

(No Model.)

G. A. WEBER.
RAIL JOINT.

No. 542,866.

Patented July 16, 1895.

Fig. 1.

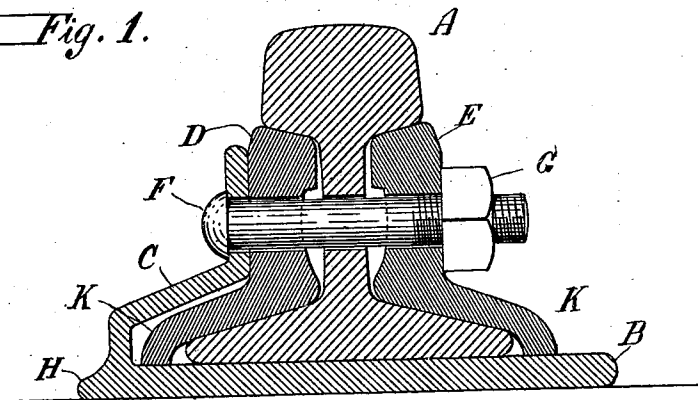


Fig. 2.

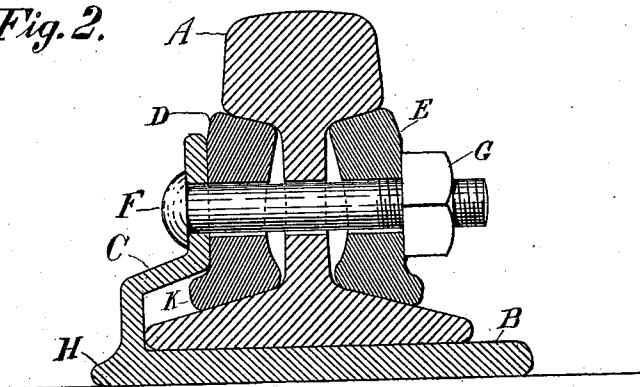
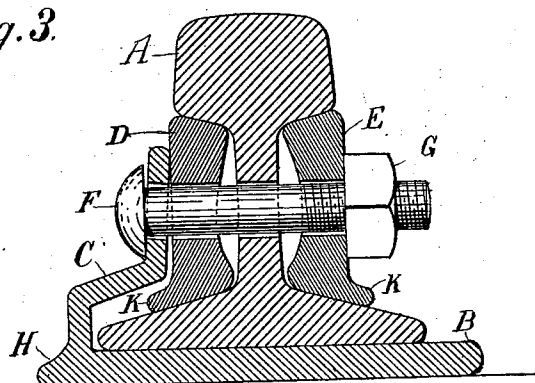


Fig. 3.



WITNESSES:

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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 542,866, dated July 16, 1895.

Application filed December 27, 1893. Renewed January 7, 1895. Serial No. 534,132. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. WEBER, of the city, county, and State of New York, have invented a new and useful Improvement in Rail-Joints, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to a new and improved combination of chair, fish-plate, and rail, by means of which a substantial and practically unyielding joint may be made between the adjacent ends of rails, while at the same time expansion and contraction between the ends of the rails is not prevented.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 represents a cross-section of the preferred form of my invention, and Figs. 2 and 3 cross-sections of the form in which fish-plates not extending to the base of the rail are employed.

In my drawings, A represents the rail; B, the chair provided with upper re-entering portion C; D E, the fish-plates; F, the bolt, and G the locking-nut.

The rail A may be of any ordinary suitable construction.

The chair B, made of rolled metal, is provided with the upper re-entering portion C, preferably of less thickness than the base, and preferably provided with the bead H at the junction of the vertical and horizontal portions.

The fish-plate D, as shown in Fig. 1, has a lower portion K extending beneath the re-entering part C of the chair and carried down to the supporting-surface of the chair.

In the form shown in Figs. 2 and 3 the lower extension K of the fish-plate D enters beneath the re-entering portion C of the chair, but is not carried down to the base.

In all of these forms it will be observed that the re-entering portion C is not in contact with the extension K of the fish-plate D, which I regard as the most important point of the present improvement.

In a form for which I have heretofore made application a contact was made between the re-entering portion C of the chair and the upper surface of the extension K of the fish-plate D. When this is so, the rails have a tendency to become firmly locked in the chair,

so that all expansion and contraction is carried along the track to some free end of the rail, which is in many instances a disadvantage. By rolling the part C so that it is out of contact with the upper surface of the extension K this difficulty is avoided.

The form shown in Fig. 3 is practically the same as the form shown in Fig. 2 before the nut G has been set up hard. It will be observed that by setting up the nut G in Fig. 3 and drawing the parts shown in the position in Fig. 2 a spring is obtained on the bearing-surfaces of the bolt, which will, under proper construction, lock the nut upon the bolt. I prefer, therefore, to roll the section of the chair in the form shown in Fig. 3, though, of course, my invention is to be found in a chair rolled in the form shown in Fig. 2.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the rail A, chair B having re-entering portion C integral therewith, fish-plate D having extension K passing beneath the re-entering portion C of chair B and out of contact therewith, and bolt F connecting the rail, fish-plate and chair, substantially as described.

2. The combination of the rail A, fish plate D having horizontal portion B and upward extending re-entering portion C, fish-plate D having extension K passing beneath the re-entering portion C but out of contact therewith and extending to the base of the chair B, and bolt F, substantially as described.

3. The combination of the rail A, chair B having horizontal portion B and vertical extending re-entering portion C, fish-plate D having extension K, the re-entering portion C being out of contact with the extension K, and before drawn to position being in contact with the fish-plate D only at its upper edge or portion, and the bolt F which when set up tends to draw the vertical extension of the chair into contact with the outside of the fish-plate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. A. WEBER.

Witnesses:

ANTHONY GREF,
H. COUTANT.