

A. MARTIN.
RAILWAY DEVICE.
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936,004.

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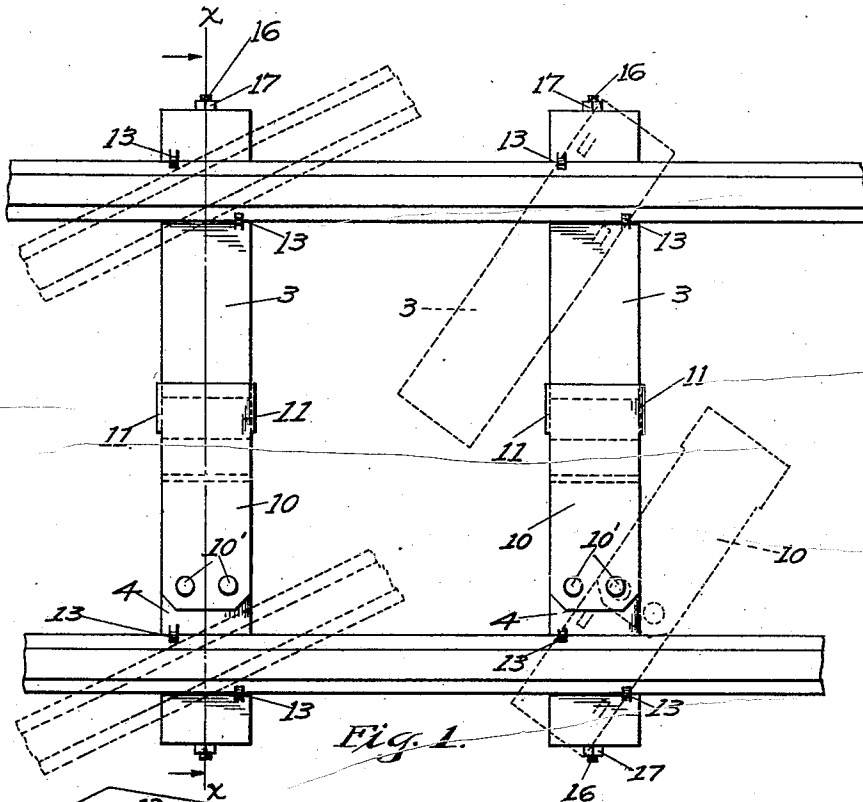


Fig. 1.

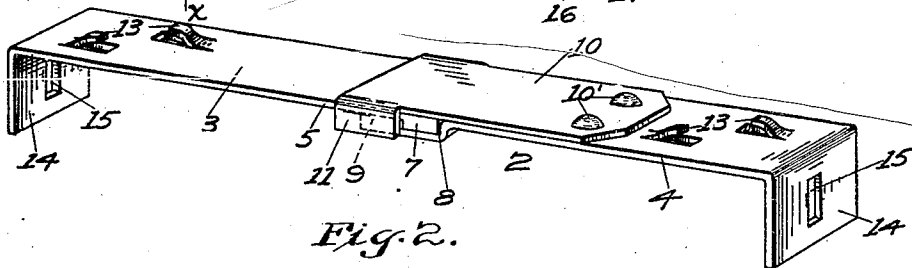


Fig. 2.

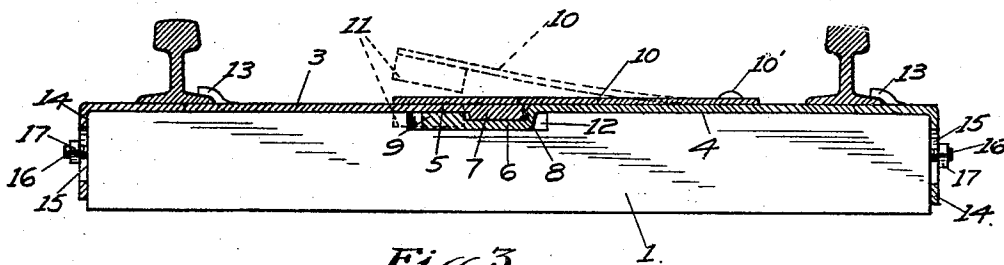


Fig. 3.

Witnesses:

H. J. Roster.
A. Q. Olm

Inventor:

Alfred Martin.
by John H. Potter
Attorney.

UNITED STATES PATENT OFFICE.

ALBERTIS MARTIN, OF OQUAWKA, ILLINOIS.

RAILWAY DEVICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERTIS MARTIN, a citizen of the United States, and a resident of the city of Oquawka, county of Henderson, and State of Illinois, have invented certain new and useful Improvements in Railway Devices, of which the following is a specification.

My invention relates to rail fastening devices and more specifically to metallic devices designed for employment with particularly concrete or cement ties for fastening track rails thereto.

The object of my invention is to provide a device of the character mentioned which will be adapted to be readily and easily arranged for cooperation with a tie and track rails and from which, after being arranged for operation, the rails may be readily disengaged or removed.

A further object is to provide a device of such character which will be efficient, strong, durable and comparatively simple of construction, hence of low cost to manufacture.

Other objects will appear hereinafter. With these objects in view my invention consists in a rail fastening device characterized as above mentioned and in certain details of construction and arrangement of parts all as will be hereinafter fully described and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a top plan view of a series of ties provided with the preferred form of embodiment of my invention, illustrating a section of track arranged thereon, Fig. 2 is a perspective view of my device detached, and Fig. 3 is an enlarged vertical longitudinal section taken on substantially the line $x-x$ of Fig. 1.

