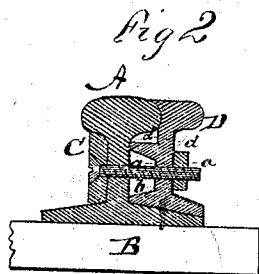
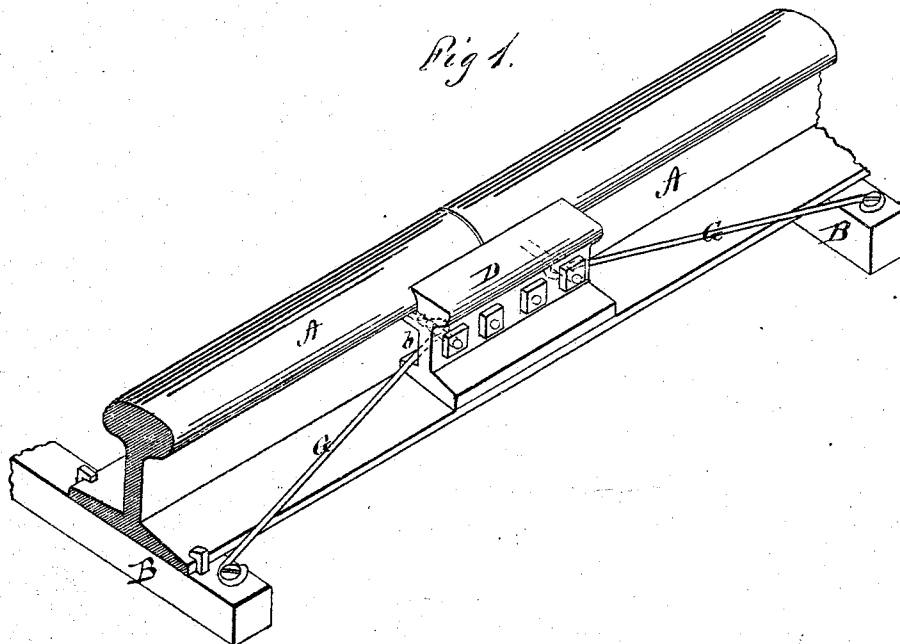


J. ADAMS.
Railroad-Rail Joints.

No. 133,818.

Patented Dec. 10, 1872.



Witness:
Francis L. Curand.
C. L. Ewert.

Inventor.
James Adams.
per *Charles Mason*
Attorneys.

UNITED STATES PATENT OFFICE.

JAMES ADAMS, OF NEWARK, DELAWARE.

Specification forming part of Letters Patent No. 133,818, dated December 10, 1872.

IMPROVEMENT IN RAILROAD-RAIL JOINTS.

To all whom it may concern:

Be it known that I, JAMES ADAMS, of Newark, in the county of New Castle, and in the State of Delaware, have invented certain new and useful Improvements in Railroad-Splice; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a railroad splice, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my railroad splice, and Fig. 2 is a transverse vertical section through the same.

A A represent the ends of two adjoining railroad rails, supported upon ties B B. C represents the inside fish-plate, which is constructed in the usual manner, and D represents the outside fish-plate, the rails and fish-plates being secured by means of bolts *a a*. The outer fish-plate D is constructed, as shown particularly in Fig. 2, in the shape of an ordinary T-rail, the head on one side being reduced and made concave, so as to fit on the side of the head of the rails A A, its upper side being level with the top of said rails, thus forming an auxiliary rail, which breaks

the joint and prevents the ends of the rails A A from becoming battered. The foot of the fish-plate D extends up to the side of the rail, and above the same, on the inner side of the fish-plate, is a longitudinal rib, *d*, which also bears against the sides of the rails, forming, with the lower rib or foot, a longitudinal groove, *b*, through which the bolts *a a* pass. By this construction of the fish-plate D it is made lighter and still as strong as if made solid. The ribs bearing against the sides of the rails prevent any springing of the fish-plate. The outer bolt *a* at each end of the fish-plate passes through the end of a rod, G, placed in the groove *b*, and the other end of the rod secured to the tie B. These rods G G, thus connecting the rails and splice with the ties, prevent the rails from running, which they cannot do without carrying the ties with them.

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

The combination of the rails A A, fish-piece C and fish-piece D, constructed as described, bolts *a a*, and the rods G G, connected to the bolts within the groove *b*, and to the ties B B, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of October, 1872.

JAMES ADAMS.

Witnesses:

WM. MCKEOWAN,
A. J. LILLEY.