W. M. HENDERSON.

RAILROAD RAIL SUPPORT.

APPLICATION FILED APR. 29, 1911.

1,045,550. Patented Nov. 26, 1912.

Fig. 1.

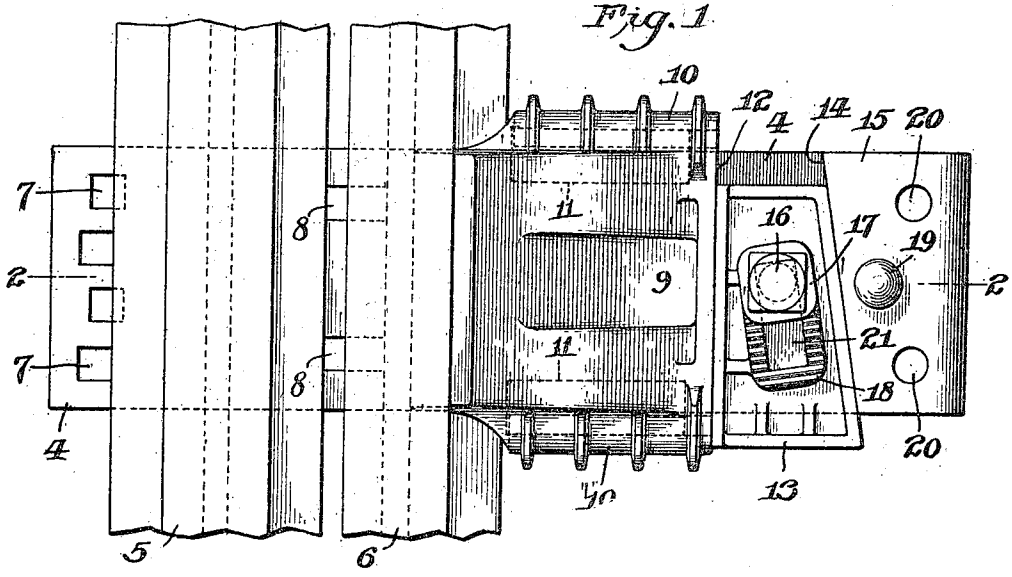


Fig. 2.

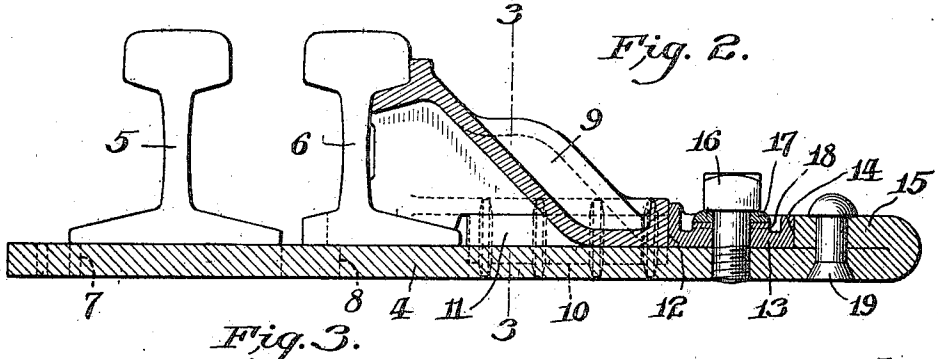


Fig. 3.

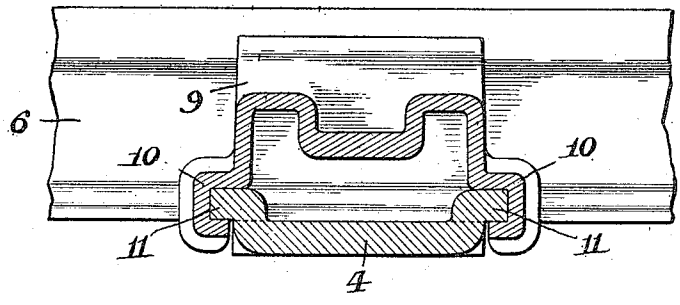
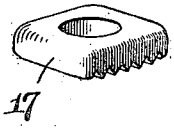


Fig. 4.



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RAILROAD-RAIL SUPPORT.

1,045,550. Specification of Letters Patent. Patented Nov. 26, 1912.

Application filed April 29, 1911. Serial No. 624,124.

To all whom it may concern:

Be it known that I, WILLIAM M. HENDERSON, a citizen of the United States, residing at Steelton, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Rail Supports, of which the following is a specification.

This invention relates to railroad rail supports.

The object of the invention is to provide an underlying plate and a lateral brace for the rail in combination with a novel, simple and efficient means whereby upward displacement of the brace relatively to the plate may be prevented and whereby the brace may be adjusted laterally of the rail, to compensate for wear, and held in positions of adjustment.

With this object in view, the invention consists in the novel construction and combinations of parts hereinafter fully described and particularly claimed.

In the drawings:—Figure 1 is a plan view of a railroad support, showing one form of embodiment of my invention, showing a main rail and a guard rail supported thereby. Fig. 2 is a vertical section, on line 2—2 of Fig. 1. Fig. 3 is a vertical section, on line 3—3 of Fig. 2. Fig. 4 is a perspective view of the serrated washer included in the fastening means.

