

E. E. LEWIS.
RAILROAD-TIE.

No. 172,041.

Patented Jan. 11, 1876.

FIG. I.

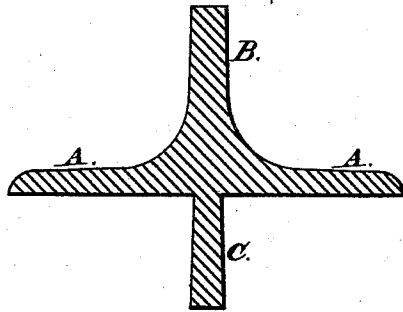


FIG. II.

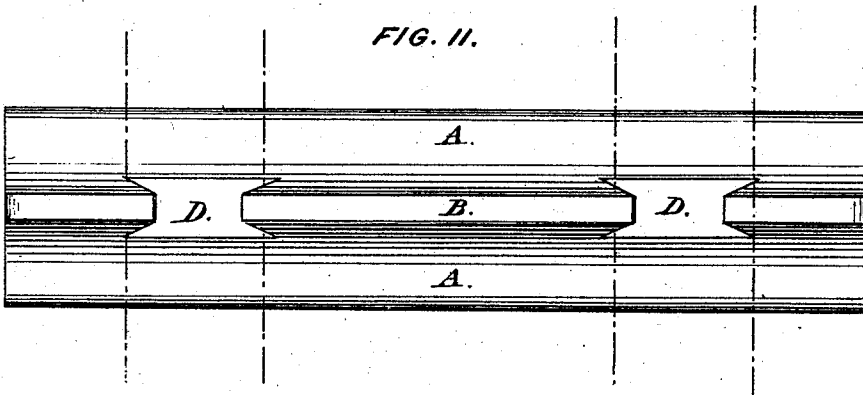
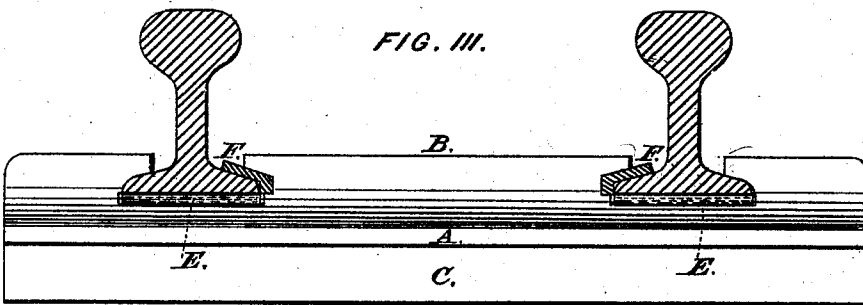


FIG. III.



WITNESSES:

John S. Lewis
Charles Ketchum.

INVENTOR:

Ebenezer E. Lewis

UNITED STATES PATENT OFFICE.

EBENEZER E. LEWIS, OF GENEVA, NEW YORK.

IMPROVEMENT IN RAILROAD-TIES.

Specification forming part of Letters Patent No. **172,041**, dated January 11, 1876; application filed November 27, 1875.

To all whom it may concern:

Be it known that I, EBENEZER E. LEWIS, of Geneva, in the county of Ontario and State of New York, have invented a Railroad-Tie, of which the following is a specification:

The object of my invention is to construct a railroad-tie of iron by rolling one or more ties in a continuous piece of iron and cutting it off in suitable lengths to suit the width of road it is to be applied to. The tie has a broad surface to rest upon the road-bed, and on its upper side a longitudinal projection for the seat of the rail to be made into, one seat at or near each end; also, a longitudinal projection on the lower side of the broad surface to enter the road-bed to hold the tie in place, as shown in the accompanying drawing, in which—

Figure 1 is a vertical section of the tie. Fig. 2 is a top view, and Fig. 3 a side view, of the tie.

The letters of reference refer to the same parts in each figure.

A is the broad surface of the tie, that is placed upon the road-bed to support the several parts. It may be made of any size or length required. It has attached to it a projection on the upper surface, also a projection at the under side, all extending across the railroad-bed under both rails of the road. B is a longitudinal projection made upon the upper surface of the part A, and of the same length. In its upper edge are two seats for the railroad-rails, made the proper distance apart to give the required width to the road. Its size or shape may be varied to correspond with the various conditions where it may be used. C is a longitudinal projection connected with the under side of the broad surface. It is of the same length as the tie, and

may be made of any required width or size. The lower edge may be made the thickest for the purpose of more securely holding the tie in place. The use of this projection is to keep the tie in position where placed and to give greater strength to the tie. D and D are the seats for the railroad-rails. They are made in the upper edge of the projection B. They must be made large enough to receive the lower part of the rails and have space beneath the rails for any elastic substance that may be preferred; also room for a key or wedge to be driven over one of the flanges of each rail. E is an elastic substance that is placed in the rail-seat, and underneath the rail, to prevent noise and prevent injury to the cars by the firmness of the road. It may be made of india-rubber, wood, or any other proper substance. This may or may not be used, for a soft road-bed will not require as much as a hard one. F is the wedge or key. It must be made to rest upon the base of the rail and extend down by the edge of the base, and large enough to fill the rail-seat when properly driven, and it must be made of such material that when driven the points may be bent upward and outward to keep them in place while in use.

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

A railroad-tie composed of a bearing-surface, A, the projection B, with seats D and D for the railroad-rails, the projection C, and the wedge F, substantially as specified.

EBENEZER E. LEWIS.

Witnesses:

JOHN L. LEWIS,

CHARLES KETCHUM.