(No Model.)

W. COOPER.

RAIL JOINT.

No. 589,247. Patented Aug. 31, 1897.

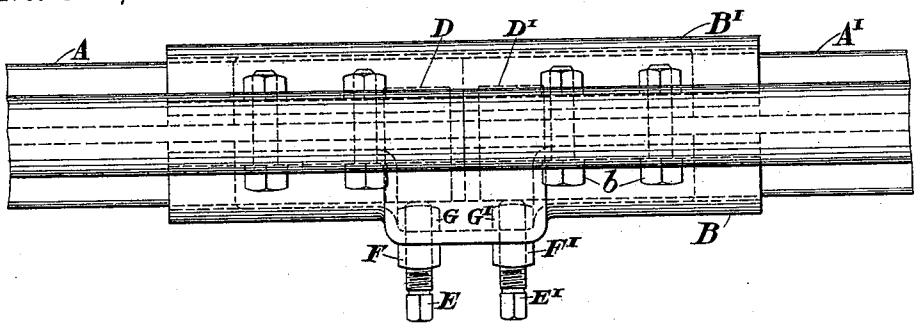


Fig. 1.

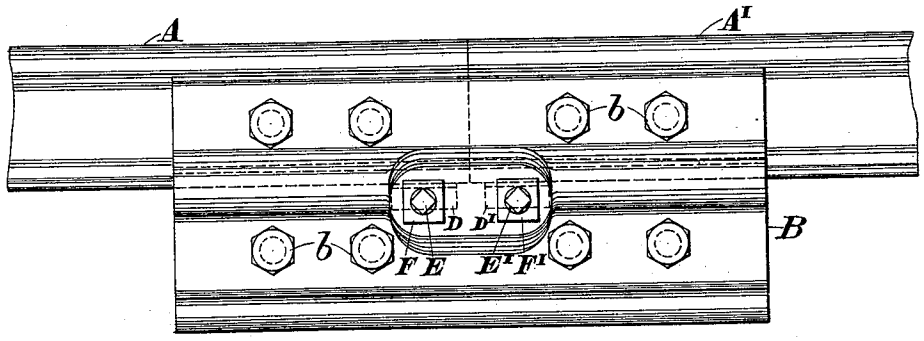


Fig. 2.

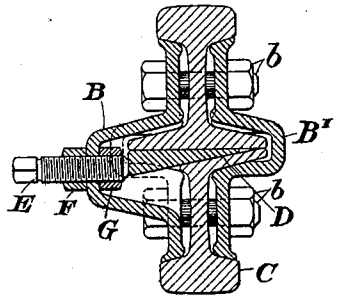


Fig. 3.

WITNESSES:

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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 589,247, dated August 31, 1897.

Application filed June 10, 1897. Serial No. 640,149. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM COOPER, of Auburndale, Middlesex county, Massachusetts, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to rail-joints, and has for its primary object the provision of a joint constructed so as to allow the level of either rail to be adjusted independently of the other rail and without loosening the joints which unite them. With this end in view I place beneath the joints a subrail D, and between the subrail and the track-rail I insert a wedge, which may be driven home by a set-screw or other suitable device. I so shape the central portion of the splice-bars that they will not bear against the upper side of the lower flange of the track-rail. By this means the entire pressure of the wedge is exerted to raise the rail.

My invention therefore consists in the improved construction, arrangement, and parts, which I will now proceed to more particularly describe, due reference being made to the drawings, of which—

Figure 1 is a plan view, Fig. 2 a side view, and Fig. 3 a sectional view, of one of my improved rail-joints.

A and A′ are the track-rails, which are joined by the splice-bars B B′, fastened by the bolts *b b* in the usual manner.

C represents the subrail, which is placed below the joint with head down. I have shown this in the form of a T-rail, as short lengths of discarded T-rails can be obtained cheaply, but almost any shape is suitable for this purpose. This subrail is channeled, as clearly shown in Fig. 3, to receive the wedges D and D′, which bear on the under side of rails A and A′, respectively.

E and E′ represent set-screws bearing against D and D′ and secured in place by the nuts F and F′ and G and G′.

Both splice-bars are formed in such a manner that at their ends they engage the heads and flanges of the track-rails and subrail, but above the wedges they do not engage the flange of the track-rail, but give sufficient clearance for the necessary adjustment. The splice-bar B is also spread sufficiently at this part to allow room for the set-screws and nuts.

With this joint the track can be very readily kept level at the joints, for in case any "pounding" begins at a joint it is only necessary to turn the set-screws E and E′ sufficiently to bring their respective rails in alinement with the general level of the track.

It is clear that I am not limited to the specific construction which I have shown and described, for many changes may be made in the details thereof without departing outside the scope of my invention.

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

1. In a rail-joint, the combination with the rails of a wedge below each rail and means for driving said wedge, and a pair of splice-bars which do not bear on that part of the flange of the track-rails which is above the wedges and which uphold a base member which bears against the under side of the wedges.

2. In a rail-joint, the track-rails and subrail beneath the ends thereof in combination with splice-bars which at their ends grip said track-rails and subrail so as to check upward or downward movement thereof but which at their central portion do not bear against the flanges of the track-rails, and means for exerting a separative pressure between either track-rail and the subrail.

3. The combination, in a rail-joint, of the track-rails and the subrail, the splice-bars engaging the said rails, the wedge between each track-rail and the subrail, and the set-screws and nuts for each wedge.

4. In a rail-joint, a splice-bar adapted to engage the under side of the head of the track-rail and the upper and lower portions of a subrail, and having that portion adapted to bear against the flange of the track-rail inclined upwardly from each end toward the center.

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

WILLIAM COOPER.

Witnesses:

RICHARD EYRE,

H. W. SMITH.