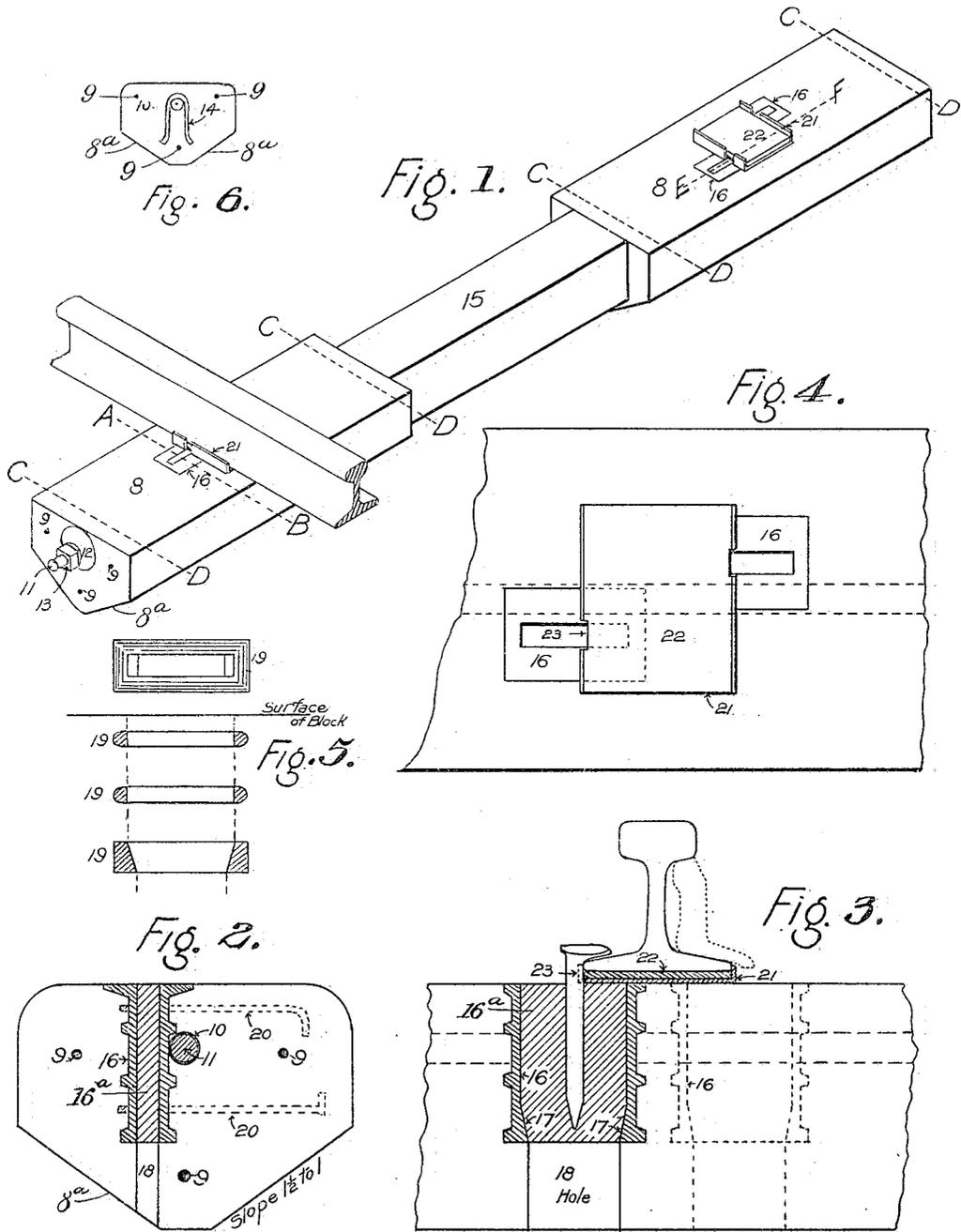


T. R. HASLEY.  
RAILWAY TIE.

APPLICATION FILED MAR. 7, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## RAILWAY-TIE.

No. 809,682.

Specification of Letters Patent.

Patented Jan. 9, 1906.

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*To all whom it may concern:*

Be it known that I, THOMAS R. HASLEY, a citizen of the United States, and a resident of Houghton, in the county of Houghton and State of Michigan, have invented a new and Improved Railway-Tie, of which the following is a full, clear, and exact description.

