(No Model.) 2 Sheets—Sheet 1.

H. O'SHEA.

RAILWAY RAIL CHAIR.

No. 520,860. Patented June 5, 1894.

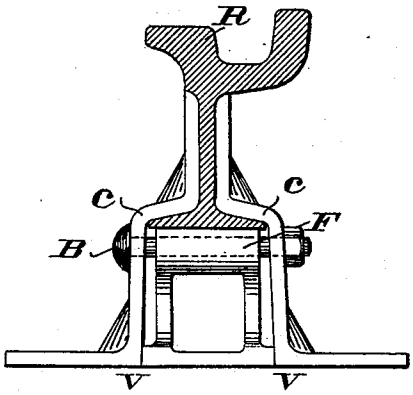

Fig. 1.

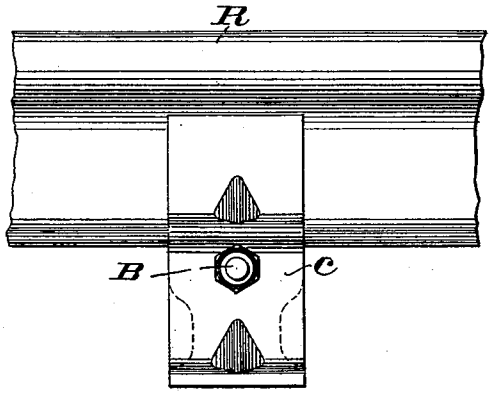

Fig. 2.

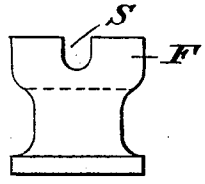

Fig. 3.

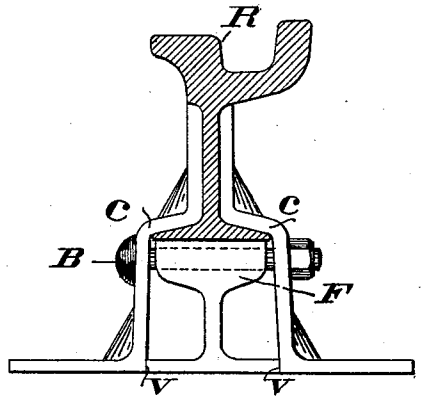

Fig. 4

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(No Model.) 2 Sheets—Sheet 2.

H. O'SHEA.

RAILWAY RAIL CHAIR.

No. 520,860. Patented June 5, 1894.

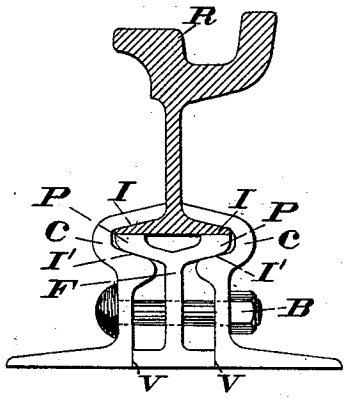

Fig. 5.

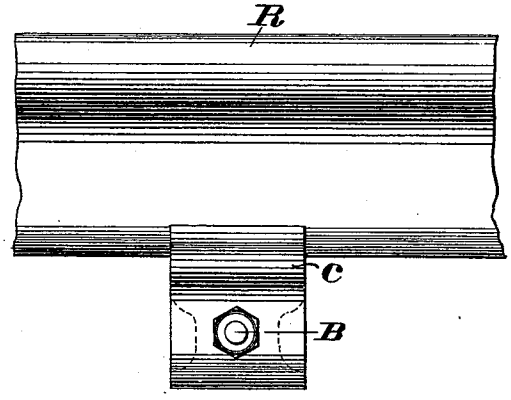

Fig. 6.

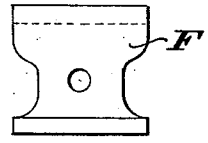

Fig. 7.

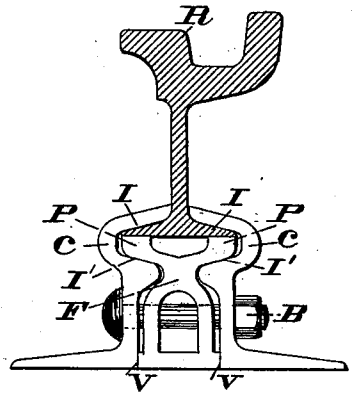

Fig. 8.

