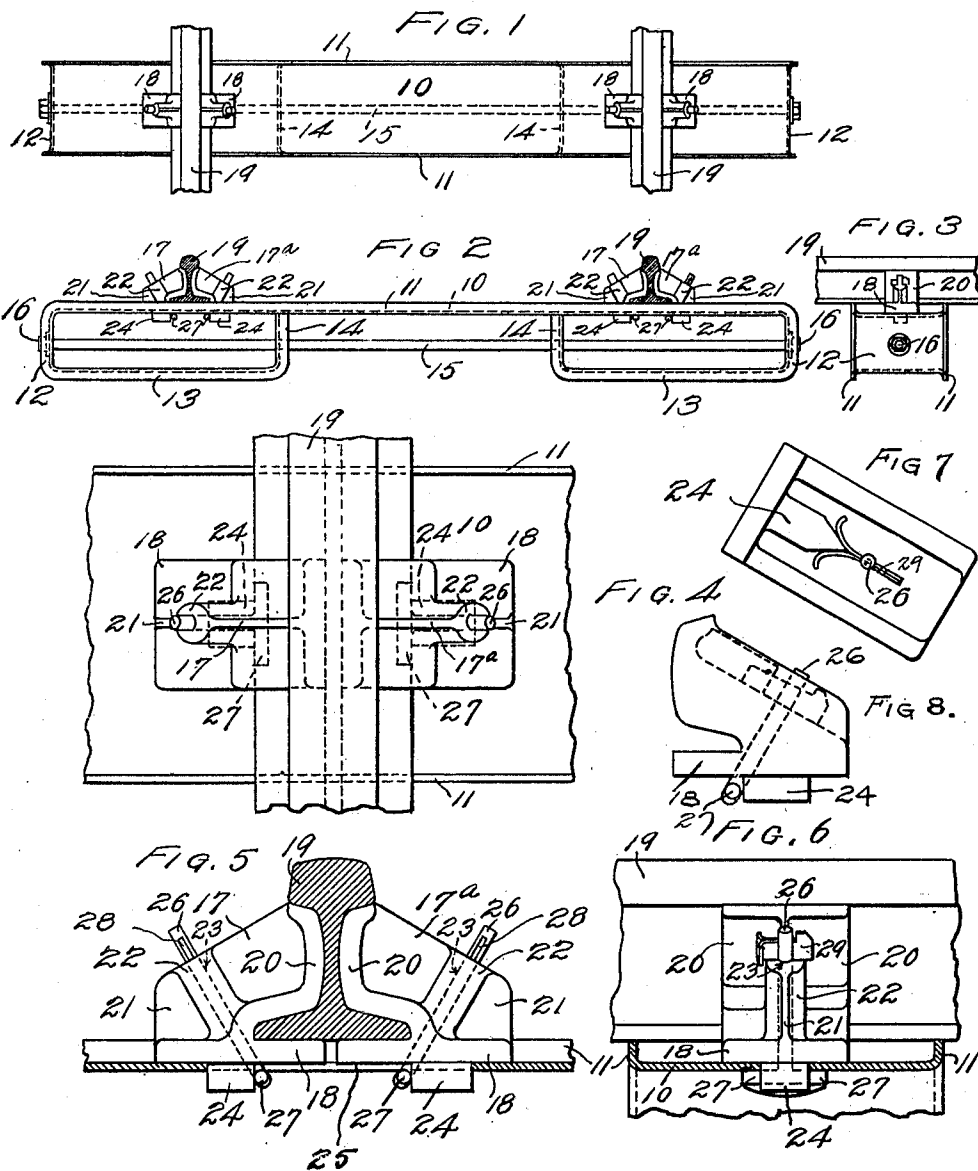


F. B. HEWEL.
METALLIC RAILWAY TIE.
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991,987.

Patented May 9, 1911.



Inventor

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METALLIC RAILWAY-TIE.

991,987.

Specification of Letters Patent.

Patented May 9, 1911.

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To all whom it may concern:

Be it known that I, FRANK B. HEWEL, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

This invention relates to an improvement in metallic ties and rail chairs.

The principal object of the invention is to provide a railway tie, which will be economical in construction and practical in operation.

