No. 836,617. PATENTED NOV. 20, 1906.

C. H. TIBBETTS.

TRACK FASTENER.

APPLICATION FILED JAN. 30, 1905.

FIG. 1.

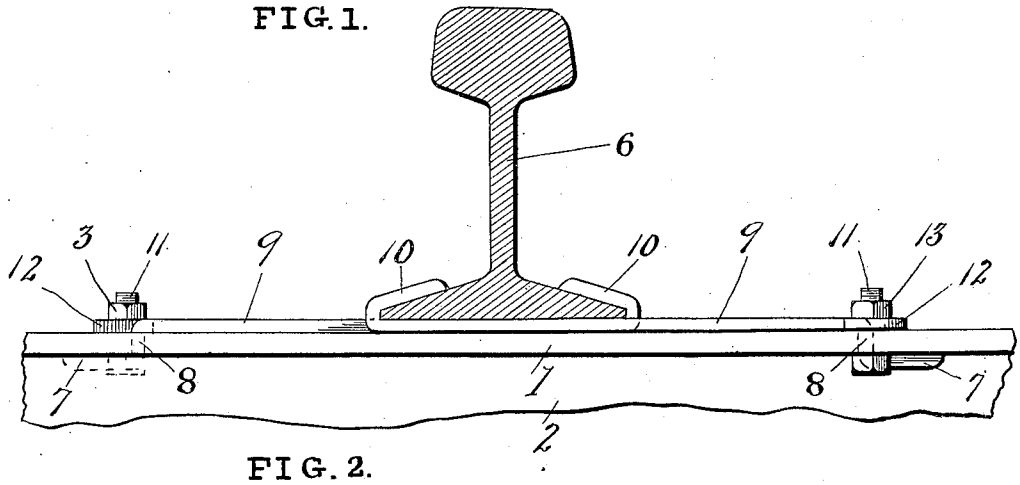


FIG. 2.

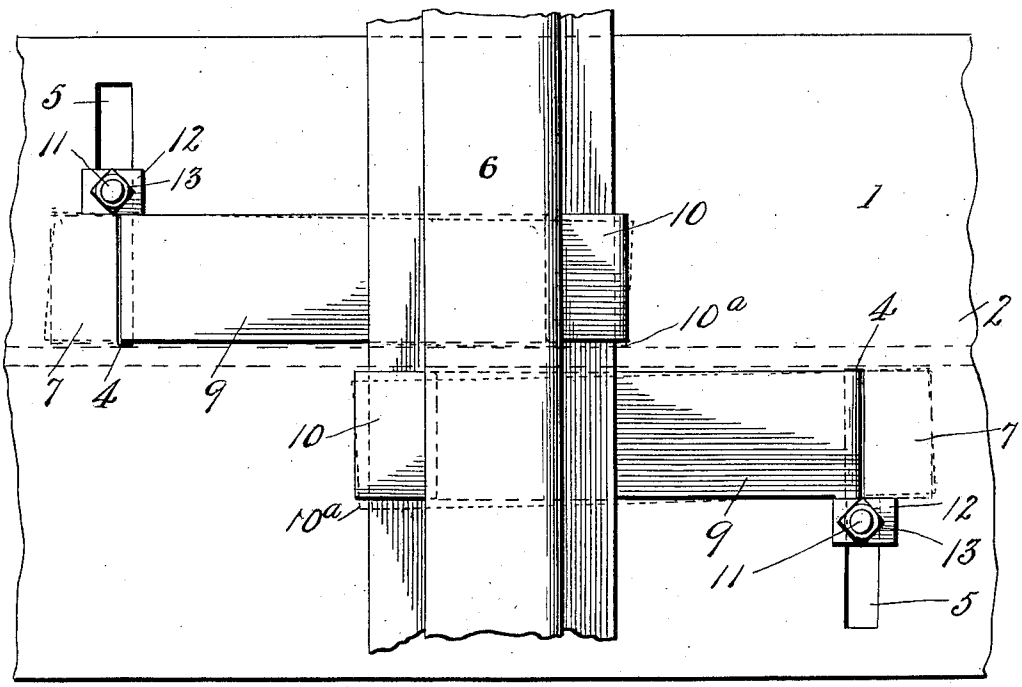
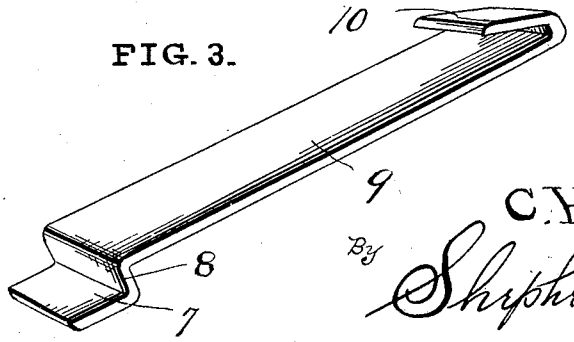


FIG. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES HENRY TIBBETTS, OF NEW CASTLE, COLORADO.

TRACK-FASTENER.

No. 836,617. Specification of Letters Patent. Patented Nov. 20, 1906.

Application filed January 30, 1905. Serial No. 243,293.

To all whom it may concern:

Be it known that I, CHARLES HENRY TIBBETTS, a citizen of the United States, residing at New Castle, in the county of Garfield and State of Colorado, have invented certain new and useful Improvements in Track-Fasteners, of which the following is a specification.

My invention relates to track-fasteners, and has for its object to provide a track-fastener adapted for use in connection with metallic ties of various constructions.

A further object of my invention is to provide a track-fastener which may be readily and easily placed in position and when so placed will furnish the maximum amount of security for the rail-fastener.

