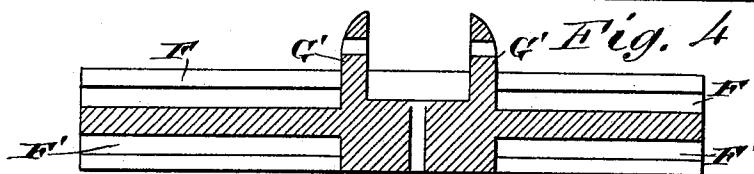
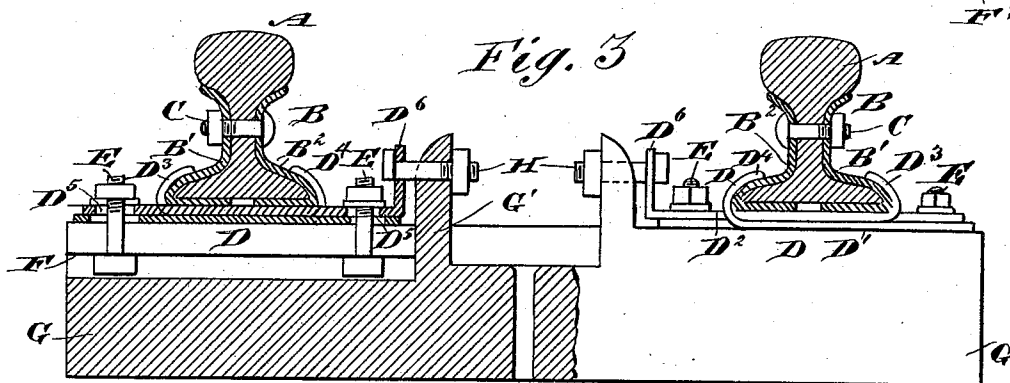
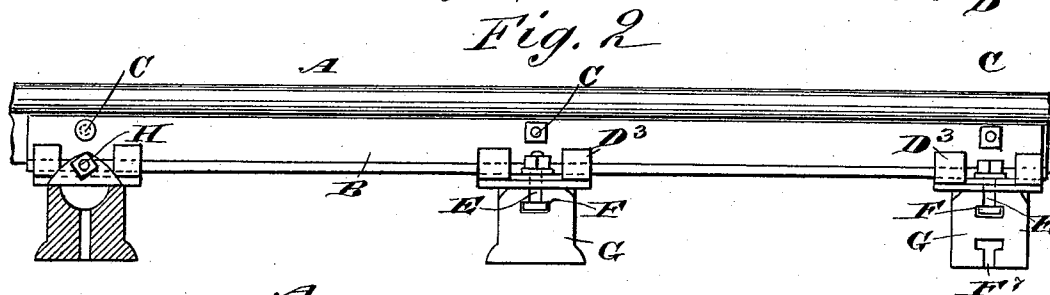
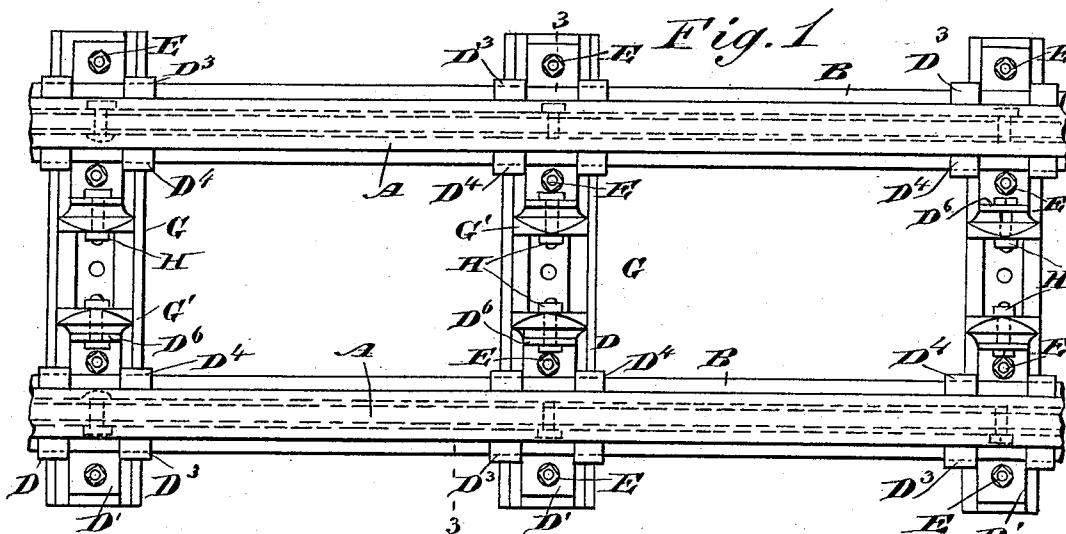


J. MURNANE.
RAILROAD TRACK.

Patented June 6, 1893.



