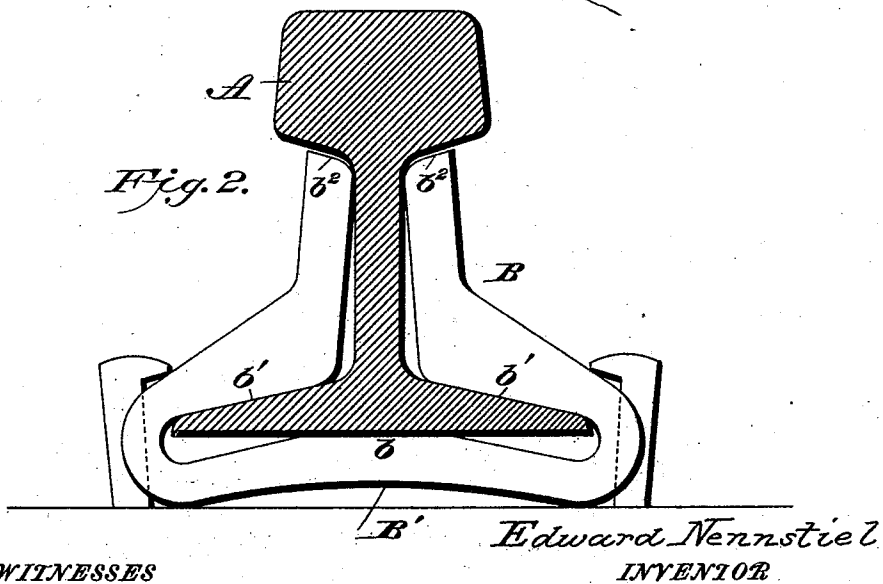
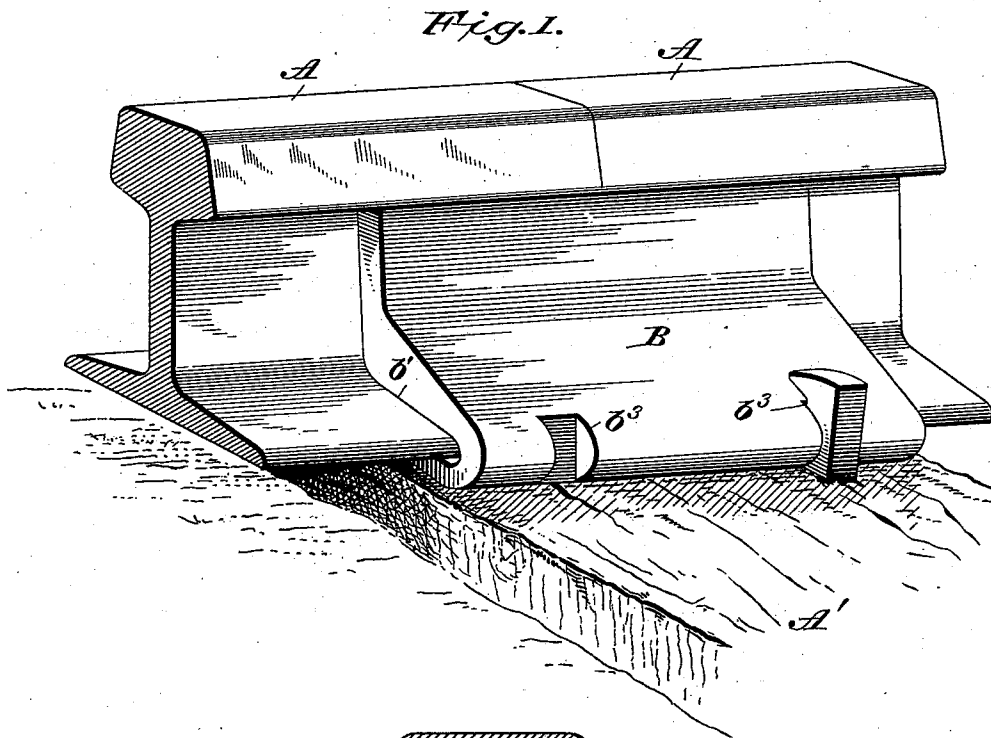


(No Model.)

