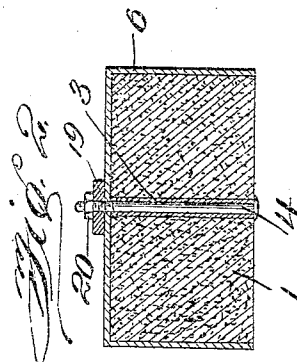
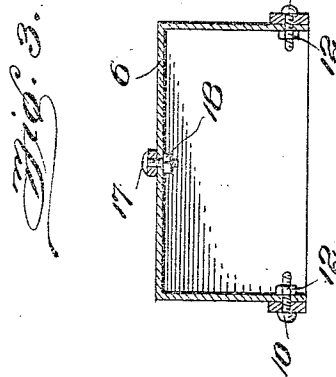
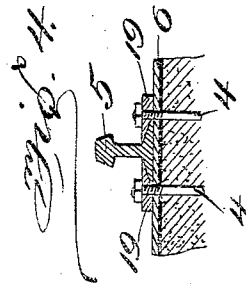
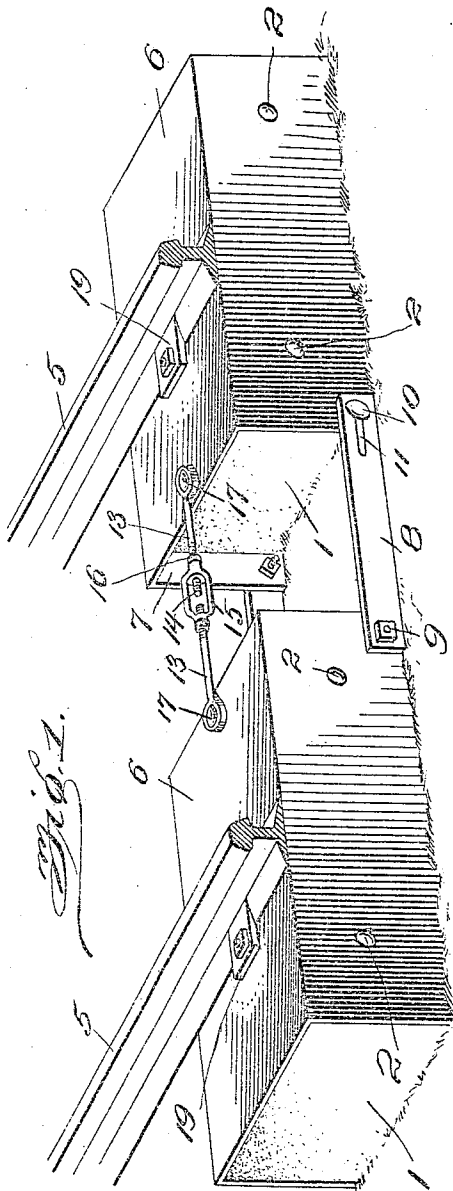


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RAIL TIE.

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941,307.

Patented Nov. 23, 1909.



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RAIL-TIE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLARK CARRELL, a citizen of the United States of America, residing at Newman, in the county of Douglas and State of Illinois, have invented new and useful Improvements in Rail-Ties, of which the following is a specification.

This invention relates to rail ties, and one of the principal objects of the same is to provide a concrete and metal tie in two sections and means for adjusting said sections transversely of the rails.

Another object of the invention is to provide concrete ties to be covered with metal boxings, said ties being made in section, means being provided for adjusting said ties nearer together and farther apart, means also being provided for securing the rails to the upper surfaces of the metal housings or boxings.

Still another object of the invention is to provide a concrete tie in two sections, metal boxings or housings for covering the concrete ties, bolts extending through the housings and through the concrete ties for holding them firmly together, means for adjusting the sections transversely of the rails and means for securing the rails to the ties, said means comprising tubular guides embedded in the concrete sections for the bolts which hold the rails to the ties.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which,—

Figure 1 is a perspective view of a rail tie made in accordance with my invention and showing rails secured thereto. Fig. 2 is a transverse vertical sectional view of one of the ties on a line coincident with the bolts for securing the rails to a tie. Fig. 3 is a vertical sectional view at the inner end of one of the metal housings. Fig. 4 is a detail sectional view, showing the manner of securing the rails to the tie by bolts extending through the metal housings and through the concrete block, the tubular guides being omitted.

Referring to the drawings, the numerals 1 designate concrete blocks which are molded with bolt holes extending transversely through the same for the bolts 2 and vertical bolt holes containing tubular guides 3 for the bolts 4 which serve to hold the rails 5 upon the tie. The concrete blocks 1 are covered with metal boxings or housings 6, said housings extending beyond the blocks 1

at the inner sides, as at 7. Connected to the inner ends of the two sections of the tie are bars 8, said bars each being secured at one end by means of the bolt and nut 9, while the other end of the bar is connected to the other section by means of a bolt 10, said bolt extending through a slot 11 in the bar and through the metal housing 6, said bolts having nuts 12 secured to their inner ends, as shown more particularly in Fig. 3.

Connected to the upper sides of the metal housings 6 at their inner ends are rods 13, said rods being threaded at their inner ends, as at 14; and provided with a turn buckle 15 for adjusting the sections of the tie transversely of the rail. Lock nuts 16 are secured to the rods 13 to lock the turn buckle against accidental movement after adjustment. The rods 13 are connected by bolts 17 to the metal housings 6, said bolts being provided with nuts 18 on the underside of the housings 6, as shown in Fig. 3.

The rails 5 are secured to the ties by means of the bolts 4, said bolts extending through guide tubes 3 and extending above the surface of the housing 6. Beveled plates 19 are provided with openings through which the bolts 4 pass, and nuts 20 are fitted to the upper ends of the bolts 4 for securing said beveled plates in position to bear against the base flanges of the rails upon both sides thereof.

As shown in Fig. 4, the bolts 4 are not provided with the tubular guides 3 but extend through the plates 19 for holding the rail in position upon the top of the housing 6.

From the foregoing it will be obvious that the tie sections can be quickly placed in position, and the rails can be quickly connected to the tie sections, after which the gage bar for the rails may be applied between the rails and the two sections of the tie adjusted to conform thereto by means of the turn buckle 15 and the lock nuts 16.

My invention provides a rail tie which is practically indestructible and facilitates the labor of locking the tracks.

I claim:—

1. A rail tie comprising concrete blocks, metal housings fitted over the blocks and secured thereto by bolts, connecting rods attached to the sections and provided with a turn buckle for adjusting them one toward the other, lock nuts on the connecting rods for securing the turn buckle in adjusted po-

sition, and bars connected to opposite sides of the sections, said bars being slotted at one end to permit them to slide upon one section during the adjustment of the sections.

- 5 2. A rail tie comprising concrete blocks, metal housings fitted over the blocks and secured thereto by bolts, bars connected to the housings, said bars each being slotted at one end and connected through the slots
10 to the housing by means of studs, connecting rods attached to the sections and pro-

vided with a turn buckle for adjusting said housings toward and from one another, and lock nuts on the connecting rods for holding the turn buckle in adjusted position. 15

In testimony whereof I affix my signature in presence of two witnesses.

CLARK CARRELL.

Witnesses:

CHAS. O. TAYLOR,
RAYMOND STOUT.