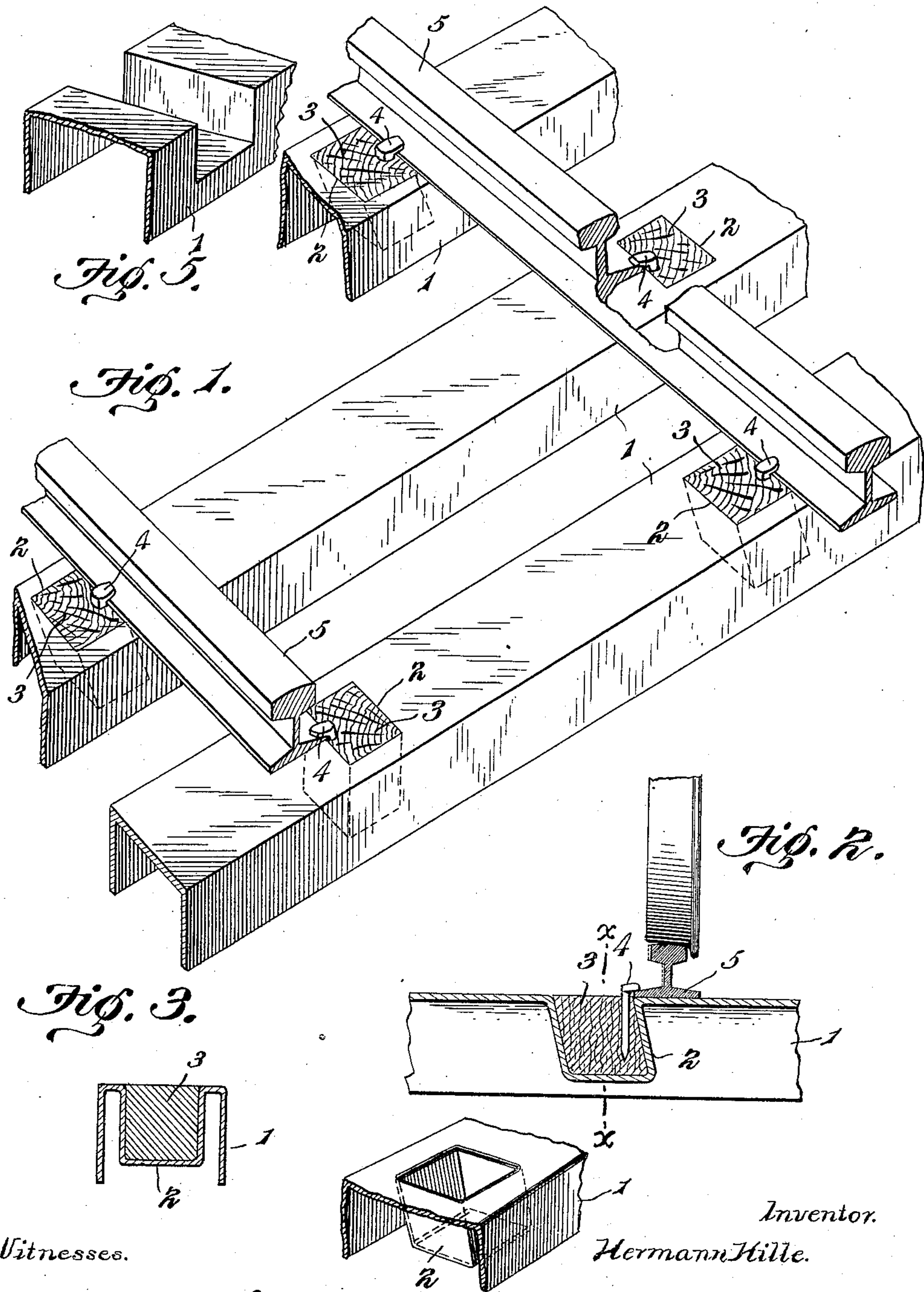


917,065.

H. HILLE.  
RAILWAY TIE.  
APPLICATION FILED SEPT. 3, 1908.

Patented Apr. 6, 1909.



Witnesses.

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Fig. 4. By Joshua R. Ross.  
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Inventor.

Hermann Hille.



# UNITED STATES PATENT OFFICE.

HERMANN HILLE, OF OAK PARK, ILLINOIS.

## RAILWAY-TIE.

No. 917,065.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed September 3, 1908. Serial No. 451,530.

*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 improvements in metallic railway ties, the object being to provide a device of this character which is durable but inexpensive in construction, and which is provided with means whereby rails may be fastened by spikes in the usual manner.

A further object is to provide a tie having wooden blocks which may be readily secured in the tie and not only designed to receive the spikes employed for fastening the rails in position, but to form a resilient connection between the rail and the tie.

Other objects will appear hereinafter.

With these objects in view, my invention consists in pockets or channels formed in metal ties adapted to receive wooden blocks, which blocks are in turn designed to receive the rail securing spikes and are inserted in the pockets or channels. As is well known when rigid connections are formed between rails and metallic ties, the vibrations of a heavy train especially when rounding curves cause heavy transverse or shearing stresses, but these difficulties may be overcome by interposing resilient members such as wooden blocks between the rail securing spikes and the metallic portions of the ties.

My invention further consists in certain details of construction and arrangements of parts all as will be hereinafter fully described 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 preferred construction of my improved railway tie, Fig. 2 is a central longitudinal section of the tie showing a wooden block and rail securing spike, Fig. 3 is a transverse section taken on the line  $x-x$  of Fig. 2 and Figs. 4 and 5 are detail perspective views.

Referring now to the drawings, 1 indicates a metallic tie of channel form. A pocket 2

is stamped integral with the tie which may be either polygonal or circular in cross section as desired. A wooden block 3 is formed to fit securely in the pocket 2 in such a manner that the grain of the wood is substantially parallel with the rail securing spike. The rail 5 seats directly on the metallic portion of the tie adjacent to the pocket 2, but the rail spike is secured as shown in the wooden block 3. The vibrations of the rails 5 and the spikes 4 are indicated by dotted lines in Fig. 2.

I have specified wood as the preferred material for the blocks, but it is understood that any other material of a similar nature may be used. Or wood may be used and treated with creosote or other preservatives if deemed desirable. The blocks are not necessarily secured in pockets, but may be secured in transverse channels in the tie as shown in Fig. 5.

While I have shown what I deem to be the preferred form of my device, I do not wish to be limited thereto, as there might be many changes made in the arrangement of parts and details of construction without departing from the spirit of my invention.

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

1. In a railway the two rails and a plurality of ties forming metallic bearings for the rails the full width of the ties, and each of said ties being provided with pockets and blocks secured in said pockets, the alternate ties having the pockets arranged upon the outer sides of the rail and the intermediate ties having the pockets arranged upon the inner sides of the rails, substantially as described.

2. In a metallic railway tie, a body portion, said body portion having pockets formed integrally therewith and interposed between the sides thereof, said pockets having sides parallel to the sides of said body portion and obliquely disposed parallel sides whereby said pockets are arranged at one side of the rail and extend obliquely thereunder, blocks secured in said pockets, rail securing spikes in said blocks, and the grain of said blocks being substantially parallel with said spikes, substantially as described.

3. In a railway, a rail and a plurality of  
metallic ties, pockets formed in said ties at  
the side of said rail, and blocks secured in  
said pockets, the pockets in the consecutive  
5 ties extending obliquely beneath the rail in  
opposite directions, substantially as de-  
scribed.

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

HERMANN HILLE.

Witnesses:

JANET E. HOGAN,  
ANNA L. EKVALL.