

No. 863,587.

PATENTED AUG. 20, 1907.

J. W. CARRAWAY.  
RAIL SUPPORTING DEVICE.  
APPLICATION FILED APR. 13, 1907.

Fig. 1.

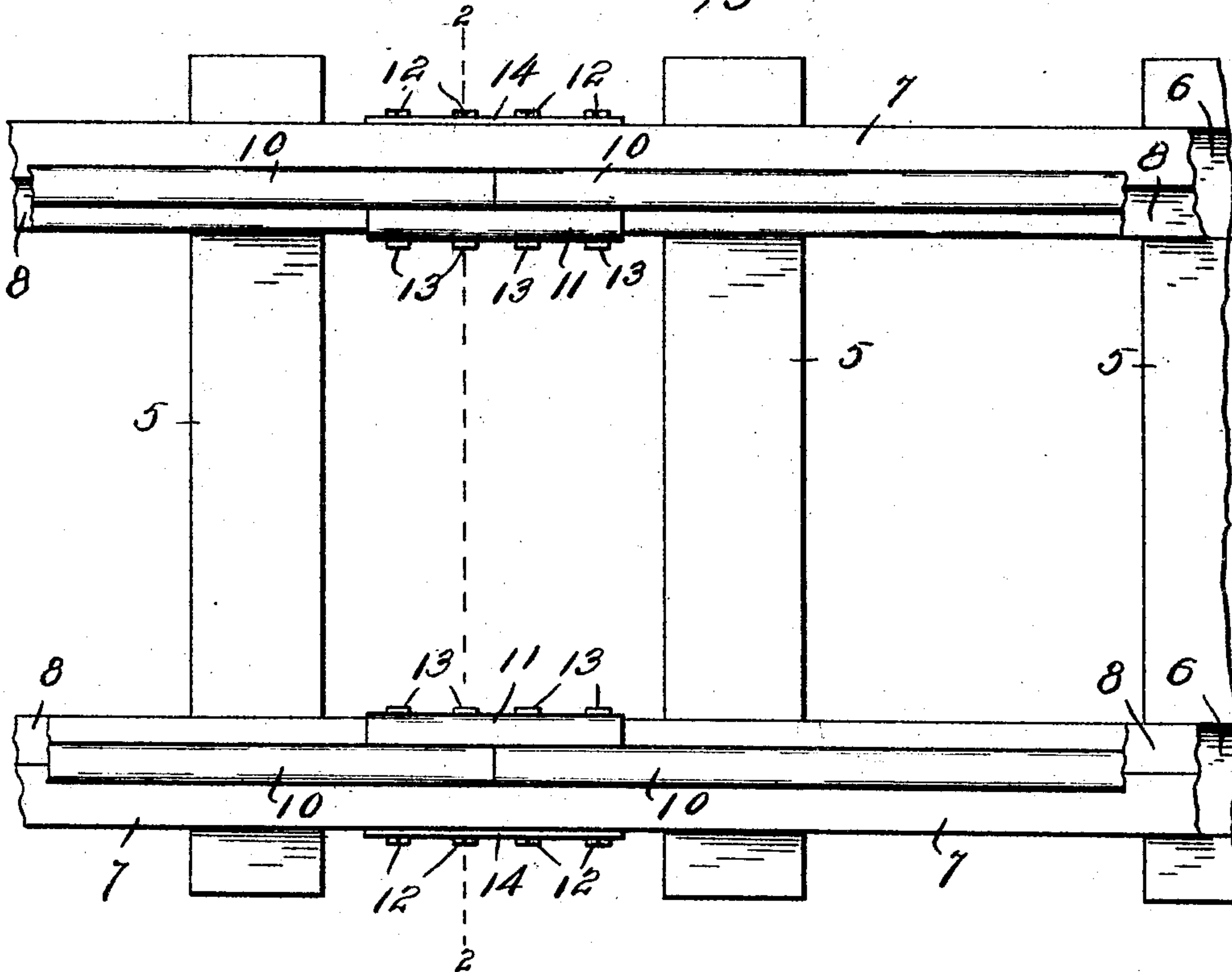


Fig. 2.

