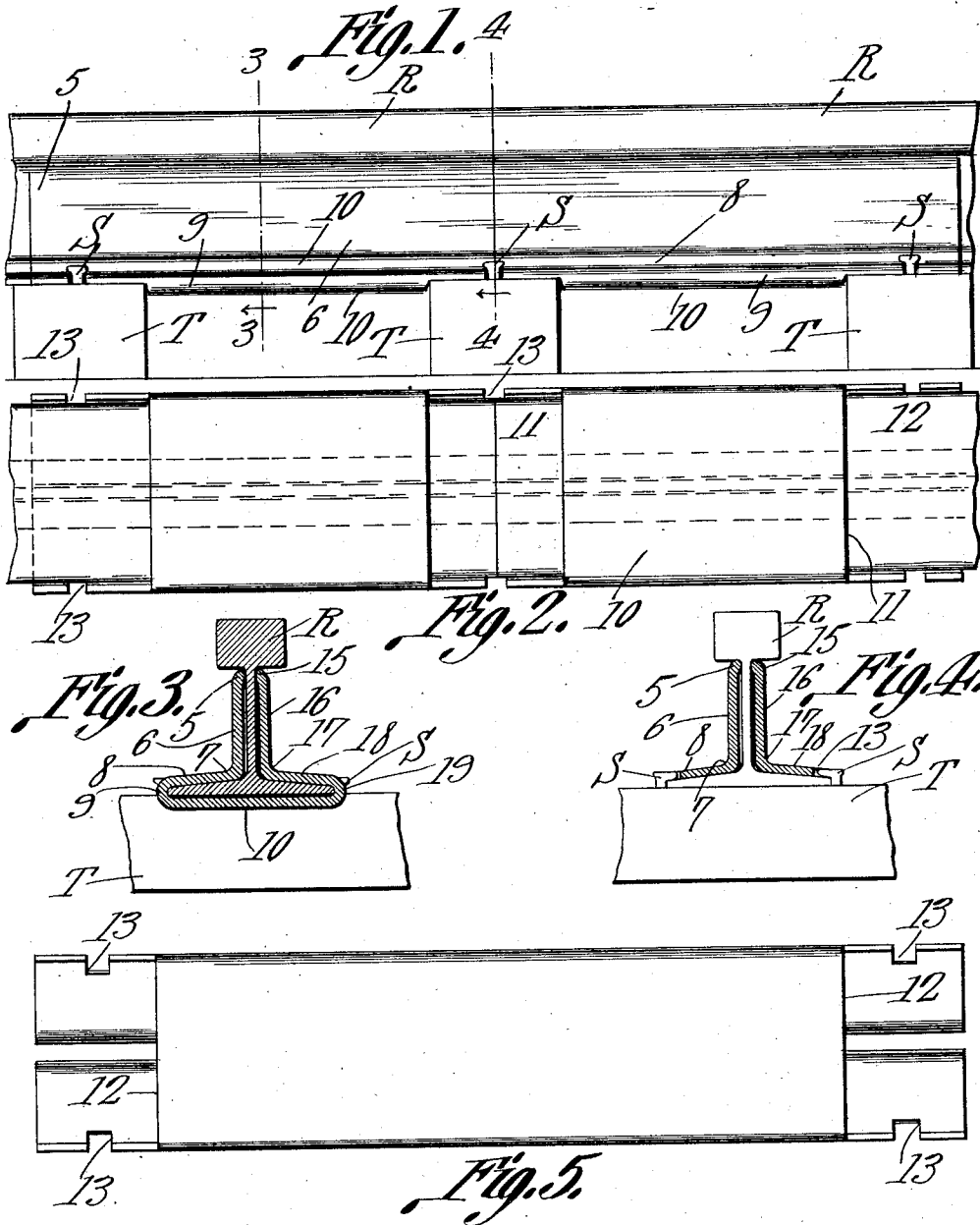


C. REXROAD.
RAIL JOINT CHAIR.
APPLICATION FILED DEC. 23, 1910.

1,054,941.

Patented Mar. 4, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLIE REXROAD, OF BUCKHANNON, WEST VIRGINIA.

RAIL-JOINT CHAIR.

1,054,941.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed December 23, 1910. Serial No. 598,942.

To all whom it may concern:

Be it known that I, CHARLIE REXROAD, a citizen of the United States, residing at Buckhannon, in the county of Upshur and State of West Virginia, have invented a new and useful Rail-Joint Chair, of which the following is a specification.

