

No. 792,211.

PATENTED JUNE 13, 1905.

E. HAUPT.
RAILROAD CROSS TIE AND CHAIR.
APPLICATION FILED FEB. 26, 1904.

A Fig. 1.

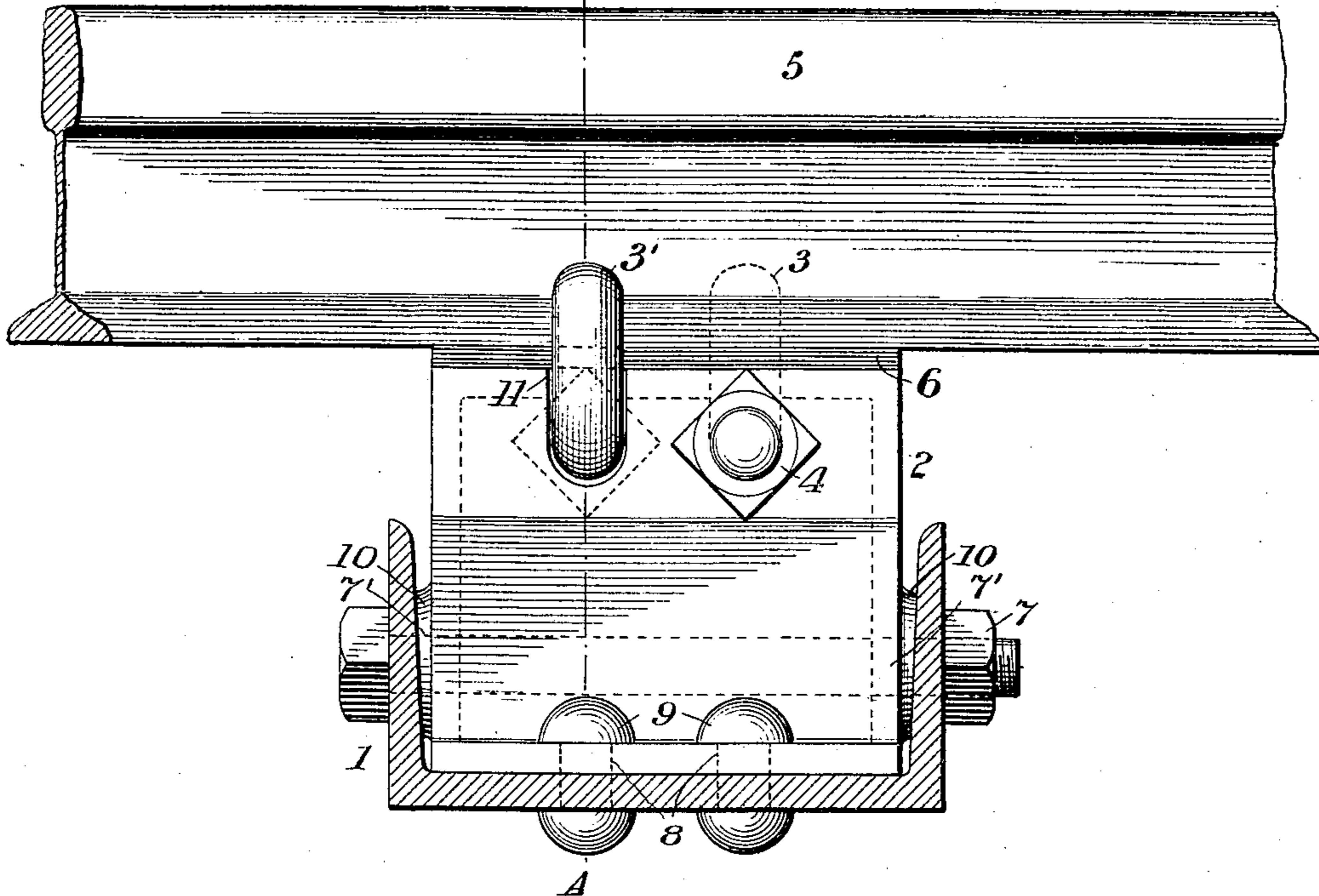
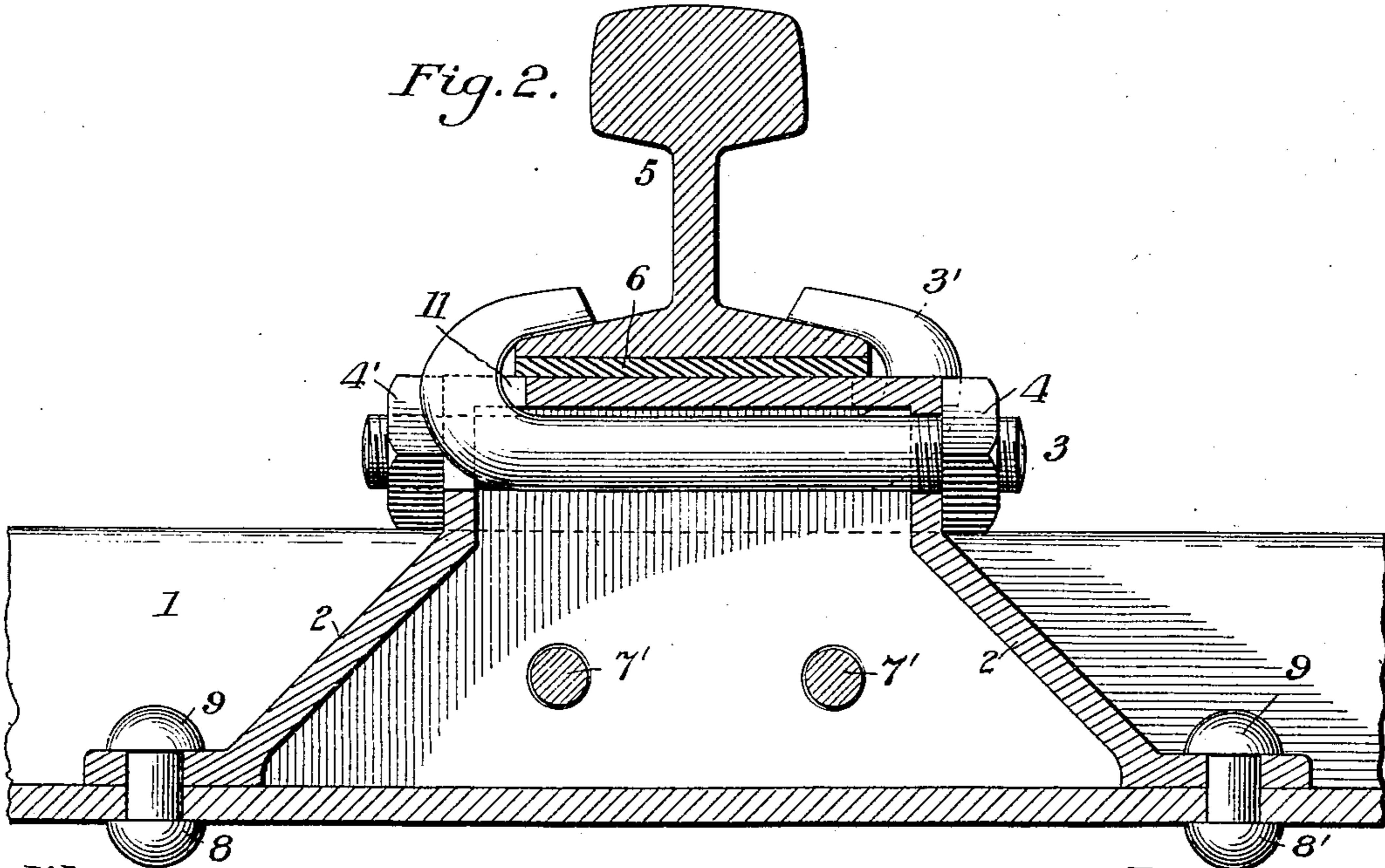


