

# PATENT OFFICE. UNITED STATES

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## RAILWAY TIE.

#### Application filed January 24, 1928. Serial No. 249,153.

This invention relates to railway ties and thickened, as indicated at 19. Mounted up- 55 more particularly to a tie which, while capa- on each pivot bolt is an eye bolt 20 forming ble of general use, is especially adapted for one member of a turn buckle adjustment, use in mine railroads.

- An important object of the invention is to provide a metallic tie which may be very readily and cheaply produced and which will be durable and efficient in service.
- A further object of the invention is the 10 production of a tie which may be adjusted to permit its use with tracks of different gauges.

These and other objects I attain by the construction shown in the accompanying

15 drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein :---

Figure 1 is a side elevation partially in section of a railroad tie constructed in ac-

20 cordance with my invention; Figure 2 is a plan view thereof, one of the clamps being swung about its pivot; Figure 3 is a detail longitudinal sectional

view through the adjusting means for the 25 tie.

- drawing, the tie comprises two similar sections 10 and 11, which may, under certain circumstances, hereinafter more fully set forth, be duplicates of one another. Each 30 and of the arms produced by this furcation, one, indicated at 13, has its lower face cut away to reduce the arm in thickness for a 35 portion of its length, while the other, indicated at 14, has its upper surface similarly cut away. Each arm 13 is provided in the
- reduced portion thereof with a slot 15. The sections 10 and 11, when in assembled rela-40 tion, have the arms 13 and 14 thereof coact-
- ing and the reduced portions overlapped and through the slots 15 of the arms 13, clamping bolts 16 are extended to engage the arms 13 and secure the sections in adjusted position. 45

To assist in adjusting the sections and to prevent the gauge of the rails R supported from the tie from depending upon the holding ability of the clamping bolts 16, each secso tion 10 and 11 is provided adjacent the inner ends of its arms 13 and 14 with horizontally aligned transversely extending openings 17 for the passage of a pivot bolt 18, the tie sections at these points preferably being

the nut of which is indicated at 21. This turn buckle is arranged within the slot formed in the completed tie by the furca- 60 tions 12 and forms a positive means pre-venting variation of gauge of the tie. This is particularly true when this structure is employed in combination with the clamping bolts 16 which, by their tendency to hold 65 the sections in fixed relation, will resist any tendency to rotation of the nut of the turn buckle and act as lock nuts therefor.

While any suitable means may be provided for securing the rails in position upon 70 the tie sections 10 and 11, I preferably em-ploy the means illustrated. This comprises rail clamps 22 in the form of metallic blocks pivoted at their outer ends to the sections 10 and 11, as indicated at 23, and having at 75 their inner ends openings 24 for the passage of clamping bolts which are adapted to engage in threaded openings 25 in the tie. The type of clamping elements employed upon Referring now more particularly to the the sections 10 and 11 depend upon whether 80 the rail R at the point of engagement with the tie is a joint section or an ordinary section. Where a joint is provided, the clamps 22 will, of course, be adapted for engagesection has its inner end furcated, as at 12, ment against the fish plates 26, while where 85 an ordinary rail section is accommodated, they will directly engage the rail. Where ordinary rail sections or joint sections are encountered at both ends of the tie, the sections 10 and 11 will be identical in construc- 90 tion as to the clamping elements. Where the tie is employed in mines, its flat lower face is simply laid upon the mine floor, but where employed in standard railroad construction, it is preferably laid upon an ordi- 95 nary wooden tie and openings 27 are formed therein for the passage of lag screws or similar securing elements, whereby the steel tie may be held against movement with rela-100 tion to the wooden tie.

> Since the construction hereinbefore set forth is capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure 105 except as hereinafter claimed.

I claim :--

1. A metallic tie comprising two similar

bar-like sections having their inner ends fur- turn buckle nut connecting the ends of said produced constructed to overlap one another in the assembled relation of the sections, means for securing the arms to one another, a turn buckle connecting the sections for adjusting the sections and means for securing a rail to each section.

10 bar-like sections having their inner ends means for securing a rail to each section, and furcated and the inner ends of the arms thus means for adjusting the sections with relaproduced constructed to overlap one another tion to one another to determine the distance in the assembled relation of the sections, means for securing the arms to one another, iõ pivot bolts extended through the arms at the signature. inner ends of the furcations, eye bolts mounted thereon within the furcations, a

cated and the inner ends of the arms thus eye bolts and means for securing a rail to each section. 20

3. A metallic tie comprising two similar bar-like sections having their inner ends furcated and the inner ends of the arms thus produced constructed to overlap one another in the assembled relation of the sections, 25 2. A metallic tie comprising two similar means for securing the arms to one another, between rails so secured. 30

In testimony whereof I hereunto affix my

ALEXANDER  $\stackrel{\text{his}}{\times}$  NASBY. mark

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