

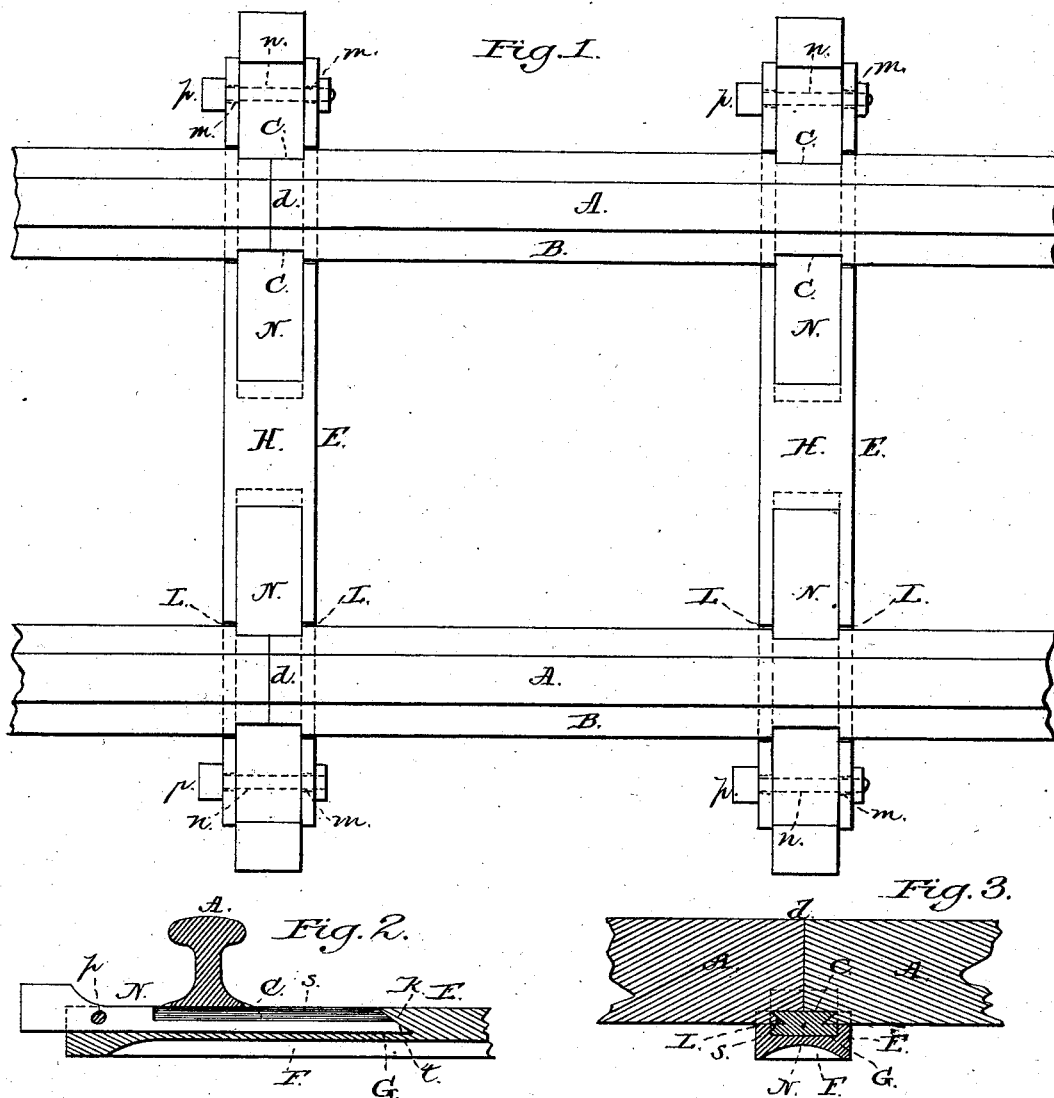
(No Model.)

A. L. CUBBERLEY.

RAILROAD CROSS TIE.

No. 259,823.

Patented June 20, 1882.



WITNESSES

John A. Ellis.
Philip Massi.

INVENTOR

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UNITED STATES PATENT OFFICE.

ALFRED L. CUBBERLERY, OF MARSHFIELD, MISSOURI.

RAILROAD CROSS-TIE.

SPECIFICATION forming part of Letters Patent No. 259,823, dated June 20, 1882.

Application filed January 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, A. L. CUBBERLERY, a citizen of the United States, a resident of Marshfield, in the county of Webster and State of Missouri, have invented a new and valuable Improvement in Railroad Cross-Ties and Rails; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my invention. Fig. 2 is a cross-section, and Fig. 3 is a detail section.

This invention has relation to railway-car tracks; and it consists in the construction and novel arrangement of the under-recessed iron tie, the longitudinal recesses in the upper surface thereof, the transverse bearing-notches in the walls of said recesses, the dovetail rail-keys seated in said recesses, and the transverse dovetail bearings in the base of the rail, as hereinafter set forth.

The object of this invention is to provide a railway-car track which is not liable to settle in the ground, and in which the rails will not spread apart, also to furnish a track which can be easily laid.

In the accompanying drawings, the letter A designates the rail, which may be of any ordinary form in section, having a base, B. In the base from the bottom are formed transverse notches or bearings C of dovetail form. Where the ends of the rails abut, as at *d*, the notches or bearings may be made in sections, one-half in each rail, as shown in the drawings.

E represents the tie, which is made of cast-iron, and is formed with an under recess or concave bottom, F, which is designed to give it a firm bearing on the road-bed and to prevent the tie from settling into the ground, the hollow bottom serving to protect the gravel bearing on which it rests, and to keep it in form.

Longitudinal recesses G are made in the upper surface of the tie, said recesses extend-

ing each way from the solid center H, which is formed with an inclined or overhanging wall at the end of each recess, forming a bearing, *k*. Transverse notch-bearings L are made in the walls of the recesses G, to receive the bases of the rails, and perforations *m* are made through said walls at the ends of the tie. The rails, being laid with their bases in the notch-bearings L of the ties, are secured in place by means of the longitudinal keys N, which are grooved or longitudinally recessed in each side, as at *s*, to engage the dovetail notch-bearings of the rails. The inner end of each key is beveled or provided with a toe-extension, *t*, to engage the overhanging bearing *k* at the inner end of each key-seat G, and the key is secured in its seat by means of a pin, *p*, passing through the perforations *m* in the recess-wall, and through a perforation, *n*, near its outer end.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The under-recessed iron tie E, having longitudinal key-seats G in its upper surface, notched rail-bearings L in the walls of the key-seats, and longitudinal rail-keys N in said seats, engaging the bases of the rails, substantially as specified.

2. The combination, with the transversely-notched rail-bases B, and the iron ties having the longitudinal key-seats G and notched rail-bearings L, of the rail-keys N, having side channels, *s*, to engage the notches in the rail-bases and the fastening-pin *p*, substantially as specified.

3. The combination, with an iron tie, E, having a longitudinal key-recess, G, and transverse rail-seats L in the walls thereof, of a longitudinal key, N, in said recess engaging the rail-base, substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

ALFRED L. CUBBERLERY.

Witnesses:

I. D. McFALL,
JNO. O. ELLIS.