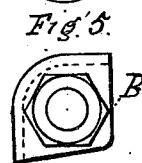
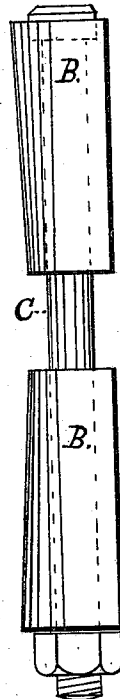
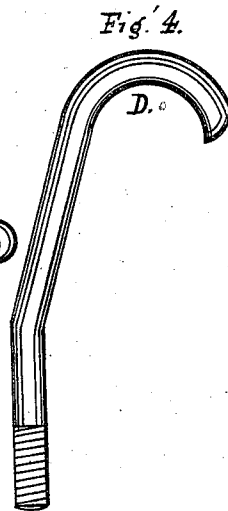
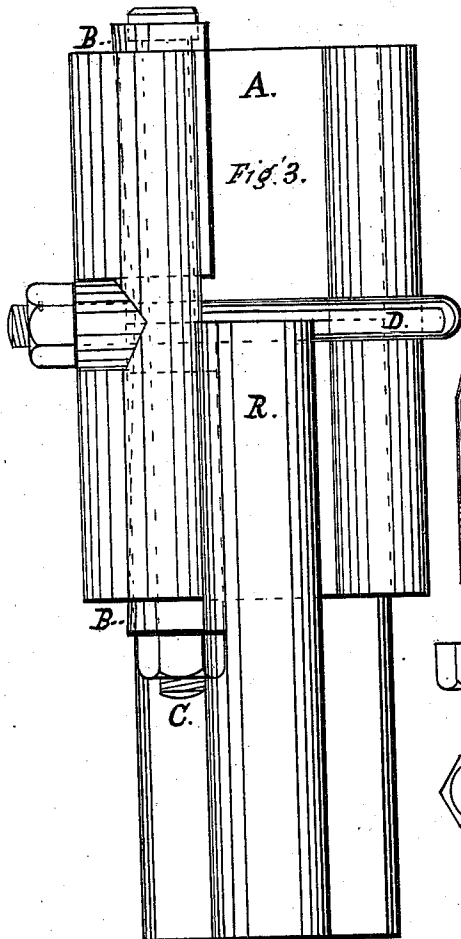
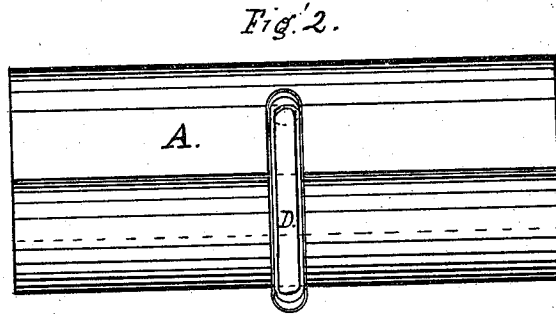
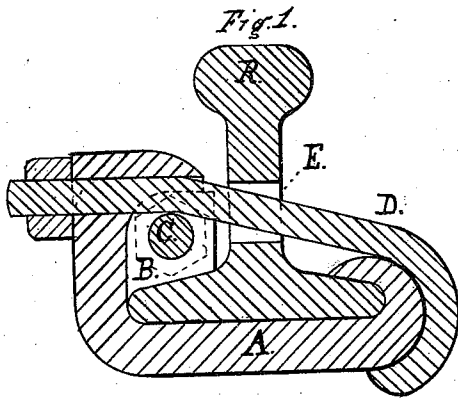


J. SHINN.
RAILROAD RAIL-JOINT.

No. 173,350.

Patented Feb. 8, 1876.



Witnesses.

H. T. Marcus.
H. C. Pearson

Inventor.

John Shinn.

UNITED STATES PATENT OFFICE.

JOHN SHINN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
HIS RIGHT TO JAMES F. STILEMAN, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-RAIL JOINTS.

Specification forming part of Letters Patent No. **173,350**, dated February 8, 1876; application filed
November 19, 1875.

To all whom it may concern:

Be it known that I, JOHN SHINN, of Philadelphia and State of Pennsylvania, have invented an Improvement in Railway-Rail Joints, of which the following is a specification:

The object of my invention is to provide a secure and permanent rail-coupling at the joint of a railway-track, and also to prevent the sliding or slipping of the rail out of the coupling or tie; and consists in the combination of a coupling or tie provided with two hollow tapering keys having a bolt passing through them, with a brace-bolt that will act as a stop to prevent the tie from sliding on the rail, and, at the same time, act as a brace to strengthen the coupling or tie.

Figure 1 represents a cross-section of my improvements; Fig. 2, a longitudinal view of the tie; Fig. 3, a top view of the tie and improvements; Fig. 4, a view of the brace; Fig. 5, a view of the taper keys and bolt.

Similar letters in the drawings refer to like parts.

The tie A is cast in one piece, and with a suitable recess to receive the ends of the rails R, and one side is provided with two tapering hollow keys, B B, which enter at opposite ends of the tie, and are drawn toward the center by the bolt C which passes through them, by which means the ends of the rail are held firmly in the tie. This part of the tie is not new and is fully described in Patent No. 23,390, March 29, 1859, and, therefore, will not require further description here.

D is the brace, and is made as shown in Fig. 4. One end is cut with a screw-thread for a nut; the other end is turned or bent to fit round the edge of the tie A. In the ends of the rails are cut a notch, E, (see Fig. 1.) When

the two ends are put together these notches form a square hole or slot in that side of the tie for the keys, and just above them is a hole, through which passes the end of the brace D, on which is a nut, (see Figs. 1 and 3.)

To apply and use my improvement, the ends of the rails are slid in the tie, half on each rail, when the brace D is passed through the hole formed by the notch E in the ends of the rails and through the hole in the center of the tie, and the opposite end is hooked to the edge of the tie. The nut is then put on and screwed tight. The keys B B are then put in from opposite sides, and a bolt, C, is passed through them, and by screwing the nut the keys will be drawn together and firmly hold the ends of the rail in line. Should the keys get loose, the brace C will prevent the tie from sliding off from either end of the rail forming the joint, and, at the same time, greatly strengthen that part of the tie for the keys B B.

When it is desirable to take up and remove a rail, the brace D can be removed, which will allow the tie to be slid to one side and break the joint. Other rails may be put in and keyed up, as before described.

The tie A may be made either cast or wrought iron, the keys of cast-iron, the nuts should be lock-nuts, to prevent them from shaking loose.

I claim—

Tie A and taper keys B B, provided with a bolt, C, in combination with the brace D, as described, and for the above purpose.

JOHN SHINN.

Witnesses:

W. N. MARCUS,
CHAS. G. IMLAY.