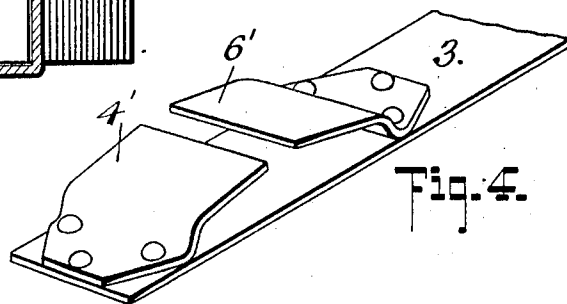
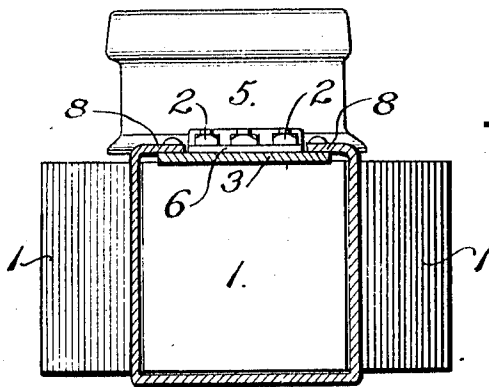
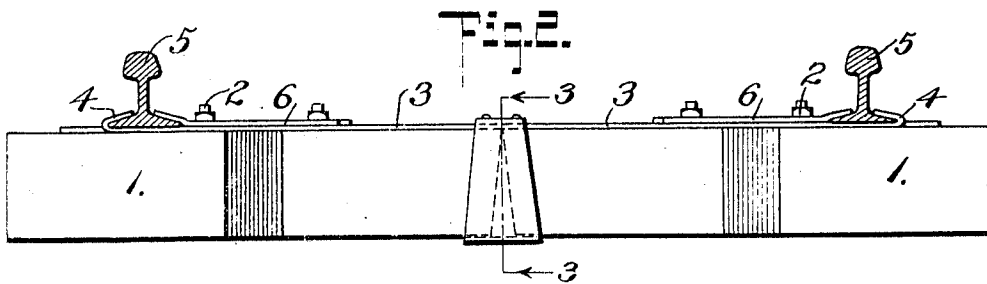
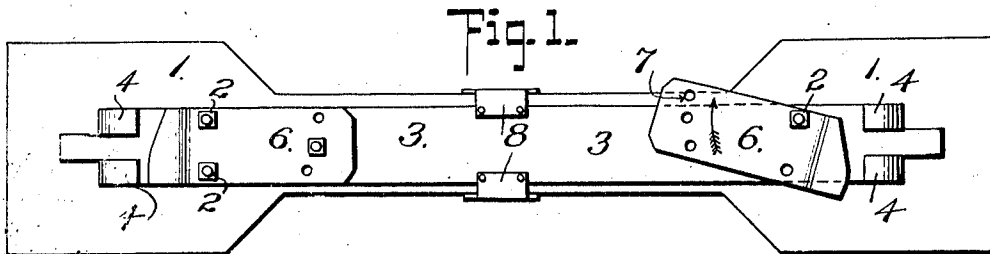


C. G. B. GUNN.
RAILROAD TIE.
APPLICATION FILED JUNE 14, 1911.

1,003,898.

Patented Sept. 19, 1911.



WITNESSES:

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CHARLES GREEN BERY GUNN, OF WILLIAMSVILLE, MISSOURI.

RAILROAD-TIE.

1,003,898.

Specification of Letters Patent.

Patented Sept. 19, 1911.

Application filed June 14, 1911. Serial No. 633,096.

To all whom it may concern:

Be it known that I, CHARLES GREEN BERY GUNN, a citizen of the United States, residing at Williamsville, in the county of Wayne and State of Missouri, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification.

The invention pertains particularly to novel means for fastening rails to ties, used in combination with cement railroad ties comprising sections secured together in a manner to provide an efficient and practical construction which will afford a desired resilient action when rolling stock passes thereover.

A further advantageous feature of the construction of this device is the provision of means for clamping the rails to the ties which may be easily adjusted to increase the clamping action, and thereby take up any play between the rails and tie, or accommodate for different size rails, and which will also permit of ready disengagement from the rails when it is desired to replace the same by others.

