W. C ALLISON.

Railway-Track Connections.

No. 205,822. Patented July 9, 1878.

FIG. 1.

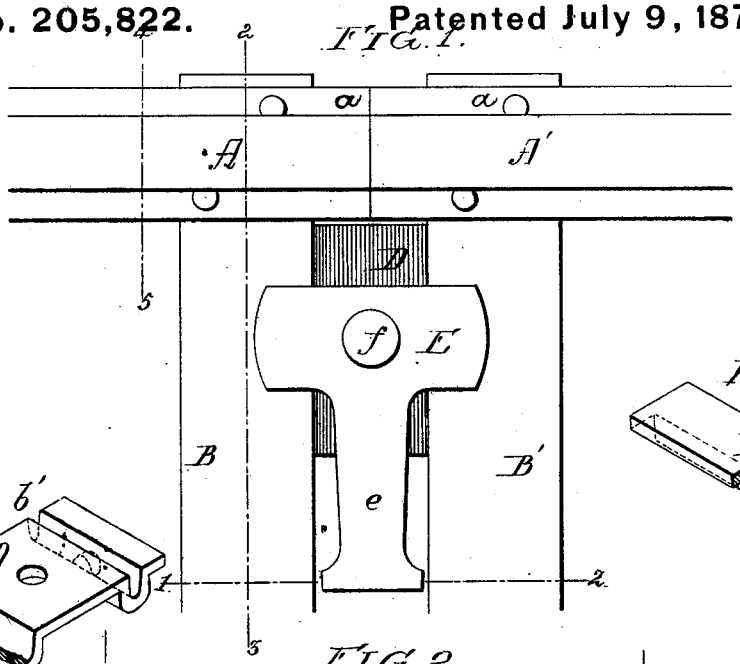


FIG. 6.

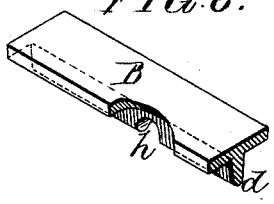


FIG. 5.

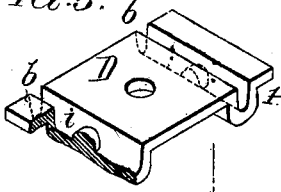


FIG. 2.

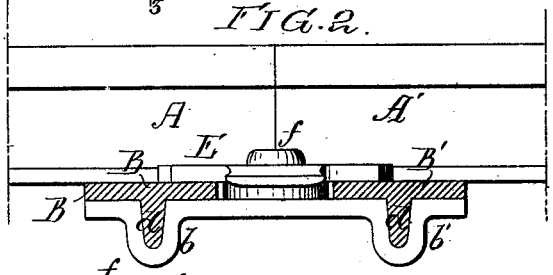


FIG. 3.

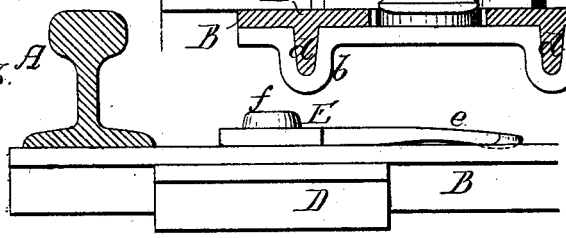


FIG. 7.

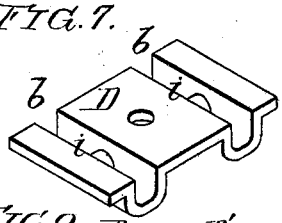


FIG. 4.

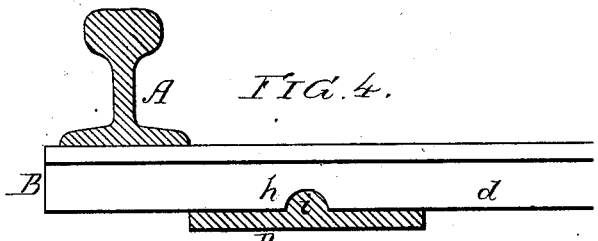


FIG. 9.

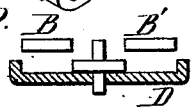
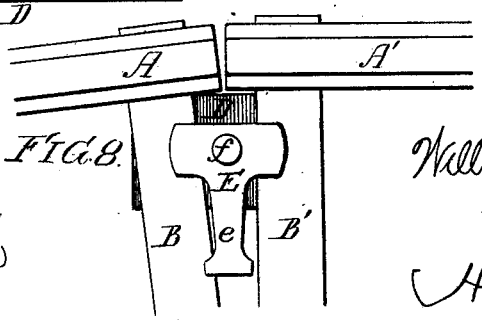


FIG. 8.



Witnesses.

Harry Smith

John A. Deemer.

Inventor.

