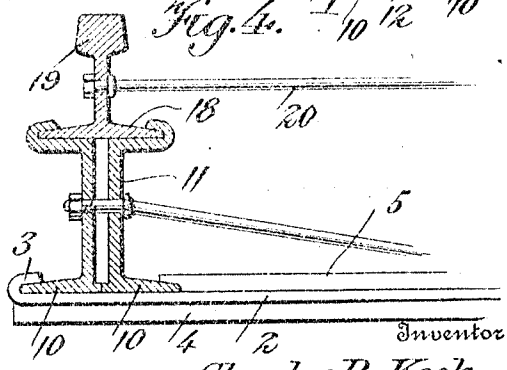
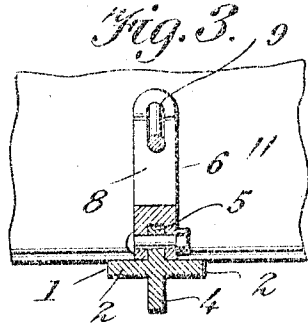
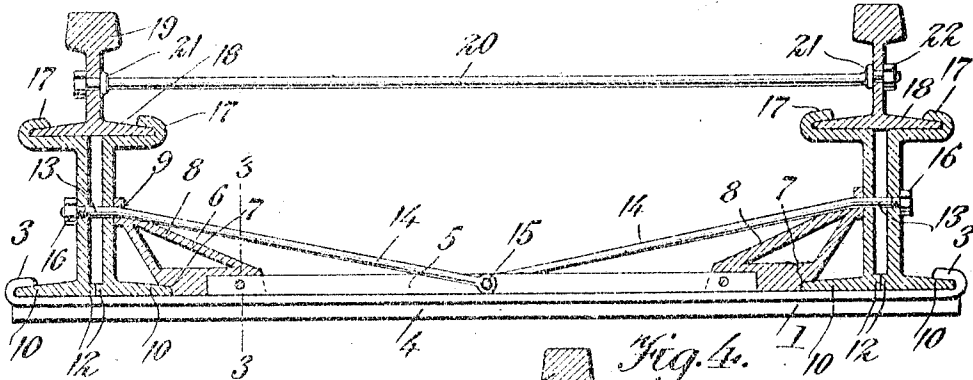
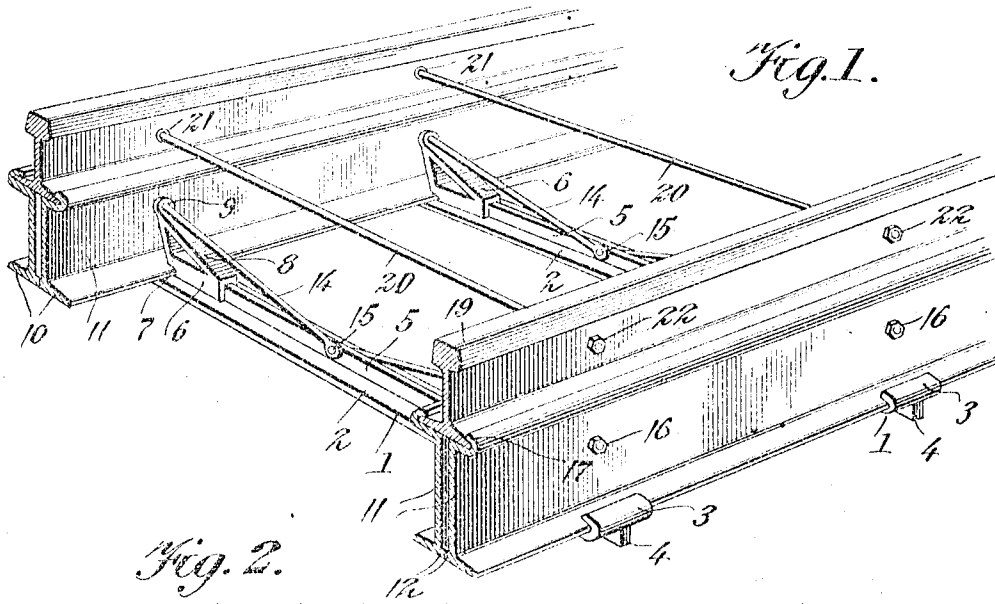


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 TRACK CONSTRUCTION.  
 APPLICATION FILED JUNE 2, 1912.

1,055,401.

Patented Mar. 11, 1913.



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# UNITED STATES PATENT OFFICE.

CHARLES R. KROCK, OF SPRINGFIELD, ILLINOIS.

## TRACK CONSTRUCTION.

1,055,401.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed June 3, 1912. Serial No. 701,139.

*To all whom it may concern:*

Be it known that I, CHARLES R. KROCK, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented new and useful Improvements in Track Construction, of which the following is a specification.

