

J. BISHOP.
Railway Rail-Joints.

No. 140,760.

Patented July 15, 1873.

Fig. 1.

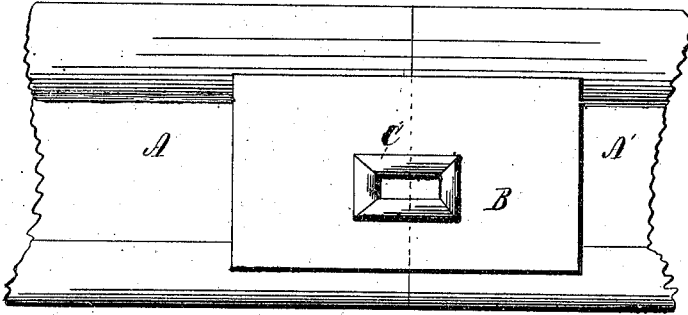
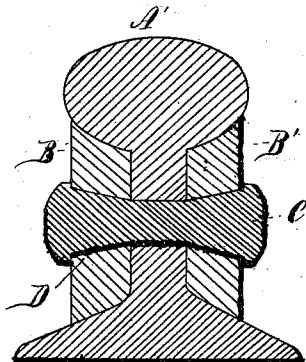


Fig. 2.



WITNESSES.

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JAMES BISHOP, OF OWEGO, NEW YORK.

IMPROVEMENT IN RAILWAY-RAIL JOINTS.

Specification forming part of Letters Patent No. **140,760**, dated July 15, 1873; application filed June 19, 1873.

To all whom it may concern:

Be it known that I, JAMES BISHOP, of Owego, in the county of Tioga and State of New York, have invented certain new and useful Improvements in Devices for Uniting Railroad-Rails; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in devices for securing the ends of railroad-rails, and consists as follows:

Figure 1 represents a side view of portions of two ends of a railroad-rail united by my device; Fig. 2, a transverse section of the rail and clamps, showing the key in position through the rails and clamps.

A A' represent the two ends of an ordinary T-shaped steel or iron railroad-rail; B B', clamps or joint-pieces; C, a key or rivet which passes through a slot, D, in both ends of the rails A A' and clamps B B'. In the ends of each rail is cut a gain or slot, through which slot passes a rivet or key, C, which also passes horizontally through the joint-pieces or clamps B B' fitted against the sides of the rails over the joints in the rail, said rivet being firmly swaged on both sides of the rail. The slots in the clamp-pieces are beveled outward to allow a more thorough swaging of the parts together.

The clamp or joint pieces, being riveted firmly by means of the key against the sides of the rail, maintain a perfect lateral line of the same at the ends, and form a complete union of the rails calculated to resist all the varied strains to which the rails are subject in railroad-tracks. My device is calculated to key the rails together perpendicularly and clamp them together laterally, so that there can be no depression of one of the rails by weight moving upon it without causing a corresponding depression in the adjoining rail,

thus maintaining a continuous surface between the two rails at the joint, and gaining the advantage of the strength of the two combined rails at the ends, each assisting the other in resisting the rolling weight passing over them, and both held in line by the side clamps or splice-pieces, through which the key is riveted. A rigid connection of the ends of the rails A is formed, so that there can be no change of their relative positions by the various strains to which they are subjected, and thus, by maintaining a perfect relative position of the rails at the joints, there must necessarily be a saving of a large percentage in the ordinary wear of the same, the destruction of which is largely caused by the concussion and battering of the wheels upon the ends of the rails in consequence of the imperfect surface caused between the two rails by depression of the same at the ends as the wheels pass from one rail onto the other at the joint. I also avoid, to a great extent, the liability of accident by the wheels mounting the rails at the joints in consequence of imperfection of line between the two rails, caused by lateral pressure upon the same.

This device is not intended to take the place of the railroad-chair, but is to be used in conjunction with chairs and with ties placed under the joints to strengthen the same, and make the joints of the rails, which is the weaker part, as near perfect as possible.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the rails A A', slotted as shown, the bevel-slotted clamps B B' and swaged key C, substantially as shown, and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of May, 1873.

JAMES BISHOP.

Witnesses:

L. D. DURPHY,
T. D. BARTON.