It is well known that through the variations of temperature the rails comprising a railroad-track are subject to continual contraction and expansion. With the rails located upon a grade, the contraction and expansion, accompanied by the jar of passing trains, causes a "creeping" of the rails in a direction down the hill and causing the rails to separate at some point or points.

It is the principal object of my invention to provide a track-fastener which will prevent a longitudinal movement of the rail to a degree at all damaging by firmly gripping the rail at the first longitudinal movement.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view in side elevation of my improved track-fastener in position on a tie shown in side elevation and in engagement with a rail shown in transverse vertical section. Fig. 2 is a top plan view of my improved track-fastener in operative position, showing the manner of connection with a tie and the method of preventing displacement. Fig. 3 is a perspective view of my improved track-fastener disengaged.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred embodiment my improved track-fastener is adapted for engagement with and use upon a railroad-tie of any approved construction, as the one shown in the drawings forming a part of this application, wherein a top plate is designated by the numeral 1 and a central under rib designated by the numeral 2. The tie is provided with transversely-disposed slots 4 and communicating therewith enlarged openings 5. The slots 4 and communicating openings 5 are disposed at equal distance from and on opposite sides of the rail 6. My track-fastener is provided with an angularly-shaped end portion 7, adapted to pass through the opening 5 and engage the under side of the face-plate 1 of the tie. A hooked portion 8 is provided, adapted to be engaged within the slot 4 somewhat loosely. The fastener comprises an elongated plate 9, having at one end the angular portion 7 and hook 8 and at its other end a hook 10, disposed upon the side of the plate 9 opposite the hook 8.

Any convenient means of securing the hook 8 within the slot 4 may be used, as the bolt 11, passed upwardly through the opening 5 and provided with a washer 12 and nut 13.

The operation of my improved track-fastener is as follows: A rail 6 is disposed upon the tie-face 1 with the plates 9 of a pair of my fasteners disposed beneath the rail, with the hooks 10 upturned and disposed upon opposite sides of the base of the rail. The angular portion 7 may then be passed through the opening 5 and the hook 8 slidably passed within the slot 4. The bolt 11 may then be passed through the opening 5 in the under side and the washer 13 placed thereon and rigidly secured by means of the nut 13. It will thus be seen that the rail is firmly held between upstanding hooks 10 upon opposite sides thereof, and by reason of the engagement of the hooks 8 with the slots 4 a lateral movement of the rail is effectually prevented. As before described, the hook 8 is somewhat loosely engaged within the slot 4, permitting a limited angular movement of the fastener about the hook 8 as a pivot-point. It will also be seen that a longitudinal movement of the rail will produce an angular movement of the fasteners along the face 1 of the tie as to the position 10^a, (shown in outline,) thereby effectually gripping the opposite side of the rail and preventing the continued longitudinal movement. The gripping of the rail, as described, is not

such as to impede the ordinary contraction and expansion within the rail itself, but the rail being gripped at each and every tie a continued longitudinal movement of any considerable number of rails in one direction is effectually prevented.

While I have shown and described my improved track-fastener in connection with and particularly adapted for use upon a metallic tie, it is evident that it may be as well used with any other form of tie.

While I have shown and described a hook as the approved method of securing the fastener to the tie, it is obvious that any other form which will permit a slight angular movement of the fastener may as well be employed and that other minor changes in the form and method of use may be made without departing from the spirit of my invention or the scope of the claims.

Having thus described my invention, what I claim as novel, and desire to secure by Letters Patent, is—

1. In a track-fastener, means pivotally secured to the tie and capable of a limited angular movement and disposed to grip the rail upon a longitudinal movement thereof.

2. In a track-fastener, means pivotally secured to the tie and capable of a limited angular movement thereon in a horizontal plane and disposed to grip the rail upon a longitudinal movement thereof.

3. In a track-fastener, a plate pivotally secured to the tie and capable of an angular movement thereon in a horizontal plane and provided with means for gripping the rail upon a longitudinal movement thereof.

4. In a track-fastener, a pair of plates pivotally secured to the tie upon opposite sides of the rail and capable of angular movements in a horizontal plane, the said plates extending beneath the rail and provided each with means to grip the rail upon the side opposite its pivot.

5. In a track-fastener, a pair of plates pivotally secured to the tie upon opposite sides of the rail and capable of angular movements in a horizontal plane, the said plates extending beneath the rail and provided each with a hook adapted to grip the rail upon the side opposite its pivot.

6. A track-fastener comprising a pair of plates provided each with a hooked portion adapted to pass through an opening in and engage the top plate of a tie, the said plates passing under the rail and provided each with a hook adapted to grip the rail upon opposite sides.

7. A track-fastener comprising a pair of plates each provided with a hooked portion adapted to pivotally engage openings in the top plate of a tie and upon opposite sides of the rail, the said plates passing beneath the rail and provided each with a hook adapted to grip the rail upon the side opposite its pivot.

8. A track-fastener comprising a pair of plates adapted to be disposed upon the upper surface of a tie, a downwardly-disposed hook upon one end of each plate adapted to hook through an opening in and permit an angular movement of the plate upon the upper wall of a tie, the said plate passing beneath the rail from opposite sides and having upturned hooks disposed to grip the rail on opposite sides upon a longitudinal movement thereof.

9. In mechanism of the class described, a tie-plate composed of a plurality of pieces having base embracing lugs on their opposite free edges, and lever-like extensions extending outwardly and oppositely therefrom for fastening the tie-plate in position at points remote from the base-receiving portion of the plate, substantially as described.

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

CHARLES HENRY TIBBETTS.

Witnesses:

JAMES DUCE,

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