William C. Allison

by his Attorneys

Howson and Sons

UNITED STATES PATENT OFFICE.

WILLIAM C. ALLISON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY-TRACK CONNECTIONS.

Specification forming part of Letters Patent No. **205,822**, dated July 9, 1878; application filed June 19, 1878.

To all whom it may concern:

Be it known that I, WILLIAM C. ALLISON, of Philadelphia, Pennsylvania, have invented a new and useful Improved Connection for Railroad-Tracks, of which the following is a specification:

My invention relates, mainly, to railway-tracks which are made in sections, two connected rails in each section; and the object of my invention is to provide means for readily connecting the several sections together.

In the accompanying drawing, Figure 1 is a plan view of part of a railway-track with my improvement; Fig. 2, a sectional elevation on the line 1 2, Fig. 1; Fig. 3, a sectional elevation on the line 2 3; Fig. 4, a sectional elevation on the line 4 5; Figs. 5 and 6, perspective views of part of a cross-tie and clamping-plate; and Figs. 7, 8, and 9 views illustrating a modification of my invention.

A is the end portion of the rail of one section, and is connected to the opposite rail (not shown in the drawing) by a cross-tie, B, of the T-shaped section shown in Fig. 2. The rail A′ of the adjoining section is in like manner connected to the opposite rail of the same section by a cross-tie, B′, ordinary rivets *a* being preferred for securing the rails to the cross-ties.

I connect the two sections together in the following manner: In the clamping-plate D are formed two grooves, *b b′*, one for receiving the vertical rib *d* of one cross-tie and the other for receiving the rib of the other cross-tie, the plate being placed beneath the ties, as shown in Fig. 2, one plate near the rails on one side of the track and the other near the opposite rails of the track.

A pivot-pin, *f*, consisting of a bolt or rivet, passes through each plate and through a turn-buckle, E, which, as shown in Fig. 1, overlaps both of the cross-ties B B′, the latter being thus securely clamped between the plate D and the turn-buckle, and consequently the adjoining rails A and A′ of the track must be securely held together. The turn-buckle, however, may be turned to a position at right angles to that shown in Fig. 1, and when the turn-buckle of the plate near the opposite rails has been similarly turned, the clamping-plates can be released from their hold on the cross-ties and the two sections of the track can be detached from each other.

I prefer to form a tongue, *e*, on the turn-buckle for a twofold purpose: First, it serves as a lever by which the turn-buckle may be operated; and, second, the end of the tongue being slightly depressed and then rounded on the under side, as shown in Fig. 3, an effort will be required to move the tongue laterally over the top of either cross-tie; hence the tongue serves to retain the turn-buckle in the position shown in Fig. 1.

I also prefer to make in each groove *b* of the clamping-plate a small projection, *i*, Figs. 4 and 5, adapted to a notch, *h*, in the vertical flange of the cross-tie, Figs. 4 and 6, so as to prevent the clamping-plate from sliding on the ties.

In some cases, where a curve occurs, it is necessary to lay the sections of the track at an angle in respect to each other, as in Fig. 8, for instance. To meet this contingency I make special clamping-plates, Fig. 7, with grooves *b*, wider than the vertical flanges of the T cross-ties, or clamping-plates with one wide groove and one narrow groove, these special clamping-plates being selected as the curves of the track may suggest.

While I prefer in all cases to use T-shaped cross-ties, they may be of other sectional forms, the clamping-plates being constructed accordingly. Thus, in Fig. 9, the cross-ties consist of simple flat bars adapted to recesses in a clamping-plate adapted to the bars.

I claim as my invention—

1. The combination of the cross-ties of adjoining railroad-track sections with a clamping-plate beneath the ties and a turn-buckle situated above the same and pivoted to the said plate, all substantially as set forth.

2. A locking device for connecting together the adjoining sections of a railroad-track, the said device consisting of a clamping-plate and a turn-buckle pivoted to the same, both plate and turn-buckle being adapted to the cross-ties of adjoining sections, substantially as set forth.

3. The combination of the cross-ties B B′ of adjoining sections with a clamping-plate, D, having grooves for receiving the vertical

flanges of the said cross-ties, and a turn-buckle pivoted to the said plate, all substantially as specified.

4. The combination of the notched T-shaped cross-ties with the grooved clamping-plates, having projections in the grooves adapted to the notches in the ties, as described.

5. The combination of the cross-ties and turn-buckle with clamping-plates having grooves *b b'*, one or both of which is wider than the vertical flange of the cross-ties, as set forth.

6. The combination of the cross-ties, clamping-plate, and turn-buckle E, having a tongue, *e*, as set forth.

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

WILLIAM CLARE ALLISON.

Witnesses:
HARRY A. CRAWFORD,
HARRY SMITH.