

(No Model.)

E. PEACE.

RAIL JOINT AND NUT LOCK THEREFOR.

No. 586,389.

Patented July 13, 1897.

Fig. 1.

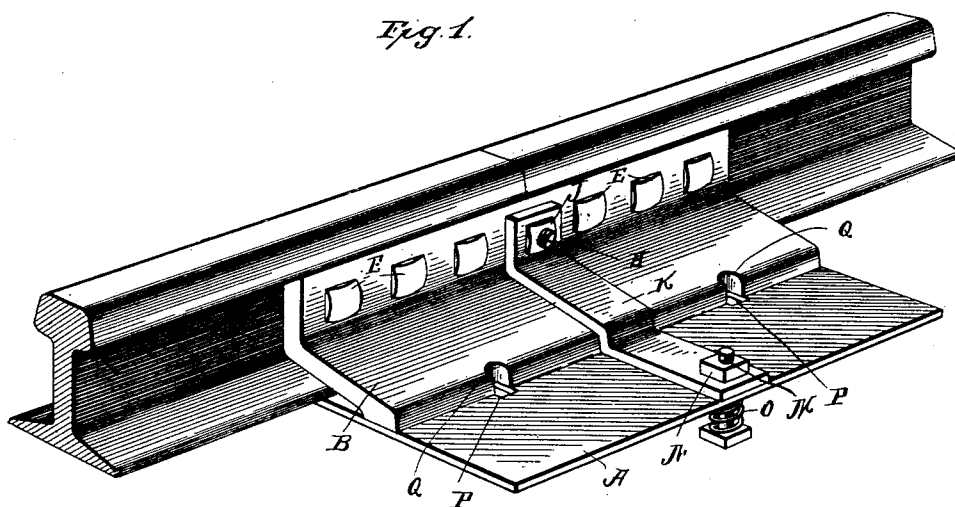


Fig. 2.

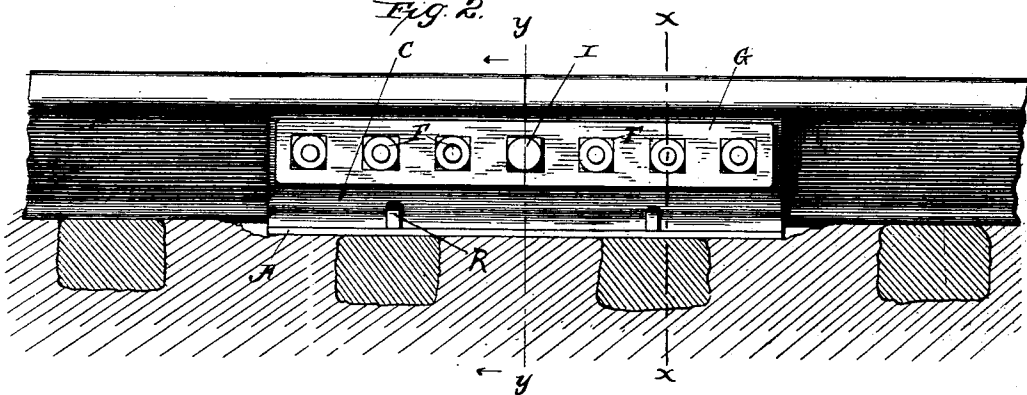


Fig. 3.

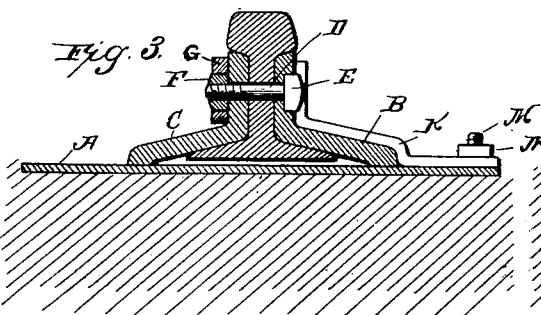
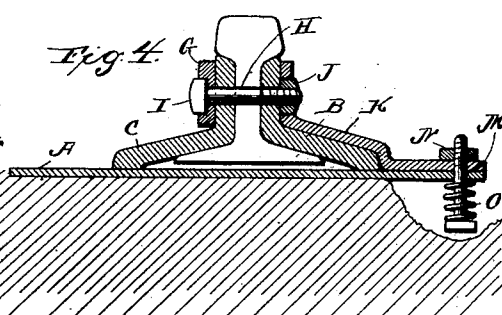


Fig. 4.



Witnesses

E. C. Wurdeman
S. Williamson

Inventor

Edwin Peace
by Geo. N. Holgate
Attorney

UNITED STATES PATENT OFFICE.

