L. E. TOWNE.

Improvement in Railway Ties and Chairs.

No. 123,526. Patented Feb. 6, 1872.

Fig. 1

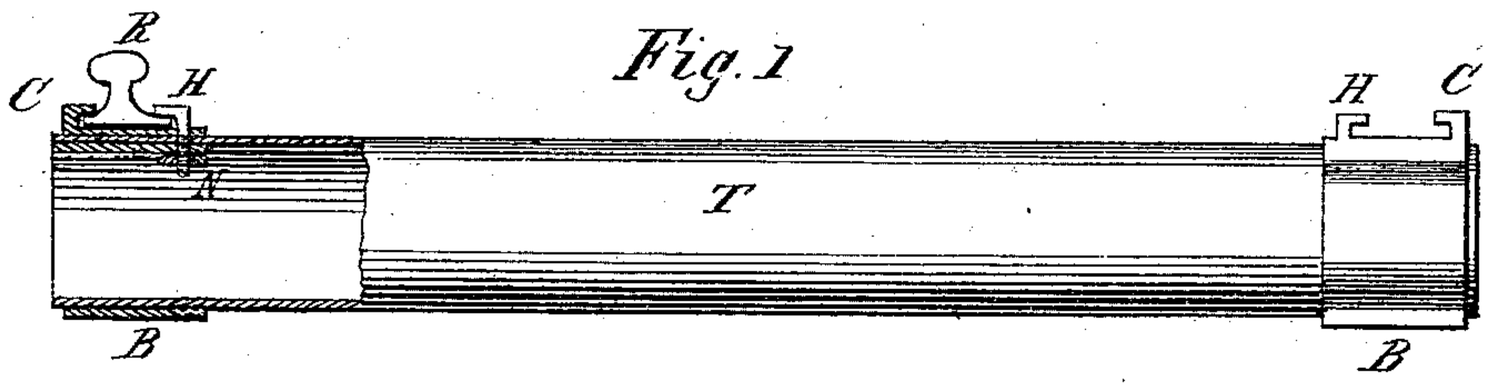


Fig. 2

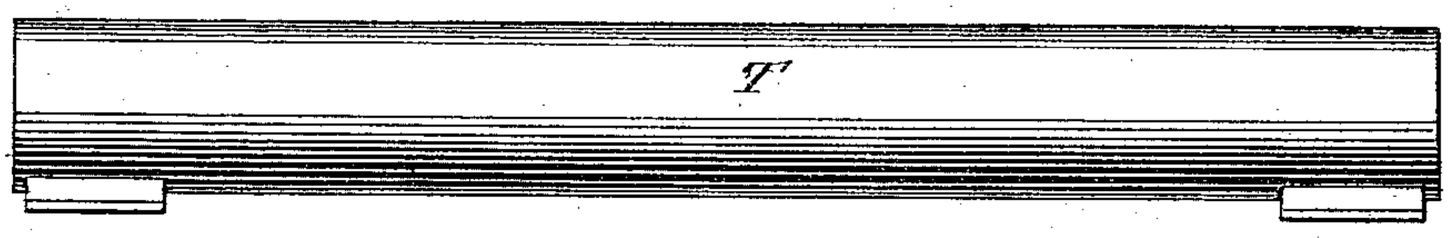


Fig. 3

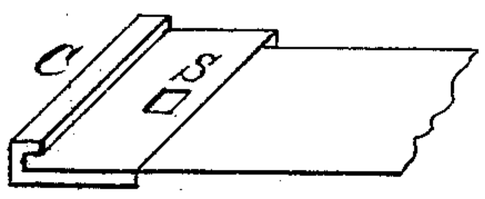
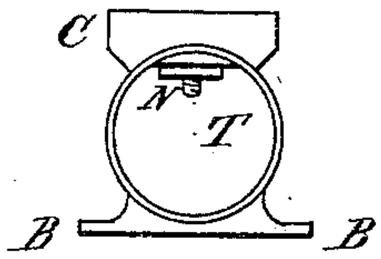


Fig. 4

Fig 5



Witnesses
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Henry P. Clark

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UNITED STATES PATENT OFFICE.

LUCIUS E. TOWNE, OF BRODHEAD, WISCONSIN.

IMPROVEMENT IN RAILWAY TIES AND CHAIRS.

Specification forming part of Letters Patent No. 123,526, dated February 6, 1872.

To all whom it may concern:

Be it known that I, LUCIUS E. TOWNE, of Brodhead, in the county of Green and State of Wisconsin, have invented certain new and useful Improvements in Railroad-Ties and Bolts; 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 side elevation of my improved tie, partly in section, and showing the application of the chairs and bolts thereto. Fig. 2 is a similar view of the tie with the chairs removed. Fig. 3 is a perspective view of one of the chairs applied to a section of a tie. Fig. 4 is a side view of the bolt, by which a rail is locked to the chair and tie. Fig. 5 is an end view of a tie, showing the position of the chair.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

My invention has for its object to improve the construction of railroad-ties of cast or wrought-iron, and the means for securing the rails thereto. To this end the invention consists in constructing the ties of metal in the form of tubes, provided at the ends with a base or supporting flange and a fixed and movable flange upon the upper side, as I will now proceed to describe.

In the accompany drawing, T are cast or wrought-iron ties, made tubular in form and of such diameter and thickness as to afford the requisite strength. B B are the base or supporting plates, secured to the under surface of the tie at each end, and possessing sufficient surface measure to support the ties and prevent the tracks from sagging. C C are the chairs, secured to the upper side of the ties over the base-plates, and connected at each end to the latter by the straps or bands which embrace the ties, as shown in Fig. 1. The outer side of each chair is formed with a flange at right angles to the tie, beneath which flange the outer flange of a rail, R, is closely fitted. H is the movable flanges, which fit over the inner flanges of the rail. They are each composed of wrought-iron and provided with a shank, I, extending downward through the chair and into the tie. The lower end of the shank forms a threaded bolt to receive the locking-nut N, and the upper end, beneath the flange, is made square to fit a corresponding recess, S, in the chair and tie to prevent the flange from turning.

By operating the nuts the movable flanges are forced down upon the rails, pressing the latter firmly down and outward under the flange of the chairs and locking them securely in place upon the tie. By this means the adjoining ends of two rails can be held in such close relation with each other as to form, in effect, a continuous rail. I prefer to construct the nuts N with serrated edges to facilitate their being turned with a hammer and punch at the ends of the ties; but they may be made in the ordinary manner and turned with a wrench. In order to remove a rail for any cause it is only necessary to loosen the flanges H by unscrewing the nuts, when the rail can be easily slipped from the chairs.

For movable or switch-rails the tubular-ties are constructed with the base-plates only, the chairs C and flanges H not being required.

The chairs and base-plates may be cast directly on the ends of the tubular ties in case latter are made of wrought-iron.

Having thus described my invention, what I claim is—

The hollow ties with the chairs and base-plates, and the fixed and movable flanges, substantially, as described, for the purpose specified.

LUCIUS E. TOWNE.

Witnesses:
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