It is the object of this invention to provide a rail chair which is adapted to standardize the distances between a joint tie and adjoining ties, the chair being so constructed that the joint tie and the adjoining ties may be connected together by the chair, after the distances between the joint tie and the adjoining ties have been standardized.

To this end the invention consists in the details of construction hereinafter described and claimed, and as shown in the drawings wherein:—

Figure 1 is a side elevation of this improved chair and Fig. 2 a bottom plan view thereof, both showing the construction of the same where the rails meet upon a tie. Figs. 3 and 4 are cross sections on the lines 3—3 and 4—4 respectively of Fig. 1. Fig. 5 is a bottom plan view of this improved joint chair constructed for connecting the meeting ends of rails as between two ties.

In the drawings, the rails R may be of any approved type and the chair is adapted in shape thereto, and as usual the rails are secured by spikes S to wooden ties T, the spikes by preference standing in notches in the edges of the base of the rails but their heads overhanging the same in any event. It is customary to place a plate upon the tie which stands beneath the meetings ends of two rails, the plate having holes in it through which pass the spikes that attach both rails thereto; but my device takes the place of this plate and renders it unnecessary. It is also customary to lap the meeting ends of rails with fish plates on both the inside, and outside of their webs, and pass bolts through the two fish plates and the intervening web; but my device takes the place of these elements as well. Thus it will be seen that this improved joint chair not only does away with the use of all bolts and nuts and the tools necessary for manipulating them, but renders the use of the base plate and the fish plates unnecessary and saves the time required to put them in place. For these reasons it is quite possible to make this improved chair of rolled metal having sufficient stiffness to withstand the strains

thrown upon it and which were hitherto resisted by the parts now done away with, because even if the cost of production is thereby increased the result will be a net saving in both time and materials.

Coming now to the present invention, my improved joint chair is by preference rolled from a single sheet of rather stiff steel; and, in its finished form as seen best in section in Fig. 3, it extends from one edge downward in a plate 6 along one side of the web of the rail to the angle 7, thence outward in a fold 8, over the edge of the rail base at 9, across beneath the same in its own base plate 10, up and around the other edge as at 19, into and along a second fold 18 on the other side of the web to an angle 17, and thence upward in a second plate 16 to its other edge 15 which like the first edge stands beneath the head of the rail R. In length the chair is sufficient to amply inclose the meeting ends of two rails as seen in Fig. 1, and when the same meet directly over a tie T as there shown the base 10 is cut away as at 11 in Fig. 2 and as seen in the sectional view Fig. 4. When the rails meet between two ties this cut away portion is omitted as seen in Fig. 5. In either case, however, the base 10 is cut away as at 12 at the ends of the device as seen in both Figs. 2 and 5, it being understood that said ends rest on ties at either side of the rail joint. By preference the overhanging folds 8 and 18 are notched as at 13 for the spikes S.

In use, one rail being already in place and it being desired to lay and spike the next, the free end of the first rail is raised slightly, one end of the chair slipped thereunder until its cut away portion rests on the ties according as the latter are disposed, the end of the second rail inserted into the unoccupied end of the chair and pressed inward until the rail ends abut, and the spikes driven home. It is obvious that if the metal has sufficient stiffness there is no necessity for any bolts, although the same may be used without departing from the spirit of my invention.

In operation, the joint tie is first mounted in the opening 11. The adjoining ties are slid beneath the rails, the adjoining ties then being moved transversely, until they abut against the outer, remote ends of the base portions 10. Thus, the distances between the joint tie and the adjoining ties will be standardized, it being common and well known in

the art that the joint between two rails requires closest attention. After the distances between the joint tie and the adjoining ties have been standardized in the manner hereinbefore described, all of the three ties may
5 be connected with the rail chair by spikes, as shown in Fig. 1, the several ties thus being held at the standardized distances from each other.

10 What is claimed as new is:—

In a rail joint adapted for standardizing the distance between the joint tie and a pair of adjoining ties and for securing the joint tie to the adjoining ties, the combination
15 with a joint tie, of a pair of adjoining ties and a rail resting directly upon the joint tie and the adjoining ties; a fish plate comprising in a one piece structure, spaced base

portions each of which abuts terminally against the joint tie and against the adjoining ties thereby to standardize the distance
20 between the joint tie and the adjoining ties, and lateral portions engaging the sides of the rail and connecting the base portions, the lateral portions being extended beyond
25 the ends of the base portions, to overhang the adjoining ties, the lateral portions being secured to said adjoining ties.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLIE REXROAD.

Witnesses:

L. W. BARTLETT,
C. E. HUIER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."