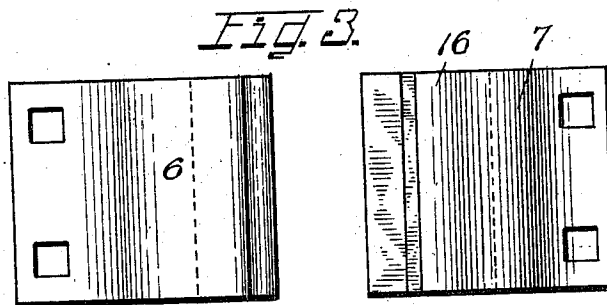
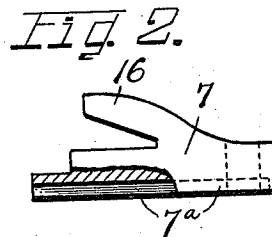
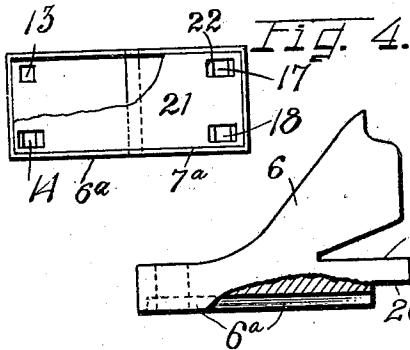
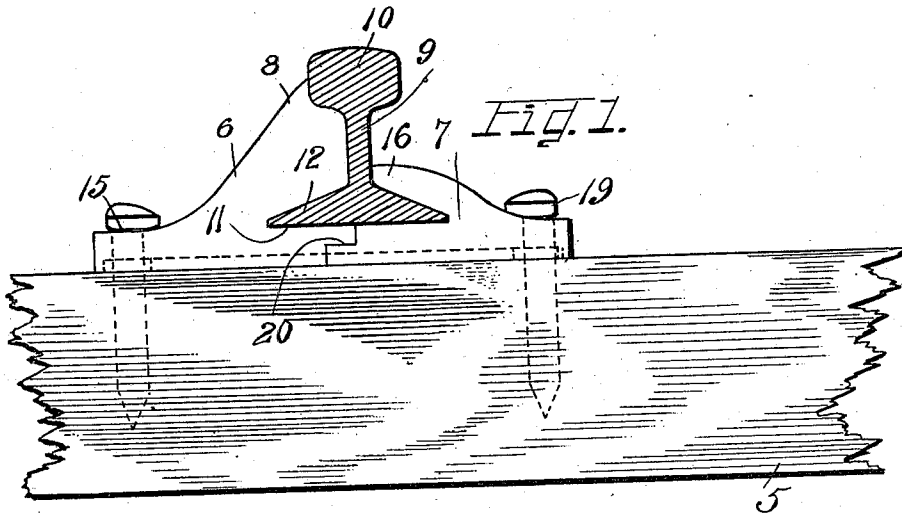


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RAIL SUPPORT ON TIES.
APPLICATION FILED OCT. 24, 1910.

Patented June 27, 1911.

996,470.



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RAIL-SUPPORT ON TIES.

996,470.

Specification of Letters Patent. Patented June 27, 1911.

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To all whom it may concern:

Be it known that I, THOMAS DONAHUE, a citizen of the United States of America, and resident of Rhinelander, in the county of Oneida and State of Wisconsin, have invented certain new and useful Improvements in Rail-Supports on Ties, of which the following is a specification.

This invention relates to railway tracks and particularly to a rail support of the type known as chairs.

An object of this invention is to provide novel means for supporting rails, at their joints and the said support, especially at curves in the track and where lateral strain is greatest, the said invention having for its object particularly to provide a rail chair which is applicable for use in connection with rails having bases of different widths.

In other words, the object of the invention is to provide a chair formed in sections which are capable of movement transversely of the rail for supporting the said rail and at the same time providing a bearing surface for the rail, of such an area, as to substantially support the same.

A still further object of this invention is to provide a rail support having means for holding the rail against lateral strain, the same being a great advantage when used on curves or at other places where sidewise pressure is to be resisted, and furthermore, the invention has been found to possess advantages in protecting the cross ties, especially those cross ties which are composed of compositions, such as are now being developed with a view of diminishing the use of wooden cross ties.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings, forming a part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a fragment of a cross tie with the rail fastening device in elevation applied thereto with the rail in section; Fig. 2 illustrates the rail support, the sections of which are detached; Fig. 3 is a top plan view of the sections shown in Fig. 2;

and Fig. 4 is an underneath plan view of the members in assembled relation on a reduced scale.

In these drawings, 5 denotes a cross tie, and 6 and 7 the members of the rail support, the former being applied to the outside of the rail and having a portion 8 which extends into engagement with the web 9 of the rail and also into engagement with the under surface and side of the head 10 of the rail, the said member 6 being provided with a recess 11 to accommodate the base flange 12 of the rail. The member 6 is also provided with apertures 13 and 14 designed to receive spikes 15 or like fastening members which project through the member 6 and are embedded in the cross tie.

The member 7 is of somewhat similar construction as the member 6, except that the portion 16 corresponding somewhat with the portion 8 of the member 6, does not extend upwardly to engage the head of the rail, for such extension of the member 6 would interfere with a flange of a car wheel. The member 16 is thereby caused to overlie the base flange of the rail and to engage the web near its junction with the said base flange. The member 7 is also provided with apertures 17 and 18 similar to the apertures in the member 6, and they are provided for the purpose of receiving the spike 19, as shown in Fig. 1.

The members 6 and 7 have an overlapping joint 20 under the rail, (the supporting surfaces of the said members being on the same plane) so that after the spikes 15 and 19 have been removed from the sections the said sections may be moved laterally of the rail for any purpose. By reason of the joint between the sections, they may be separated slightly for the purpose of accommodating rails having wider bases than the one illustrated in the drawing, and notwithstanding there is to be a separation of the sections 6 and 7, there is presented a supporting surface on each member 6 and 7, on which the rail may rest.

By reason of the construction and arrangement of parts of the rail support, spreading or rocking of the rails will be prevented; the cross ties will be protected, and due to the fact that the strain on the spikes is relieved, they are not apt to work loose and impair the cross tie; furthermore, the cross tie is protected against wear of the

5 rail which would result if the rail were in contact with it. Therefore, this invention presents a combined rail support, rail fastener, and tie protector incorporated in an inexpensive device.

10 The members 6 and 7 have flanges 6^a and 7^a respectively on their bases, which flanges embrace a shim 21 composed of compressed paper made to form two distinct members, said members having elongated apertures
15 near the corners as shown at 22, said apertures being of greater area than the apertures 13, 14, 17 and 18 of the members 6 and 7, and the reason for having the apertures elongated is to permit the members 6 and 7 to move apart for the purpose of accommodating base flanges of different widths. Where shims are employed in connection with the rail supporting members,
20 the vibration of the members is absorbed to such an extent as to reduce the wear on the cross tie to which the members are attached and as it is the purpose of the inventor to have the shims formed of compositions in

which sawdust or other shock absorbent is employed, it follows that the device will be very efficient when used in connection with composition ties.

I claim—

30 In a resilient rail joint, a chair comprising two overlapping sections having flanged bases, said bases having a plurality of apertures, a pad embraced by said flanged bases, said pad having a plurality of elongated openings adapted to partly register with the first named openings, and means for securing the chair sections to a railway tie, the said fastening means passing through the openings in the chair sections and the pad into the tie.
40

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

his
THOMAS X DONAHUE.
mark

Witnesses:

R. J. MORTER,
N. H. WHITE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
