

W. Morehouse,

Rail Joint.

No. 110,384.

Patented Dec. 20, 1870.

Fig. 1

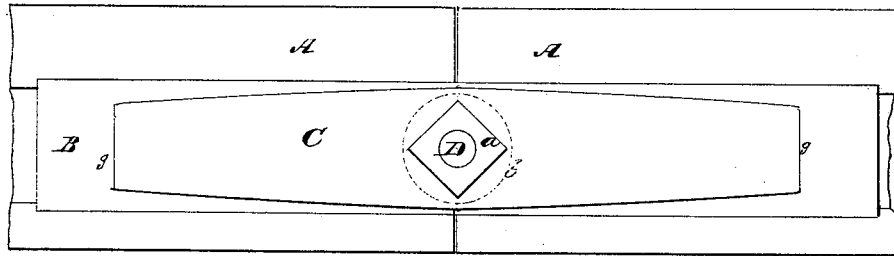


Fig. 2

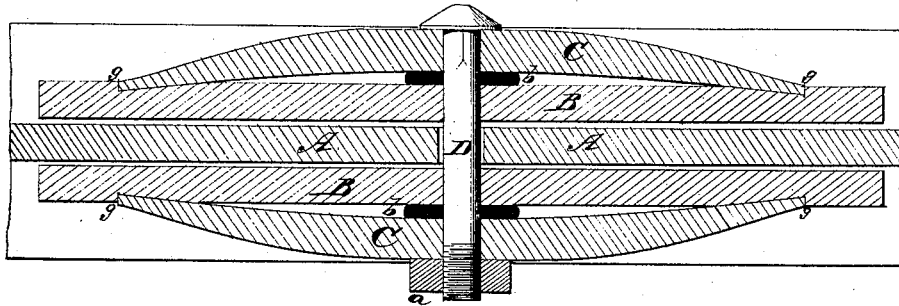


Fig. 3

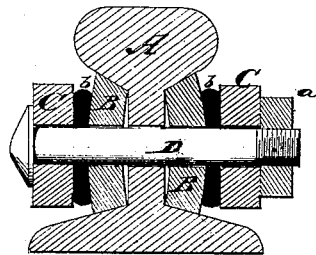
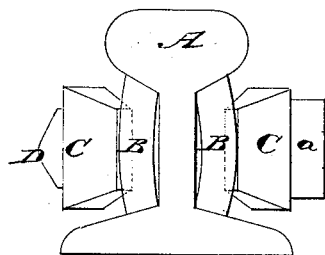


Fig. 4



Witnesses.

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WILLIAM MOREHOUSE, OF BUFFALO, NEW YORK.

Letters Patent No. 110,384, dated December 20, 1870.

## IMPROVEMENT IN RAILWAY-RAIL JOINTS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, WILLIAM MOREHOUSE, of Buffalo, in the county of Erie and State of New York, have invented a new and improved Fastening for the Joints of Railroad-Rails; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side view, showing the ends of the sections of a railroad-rail united by the improved fastening.

Figure 2 is a section taken horizontally through fig. 1, below the rail-head.

Figure 3 is a cross-section through the joint.

Figure 4 is an end view of a rail, and the devices for jointing the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new mode of connecting sections of railroad-rails by means of bolts passed transversely through notches made into the ends of the rail-sections, and also through splicing or fish-bars, which are applied on opposite sides of the webs of the rail-sections.

My object is to render unnecessary the use of more than one through-bolt for each joint, and consequently, weakening of the webs of the rail near the joints, by punching holes through them.

The nature of my invention consists in the employment of strong bow-springs, in combination with fish-bars and a single centrally-arranged transverse bolt, with or without intermediate elastic washers, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing—

A A represent the ends of two sections of a railroad-rail, which are each notched, as shown in fig. 2, to receive through them the clamping-bolt D.

B B are fish-bars, which may be of the concavo-convex form, shown in figs. 3 and 4, and which are

applied on opposite sides of the webs of the rail-sections between the lips of the rail-table and the rail-base. These fish-bars are perforated transversely midway between their ends to receive through them the bolt D, as shown in the drawing.

C O are two bow-springs, which may be made of any suitable length and width, and which are tapered from the middle of their length to their extremities, as shown in fig. 2. These springs are clamped firmly against the fish-bars B B by means of the bolt D and nut *a*, and their extremities are received against shoulders *g* on the fish-bars, as shown in fig. 2.

Between the spring-clamps C O and the fish-bars B B metal or India-rubber springs *b* are confined, which, by their tendency to recoil, will prevent the nut *a* from working loose.

The spring-clamps should be made so stiff as to require the application of considerable force to the nut *a* to spring these clamps to their places against the shoulders *g g*. The pressure, thus applied and retained, will be transferred to the extremities of the clamps; and the fish-bars will be forced firmly against the rail-sections.

By fitting the ends of the clamps against the shoulders *g g* I not only prevent the clamps from elongating after they are forced home, but I also prevent end-wise movement of the fish-bars and clamps.

Having described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The spring-clamps C O applied to the fish-bars B B and rail-sections by means of a bolt, D.

2. The shoulders *g g*, made into the fish-bars to receive the ends of the clamps C O, substantially as described.

3. The combination of elastic washers *b* with the clamps C and fish-bars, substantially as described.

WILLIAM MOREHOUSE.

Witnesses:

LEVI S. GATES,

HUGH ROSE.