WITNESSES :

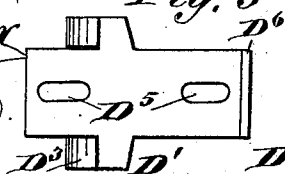
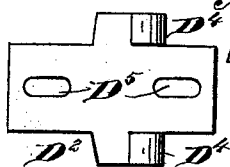


Fig 6 INVENTOR



ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN MURNANE, OF COOPERSVILLE, NEW YORK.

RAILROAD-TRACK.

SPECIFICATION forming part of Letters Patent No. 499,139, dated June 6, 1893.

Application filed May 27, 1892. Serial No. 434,598. (No model.)

To all whom it may concern:

Be it known that I, JOHN MURNANE, of Coopersville, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Railroad-Tracks, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in railroad tracks, whereby accidents caused by broken rails are prevented and the rails are securely held in place so as to prevent their spreading.

The invention consists of certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement as applied. Fig. 2 is a side elevation of the same with part in section. Fig. 3 is an enlarged transverse section of the same on the line 3—3 of Fig. 1. Fig. 4 is a longitudinal section of one of the ties; and Figs. 5 and 6 are plan views of the chair.

The rails A, are each provided with a casing B, made in two sections B' and B², formed in such a manner that each covers one-half of the base of the rail A, the web, and the under side of the head of the rail, as will be readily understood by reference to Fig. 3. In order to hold the two sections B' and B² in place on the rail, bolts C are provided, passing through the two sections at the web of the rail A, so that the latter is incased in its lower part in the casing B and consequently if a break should occur in the rail, the casing holds the broken rail in place for the safe passage of a train. A rail made in this manner can be spiked to the ordinary wooden tie now in use. Preferably, however, it is placed on a chair D, also made in sections D' and D², formed with curved flanges D³, D⁴, adapted to engage the casing sections B' and B² respectively, near their base ends, as will be readily understood by reference to Fig. 3. The sections D' and D² extend in opposite directions and rest one on top of the other,

the lowermost one being placed on top of the tie, and are secured thereto by means of bolts E, passing through elongated apertures D⁵, in the two sections and engaging with its head a groove F, formed longitudinally in each of the ties G.

On the innermost end of the top section D' of the chair D is formed an upwardly-extending flange D⁶, engaged by a bolt H, held in a projection G', formed on top of the tie G. By bolting the chair sections D' and D² to the tie G by the bolts E, as above described, longitudinal movement of the said chair is prevented, and by bolting one of the sections to the projection G' by the bolt H, transverse movement of the chair is prevented, and consequently spreading of the rail carried by the chair is impossible.

In case the tie G is to be bolted to longitudinal girders such as are used on bridges, elevated railroads, and the like, I form the under side of each tie with a groove F', similar to the groove F containing the bolts E. In this groove F' are inserted the bolts for engaging the girder, so as to fasten the tie in place on the same.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a tie provided with an upwardly extending projection, of a chair formed in sections resting one upon the other one of the sections being provided with an upwardly projecting flange, and bolts for securing the sections to the body of the tie and the flange of the section to the projection of the tie, substantially as described.

2. The combination with a tie provided with an upwardly extending projection, of a chair formed of two slotted sections resting one upon the other, one of the sections being provided with an upwardly projecting flange, bolts passing through the slots of the sections and securing them to the tie, and a bolt for securing the flange of the rail section to the projection of the tie, substantially as described.

3. In a device of the class described, the combination with a tie formed with longitudinal grooves, and lugs extending from the top of the tie, of a chair made in sections and at-

tached by bolts to the said tie, the bolts engaging the longitudinal grooves, and a second bolt connecting one of the said lugs with an up-turned flange on one of the chair sections, 5 substantially as shown and described.

4. The combination with a tie provided with an upwardly extending projection, and a sectional casing adapted to inclose the base and web of a rail, of a chair formed in sections 10 resting one upon the other and each provided with lips for engaging the casing sections, one of the sections being provided with an upwardly projecting flange, bolts for securing the sections of the chairs together and to the

body of the tie and a bolt for securing the 15 flange of the chair section to the projection of the tie, substantially as herein shown and described.

5. A railroad chair consisting of two sections adapted to rest one upon the other, each 20 section being provided with curved flanges and elongated openings, one section being provided with an upwardly projecting flange, substantially as described.

JOHN MURNANE.

Witnesses:

E. H. CLEVELAND,
PETER SAYAN.