E. NENNSTIEL.  
RAILWAY CHAIR.

No. 527,712.

Patented Oct. 16, 1894.



WITNESSES  
*G. S. Elliott,*  
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by *[Signature]* Attorney

# UNITED STATES PATENT OFFICE.

EDWARD NENNSTIEL, OF JOHNSTOWN, PENNSYLVANIA.

## RAILWAY-CHAIR.

SPECIFICATION forming part of Letters Patent No. 527,712, dated October 16, 1894.

Application filed July 19, 1894. Serial No. 518,029. (No model.)

### *To all whom it may concern:*

Be it known that I, EDWARD NENNSTIEL, a citizen of the United States of America, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Chairs; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

15 The object of this invention is to provide a cheap and efficient joint or splice for railway rails which will automatically clamp the ends of the rails and hold them in connection with each other by the weight of the rails exerted thereon, which holding is rendered more positive when the additional weight of the rolling stock is upon the rails, the joint being so constructed as to be positive and effective without the use of connecting bolts  
25 and nuts.

With the above end in view the invention consists in a railway chair or splice which is made up of a single piece of rectangular metal the base of which is curved so that the parts which rest upon the tie will be beneath the base flanges of the rails and adjacent to the points of connection of the chair with the tie, the parts of the chair above the flanges of the rails having a preponderance of material thereat so that the resiliency of that part of the chair will be reduced to a minimum to effect a positive clamping of the chair upon the ends of the rails, as will be hereinafter fully set forth and claimed.

40 In the accompanying drawings, Figure 1 is a perspective view showing the application of my invention, and Fig. 2 is an end view, the rail being shown in section.

A A designate the rails which are of the ordinary type, the ends abutting above the tie A'.

50 The chair or splice B is made of a single piece of resilient metal either cast or rolled, and is of such shape that the ends of the rails may be slipped into the same, and when this is done the chair and rails will be in con-

tact with each other at five points; viz: The center of the base flanges of the rails will bear upon the central part of the inner central portion *b* of the base of the chair. The upper sides of the base flanges will contact with the part *b'* of the chair adjacent to said flanges, and the side pieces of the chair will bear against the web of the rail in close proximity to the under side of the tread of the rail.

It will be noted that the base B' of the chair is curved so that only the end portions normally rest upon the tie, and that the base increases in thickness from its sides toward its center where it is flattened to provide a bearing *b* upon which rests the bottom flanges of the rails; also that the thinnest and most resilient part of the chair is near the ends of the base flanges of the rails so that when weight sufficient to bend the part B' of the chair comes upon the central part *b* the side pieces of the chair will be moved toward and against the web of the rail so that the upper ends *b'* of the chair will bear against the under side of the tread portion so as to firmly clamp the two ends of the rails and hold them positively on a line with each other. It will also be noted that that portion of the chair above the base flanges of the rails increases in thickness from points above the ends of the base flanges toward the web of the rail, so that this part of the chair is practically rigid, though in use it will move over the upper face of the base flange of the rail toward the web when the weight of the rolling stock comes upon the rails.

The chair is secured to the tie by the usual spikes which engage with recesses *b<sup>3</sup> b<sup>3</sup>* in the outer edges of the base of said chair.

A railway chair constructed as hereinbefore described will hold the ends of the rails in proper alignment, allow for expansion and contraction, afford a positive connection when the rolling stock is passing over the rails, and give to the rails the desired degree of resiliency which will prevent battering and the breaking down of the ends of the rails as well as affording a cheap and efficient joint, bolts, nuts and fish-plates being entirely dispensed with.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

5 A railway chair made of a single piece of resilient metal, which is adapted to engage with the ends of the rails as shown, said chair having a preponderance of metal above the flanges of the rails and a curved base, the side portions which adjoin the base being thinner and of greater resiliency than the

other parts of the chair, for the purpose set forth.

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

EDWARD NENNSTIEL.

Witnesses:

W. G. FLANAGAN,  
C. S. MCKEE.