

C. W. REINOEHL & B. L. WEAVER.
H. B. REINOEHL, ADMINISTRATRIX OF C. W. REINOEHL, DEC'D.
RAILROAD RAIL SUPPORT.
APPLICATION FILED MAY 19, 1909.

1,005,785.

Patented Oct. 10, 1911.

Fig. 1.

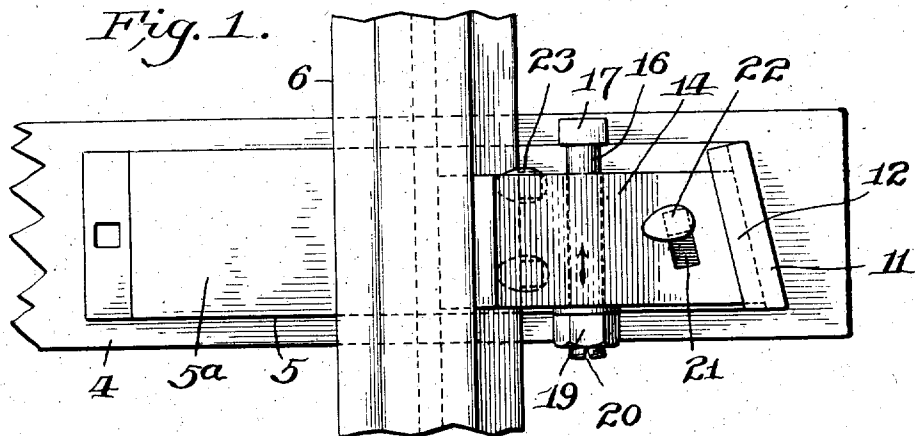


Fig. 2.

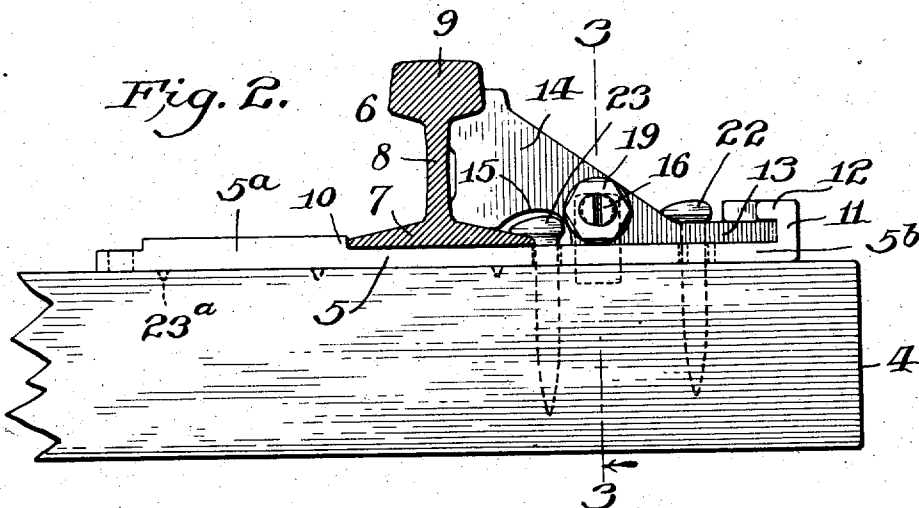
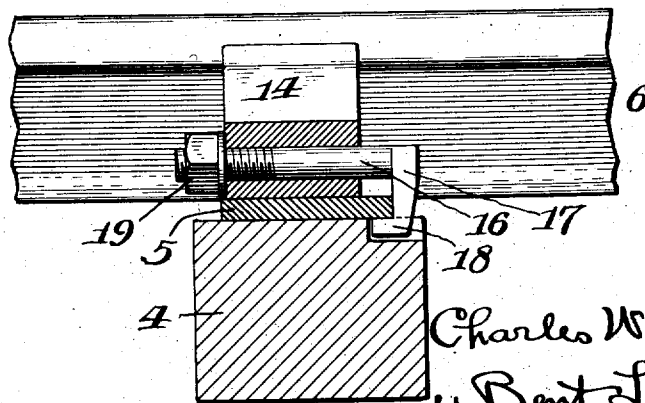


Fig. 3.



WITNESSES
E. M. Ware
[Signature]

INVENTORS:
Charles W. Reinoehl
and Bent L. Weaver
BY A. V. Trout ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES W. REINOEHL AND BENT L. WEAVER, OF STEELTON, PENNSYLVANIA; HELEN B. REINOEHL, OF STEELTON, PENNSYLVANIA, ADMINISTRATRIX OF SAID CHARLES W. REINOEHL, DECEASED.

RAILROAD-RAIL SUPPORT.

1,005,785.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed May 19, 1909. Serial No. 496,970.

To all whom it may concern:

Be it known that we, CHARLES W. REINOEHL and BENT L. WEAVER, citizens of the United States, and residents of Steelton, Dauphin county, State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Rail Supports, of which the following is a full, clear, and exact description.

- 10 This invention relates to railroad rail supports, the object of the invention being to provide a simple and efficient means for supporting a railroad rail upon an underlying cross-tie, said means including an adjustable rail-brace in combination with means for adjusting the same to compensate for wear, as will be hereinafter fully described and particularly pointed out in the claims.
- 20 In the drawings:—Figure 1 is a plan view of one end of a cross-tie, a portion of a railroad rail, and our improved rail-supporting device, supporting the rail upon the cross-tie. Fig. 2 is an elevation of the parts shown in Fig. 1. Fig. 3 is a vertical section, on the line 3—3 of Fig. 2.