This invention relates to improvements in railway-ties formed of concrete, vitrified clay, or other plastic material that may be molded and have the required hardness and strength, the object being to provide a tie of the above-mentioned type that will be cheap to manufacture and that will be comparatively light, yet strong, thus rendering it easily handled without danger of breaking.

Other objects of the invention will appear in the general description.

I will describe a railway-tie embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of one of the ties. Fig. 2 is a section on the line A B of Fig. 1. Fig. 3 is a section on the line E F of Fig. 1. Fig. 4 is a plan of a portion of the tie. Fig. 5 indicates a modification of a portion of the tie, and Fig. 6 is a section on the line C D of Fig. 1.

The tie comprises bearing-blocks 8 for the rails, between the inner ends of which is a connecting-block 15, these several blocks consisting of concrete or other material, as before mentioned. The connecting-block 15 is practically designed to hold the bearing-blocks in proper relation to each other or to the track-gage, and this block 15 is of less cross-area than the bearing-blocks. The under sides of the blocks 8 are tapered from their edges downward to about the center, as indicated at 8<sup>a</sup>. By this construction the tamping of the road-bed underneath the tie will be greatly facilitated. As a means for holding the parts together should they be fractured in any manner, rods 9 are molded in the same and extended longitudinally thereof. These rods may consist of any old scrap metal, or even wire cables may be used. The bearing-blocks 8 are further braced laterally by cables or rods 20, as indicated in Fig. 3, these parts 20 having hook ends, and as a still further means for holding the parts together

lengthwise I employ a stay-rod 11, which passes through an opening 10, and on the ends of the rod 11 are washers 12 and tightening-nuts 13.

Near the outer ends of the blocks 8 and embedded therein are inverted-U-shaped plates 14, these plates being extended over the opening or hole 10. The object of these plates is to prevent possible breakage of the blocks by an operator placing a bar in the opening for the purpose of shifting the tie to proper position.

Seated in each block 8 is a metal boxing 16 for receiving a wooden block 16<sup>a</sup>, designed to receive a fastening-spike for the rails. This metal boxing is so shaped as to admit of a liberal amount of adjustment for alining rails without moving the bearing-blocks. To prevent the block 16<sup>a</sup> from being driven too far down, the opposite inside walls of the boxings are inclined downward and inward near the bottom, as indicated at 17 in Fig. 3. Below the boxings downwardly-opening holes 18 are provided, which will permit the discharge of any moisture that might gather in the boxings and also permit of a slight circulation of air underneath the blocks. These holes, further, will permit of a long spike being driven entirely through the block, as sometimes may be found necessary in repair-work. While I prefer the boxings, as indicated Figs. 2 and 3, made in slotted castings, I may employ boxings consisting of a plurality of rings or bands 19, as indicated in Fig. 5.

On each block 8 is a channel-plate 21, the opposite flanges on which are designed to engage closely against the edges of the base-flange of the rail, as clearly shown in Fig. 3, and to cushion the rails a block 22, of wood or other resilient material, is placed in the channel-plate 21. The channel-plate is provided at its edges with recesses 23 for receiving the inner sides of the spikes.

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

1. A railway-tie of plastic material, comprising rail-supporting blocks having opposite tapers on the under side, a center metal strips extended longitudinally through the several blocks, and metal strips arranged transversely in the bearing-blocks.

2. A railway-tie comprising bearing-blocks tapered on the bottom, a center tie-rod extended through the several blocks, fastening devices on the ends of said rod, and

metal strips extended longitudinally through the blocks.

3. A railway-tie of plastic material, comprising bearing-blocks, and metal boxings or casings seated in said blocks and adapted to receive wooden blocks the said blocks having downward and outward openings in line with said boxings.

4. A railway-tie of plastic material, comprising bearing-blocks having openings extended vertically through them, metal boxings arranged in said openings, the inner surfaces of opposite walls of the boxes being inclined inward and downward for a portion of the distance near the bottom, and metal strips extended longitudinally through the blocks.

5. A railway-tie of plastic material, comprising bearing-blocks having vertical open-

ings, boxings arranged in said openings, channel-plates mounted on the blocks, and resilient plates arranged in the channel-plates.

6. A railway-tie consisting of plastic material and comprising bearing-blocks, a center block abutting at its ends with the bearing-blocks, the said several blocks having a longitudinal opening or bore, curved plates arranged in the bearing-blocks and extending over said bore near its ends, and a clamping-bar passing through said bore.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS R. HASLEY.

Witnesses:

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