

G. W. CHANDLER.

RAILROAD TIES.

No. 186,710.

Patented Jan. 30, 1877.

Fig. 1.

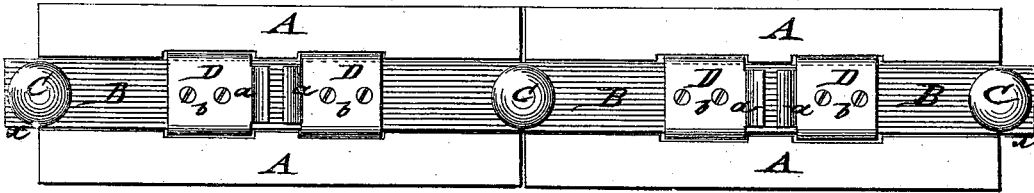
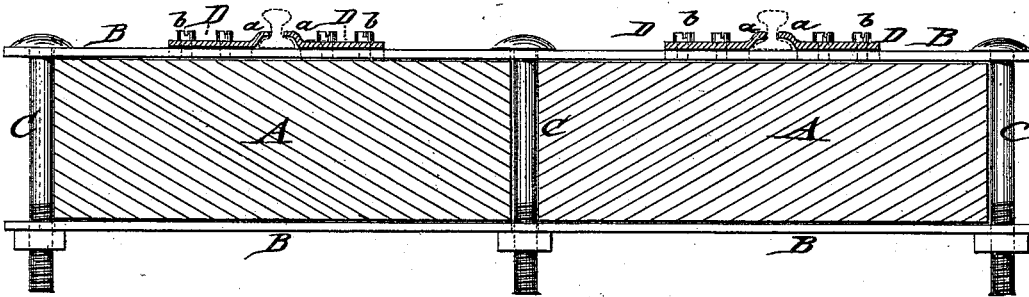


Fig. 2.



WITNESSES:

Francis McCordle,
J. H. Scarborough

INVENTOR:

G. W. Chandler,
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE W. CHANDLER, OF MOINGONA, IOWA.

IMPROVEMENT IN RAILROAD-TIES.

Specification forming part of Letters Patent No. **186,710**, dated January 30, 1877; application filed December 30, 1876.

To all whom it may concern :

Be it known that I, GEORGE W. CHANDLER, of Moingona, in the county of Boone and State of Iowa, have invented a new and Improved Railroad-Tie, of which the following is a specification :

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a vertical longitudinal section, of my improved railroad-tie.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved railroad-tie of cheap and durable construction, to be used as a substitute for the wooden cross-ties; and it consists of a tie constructed of clay or stone blocks, connected by longitudinal iron straps bolted together, the straps carrying fastening-plates for supporting the rails.

In the drawing, A represents brick-shaped pieces or blocks of clay, stone, or other material, of which two or more are employed to form one cross-tie. The pieces A are connected by iron straps B, which are fastened together at the ends and between the pieces A by screw-bolts C, the bolts being seated in suitable end recesses of the same. The iron straps B are seated in longitudinal grooves formed in the blocks A, extending from end to end, so as to be flush with the top and bottom surface of the same.

The tie may be made of any length for double tracks, crossings, &c., by merely lengthening the iron straps and inserting as many bricks or blocks A as required, as many

intermediate screw-bolts being used at the adjoining ends of the blocks as required by the number of the same.

To impart a certain degree of elasticity to the tie, the bricks or blocks may be placed a few inches apart, which renders them slightly yielding to the rolling-stock, and overcomes the difficulty experienced with stone ties on account of their rigidity.

Fastening-plates D, with raised lips *a*, fitting the base of the rails, are secured by one or more screws, *b*, to the iron straps, the plates D sliding by side flanges or guides along the straps until they are in the position required by the rails. The cross-ties are very strong and durable, and intended to be used in place of the wooden sleepers, which are getting more and more expensive, especially in sparsely-wooded sections of the country.

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

1. A railroad cross-tie constructed of clay or stone blocks, connected by longitudinal iron straps and fastening-bolts, substantially in the manner and for the purpose set forth.

2. The combination of the longitudinally-grooved clay or stone pieces with iron fastening-straps, seated in the grooves, and with end and intermediate screw-bolts, substantially as specified.

GEORGE WM. CHANDLER.

Witnesses:

L. A. CASWELL,
A. P. DANALDSON.