No. 836,609. PATENTED NOV. 20, 1906.

W. O. SCHROYER.

RAILWAY RAIL JOINT.

APPLICATION FILED MAR. 28, 1906.

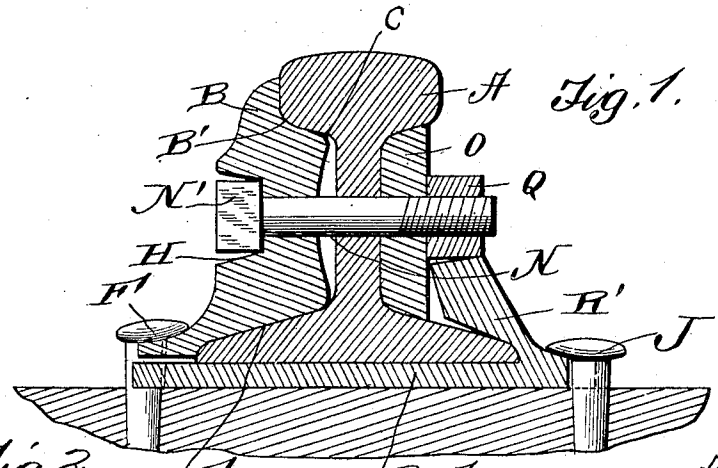


Fig. 1.

Fig. 2.

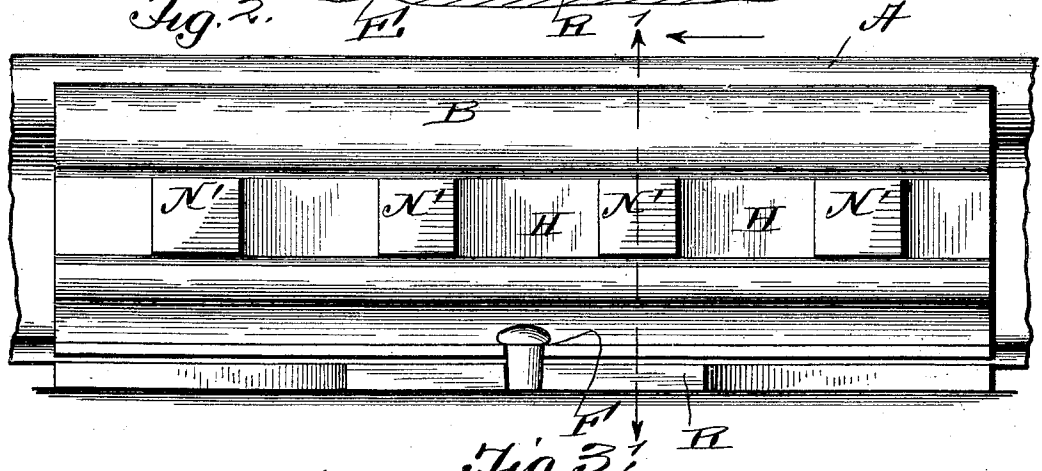
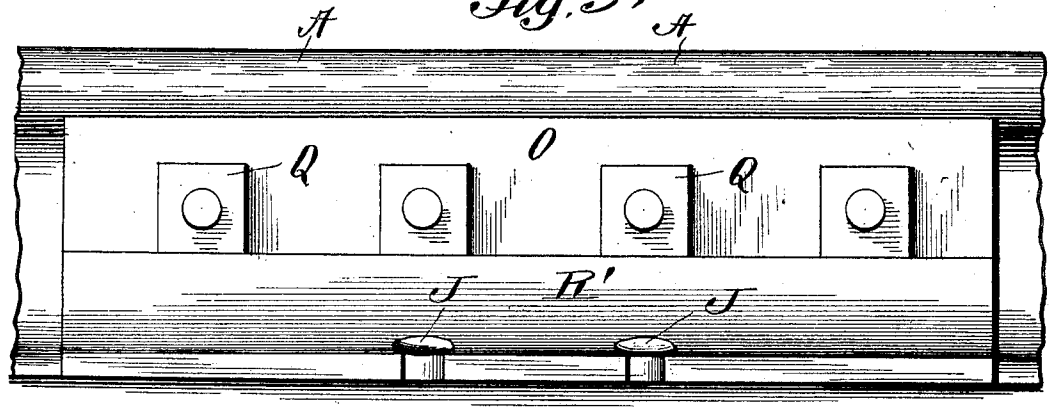


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM O. SCHROYER, OF CINCINNATI, OHIO.

RAILWAY-RAIL JOINT.