With the above and other objects in view, this invention consists in the construction, combination and arrangement of parts, all as hereinafter more fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a top plan view of a tie embodying the invention; Fig. 2 is a side elevation; Fig. 3 is a transverse section on the line 3—3 of Fig. 2; and Fig. 4 is a view showing the modified form of clamping jaws.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring particularly to the drawings, the railroad tie embodying this invention is composed of sections 1, said sections being made of cement or other suitable material, though I do not wish to be confined to such construction as it will be evident that I may use wooden sections in place of cement. The inner contiguous ends of the sections 1 are arranged to abut at their upper portion and are formed at their lower portion with a space therebetween, as clearly shown in Fig. 2 of the drawings. The aforesaid sections 1 are formed with openings therein in which

are inserted bolts 2, said bolts being provided to secure the tie bar 3 to the railroad tie. The tie bar 3 is preferably of malleable metal, and it will be apparent that the same affords a flexible connection between the sections 1 of the tie. The outer extremities of the tie bar 3 are bent upwardly and back upon the bar to form the clamping jaws 4 which are adapted to engage over the lower outer flanges of the rails 5 mounted upon said bar and tie.

Secured to the tie bar 3 by means of the bolts 2 are the clamping plates 6, said plates being provided with a series of openings 7, whereby an adjustable clamping action may be afforded by said plates. The plates 6 are bent upwardly at their outer ends to form flanges to engage over the inner lower flanges of the rail 5, as will be apparent.

From the foregoing, it will be noted that this construction of tie bar forms a very desirable device and one which will prevent spreading of the rails. The mounting of the clamping plate 6 permits of increased clamping effect on the rails, thus permitting any play between the clamping plate and flanges of the rails caused by vibration and wear in use to be taken up. It will also be seen that it is not necessary to disengage the plates 6 entirely from the tie bar when it is desired to replace rails upon the ties.

Secured at its upper portion to the tie bar 3 there is provided the yoke 8, said yoke extending downwardly and entirely surrounding the contiguous ends of the sections 1 in a manner to effectually house the same, and thus prevent the accumulation of dirt between the spaced lower portions of the said sections. By this construction, it will be seen that a flexible railroad tie is provided which will afford a very desirable resilient action when in use.

The construction of the tie above described will permit of replacing portions of the same when by accident one section may become broken, and thereby much expense will be saved in the use of this device.

In Fig. 4 is shown a modified form of clamping jaws. It may be desirable in some instances to provide a construction of clamping jaws which may be readily replaced, as I have illustrated in said figure, by a modified form of jaw 4' to engage over the outer lower flanges of the rails which may be used in combination with a similarly formed

clamping plate 6' to engage over the inner lower flanges of the rails, said clamping jaws 4' and plate 6' being secured to the tie bar 3 by means of bolts or the like.

5 As shown in the drawings, I prefer to form the outer extremities of the sections 1 of larger cross sectional area than the contiguous ends, which construction affords a greater ground bearing surface and also a better rail bearing surface. This feature of
10 construction is particularly advantageous in the use of this construction of tie at curves for it is evident that the same will tend to prevent the ties from slipping due to pressure thereagainst.

15 Having thus fully described my invention, what is claimed as new is:—

1. A railroad tie comprising sections having contiguous ends, a tie bar flexibly connecting the sections, rails mounted on the tie
20 bar, means for securing the rails to the tie bar and tie, and a housing for the contiguous ends of said sections.

2. A railroad tie comprising sections having contiguous ends, said ends abutting at their upper portions and cut away at their lower portions to form a space therebetween, a tie bar flexibly connecting the sections, a yoke secured at its upper portion to the tie
25 bar and extending downwardly to form a housing for the contiguous ends aforesaid,
30

rails mounted on the tie bar, and means for securing the rails to the tie bar and tie.

3. A railroad tie comprising sections having contiguous ends, a tie bar flexibly connecting the sections, rails mounted on the tie bar, said bar being bent back upon itself at its extremities to form clamping jaws adapted to engage with the lower flanges of the rails, clamping plates secured to the tie bar and tie and adapted to engage with the opposite lower flanges of the rails, and a housing for the contiguous ends of said sections.

4. A railroad tie comprising sections having contiguous ends, a tie bar flexibly connecting the sections, rails mounted on the tie bar, said bar being bent back upon itself at its extremities to form clamping jaws adapted to engage with the lower flanges of the rails, adjustable clamping plates secured to the tie bar and tie and adapted to engage with the opposite lower flanges of the rails, and a housing for the contiguous ends of said sections.

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

CHARLES GREEN BERY GUNN.

Witnesses:

HENRY ROBERTS,
JAMES T. LACY.