

953,602.

L. S. FLATAU.
RAILWAY TIE.
APPLICATION FILED MAR. 29, 1909.

Patented Mar. 29, 1910.

Fig. 1.

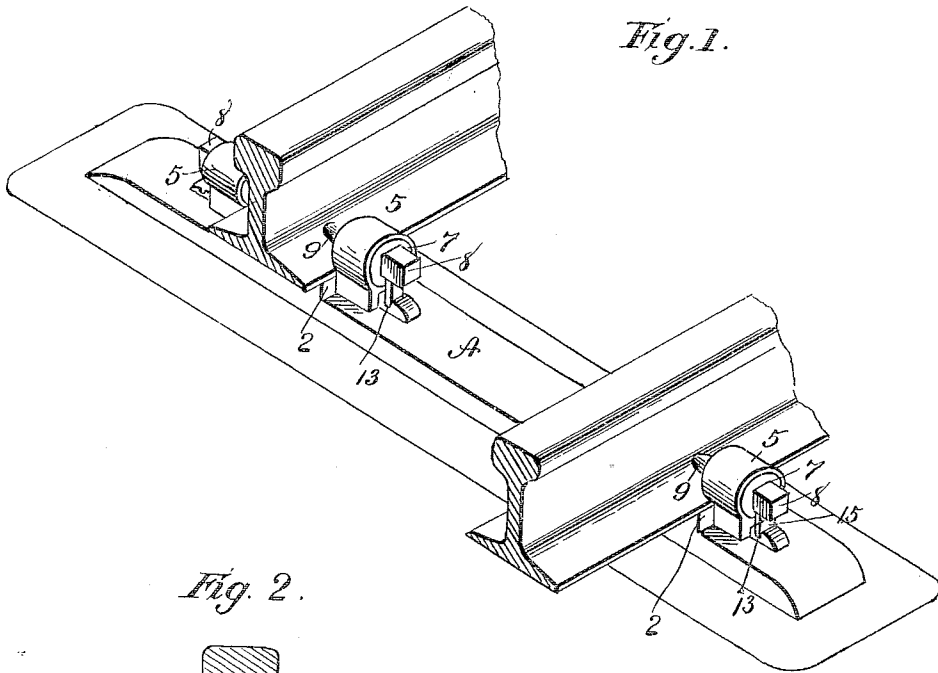


Fig. 2.

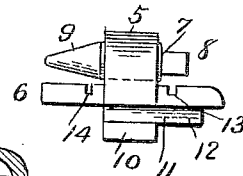
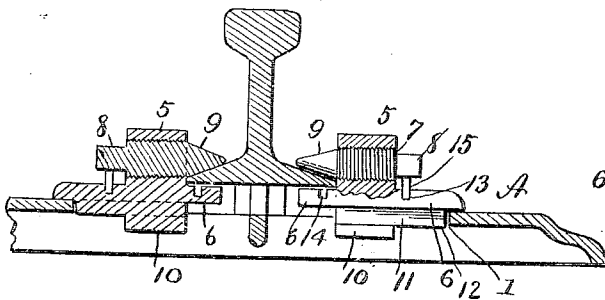


Fig. 3.

Fig. 5.

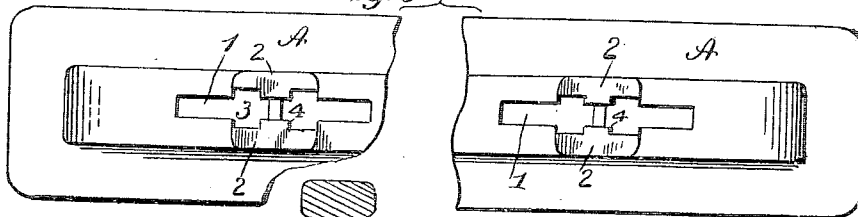


Fig. 4.

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RAILWAY-TIE.

953,602.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS S. FLATAU, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

My invention relates to an improvement in rail fastenings for metallic ties, and the object is to provide means whereby a rail can be fastened to a tie and prevent the rail from creeping.

A further object is in the provision whereby the fastening means can be reversed for fastening a rail to the tie when the fish plates connecting two rails are received on the tie.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings—Figure 1 is a view in perspective showing the rails secured to the tie; Fig. 2 is a longitudinal sectional view through a portion of the tie; Fig. 3 is a view in side elevation of one of the fasteners, and Fig. 4 is a view of a portion of the tie showing the fastening means mounted on the tie in reverse position and engaging the fish plates which connect the ends of two rails; and Fig. 5 is a plan view of the tie.