Another object of the invention is to provide an improved chair for railway rails, which is extremely simple in construction, positive in operation, and cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a top plan view of my improved railway tie and rail chair. Fig. 2 is a front elevation of the same. Fig. 3 is an end elevation of the same. Fig. 4 is an enlarged detail plan view of the tie and the rail chair. Fig. 5 is a front elevation of the same, and Fig. 6 is a side elevation of the structure shown in Fig. 4. Figs. 7 and 8 are a bottom plan view and side elevation respectively of one of the chair members and the locking device associated therewith.

Like reference numerals designate corresponding parts in all the figures of the drawing.

Referring to the drawing, my invention comprises a metallic railway tie 10, which is formed of channel metal, preferably pressed steel; including side flanges 11. The opposite end portions of the tie are downwardly bent to form ends 12, thence inwardly toward each other and in parallel relation to the major portion of the tie to form supporting surfaces 13, the free ends 14 of the tie then being bent upwardly and

terminating against the bottom of the major portion of the tie. The end portions 12, together with the ends 14, form spaced vertical walls, and formed in these walls are aligned openings (not shown) through which a longitudinal locking rod 15 is arranged. The ends of the said rod respectively project beyond the ends of the tie and are provided with adjusting nuts 16. By forming the tie of channel metal, the flanges included therein not only strengthen the tie but also serve, with reference to the supporting surfaces, to penetrate the earth and eliminate any possibility of lateral movement of the tie. The locking rod retains the bent-under end portions in their proper positions and prevents any possibility of their sagging, due to heavy weights passing thereover.

The invention further comprises a rail chair consisting of two separate members 17 and 17^a, each member comprising a base 18, a portion of which underlies the usual rail 19. Extending centrally therefrom is a web engaging member 20. Formed integral with the said member 20 and the base 18 is a centrally arranged vertical web 21, which is provided intermediate its ends with an enlarged portion 22, which is arranged at an angle. Formed in this enlarged portion 22, is an opening 23, which communicates with the bottom of the base 18. Projecting downwardly from the base and directly in advance of the said opening is a lug 24, which is adapted to be seated in an opening 25 formed in the tie 10, as will be readily understood. A tee-shaped locking key 26 is inserted within the opening 23 through the base. The head 27 of the key contacts with the lug 24, while the opposite end of the key is slotted as shown at 28, and projects above the web 21. The locking pin 29 is inserted within the slot 28 of the key and by this means, each member of the chair can be quickly and positively secured in place.

What I claim is:—

1. A railway tie, consisting of a bar of channeled metal having its end portions bent downwardly to form vertical end walls, thence inwardly in parallel relation to the major portion of the tie to form supporting surfaces and thence upwardly to the tie to form intermediate vertical walls, and a locking rod connecting the end walls.

2. A railway tie, consisting of a bar of channeled metal having its end portions bent

downwardly to form vertical end walls, thence inwardly in parallel relation to the major portion of the tie to form supporting surfaces and thence upwardly to the tie to form intermediate vertical walls, said vertical walls being provided with alined openings, a locking rod arranged within the openings of the walls, and tensioning means carried by the ends of the rod and engaging the end walls of the tie.

3. In combination with a railway tie, having openings formed therein, of a railway chair associated therewith and consisting of two members, each member comprising a base portion having a depending lug seated within the opening of the tie, a web-engaging member projecting from the base, a vertical web integral with the base and the web-engaging member, said web being provided with an opening extending through the bottom portion of the member, and a locking key for the member arranged within the opening and engaging the tie in rear of the depending lug.

4. In combination with a railway tie, having openings formed therein, of a railway chair associated therewith and consisting of two members, each member comprising a base portion having a depending lug seated within the opening of the tie, a web-engaging member projecting from the base, a vertical web integral with the base and the

web-engaging member, said web being provided with an enlarged portion arranged at an angle, said enlarged portion having an opening extending through the bottom portion of the member, and a locking key for the member arranged within the opening and engaging the tie in rear of the depending lug.

5. In combination with a railway tie, having openings formed therein, of a railway chair associated therewith and consisting of two members, each member comprising a base portion having a depending lug seated within the opening of the tie, a web-engaging member projecting from the base, a vertical web integral with the base and the web-engaging member, said web being provided with an enlarged portion arranged at an angle, said enlarged portion having an opening extending through the bottom portion of the member, and a T-shaped locking key arranged within the opening, the head of the key engaging the tie in rear of the lug and the free end of the key being provided with a locking means.

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

FRANK BERNARD HEWEL.

Witnesses:

D. LLOYD CLAYCOMB,
N. E. GEE.