(No Model.)

F. C. WEIR.

RAILROAD FROG.

No. 249,708. Patented Nov. 15, 1881.

Fig. 1.

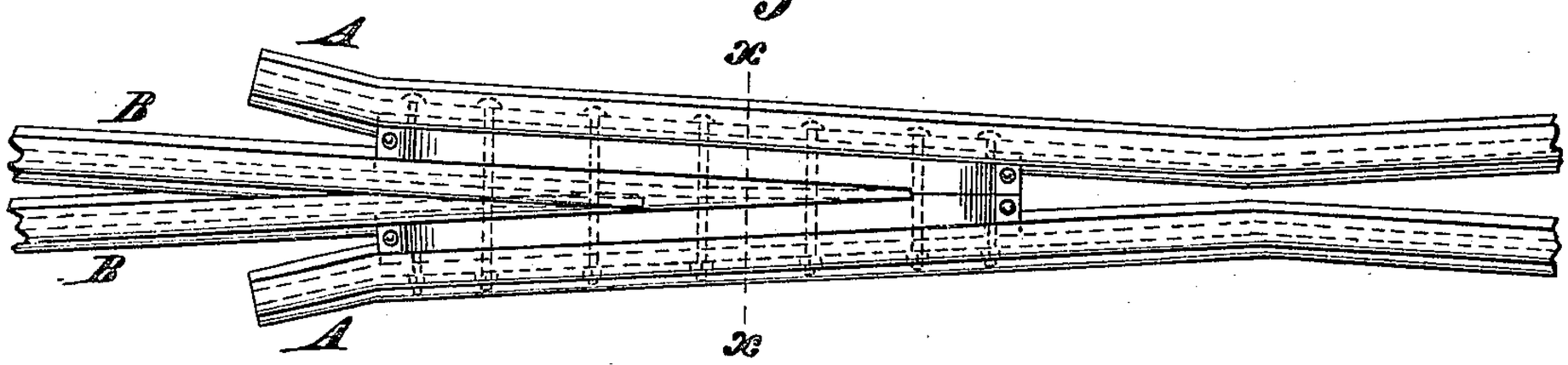


Fig. 2.

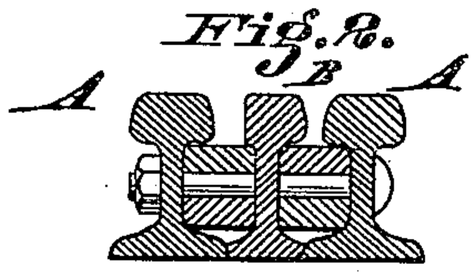


Fig. 3.

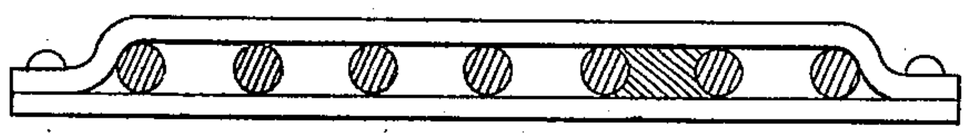


Fig. 4.

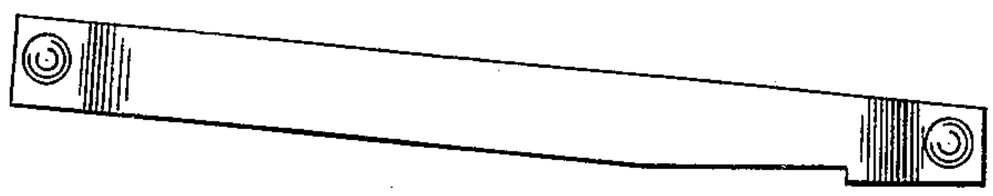
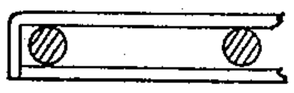


Fig. 5.

Fig. 6.



Attest

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UNITED STATES PATENT OFFICE.

FREDRIC C. WEIR, OF CINCINNATI, OHIO.

RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 249,708, dated November 15, 1881.

Application filed September 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDRIC C. WEIR, of Cincinnati, Hamilton county, State of Ohio, have invented an Improvement in Railroad-Frogs, of which the following is a specification.

My invention relates to the class of frogs made by the bending of the overlapping ends of the rails themselves and the junction of the same with the central rails constituting the point by rivets or bolts through separating-pieces; and my invention consists in a new method of constructing the separating, spacing, and joining or filling plates necessarily used between the rails forming the point and the wing rails.

In the accompanying drawings, Figure 1 is a plan of a frog embodying my improvements; Fig. 2, a cross-section on line *x x;* Fig. 3, a side elevation of one of my improved separating, spacing, and joining or filling plates; Fig. 4, a plan of same. Fig. 5 is a perspective view of one of the filling-blocks. Fig. 6 is a modified form of uniting the ends of the spacing-plates.

A A are the outer or wing rails of the frog, and B B are the two rails which compose the acute angle or point.

In place of filling in solidly between the webs sidewise and the heads and flanges vertically, I construct my spacing or filling plates of several pieces, preferably four, longitudinally one on each side of the point-rails, at both top and bottom, leaving sufficient space between them for the bolts to be passed, and thus avoid the expensive process of drilling holes through them. The ends of these top and bottom plates are brought together and secured by bolts or rivets, thus closing the ends of the slots and forming shoulders thereat.

The longitudinal movement of the rails is prevented by the transverse bolts bearing against the shoulders thus formed, and the filling-pieces occupying the spaces between the bolts.

This style of construction permits the use of the top filling-plates of steel, and thereby greatly increases the durability of the frog when the flanges of the passing wheels come in contact and partially rest on the steel top filling-pieces described.

Instead of securing the separating-plates at the ends by rivets or bolts to prevent longitudinal movement, one plate may be bent at the ends sufficiently to pass past the end of the other plate, at the same time forming a shoulder for the transverse bolts; or they may be welded together and accomplish the same purpose.

Having thus described my invention, what I claim is—

1. A frog constructed of the usual sections of wing and point rails, which are spaced or held apart by spacing-plates located on each side of the point-rails and between the flanges and heads of the rails, and forming parallel slots or mortises for the transverse bolts.

2. In a railway-frog, the separating and spacing supporting-plates composed of two or more pieces united so as to form a continuous mortise or opening through which pass the transverse tie-bolts which secure the parts together.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDRIC C. WEIR.

Witnesses:

JNO. E. JONES,

EUGENE L. FIRNKOESS.