

No. 814,796.

PATENTED MAR. 13, 1906.

A. J. McCALLUM.

RAILWAY TIE.

APPLICATION FILED AUG. 7, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

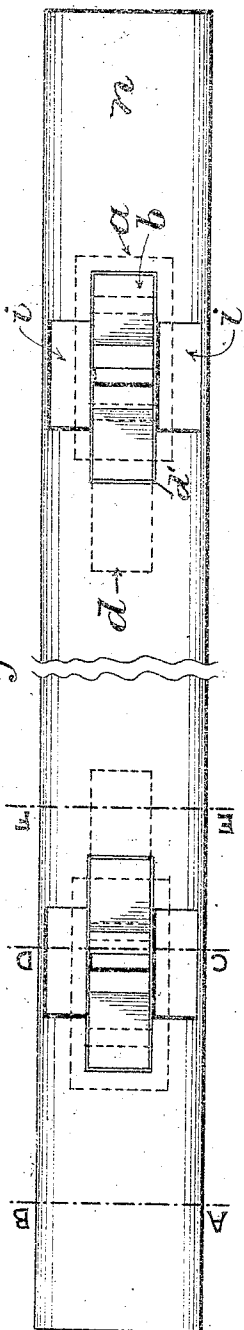


Fig. 2.

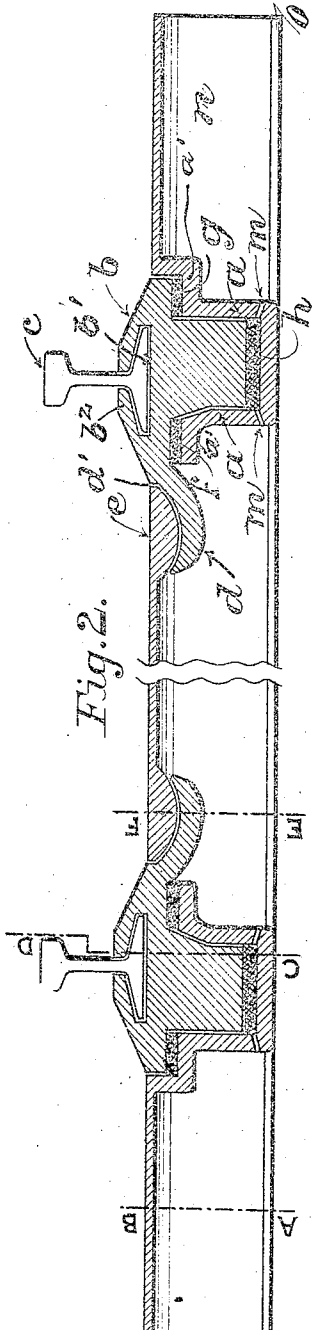


Fig. 4.

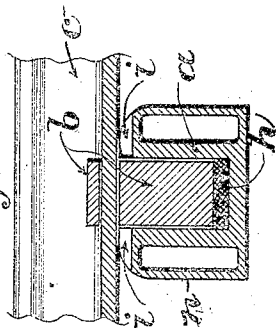


Fig. 3.

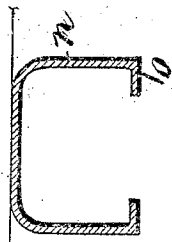
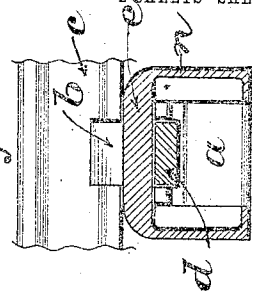


Fig. 5.



Witnesses.

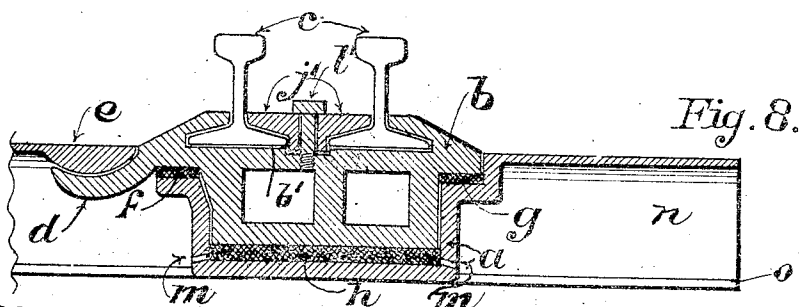
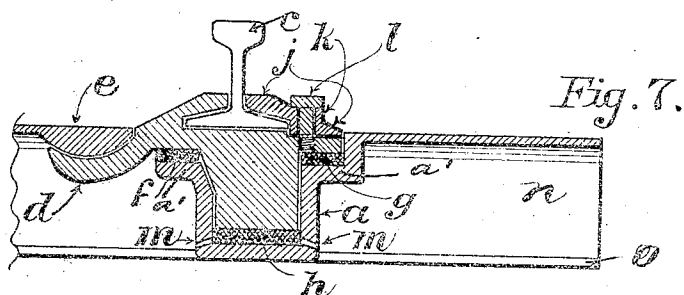
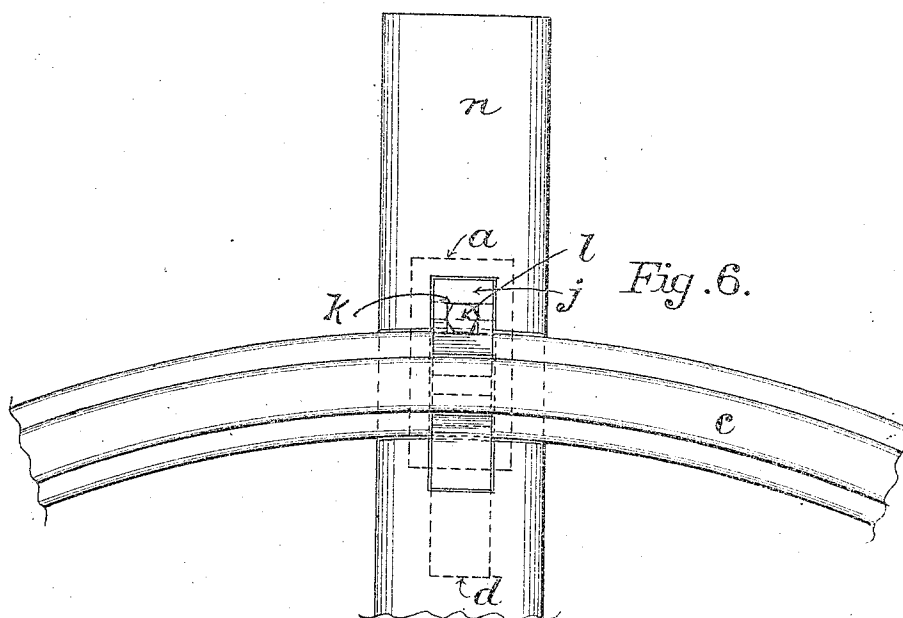
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2 SHEETS—SHEET 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