No. 836,609. Specification of Letters Patent. Patented Nov. 20, 1906.

Application filed March 28, 1906. Serial No. 308,610.

To all whom it may concern:

Be it known that I, WILLIAM O. SCHROYER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Railway-Rail Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in railway-rail joints; and the object of the invention is to produce a simple and efficient means whereby the rail may be securely braced against a lateral movement, thereby preventing the rail coming in contact with the flanges of car-wheels, and comprises specifically a brace-plate having a shouldered portion adapted to receive one edge and the lower portion of the tread of the rail and having a longitudinal groove to receive the heads of bolts and in the provision of means for drawing the plate tightly against the side of the rail.

The invention consists, further, in the provision of a brace-plate which is held by means of a bolt tightly against the flange and side of the tread and in the provision of an angled fish-plate upon which the rail rests and so arranged as to form means for preventing the loosening of nuts upon the bolts which hold the parts together.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a cross-sectional view showing the application of my invention. Fig. 2 is a side elevation of one side of the joint, and Fig. 3 is a side elevation of the opposite side.

Reference now being had to the details of the drawings by letter, A designates a railway-rail of the usual construction, and B designates a plate, either casting or drawn, having a shouldered portion B′, adapted to conform to one edge of the tread and of the under portion thereof, forming a support for said rail. The surface C of said shoulder is preferably inclined, conforming to the inclined under edge of the tread, and said plate also has an inclined surface E, adapted to conform to and rest upon the inclined surface of the flange of the rail, while the lower portion of said plate has a projection F extending over the flange of the rail and which may be engaged by spikes, if desired. Said plate, it will be noticed, is of considerable thickness in order to give sufficient rigidity and strength thereto and is provided with bolt-holes extending through grooves H, adapted to receive the bolts N. When said bolts are inserted in place, the heads N′ thereof are flush with the outer surface of said plate.

O designates a plate the inner surface of which and the opposite edges are made to conform to the shape of the web of a rail, the under surface of the tread, and the flange, and said plate is apertured to receive the bolts N.

Q designates nuts which are mounted upon the threaded portions of the bolts, and R designates a fish-plate having an angled portion R′. Said plate is adapted to be inserted underneath the rail, and the upper end of the angled portion R′ extends a sufficient height to form a means for preventing the nuts from loosening when positioned in the manner shown in Fig. 1 of the drawings. Said fish-plate has slots or recesses cut in the edge thereof for the reception of the spikes J, which may be driven into the ties and form means for holding the fish-plate from lengthwise or lateral movement.

In applying my device the two plates B and O are securely clamped to the opposite sides of the rail in the manner shown by the tightening of the nuts Q. The plate B, having a wedging contact with the flange and the under portion of the tread of the rail, will securely bind against the same and form a secure and rigid support to the rail and prevent any tendency of the latter tilting to one side under heavy pressure incident to a train passing over the track, thereby preventing the flanges of the car-wheels from coming in contact with the rail. After the plates B and O have been clamped in their respective positions the fish-plate R may be placed underneath the rails and the angled portion R′ brought to the position shown in Fig. 1 of the drawings, so that it will effectually prevent the loosening of the nuts, thereby avoiding any possibility of the nuts loosening and coming free from the bolt.

What I claim is—

1. A railway-joint comprising, in combination with a railway-rail, a brace-plate having a shouldered portion formed in one face thereof and adapted to contact with the side

and under portion of the tread of the rail, said plate having inclined surfaces adapted to have wedging contact with the under portion of the tread and the flange of the rail, said plate having a groove therein, bolts mounted in holes in the plate and having their heads countersunken in said groove, a plate upon the opposite side of the web of the rail and through which said bolts pass, nuts upon said bolts, and a fish-plate extending underneath the rail and having an angled portion positioned adjacent to said nuts, whereby the latter may be prevented from turning, as set forth.

2. A railway-joint comprising, in combination with a railway-rail, a brace-plate having a shouldered portion formed in one face thereof and adapted to contact with the side and under portion of the tread of the rail, said plate having inclined surfaces adapted to have wedging contact with the under portion of the tread and the flange of the rail, said plate having a groove therein, bolts mounted in holes in the plate and having their heads countersunken in said groove, a plate upon the opposite side of the web of the rail and through which said bolts pass, nuts upon said bolts, and a fish-plate positioned underneath the rail and having an overhanging angled portion extending over one of the flanges of the rail and its top positioned underneath said nuts, whereby the latter may be prevented from turning, as set forth.

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

WILLIAM O. SCHROYER.

Witnesses:
A. L. HOUGH,
FRANKLIN H. HOUGH.