4 designates a horizontally-arranged plate which is adapted to rest upon a cross tie. In the drawings I have shown the plate 4 supporting a main railroad rail 5 and an adjacent guard rail 6, the rails 5 and 6 being of the usual well known construction. The plate 4 is provided with suitable holes 7 and 8 to receive spikes which may be driven into an underlying cross tie to secure the rails 5 6 and plate 4 thereto.

Mounted on the plate 4, on the side of the rail 6 opposite to the side thereof which receives the thrust of the car wheel flanges is a hollow rail brace 9. The inner portion of the brace 9 is fitted against the adjacent side of the rail 6, engaging the top of the base, the web and the bottom and side face of the head thereof, as shown.

The lower portions of the sides of the brace 9 are provided with parallel extensions 10 which embrace parallel ribs 11 formed on the sides of the plate 4 and extending at right angles to the rail 6 or substantially so. The extensions 10 of the brace 9 are slidably fitted to the ribs 11 in a manner to permit the brace 9 to be adjusted toward and from the rail 6 at right angles thereto; and the extensions extend beneath and engage the bottoms of the ribs 11 to prevent upward displacement of the brace 9 relatively to the plate 4. The brace 9 is engaged with the tops of the ribs 11 and also with the top of the plate 4 between the ribs 11 at the outer portion of the brace to take the downward thrust against the brace at the outer portion thereof.

The outer face 12 of the brace 9 extends parallel to the rail 6 or at right angles to the ribs 11 and is fitted to the straight side of a wedge 13 which rests upon the plate 4. The inclined side of the wedge 13 is fitted to the vertical face 14 of a raised portion 15 of the plate 4, the side or face 14 being inclined away from a line parallel to the rail 6, as shown, whereby when the wedge 13 is driven into the space between the faces 12 and 14, the brace 9 may be forced into engagement with the rail 6 or the brace 9 and rail may be forced toward the rail 5 to compensate for wear.

In order to lock the wedge 13 and perforce the brace 9 in positions of adjustment, I provide the following:—The wedge 13 is provided with a slot 21 therein extending parallel to the surface 14. Extending through the slot 21 and screwed into the plate 4 is a cap screw 16, the square head of which is engaged with a washer 17 which surrounds the screw 16 and is interposed between the head thereof and a raised portion or pad 18 formed on the wedge 13 and surrounding the slot 21. The bottom of the washer 17 is serrated, as shown, and is adapted to the upper face of the pad 18 which is correspondingly serrated.

When the screw 16 is screwed down tight the washer 17 and wedge 13 are securely clamped between the head of the screw and the plate 4, and the serrated portion of the collar engaging the serrated portion of the wedge prevents the wedge from working loose.

When it is desired to adjust the wedge 13, the screw 16 is loosened and the washer raised to free its serrations from the serrations of the wedge; and, after the desired adjustment has been made, the screw 16 is screwed down to again clamp the wedge in place.

The plate 4 in the form shown is made

from a blank of rolled steel having the ribs forged thereon and the raised portion 15 formed by bending the end portion of the blank up and over the top of the plate, the bent end portion being held in place by a rivet 19.

In additon to the holes 7 and 8 to receive spikes to hold the rails 5 and 6 and plate 4 in place upon the cross tie, I provide the plate 4 with holes 20 for the reception of lag screws which may be screwed into the cross tie supporting the plate.

I claim:

1. The combination of a railroad rail, a plate supporting the rail and having an end portion bent up and over the top of the plate, means for holding said end portion down upon the body of the plate, and a brace engaging said rail and provided with means engaging said end portion.

2. The combination of a railroad rail, a plate supporting the rail and having an end portion bent up and over the top of the plate, means for holding said end portion down upon the body of the plate, said end portion having a surface inclined away from a line parallel to the rail, a brace engaged with said rail, a wedge between said brace and said surface, and means for holding the wedge in place.

3. The combination of a railroad rail, a plate having guiding ribs extending substantially at right angles to the rail, a hollow brace adjustable on said ribs toward the rail, and means for holding said brace in place upon said plate, said brace comprising side walls resting upon and embracing said ribs and engaging said rail between the head and base thereof, and an inclined top wall connecting said side walls and engaging said plate and the head of said rail.

4. The combination of a railroad rail, a plate having guiding ribs projecting outwardly from the sides thereof and extending substantially at right angles to the rail above the plane of the bottom thereof, a hollow brace having laterally extending parts embracing said ribs, said brace being adjustable on said ribs toward the rail, and means for holding said brace in place upon said plate.

5. The combination of a railroad rail, a plate having raised guiding ribs projecting outwardly from the sides thereof and extending substantially at right angles to the rail, a hollow brace having laterally extending parts embracing said ribs, said brace having a depressed central portion engaging the top of said plate and said brace being adjustable on said ribs toward said rail, and means for holding said brace in place upon said plate.

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

WILLIAM M. HENDERSON.

Witnesses:

A. V. GROUPE,

S. I. HARPER.