ARCHIBALD JOHN McCALLUM, OF EAGLE HARBOR, MICHIGAN.

RAILWAY-TIE.

No. 814,796.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed August 7, 1905. Serial No. 273,150.

To all whom it may concern:

Be it known that I, ARCHIBALD JOHN McCALLUM, a citizen of the United States, residing at Eagle Harbor, in the county of Keweenaw and State of Michigan, have invented new and useful Improvements in Railway-Ties, of which the following is a specification.

My invention relates to railway-ties, and has for its object to provide an improved metal tie, together with novel means for fastening the rails thereto.

In the accompanying drawings, Figure 1 is a plan view of the tie, but not showing the rails in position. Fig. 2 is a central longitudinal sectional view with the rails in position. Figs. 3, 4, and 5 are transverse sectional views on the lines A B, C D, and E F, respectively, of Figs. 1 and 2. Fig. 6 is a plan view showing a modification adapted for a curved rail. Fig. 7 is a central longitudinal sectional view of Fig. 6. Fig. 8 is a central sectional view showing a modification adapted for double rails, as at switches, &c.

Referring specifically to the drawings, the tie is indicated at *n*, being made of steel or other suitable metal. It is hollow, being substantially arch-shaped in cross-section and has at the bottom inwardly-extending horizontal flanges *O*. Near the ends of the tie and formed integral therewith are boxes *a*, which are open on top and receive the blocks *b* whereby the rails are fastened to the tie. The blocks serve as rail-chairs and are formed on top with a groove *b'*, in which the rail is seated, and also flanges *b''*, extending over the base-flanges of the rail. The block *b* is also formed with a lateral extension *d*, which is hook-shaped and projects through an opening *d'* in the top wall of the tie and engages a boss *e*, formed on the under side of the top wall of the tie. The object of this extension is to hold the block in position. The top of the box *a* is formed with outwardly-extending flanges *a'*, between which flanges and the block *b* are placed cushions *f* and *g*, made of rubber or other elastic material. A similar cushion *h* is also placed in the bottom of the box, on which cushion the bottom of the block rests. The cushions *f* and *g* are slightly

thinner than the cushion *h*, the idea being to have and retain the most elasticity at *h*. At the bottom of the boxes *a* are holes *m* for the purpose of draining away any water which may find its way thereto. The depth of the blocks is such that a space *i* is formed between the top of the tie and the bottom of the rails, so that the rails will not be in contact with any solid part and will receive the full cushioning effect of the blocks *f*, *g*, and *h*.

In the modified form shown in Figs. 6 and 7 the block *b* has on one side a removable piece *j*, extending over one of the base-flanges of the rail and having a shoulder *k*, receiving a bolt *l*, which is screwed into the block for securing the piece *j* thereto. This construction is intended for curved rails.

In the modification shown in Fig. 8 the groove *b'* is made sufficiently wide to receive two rails, as at switches, &c. Between the rails and fitting on the base-flanges thereof is a spacing-block *j'*, which is fastened to the block *b* by a bolt *l'*.

The construction herein described enables the rails to be readily and securely fastened, and the cushions effectively prevent jarring and jolting of the cars.

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a hollow railway-tie having boxes formed therein, of rail-chairs fitting in said boxes and having lateral extensions engaging under the top of the tie.

2. The combination with a hollow railway-tie having boxes formed therein, of rail-chairs fitting in said boxes and having hook-shaped extensions engaging under the top of the tie.

3. The combination with a hollow railway-tie having bosses formed on the inside thereof, of rail-chairs having hook-shaped extensions engaging said bosses.

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

ARCHIBALD JOHN McCALLUM.

Witnesses:

W. H. DAVISSON,
MARGARET ZIEHR.