

S. T. HUGHES.
RAILROAD RAIL-JOINT.

No. 174,248.

Patented Feb. 29, 1876.

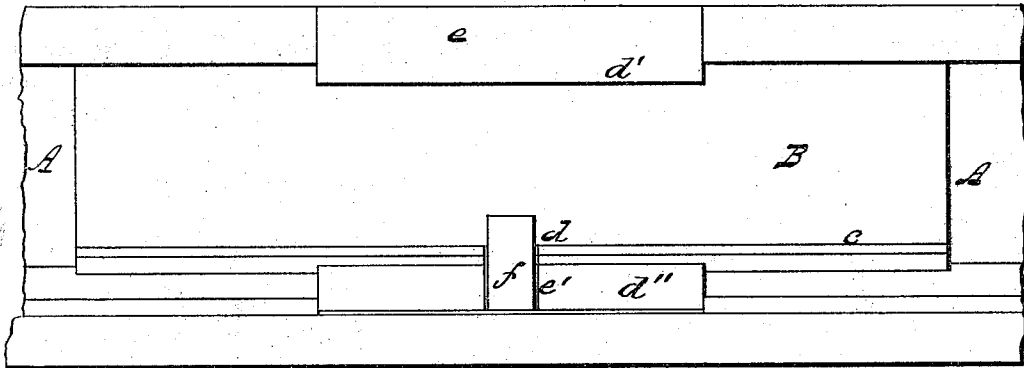


Fig. 1

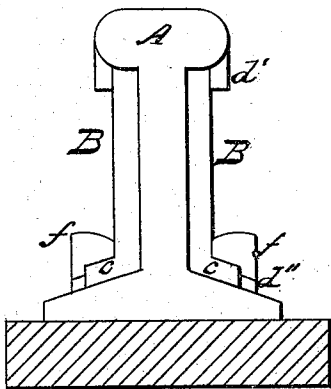


Fig. 2

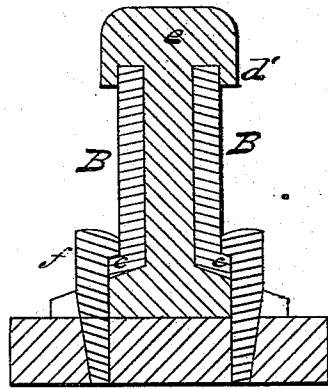


Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL T. HUGHES, OF NEWBURG, OHIO.

IMPROVEMENT IN RAILROAD-RAIL JOINTS.

Specification forming part of Letters Patent No. 174,248, dated February 29, 1876; application filed February 1, 1876.

To all whom it may concern:

Be it known that I, SAMUEL T. HUGHES, of Newburg, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvement in Railroad-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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side view, and Figs. 2 and 3 are sectional views.

This invention has relation to railroad-rail joints, and consists in the novel construction and combination of parts, having reference particularly to the peculiar method of fastening the fish-plates against the sides of the joined rails, the object accomplished being the provision of a joint of a very strong and durable character; a joint in which bolts and nuts are entirely dispensed with, and the ordinary rail-spikes alone employed to secure all the parts firmly together, and a joint which will preserve the ends of the rails from being battered by concussion of the wheels of cars, all as hereinafter fully described.

Referring to the accompanying drawings, A A designate the adjacent ends of two railroad-rails, and B B the fish-plates, having their lower edges flanged outwardly, as at *c c*, and the flanges notched or recessed midway between the ends of the plates, as at *d*. The rails do not meet, but are separated by a short section, *e*, of equal height and width with the main rails, forming a continuation thereof, but additionally flanged at *d' d''* to receive and retain the fish-plates, which are slid longitudinally behind said flanges. The base

of section *e* is recessed or notched, as at *e'*, to coincide with the notches in the fish-plate flanges. When all the parts mentioned are in place, they are firmly secured by means of the two spikes *f f*, which are driven into the ties through the notches *d e'*, so that their heads shall rest on the portion of the fish-plate flanges lying back of the notches. The joint may be readily removed by displacing the spikes.

The advantages of the improvement described, in point of cheapness, strength, and other desirable qualities, are so apparent as to require no argument. It is but to be remarked that the results of expansion and contraction are equally divided between the two sub-joints or divisions separating the main rails and intervening section; hence the battering of the ends of the rail consequent upon large openings is prevented. The fastening may, if desired, be used without the section *e*, more than one spike on each side being then used.

I claim—

1. The combination of the rails A A, flanged and notched fish-plates B B, and spikes *f f*, substantially as described.
2. The flanged and notched fish-plates B B, and flanged section *e*, in combination with the rails A A, substantially as described.
3. The flanged supplementary rail-section *e*, adapted to receive and hold the fish-plates B B, substantially as shown and described.

In testimony that I claim the foregoing, I hereunto set my hand this 8th day of January, 1876.

SAMUEL T. HUGHES.

Witnesses:

CHARLES ADAMS,
W. T. SHAW.