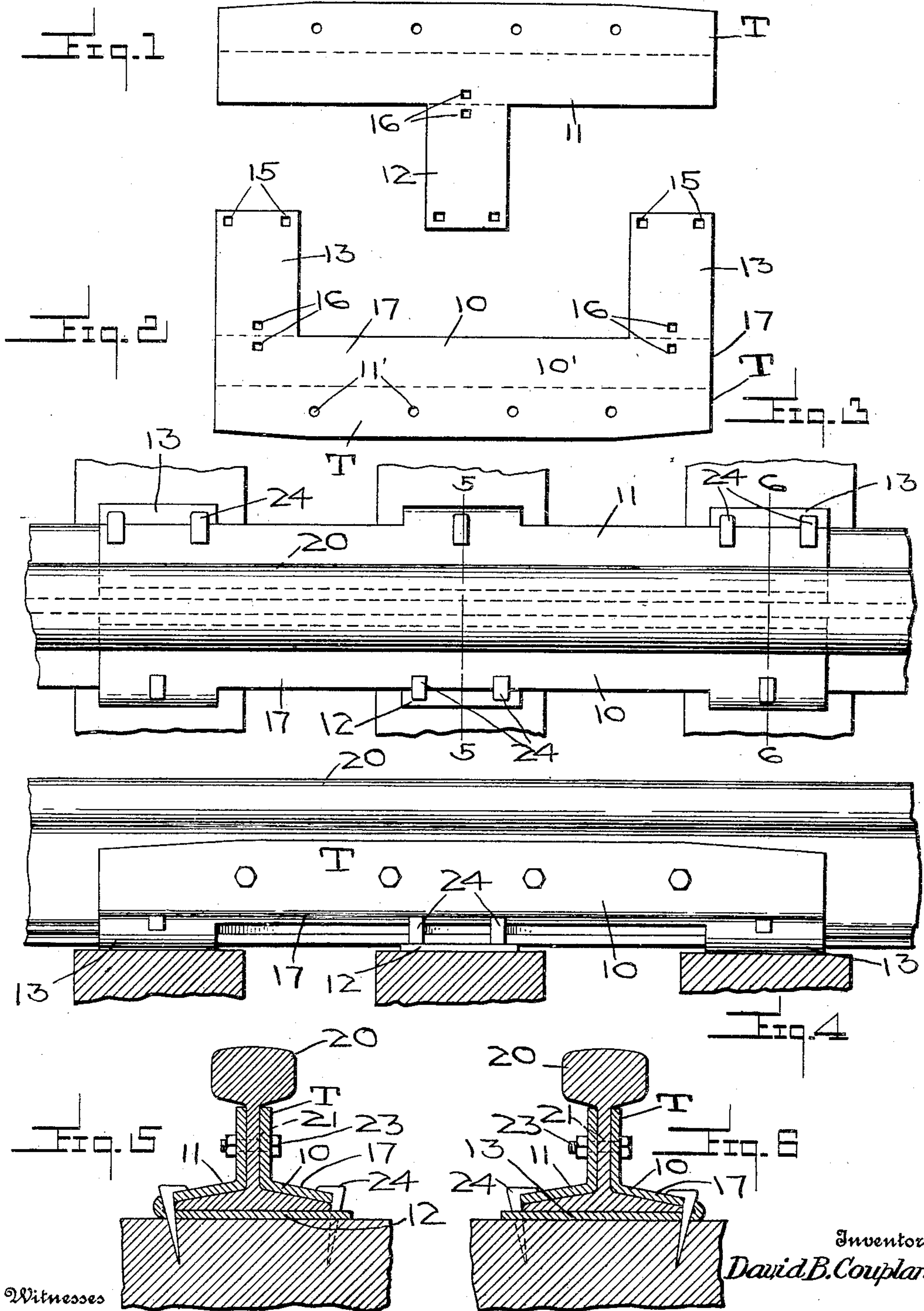


D. B. COUPLAND.
RAILROAD JOINT.
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931,275.

Patented Aug. 17, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID B. COUPLAND, OF SAN ANGELO, TEXAS.

RAILROAD-JOINT.

No. 931,275.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed April 22, 1908. Serial No. 428,536.