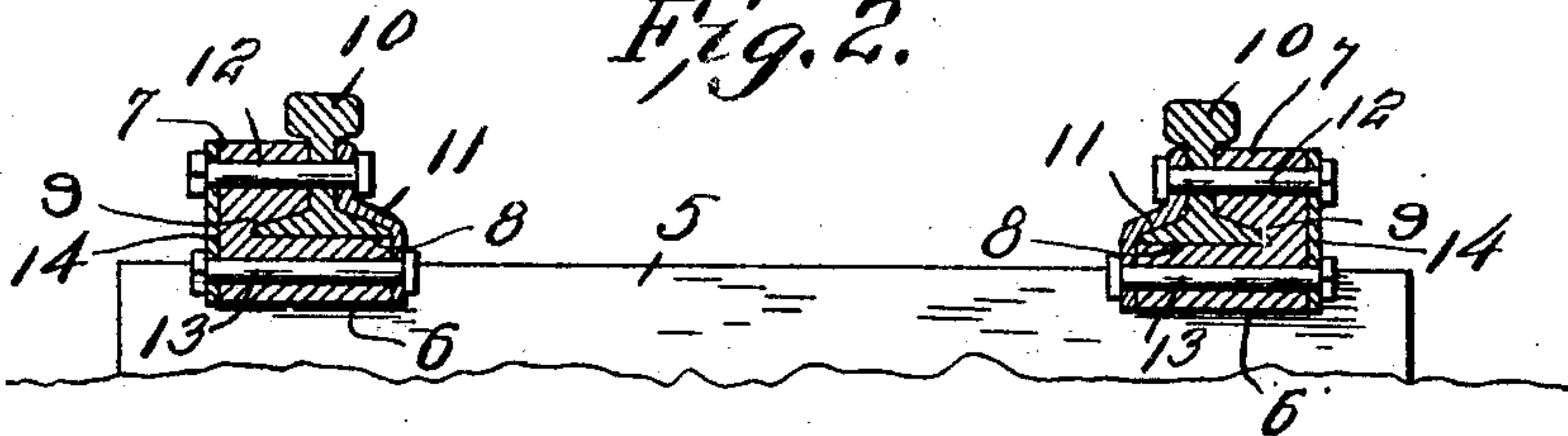
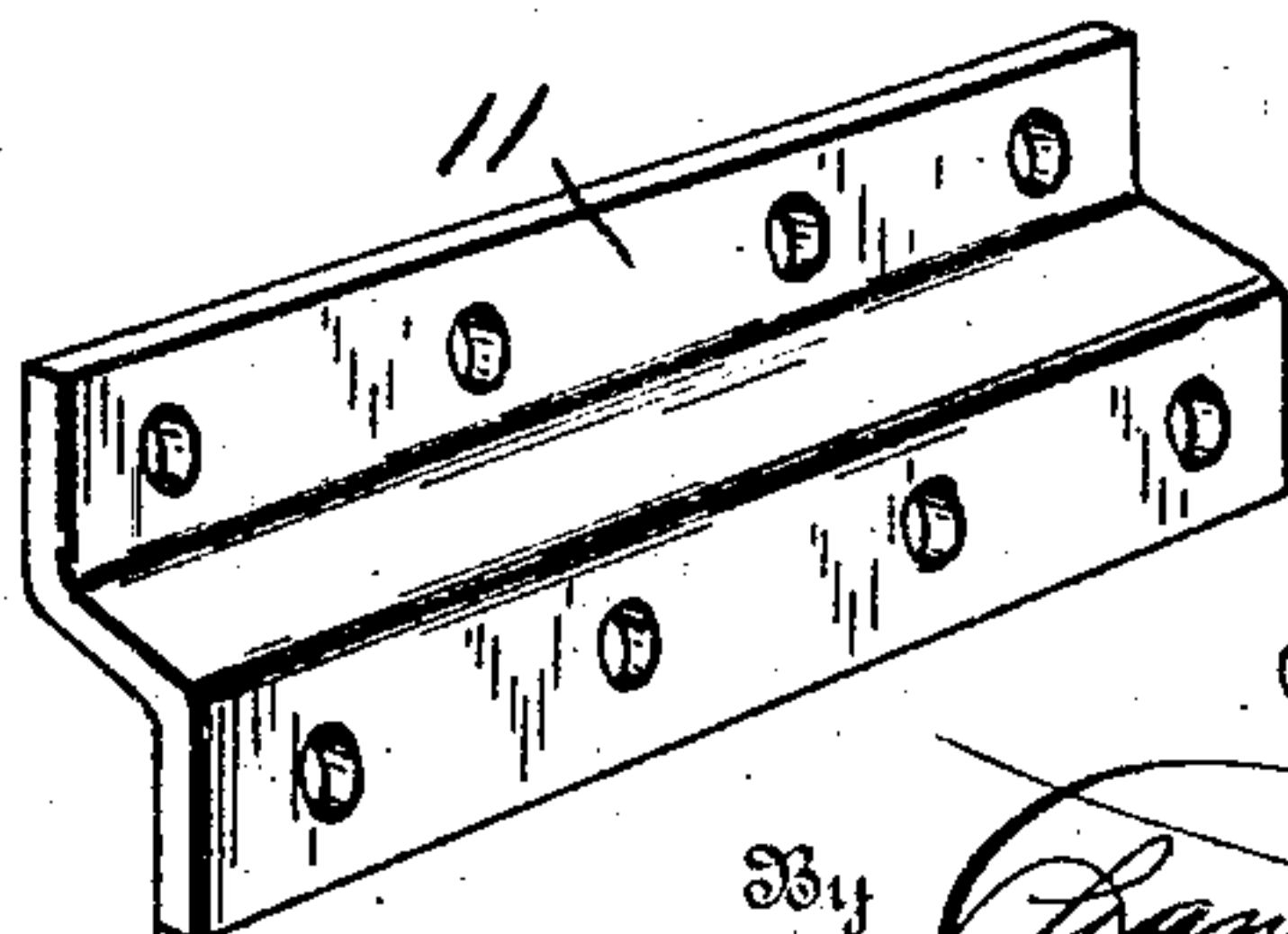


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN W. CARRAWAY, OF ST. JAMES CITY, FLORIDA.