Fig. 2.



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UNITED STATES PATENT OFFICE.

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RAILROAD CROSS-TIE AND CHAIR.

SPECIFICATION forming part of Letters Patent No. 792,211, dated June 13, 1905.

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To all whom it may concern:

Be it known that I, EDWARD HAUPT, a citizen of the United States of America, residing at Evanston, in the county of Cook and State of Illinois, have invented new and useful Improvements in Railroad Cross-Ties and Chairs, of which the following is a specification.

My invention relates to railroad cross-ties and chairs in which a rail is supported upon a rectangular chair secured to a cross-tie, the rail being held by clamp-hooks adjusted and held by nuts to the chair and further provided with a sound-deadener; and the object of my invention is to provide a means for deadening sound on a railroad, securing a rail firmly to a cross-tie, and providing a means for alining a rail without disturbing the chair. I attain these objects by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a view of the rail *in situ* with a section of the cross-tie, showing the construction. Fig. 2 is a cross-section of the device along the line A A, Fig. 1.

Similar figures refer to like parts throughout both the views.

I make a cross-tie 1, of channel iron or steel, of the appropriate section, length, and weight. At convenient points I drill holes 8 for the reception of rivets 9 in the web of the cross-tie 1, or in the flanges of the cross-tie 1 I drill holes at the proper points for the reception of the bolt 7', provided with the nut 7.

I make a more or less rectangular metallic chair or box 2, which sustains the flange of the rail 5, resting upon a deadener 6. The metallic chair 2 is provided with a flange drilled with holes opposite to the holes 8 in the web of the cross-tie 1 to receive the rivet 9. In the sides of the chair 2 I drill holes for the reception of the bolt 7'. The summit of the chair 2 is made flat and is provided with notches 11, in which slide the ends of the clamps 3 3'. These notches 11 are made in the upper and side plates of the metallic chair 2—one in each side—and so arranged that the clamps 3 3' may move in them in a lateral direction to the metallic chair 2 and rail 5. In the side of the metallic chair 2 opposite the notches 11 I make a perforation through which

passes the end of the clamp 3 or 3', as the case may be, and this clamp 3 or 3' is provided with a nut 4 or 4'.

On the summit of the metallic chair 2 I place a sound-deadener 6. This may be of wood or other suitable material. I make a clamp 3 3', which is in the form of a hook, made of suitable material and provided with a thread and nut 4 4'. The form of this clamp 3 3' may be round or square in section, as desired. The hook end of the clamp 3 3' is made to conform to the flange of the rail 5 in such a way that the tightening of the nuts 4 and 4' when *in situ* will firmly grip the flange of the rail 5. The rail 5 is the ordinary steel rail of railroad.

Having now described the various parts of my invention, I proceed to describe the method of using the same.

To the cross-tie 1 I secure the metallic chair 2 by rivets 9 and the bolts 7 7', interposing the washer 10 to fill up the space between the flange of the cross-tie 1 and the side of the metallic chair 2. The metallic chair 2 being in place and firmly secured, as described, to the cross-tie 1, I place upon the flat summit of the metallic chair 2 a block of wood or other deadener for sound 6, and upon this deadener 6 I place the rail 5. I then introduce the clamps 3 and 3', one on either side of the rail, the hook projecting through the notch 11 and engaging the flange of the rail 5 on either side. The ends of the clamps 3 3' extend through the holes in the opposite sides of the metallic chair 2 and are secured by the nuts 4 4'. The hook end of the clamps 3 3' move in the notches 11 and allow of being drawn up and tightened against the flange of the rail 5, holding it more and more firmly by means of the wedge shape of the hook as the nut 4 or 4' is tightened.

I am aware that cross-ties and rail-chairs for railroads are not *per se* new and novel, and I do not lay a broad claim to railroad cross-ties and chairs; but

What I do claim, and desire to secure by Letters Patent of the United States of America, is—

1. In a metallic cross-tie and chair for railroads the combination of a cross-tie with a

rectangular chair secured thereto, the said chair being provided with adjustable clamps, with wedge-shaped hook ends and nuts for adjusting the same, a rail for railroad held by
5 the said clamps, all substantially as and for the purpose set forth.

2. In a metallic cross-tie and chair for railroads the combination of a rail resting upon a sound-deadener, and held in the grasp of opposite lateral clamps adjusted and held by
10 nuts, and operating in notches in the upper

surface of the chair, a rectangular chair resting upon and secured to a metallic cross-tie with the means for securing the same together all substantially as and for the purpose set
15 forth and described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD HAUPT.

Witnesses:

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