To all whom it may concern:

Be it known that I, DAVID B. COUPLAND, a citizen of the United States, residing at San Angelo, in the county of Tom Green and State of Texas, have invented certain new and useful Improvements in Railroad-Joints, of which the following is a specification.

This invention relates to rail joints, and more particularly to that class known as rail chairs, and has for its object to provide a chair of sections arranged to be quickly and easily engaged with a rail end.

Another object is to provide such an article which may be formed by being stamped from sheet metal, and which will require no special implements or process in its use.

Another object is to provide such a chair which may be secured to the ties of a railway without the use of an additional number of spikes.

Another object is to provide such an article which may be manufactured at low cost.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claim and that any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts in the several views:—Figure 1 is a plan view of the inner section of the chair, Fig. 2 is a similar view of the outer section, Fig. 3 is a top view of a rail joint engaged in the chair, Fig. 4 is a side view of a similar joint, Fig. 5 is a cross sectional view of a rail and the present chair engaged therewith on the line 5—5 of Fig. 3. Fig. 6 is a similar view on the line 6—6 of Fig. 3.

Referring to the drawings, there is shown a rail chair in two sections 10 and 11 respectively, oppositely disposed and having chair portions 12 and 13 respectively extending laterally inward therefrom. The section 10 comprises a blank of heavy sheet material including a plate portion 10' having a series of openings 11' therethrough spaced longitudinally of the plate and having its lower portion 17 bent diagonally outward longitudinally of the plate. Two integral chair portions 13 are carried by the edge of the

portion 17 at opposite ends of the plate and comprise flanges bent inwardly under the portion 17 to extend at right angles to the upper portion of the plate. The upper edge of the plate 10 is inclined downwardly toward its ends as shown. Spaced rectangular openings 15 are formed at the outer ends of the chair portions 12, arranged to receive therethrough a railroad spike. Openings 16 are formed centrally of the chair portions 12 at the point of their junction with the portion 17. The section 11 is similar to the one 12 above described with the exception that there is but one chair portion 13 which is located midway of the blank, as shown.

In shaping the blanks for use, the lower portion 17 of the plates 10 and 11 are bent laterally, and the portions 12 and 13 are bent inwardly thereunder to lie in divergent spaced relation with the lower portion 17 of the plates 10 and 11 to receive the flange of a rail in close engagement therein. The opening 16 thus forms a recess in the edge formed by the folding of said chair portions.

In use, the outer section 10 is disposed in proper position upon the ties, each of the chair portions being located centrally upon a tie, and a tie being arranged midway of the sections. The section 11 is then disposed inwardly of the section 10 with the chair portion 12 extending outwardly of the track and disposed centrally upon the ties midway of the section 11. Rails 20 are then engaged between the sections, the ends of the rails being adjusted midway of the chair portion 13. The rails 20 are provided with spaced openings 21 registering with those 11' in the plates 10 and 11. Bolts 23 are then engaged through the plates and rails and by means of nuts engaged over the bolts the plates 10 and 11 are pressed into close engagement with the web of the rail. Spikes 24 are then driven into the ties through the openings 15, the projecting portions of their heads being extended inwardly over the adjacent flange engaging portion 17. Spikes are also driven into the ties on the opposite sides of the chairs being adjusted in the recesses formed by the openings 16, the projecting portions of the heads being engaged inwardly.

It will be seen that a rail chair is provided of an effective type which may be quickly and easily adjusted without the use of special tools. There is also provided a

firm and rigid base for the extremities of the rails, and the flanges of the rails are firmly held in registry.

What is claimed is:—

- 5 A combined sectional rail joint and chair including opposite sections formed of blanks of sheet material each comprising approximately rectangular body portions having respectively laterally extending end tabs
10 and a central tab, the tabs of the one section being spaced to receive therebetween the tab of the other; said rectangular portions being bent longitudinally to coengage against a rail web and flange, said tabs be-
15 ing bent inward beneath the web engaging portion to form chairs, said rectangular por-

tions and tabs having registering openings therethrough adjacent to the bases of the tabs to receive a spike therethrough against the flange of a coengaged rail, said tabs hav- 20 ing similar laterally spaced openings adjacent to their outer ends to receive spikes therethrough against the flange of a coengaged rail and over the flange-engaging portion of the opposite section. 25

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

DAVID B. COUPLAND.

Witnesses:

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