

Roebling & McMurtry.

Railroad Chair.

N^o 50,776.

Patented Oct. 31, 1865.

Fig. 1.

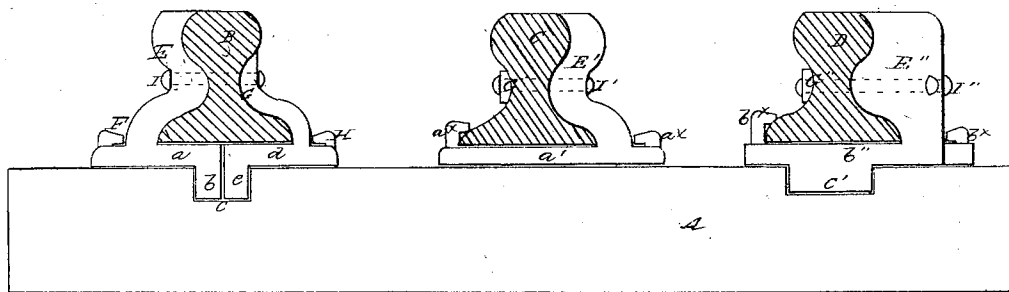


Fig. 2.

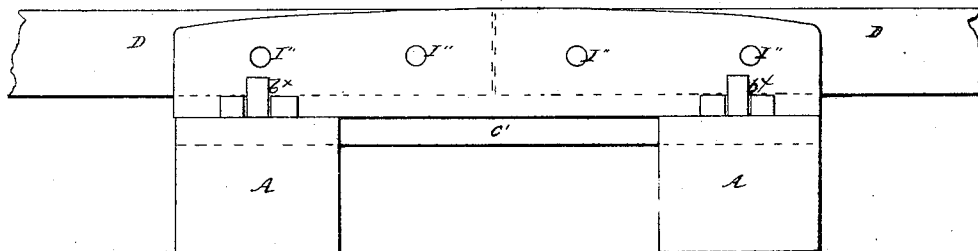
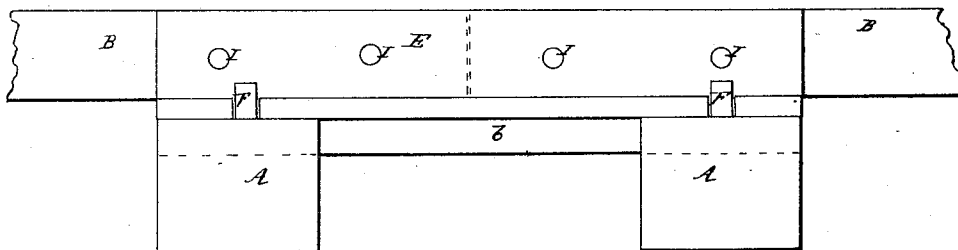


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. ROEBLING, OF TRENTON, NEW JERSEY, AND JOHN McMURTRY, OF LEXINGTON, KENTUCKY, ASSIGNORS TO JOHN McMURTRY, OF LEXINGTON, KENTUCKY.

IMPROVED RAILROAD-CHAIR.

Specification forming part of Letters Patent No. 50,776, dated October 31, 1865.

To all whom it may concern:

Be it known that we, JOHN A. ROEBLING, of Trenton, in the county of Mercer and State of New Jersey, and JOHN McMURTRY, of Lexington, in the county of Fayette and State of Kentucky, have invented a new and Improved Railroad-Chair; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a transverse vertical section of our invention, three different modifications being shown. Figs. 2 and 3 are side views of two of the modifications shown in Fig. 1.

Similar letters of reference indicate like parts.

The object of this invention is to obtain a chair for connecting the ends of railroad-rails in such a manner that they will be held firmly in position and be protected from the action of the car-wheels and prevented from being hammered down and flattened as the wheels pass over them, a contingency due to the working of the ends of the rails vertically under the weight of the cars, and which is attended with a great deal of expense in the way of repairing rails.

A A represent two sleepers or cross-ties of a railroad, and B B C C D D the ends of adjoining rails.

E (shown in Figs. 1 and 3) is a cast-iron block, which rests on the two sleepers or ties A A, and is secured thereto by spikes F F. This block E is cast with a base, *a*, extending its whole length, and having a vertical or pendent flange, *b*, at its outer edge to fit into recesses *c c* in the sleepers or ties, as shown clearly in Fig. 1.

The body or main portion of the block E is cast of curved form corresponding to the curvature of the sides of the rails, so that the former may be adjusted snugly to the sides of the latter, and the upper surface of the block E is about on a level of the upper surfaces of the rails B B, which near their ends rest one-half of their width upon the base *a* of the block E.

G represents a wrought-iron plate, which is rolled so as to be of curved form in its transverse section corresponding to the sides of the

rails, against which it is snugly fitted at the sides opposite to where the block E is fitted. This plate G is rolled with a base, *d*, which has a pendent flange, *e*, at its edge, and this flange fits in the recesses *c c* of the sleepers or ties, and abuts against the flange *b* of the base *a* of block E, the rails B one-half their width resting upon the base *d*. The plate G is secured to the sleepers or ties by means of spikes H.

The upper surface of the block E is cast with a chill to resist wear, and bolts I pass transversely through said block, the rails B B, and the wrought-iron plate G.

By this arrangement it will be seen that a car, in passing over the ends of the rails, will be supported by the block E, the wheels passing over the latter and bearing but a trifle, if any, upon the rails near their ends. Hence the latter cannot work vertically and the end of one rail be allowed to project upward above the adjoining end of another one, so as to be hammered and flattened by the car-wheels in passing over them. The flanges *b e* of the block E and plate G effectually prevent any lateral movement of the chair. The massiveness of the block E greatly aids in resisting the hammering of the car-wheels.

The central modification or device in Fig. 1 is the same as that above described, with the exception that there are no flanges *b e* employed, and the base *a'* is made to extend entirely underneath the rails C C, and secured by spikes *a^x* at both sides. The main portion or body E' of the block is of the same form as the block E, previously described, and a wrought-iron plate, G, is used, of a width to fit into the hollow of the rails, and bolts I' are employed to pass through, all as before explained.

In the other modification (shown in Fig. 1) the cast-iron block (designated by E'') also has its base *b''* extending entirely underneath the rails D D; but said base is cast with a pendent flange, *e'*, to fit in recesses in the sleepers or ties, the block being secured to the latter by spikes *b^x*, and a wrought-iron plate, G'', being used at the sides of the rails opposite to where the block E'' is placed, with bolts I'' passing through said plate, rails, and block.

We claim as new and desire to secure by Letters Patent—

1. A solid cast-iron block fitted at one side of the rails and having an upper chilled surface level with or a trifle above the level of the rails, in combination with a wrought-iron plate at the opposite sides of the rails and all connected by transverse bolts, as set forth, for the purpose of insuring a continuous bearing at the joint of great massiveness and durability.

2. The solid cast-iron block and wrought-iron plate, placed one at each side of the rails,

in combination with a flange or flanges on either the base of the cast-iron block or wrought-iron plate, or on both of them, and transverse bolts, substantially as and for the purpose specified.

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