Referring now to the drawings 1 indicates a preferably concrete or cement rail tie arranged upon the upper surface of which is my improved rail fastening device 2. Comprised in my device are substantially similar angularly formed preferably sheet metal plates 3 and 4, the adjacent end portions 5 and 6 respectively of which overlap. The end portion 5 of the member 3 is formed upon its under surface with a preferably rectangular enlargement 7, and the end portion 6 of the member 4 with a depression

or recess 8 adapted to receive said enlargement, the enlargement 9 formed upon the upper surface of the end portion 6 being adapted to engage the enlargement 7 of the member 5, such enlargements being adapted when in engagement with each other to prevent relative longitudinal movement of said members. In order to effect the locking together of said members in such position I provide a spring plate 10 the outer end portion of which is secured, preferably by rivets 10', to the upper surface of the member 4. The free end portion of said member 10 extends slightly beyond the inner extremity of the member 4, the same being adapted to engage the upper surface of the end portion 5 of the member 3, with an obvious result. Provided at the lateral edges of said end portion of the member 10 are depending ears 11, such evidently preventing relative transverse movement of the adjacent end portions 5 and 6. In order to accommodate the enlargement formed at the adjoining end portions of the members 3 and 4, the upper surface of the tie 1 is recessed as at 12.

In assembling the members 3 and 4, the free end portion of the member 10 is elevated, by means of a suitable lever, such for example as a crowbar, to such an extent as to permit of the reception of the end portion 5 of the member 3 between the inner surface of the same and the adjacent surface of the member 4, as shown in dotted lines in Fig. 3, it being evident that with such construction said parts may be brought together either by lateral or longitudinal movement thereof.

In the drawing I have shown the member 10 of a considerable length. However, if desired, I may form the same of shorter length. In such event the ears 11 of said member will not be turned down to depending or locking position until the parts 3 and 4 are in assembled position, which assembly, in such construction, may be effected only by laterally moving said parts into engagement. Disengagement of the members 3 and 4 in such construction can be effected only by bending the ears 11 into initial or horizontal position.

In order to effect the securing of the rails to my device, the members 3 and 4 are formed with projecting diagonally positioned fasteners 13, preferably punched therein, the same being so formed as to adapt the same to snugly engage the flanged base

of an ordinary rail. The fasteners in each of said members are so positioned therein that the adjacent extremities of the former are separated to such an extent as to permit
 5 of the reception of the base of a rail when diagonally disposed thereto. Hence it is evident that the attachment to or detachment from my device of rails may be effected by movement either of the latter or
 10 the former, as clearly shown in dotted lines in Fig. 1.

In order to effect the securing of the device to the tie 1 the depending portions 14 of the members 3 and 4 are provided with
 15 elongate vertically extending slots 15. Said slots are adapted to receive bolts 16 secured in and projecting from the extremities of the tie, nuts 17 threaded upon said bolts obviously serving as a locking means. The
 20 slots 15 are of elongate form as shown, in order to permit of the grading of the tracks, such being effected in my construction, by the insertion of a wedge or the like between the upper surface of the tie and the end portion
 25 of the device upon which is supported the rail to be elevated.

While I have shown what I deem to be the preferable form of my device I do not wish to be limited thereto as there might be
 30 many changes made in the construction and arrangement of parts without departing from the spirit of my invention comprehended within the scope of the appended claims. And although I have designed my
 35 device with special reference to its application to cement or concrete rails, I may use the same in connection with ties of any construction to which it is applicable.

Having described my invention what I
 40 claim as new and desire to secure by Letters Patent is:

1. The combination with a tie and track rails, of a fastening device for said rails mounted upon said tie, said device comprising
 45 two plates detachably connected at their adjoining ends, the outer ends of said plates being provided with downwardly extending flanges having vertical slots, bolts in the ends of the ties adapted to adjustably
 50 engage said slots; and means on said plates for engaging the rails, substantially as described.

2. The combination with a tie and track rails, of a fastening device for said rails mounted upon said tie, said device comprising
 55 two plates detachably connected at their

adjoining ends, the outer ends of said plates being provided with downwardly extending flanges having vertical slots, bolts in the ends of the ties adapted to adjustably engage
 60 said slots, and fastening means on said plates adapted to receive the rail flange when oblique to the rail and to tightly engage said flange when at right angles to the
 65 rail, substantially as described.

3. The combination with a tie and track rails, of a fastening device for said rails mounted upon said tie, said device comprising
 70 two angular plates the adjoining end portions of which overlap, an enlargement formed upon one of said overlapping portions and a recess adapted to receive said enlargement formed in the other of said end
 75 portions, a lock plate secured to one of said plates for retaining said enlargement in engaging position with said recess, ears depending from the lateral edges of said lock
 80 plate for preventing relative lateral movement of said adjoining plate end portions, fastening means formed in said plates for engaging the flanged base of said rails, and
 85 means engaging the end portions of said plates for securing the latter to said tie, substantially as described.

4. The combination with a tie and track rails, of a fastening device for said rails mounted upon said tie, said device comprising
 90 two substantially similar plates the adjoining end portions of which overlap, an enlargement formed upon one of said end portions and a coacting recess adapted to receive said enlargement formed in the other
 95 of said end portions, a spring locking plate secured to one of said plates for yieldingly retaining said enlargement in engaging position with said recess, ears depending from the lateral edges of the free end portion of
 100 said locking plate for preventing lateral movement of said adjoining plate end portions, and fastening means formed upon said plates adapted to engage the flanged base of said rails when the latter are disposed at right angles to said plates, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERTIS MARTIN.

Witnesses:

JOSHUA R. H. PORTS,
 HELEN F. LILLIS.