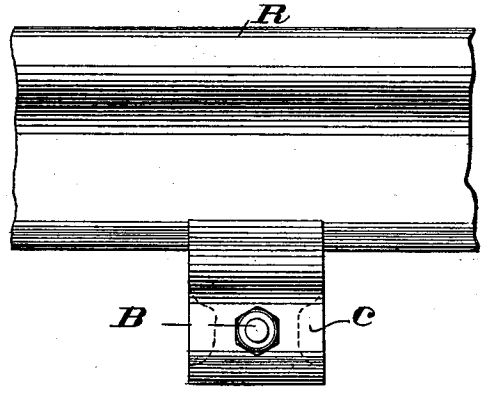

Fig. 9.

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UNITED STATES PATENT OFFICE.

HENRY O'SHEA, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE JOHNSON COMPANY, OF PENNSYLVANIA.

RAILWAY-RAIL CHAIR.

SPECIFICATION forming part of Letters Patent No. 520,860, dated June 5, 1894.

Application filed April 24, 1893. Serial No. 471,659. (No model.)

To all whom it may concern:

Be it known that I, HENRY O'SHEA, a citizen of the United States, residing at Johnstown, county of Cambria, State of Pennsylvania, have invented a new and useful Improvement in Railway-Rail Chairs, of which the following is a true and exact description, due reference being had to the accompanying drawings.

The object of my invention is to provide a rail chair which may be rigidly secured to the rail at any point without previous cutting or punching of the rail and will at the same time firmly grasp and secure the rail.

My improvement belongs to that class of rail chairs in which the lower flange of the rail is grasped by the two independent sides of the chair and a supporting block is interposed between them to form a seat for the rail.

Referring to the drawings Figure 1 shows an end view of a chair embodying my invention and showing a rail in section mounted thereon. Fig. 2 is a side view of the same. Fig. 3 is a side view of a detail hereinafter described and Fig. 4 is an end view of a chair slightly different in detail from Fig. 1. Figs. 5 and 8 are modified forms of Fig. 1 and Figs. 6 and 9 are side views of same. Fig. 7 is a view of detail hereinafter described.

In Fig. 1, R is any rail to be supported. The two sides of the chair C are drawn together by the bolt B so as to firmly grasp the rail the upper flanges of the chair pressing against the web of the rail and thus assisting in the support. The block or filler F performs a double duty; in the first place it affords a direct support for the rail and base thereof resting upon it and so distributing some of the load upon that part of the tie directly beneath the rail base; the second duty of this block is as a distance piece to afford a fulcrum V against which the bolts B may draw the sides of the chair C and cause them to close in upon the rail. By slotting this filler F as shown at S Fig. 3, I am enabled to place the bolt immediately beneath the flange of the rail at the point where its action is the most efficient.

By the interposition of the filler F and consequent distance between the vertical webs of the chair below the base of the rail, I am enabled to make this chair with a large bearing surface on the tie and the greater distance to the edge of the chair reduces the tendency to give way to side thrust against the rail.

In Fig. 4 the filler F is shown as having a single vertical web instead of the box form shown in Fig. 1.

In Figs. 5 to 9 is shown a modification of Fig. 1. In these the side C is constructed having the two inclines I, I'. The upper one conforms to the taper of the rail base while the lower one passes beneath a corresponding incline formed on a flange P on the top of filler F. The bottom of F holding the sides C of the chairs apart at the points V the action of the bolt is to draw the tapering recess of the chair side C upon the wedge formed by the rail base and flange P and firmly press the two together. The top and bottom surfaces of the flange P might be parallel and the taper of the rail flange relied upon to force the two together. As the final distance between the two sides C is variable depending upon how far they draw upon the rail and filler the upper webs, which in Fig. 1 press against the web of the rail are omitted and the clamping action of the inclines II' is relied upon to hold the rail.

Fig. 8 shows a modified form of Fig. 5 and filler F being constructed with two vertical webs instead of one. In place of the bolt B having a nut to draw the sides together a key or similar device might be substituted.

Having thus described my invention, what I claim, and desire to protect by Letters Patent, is—

A rail chair for railroad rails, comprising two side members, the upper portions of which engage the rail, while the lower edges

are provided with feet for a bearing on the tie; an interposed chock upon which the rail rests, and which has lower flanges bearing on the tie, the edges of which flanges engaging the bases of the side members act as a distance piece between said side members, and means, passing beneath the rail, for securing the two side members against the rail and against the chock, whereby the chair may be attached to a rail without cutting or similarly preparing said rail.

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

HENRY O'SHEA.

Witnesses:
H. W. SMITH,
WM. A. DONALDSON.