- 4 designates a railroad cross-tie, 5 a plate supported upon the cross-tie 4, and 6 a railroad rail supported upon the plate 5, the railroad rail being of usual construction comprising the base 7, the vertical web 8 and the head 9.

- The inner portion 5^a of the plate 5 is made thicker than the outer portion 5^b thereof, the thick portion 5^a providing a shoulder 10 against which the inner edge of the rail base 7 rests. The outer edge of the plate 5 is provided with an upwardly-extending portion 11, and an inwardly extending portion 12, and the outer edge of the plate 5, including the portions 11 and 12, is arranged on an angle with respect to the rail 6; that is to say, the outer edge of the plate 5 and the parts 11 and 12 are inclined away from a line parallel to the rail, as shown in Fig. 1, for a purpose hereinafter explained.

- Resting upon the outer portion 5^b of the plate 5 is the base 13 of a railroad brace 14. The rail brace 14 extends into engagement with the outer face and under side of the rail head 9, and also into engagement with the rail web 8 and rail base 7. The rail brace 14 is off-set, as at 15, to extend over and clear spikes 23 which are driven through

holes in the plate 5 and into the cross-tie 4 in a manner to engage the outer edge of the rail base 7. The outer edge of the base 13 of the rail brace 14 extends under the inwardly-extending portion 12 of the plate 5, and the outer face of the base 13 is made parallel to the inner face of the upwardly-extending portion 11 of the plate 5, the outer face of the base 13 and the inner face of the portion 11 engaging each other.

Extending through an opening in the brace 14 parallel to the rail 6, is a bolt 16. The ends of the bolt 16 extend beyond the rail brace 14, and one end of the bolt 16 is provided with a downwardly-extending part 17 which engages the one side of the plate 5 and an inwardly-extending part 18 which extends beneath and engages the bottom of the plate 5. The other end of the bolt 16 is screw-threaded for the reception of a nut 19 which is screwed on to the bolt 16 and engages the face of the brace 14. The screw-threaded end of the bolt 16 is split, as at 20, so that the sides of the split end of the bolt may be forced apart to lock the nut 19 in position thereon.

By the construction just described, it will be seen that the rail 6 is rigidly braced against the outward thrust of car wheel flanges, and that by adjusting the nut 19 upon the bolt 16, the brace 14 may be forced in the direction indicated by the arrow in Fig. 1, thereby causing the co-acting inclined surfaces of the base 13 of the rail brace and the upwardly-extending part 11 of the plate 5 to force the rail brace 14 toward the rail 6, thereby compensating for wear between the parts. The base 13 of the rail brace 14 is provided with a slot 21 through which and an opening in the plate 5 a spike 22 is driven to take part of the outward thrust against the rail 6 and to assist in holding the brace 14 in its positions of adjustment upon the plate 5. It will be observed that the downwardly-extending part 17 and inwardly-extending part 18 of the bolt 16 not only permit the bolt 16 to be moved toward the rail 6 upon the plate 5 during the adjustment of the brace 14, but said parts also serve to prevent the turning of the bolt 16 during the turning of the nut 19 and to assist in holding the brace 14 down upon the plate 5.

The invention is especially adapted for

use in connection with railroad switches not only to support the main rail but also to support a switch rail which is adapted to rest upon the portion 5^a of the plate 5 and to be adjusted thereon into and out of engagement with the main rail 6 to close and open the switch as is common and well known.

We preferably provide the plate 5 with downwardly-projecting ribs 23^a which extend parallel to the rail 6 and are forced into the cross-tie 4 to assist in preventing displacement of the plate 5 upon the cross-tie 4, laterally of the rail 6.

We claim:—

1. In a railroad rail support, the combination of a cross-tie, a plate upon the cross-tie, a rail supported by the plate, said plate having a surface inclined away from a line parallel to the rail, a rail brace engaged with said surface and said rail, a bolt extending through and beyond the two sides of said brace, one end of said bolt being engaged with said plate, and the other end of said bolt being screw-threaded, and an

adjustable nut on the screw-threaded end of the bolt.

2. In a railroad rail support, the combination of a cross-tie, a plate upon the cross-tie, a rail supported by the plate, said plate having a surface inclined away from a line parallel to the rail, a rail brace engaged with said surface and said rail, a bolt extending through and beyond the two sides of said brace, one end of said bolt having a part extending downwardly into engagement with one side of said plate and then extending under said plate, and the other end of said bolt being screw-threaded, and an adjustable nut on the screw-threaded end of the bolt.

In testimony whereof, we have hereunto affixed our signatures.

CHARLES W. REINOEHL.
BENT L. WEAVER.

Witnesses:

WM. HARRISON SMITH,
E. M. WARE.

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

Correction in Letters Patent No. 1,005,785.

It is hereby certified that in Letters Patent No. 1,005,785, granted October 10, 1911, upon the application of Charles W. Reinoehl and Bent L. Weaver, of Steelton, Pennsylvania, for an improvement in "Railroad-Rail Supports," an error appears requiring correction as follows: In the grant and in the headings of the drawing and printed specification Helen B. Reinoehl appears as "administratrix of said Charles W. Reinoehl, deceased," whereas said Helen B. Reinoehl should appear as *Executrix* of said Charles W. Reinoehl; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 16th day of January, A. D., 1912.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.

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