This invention relates to track construction and one of the principal objects of the invention is to provide a simple and efficient means for mounting the rails which will produce a more durable structure and one in which the lateral strains thereon will be properly absorbed.

A further object of the invention is to provide a durable and cheaply constructed rail mounting mechanism which will take the place of the present universally used wooden tie and which will effectually prevent lateral movement of the rails, thereby maintaining them engaged at all times.

A still further object of the invention is to so construct the rail mounting devices and brace the same that the bracing element will tend to clamp the rails on the stringers without the use of auxiliary clips or other commonly used fastening devices.

Further objects of this invention will appear as the following specific description is read in connection with the accompanying drawing, which forms a part of this application, and to which:—

Figure 1 is a perspective view. Fig. 2 is a transverse sectional view. Fig. 3 is a detail section on the line 3--3 of Fig. 2. Fig. 4 is a detail sectional view showing the modified form.

Referring more particularly to the drawing, 1 represents the tie or ties which consist of cruciformed bars, the horizontal webs or wings 2 of which extend to the end of the tie and are turned up in the form of hooks 3 for a purpose to be hereinafter described. The lower wing or web of the cruciformed bar is illustrated at 4 and extends the full length of the tie after the hooks 3 are formed, while the upper web 5 is cut away and has secured thereon at opposite ends a combined brace and clip 6 which is undercut on its outer face, as shown at 7. The upper portion of the body of the clip has the connecting braces 8 formed integral therewith, said braces at their connection being provided with an eye 9.

Mounted upon the ends of the tie and

having their base flanges 10 received beneath the hooks 3 and the clips 6 are stringer members 11, whose lower ends are held in separated relation by means of the lugs or ribs 12. These stringer members are apertured adjacent their heads so as to receive the angular end 13 of the brace bars 14 which are bolted to a central point on the upper web 5, as shown at 15. The angular ends of the brace bars are passed through the eyes 9 and through the apertures in the stringer members and have nuts 16 on their outer ends which not only tend to draw the stringer members on opposite sides of the track toward each other but which coact with the braces 8 and draw the separate parts of each stringer together, these parts fulcruming on the ribs or lugs 12. These stringer members have oppositely extending substantially J-shaped heads 17 which are drawn together by the nuts 16 on to the base flanges 18 of the rails 19 and thus hold the rails in position upon the stringers without attaching devices. The rails are preferably held to gage by means of a spreader rod 20 which is provided with the usual limiting collar 21 and clamping nut 22.

In the modification shown in Fig. 4, the upper web 5 of the cruciformed tie bar is extended beyond the point where it is cut away, as in Fig. 1, and is under cut so as to receive the base flange 10 of the inner stringer member. In this type, the brace and clip may be used or dispensed with, as is found most desirable. With this type of structure, it will be readily understood with the use of the stringer, as shown, the ties may be separated a much greater distance than is now practised except on curves.

What is claimed is:—

1. In a railway tie construction, the combination with cross ties, longitudinal rail supporting devices carried thereby, rails mounted upon said supporting devices, means to clamp the supporting devices upon the rails and to brace said supporting devices to the ties, and gage rods connecting the rails.

2. In a railway track construction, the combination with cross ties, of longitudinal stringer members carried by the ties and each comprising separate parallel parts, rails mounted upon said parts and adapted to clamp between the same, and braces secured to the ties and abutting the inner

member of said stringers, and braces secured to the tie and passing through said stringers, together with a nut on the outer end of said last-named braces for drawing  
5 the outer stringer member toward the inner stringer member, whereby the rails will be clamped between the same.

3. In a railway track construction, the combination with cross ties, longitudinal  
10 rail supporting members carried thereby, said supporting members having base flanges, means formed on the ties for engaging one of the base flanges of said longitudinal supporting members, rails there-  
15 on, combined clips and braces secured to the ties and adapted to engage the other base flange of said longitudinal supporting members and to brace said supporting members, bracing rods connecting the stringer  
20 members and ties, said bracing rods acting in conjunction with the combined braces and clips to hold the rails upon the support-

ing members, and gage rods connecting the rails.

4. A railway tie comprising a cruciformed 25 bar having one of the webs on opposite sides thereof cut away intermediate the length of the bar, one for a greater distance than the other, the opposite or right angular webs being turned up at the ends 30 to provide base flange engaging hooks.

5. A railway tie comprising a cruciformed bar having flanges or webs on opposite sides thereof, turned up at the ends to form rail engaging hooks, the lower flange or web 35 being extended for the full length of the tie and the upper flange or web being cut away so as to form a base flange seat.

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

CHARLES R. KECK.

Witnesses:

E. EDMONSTON, Jr.,  
M. FROTHINGHAM.