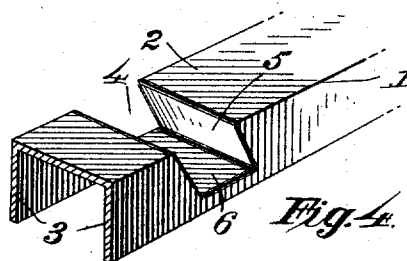
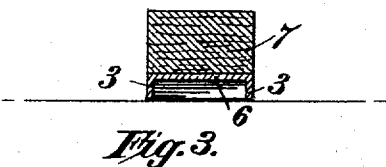
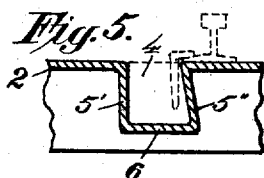
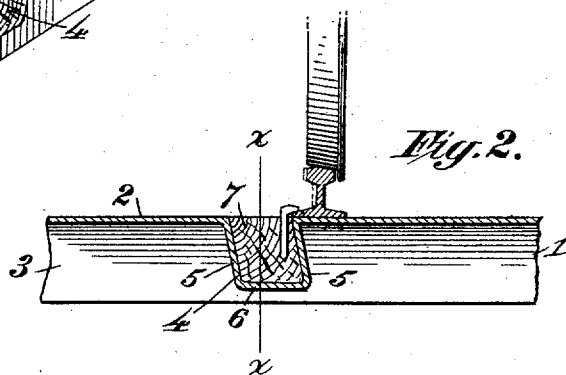
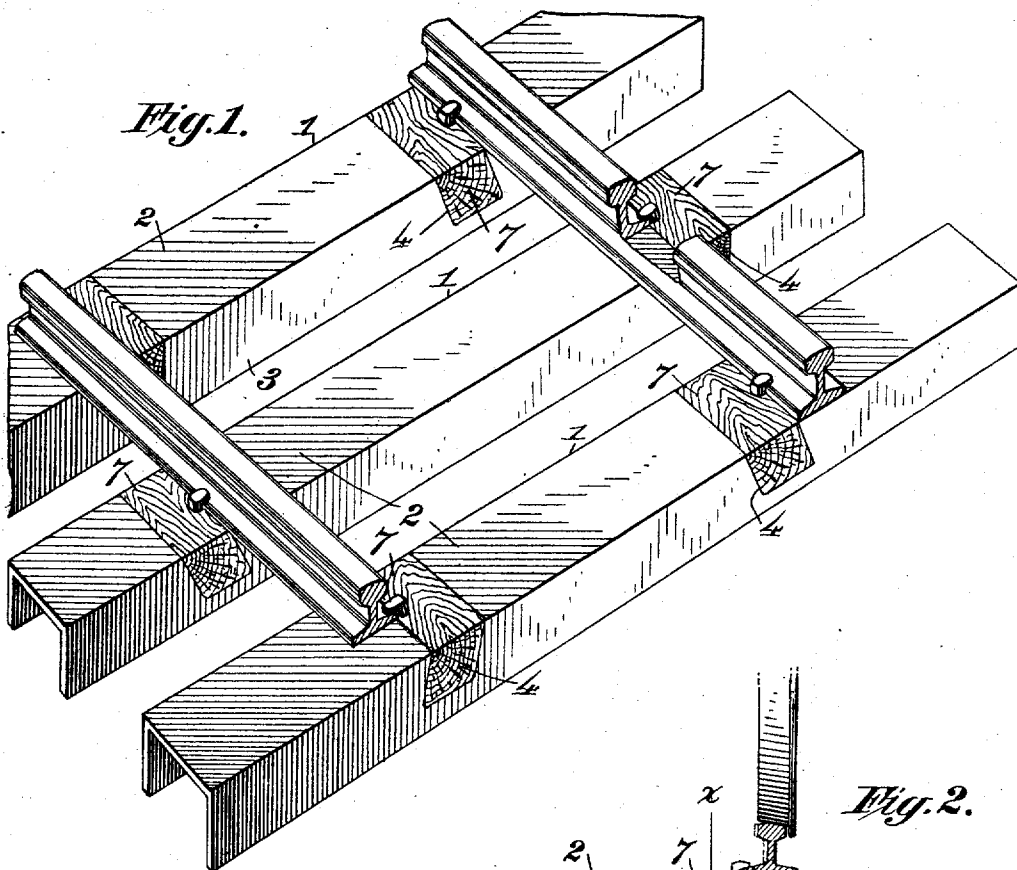


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RAILWAY TIE.
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932,781.