A represents the tie, and 1, 1 are elongated slots formed longitudinally of the tie. Located centrally of the slots formed longitudinally of the tie and on each side thereof are raised portions 2, 2 forming bases for the rails. The bases, 2, are cutaway at each end, as at 3, 3, enlarging the slots, 1. The central portions, 4, of the bases 2, are in alinement with the walls of the slots 1.

Received in the slots, 1, are dogs, 5, which are provided with a base, 6. The body of the dogs is made hollow, and the bore is screw-threaded, in which is received a locking bolt, 7, which is screw-threaded to conform to the screw-threads of the body. One end of the bolt is squared, as at 8, to permit a wrench to grasp the bolt for turning the same. The other end of the bolt is tapered, as at 9, the tapering portion extending toward the extreme end of the bolt. A lug, 10, projects downwardly from the base, 6, and in the sides of the lug grooves 11 are formed in which the walls or sides of the tie

forming the slots, 1, are received permitting the dogs to slide rearwardly until the projection, 12, engages the rear end of the slot. The base, 6, of the dog resting upon the tie forms a solid bearing for the dog. When the bolts, 7, are screwed causing the tapering portion, 9, to engage the flange of the rail, the tapering portion will embed itself into the flange so that it forms a fastening which will retain the rail in position and prevent the rail from creeping. In driving the bolt to its place over the flange it knurls into the flange of the rail somewhat and so embeds itself that it affords a very efficient anti-creeper, and the point of the bolt is thereby given a spring to some extent that takes up and is equal to the expansion and contraction of the metal, so much so that no shock or jar will loosen the threads in the dog or fastening.

Grooves, 13 and 14, are formed on the base, one groove at each end, in which a key, 16, is received, forming a locking means to prevent the bolt from turning after it has been screwed into position for locking the rail.

In Fig. 4 I have shown the dog in a reverse position, the lug, 10, forming a stop which abuts against one end of the slot, 1, and the base will rest upon the tie. The bolt, 7, is reversed, that is, it is screwed into the body of the dog from the opposite end from which it enters when a rail is being secured. In placing the dogs in the slots, 1, in this manner they are separated a greater distance from each other due to the fact that the projection, 12, is only formed at one end of the lug 10. When the dog is used in this manner the groove 14, is used for receiving the key, 15, for locking or engaging the squared end, 8, of the bolt for locking the bolt against turning. When the dogs are inserted in the slots in their reversed position sufficient space is formed between the two dogs to receive the ends of two rails upon the bases, 2, with the fish plates which connect the two rails together. The bolts are turned after the fish plates and rails have been placed in position sufficiently to cause the tapered ends of the bolts to obtain a proper clamp upon the fish plates for locking the rails in position and against creeping.

From the foregoing it will be seen that I have provided a fastening means for fasten-

ing rails to ties, which will retain the rails in position and prevent them from creeping, and also that the fastening means can be reversed whereby the rails can be fastened to the tie when the ends of two rails are connected by fish plates and received on a tie.

It is evident that more or less slight changes might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to be limited to the exact construction herein set forth, but:

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

1. The combination with a railway tie having slots therein, of dogs comprising bases adapted to be received on the tie, lugs formed on the bases and received in the slots in the tie, said lugs having grooves therein in which the walls of the slots are received, bolts having screw-threaded engagement with the bases provided with tapering ends, which are adapted to engage a flange of the rail for locking the rail in position and means received between the bases and bolts for locking the bolts against movement.

2. The combination with a tie having slots therein, of reversible dogs comprising bases

slidably mounted on the tie and lugs on the bases for limiting the movement of the bases.

3. The combination of a tie having slots therein, of reversible dogs comprising bases, means on the bases for locking the rails and lugs on the bases received in the slots and provided with grooves, which are adapted to receive the walls of the slots, said lugs adapted to engage the tie for limiting the movement of the dogs.

4. The combination with a tie having slots therein, of dogs slidably mounted on the tie and received in the slots for locking the rail in position, said dogs capable of being reversed whereby the dogs are separated to receive therebetween and lock to the tie the rail provided with fish plates.

5. The combination with a tie, of dogs slidably mounted on the tie, means on the dogs for locking the rail in position, said dogs capable of being reversed, thereby separating the dogs farther apart whereby a rail provided with fish plates may be received between the dogs and locked to the tie.

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

LOUIS S. FLATAU.

Witnesses:

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