## RAIL-SUPPORTING DEVICE.

No. 863,587.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed April 13, 1907. Serial No. 388,048.

To all whom it may concern:

Be it known that I, JOHN W. CARRAWAY, a citizen of the United States, residing at St. James City, in the county of Lee, State of Florida, have invented certain new and useful Improvements in Rail-Supporting Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 The present invention relates to improvements in supporting devices for railroad rails, and it aims to provide devices of the class above referred to, which shall perfectly support the rails and which, when the rails are in place, will positively prevent them from spreading, or in any other way changing their original position.

With the above and other ends in view, the invention resides in forming an L-shaped groove or seat in the upper inner corners of the stringers mounted upon the cross-ties, the rails themselves being disposed in the seats so formed, and held in place therein by fish-plates, the attaching bolts for the latter passing completely through the web portion of the rails and through the stringers.

25 The invention will be readily understood from a consideration of the following detailed description, and its preferred embodiment is illustrated in the accompanying drawings, in which like parts are designated by corresponding reference numerals in the several views.

30 Of the said drawings, Figure 1 is a top plan view of a portion of a railroad constructed in accordance with the present invention. Fig. 2 is a transverse vertical section on the line 2—2 thereof. Fig. 3 is a perspective view of one of the fish-plates.

35 Referring more particularly to the drawings, the numeral 5 indicates, generally, a series of cross-ties, which are set into the road-bed in the usual manner, and are mortised at opposite ends, as shown, the mortised portions being indicated by the numeral 6.

40 Disposed within the mortised portions of the cross-ties are the parallel stringers 7, the upper inner corner of each of which is cut-away to provide an L-shaped seat 8, which extends from end to end of the stringer. The lower face of each seat lies in a horizontal plane, and each stringer is further provided with a horizontal groove 9, which likewise extends from end to end thereof and forms a continuation or inward extension of the seat. The seats and grooves above referred to form supports for the rails 10, the bases of which rest upon the seats with one flange extending into the corresponding groove. The meeting ends of each pair of adjacent rails are connected by a fish-plate 11, whose upper and

lower portions lie in different vertical planes, the former fitting against the web portion of the rails, and the latter against the side face of the stringer. In attaching the fish-plates, the upper bolts 12 pass through registering openings formed in the rail webs and upper portion of the stringers, while the lower bolts 13, in like manner, fit in openings formed through the stringers. The opposite ends of each set of bolts extend beyond the outer side face of the corresponding stringer, and are engaged at such point with a heavy plate 14.

Owing to the disposition of the rails within the stringer seats and to the provision of the fish-plates, it will be apparent that any lateral movement of the rails is positively prevented, and that any crawling of the rails is likewise impossible, by reason of the extension of the fish-plate bolts completely through the stringers. The stringers are treated, subsequent to the formation of the seats and grooves, with a preservative composition consisting of creosote and coaloil, applied thereto in any desired manner. The cross-ties may likewise be protected by a casing of galvanized iron.

It will be apparent from the foregoing that the rails, when in place upon the stringers, can have no endwise or lateral movement, and that displacement of the stringers is likewise prevented by reason of their disposition in the mortised portions of the cross-ties.

What is claimed, is—

1. The combination, with a series of cross-ties mortised at opposite ends, of parallel stringers fitted in the mortised portions of said cross-ties, each stringer having a longitudinal L-shaped seat formed in its upper inner corner and extending from end to end thereof; rails supported in each of said seats; and a bent fish-plate secured to the meeting ends of each pair of adjacent rails, the lower portion of each fish-plate fitting against the inner face of the corresponding stringer and the upper portion thereof fitting against the web portion of the rails.

2. The combination, with a series of cross-ties mortised at opposite ends, of parallel stringers fitted in the mortised portions of said cross-ties, each stringer having a longitudinal L-shaped seat formed in its upper inner corner, the lower face of said seat lying in a horizontal plane, and a horizontal groove forming an inward extension of said seat, the seat and groove of each stringer extending from end to end thereof; rails supported in each of said seats, the inner flanges of said rails extending into said grooves; and a bent fish-plate secured to the meeting ends of each pair of adjacent rails, the lower portion of each fish-plate fitting against the inner face of the corresponding stringer and the upper portion thereof fitting against the web portion of the rails.

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

JOHN W. CARRAWAY.

Witnesses:

WM. P. PEARDE,  
A. J. CARRAWAY.