Patented Aug. 31, 1909.



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HERMANN HILLE, OF OAK PARK, ILLINOIS.

RAILWAY-TIE.

932,781.

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To all whom it may concern:

Be it known that I, HERMANN HILLE, a citizen of the United States, residing at Oak Park, county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

My invention relates to railway ties, and particularly to metallic railway ties.

The object of my invention is to provide a metallic railway tie equipped with wooden spike blocks and so constructed that the rail shall rest entirely upon the metallic surface of the tie.

A further object of my invention is to provide a tie as mentioned from which the wooden spike blocks may be readily removed when worn or decayed and as readily replaced by new blocks.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in providing a metallic railway tie consisting of a channel member formed with transverse pockets in its upper face extending from side to side of the tie. Each tie is provided with two channels which are arranged so as to lie adjacent to the flange of the rails. Every other tie is formed with the channels upon the inside of the rails and the alternate ties are formed with the channels upon the outside of the rails, and the walls of the channels are inclined so as to extend obliquely beneath the rails.

My invention further consists in various details of construction and arrangements of parts all as will be fully described hereinafter and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a perspective view showing the construction and arrangement of a railway tie embodying my invention in its preferred form, Fig. 2 is a central longitudinal section through the tie and one of the spike blocks, Fig. 3 is a transverse section taken on the line $x-x$ of Fig. 2, Fig. 4 is a detail perspective view illustrating one of the channels with the block removed, and Fig. 5 is a detail section of a slightly modified form.

Referring now to the drawings, 1 indicates the tie which is preferably formed of

a channel member comprising the horizontal web or upper face 2 and the depending flanges 3—3. The tie is formed with a pair of transverse channels 4—4 which extend from side to side of the tie. Every other tie is formed with the channels at such a distance apart as to lie entirely within the flanges of the rails, but in juxtaposition thereto. The alternate ties are formed with the channels a greater distance apart so as to lie entirely without the flanges of the rails.

The channels are defined by the side walls 5—5 and the bottom wall 6 which are integral with the body portion of the tie. The walls 5—5 are preferably arranged in parallel planes and are inclined as clearly shown in the drawings to extend beneath the rails. Arranged in each of the channels is a wooden spike block 7. This fits snugly within the channel and is inserted in place by being driven longitudinally into the channel. By extending the channels through the tie from side to side the blocks as they become worn or decayed may be readily driven out and replaced by new ones, hence the cost of maintaining the ties in good condition is comparatively small.

In Fig. 5 I have illustrated a slight modification wherein the side walls 5'—5'' of the channels are not arranged in parallel planes as in the preceding form but converge upwardly. This prevents the blocks from moving upwardly in the channels hence the latter need not be wedged into the channels as tightly as in the preceding form. The wall 5' may be slightly inclined or vertical as preferred whereas the wall 5'' adjacent to the rail is inclined thereunder as clearly shown in Fig. 5.

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

1. A metallic railway tie comprising a body portion formed of an inverted channel member having a plane upper face forming a seat for the rails, and provided with transverse channels formed therein and extending from side to side thereof, said channels being defined by upwardly inclined side walls and a bottom wall, said channels being arranged to one side of the rail seats and extending obliquely thereunder, substantially as described.

2. In a railway, a plurality of metal ties

and the rails resting thereon, said ties each
formed of an inverted channel member, hav-
ing transverse channels formed therein and
extending from side to side of the tie and
5 arranged to one side of said rails, said chan-
nels extending obliquely under said rails,
substantially as described.

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

HERMANN HILLE.

Witnesses:

HELEN F. LILLIS,

JOSHUA R. H. POTTS.