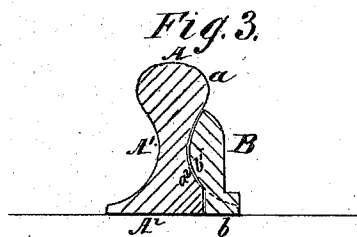
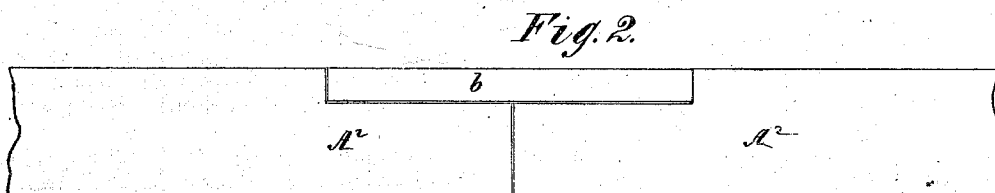
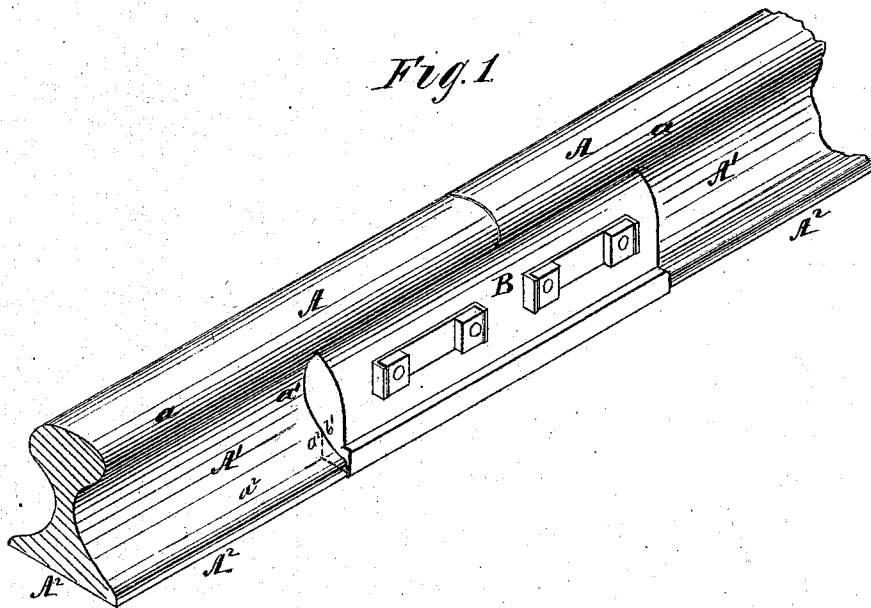


W. D. LINDSLEY.
Railroad-Rail Joints.

No. 142,030.

Patented August 19, 1873.



Witnesses:
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John K. K.

Inventor:
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UNITED STATES PATENT OFFICE.

WILLIAM D. LINDSLEY, OF WATHENA, KANSAS, ASSIGNOR TO HIMSELF,
EZRA V. SNIVELY, OF SAME PLACE, AND L. E. HEDGES, OF FREDERICK,
MARYLAND.

IMPROVEMENT IN RAILROAD-RAIL JOINTS.

Specification forming part of Letters Patent No. **142,030**, dated August 19, 1873; application filed
May 20, 1873.

To all whom it may concern:

Be it known that I, WILLIAM D. LINDSLEY, of Wathena, in the county of Doniphan and State of Kansas, have invented a new and Improved Splice-Joint for Railroad Rails; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of two rails jointed by their fish-plates. Fig. 2 is a bottom view, and Fig. 3 a transverse vertical section.

The invention relates to a mode of constructing the splice-joint by which the ends of two railroad rails are attached together; and consists in a novel relative construction of the fish-plates and rails, as hereinafter described and pointed out in the claim.

In the drawing, A A represent the heads of two rails, which are usually jointed together at the ends by fish-plates, bolted thereto in such a manner as to allow for contraction and expansion.

It is found, in practice, that the strain upon the rail is not altogether taken by the web, but is, to a great extent, received by the flange *a* on the inner side of the tread. In an ordinary rail, well made and of good metal, this is readily sustained, except at the ends, where the laminæ run out. Here it is found that the side flange on the inner side of the tread is comparatively weak, and often gives way un-

der the heavy pressure which is brought to bear upon it.

My object is to sustain this part of the head-flange *a*, and in order to accomplish it I construct and apply the inside fish-plate B in the following manner: I cause it to coincide with the inner surface *a*¹, and to fit with an offset, *b*¹, on the shoulder *a*² of the web A¹, then to pass perpendicularly through the flange to the bottom of rail-base A². This fish-plate is also provided with a solid flanged base, *b*, that coincides on its bottom face with that of the rail-base A². The base-flange of the inner side of rail is cut away to receive this peculiarly-constructed fish-plate and hold it in its true position.

This mode of constructing and applying the fish-plates gives great strength to the rail ends, and causes them to last as well and as long as other parts of the rail. The construction of the fish-plate and rail so that the offset *b*¹ fits upon the shoulder *a*² prevents too much strain upon the bolts.

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

The fish-plate B, having solid flanged base *b* that fits the excised part of the inside base-flange of rail, and rests with offset *b*¹ upon the shoulder *a*² of rail, in the manner and for the purpose described.

Witnesses: WM. D. LINDSLEY.

SOLON C. KEMON,

T. D. DURBIN OURAND.