EDWIN PEACE, OF COATESVILLE, PENNSYLVANIA.

RAIL-JOINT AND NUT-LOCK THEREFOR.

SPECIFICATION forming part of Letters Patent No. 586,389, dated July 13, 1897.

Application filed January 23, 1897. Serial No. 620,484. (No model.)

To all whom it may concern:

Be it known that I, EDWIN PEACE, a citizen of the United States, residing at Coatesville, in the county of Chester and State of Pennsylvania, have invented a certain new and useful Improvement in Railway-Joints and Nut-Locks Therefor, of which the following is a specification.

My invention relates to a new and useful improvement in railway joints, chairs, and nut-locks, and has for its object to provide effective devices of this description which will securely hold the meeting ends of rails in longitudinal alinement and prevent the jarring loose of the bolts or nuts which hold the same, and yet permit their ready removal when it is necessary to readjust the joint or substitute another therefor.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective of the meeting ends of two rails, showing my improvements applied thereto; Fig. 2, a side elevation of the same, looking from the opposite direction; Fig. 3, a cross-section at the line *x x*, Fig. 2, looking in the direction of the arrows; and Fig. 4, a similar view at the line *y y*, Fig. 2, also looking in the direction of the arrows.

In carrying out my invention as here embodied I provide a plate A, which is of sufficient dimensions to support the several parts of the chair and joint, and upon this plate are placed the chair-blocks B and C, both of the same shape and size, the upright portion thereof being adapted to fit beneath the head of the rail and bear against the web thereof, as clearly shown in the cross-sections.

The block B has formed therethrough suitable holes for the passage of the bolts D and also recesses for the reception of the heads E of the bolts, said recesses being approximately the same shape as the heads, so as to prevent the turning of the latter upon their axes. The

block C has also formed therethrough a corresponding number of holes, but these holes are not recessed, so that when the bolts pass therethrough and the nuts F are run thereon said nuts jam against the outer surface of the upright portion of the block C and thereby bind the joint together, where it will be held so long as these nuts and bolts are prevented from any retrograde movement, and as the heads of the bolts fit within the recesses in the block B and cannot turn so also provision is made for the holding of the nuts in their adjustment by a locking-strip G, which has a series of holes formed therethrough which correspond in number and general outline to the nuts, and this strip is placed against the outer face of the upright portion of the block C, so that the nuts project through the holes therein, and the plate in turn is secured in place against accidental removal by the bolt H, which passes through a suitable hole in said strip and also through holes in the blocks B and C, as well as between the ends of the rails, which is permitted by notches formed in said ends, as clearly shown in Fig. 4. Now this last-named bolt is prevented from revolving upon its axis by the head I thereof fitting in the recess formed in the strip G, and the nut J is also run upon its opposite end for binding the strip against its block, and as a final provision against the working loose of the bolt H or its nut the latter is held against rotation by the bar K, which has a hole therein for surrounding the nut J, and this bar is of such shape as to lie snugly against the block B and the plate A, where it is held by the bolt M and nut N, said bolt having a spring O coiled about its shank between the bottom of the plate and its head.

From this it will be seen that when all of the parts of this device are in place the rails will be supported by the blocks out of contact with the plate A, while at the same time said blocks will be prevented from sidewise longitudinal movement by the spikes R passing through the holes P of the plate and having their heads projecting within the notches Q of the blocks.

The rails will be prevented from undue lengthwise movement by the bolt H, which passes between the ends of each rail, and yet sufficient play may be permitted in the notches

through which this bolt passes to compensate for the expansion and contraction of the rails due to the change in temperature thereof.

When the locking-strip is once placed and secured over the nuts, said nuts or their bolts cannot by any possibility be jarred loose by the vibration transmitted to the joint from the travel over the rails, yet when it is necessary to remove the joint or any part thereof it is only necessary to first either remove the bar K by the unfastening of the bolt M or spring said bar outward sufficient to clear the nut J, which is permitted by the action of the spring O, after which said nut may be backed off and the locking-strip removed, so as to leave the nuts F free to be revolved.

Likewise when any considerable wear has taken place between the blocks and the rails or between the blocks and the nuts or bolts this may be compensated for by the removal of the locking-strip, as just described, and the setting up of the nuts F, after which the locking-strip will be replaced and secured, as before set forth.

Having thus fully described my invention, what I claim as new and useful is—

1. In combination with the meeting ends of railway-rails, a plate placed beneath the same, blocks B and C adapted to bear against the webs of said rails and support the latter by their heads, a series of bolts passed through said blocks and rails, the heads of said bolts fitting within recesses in the block B, nuts run upon the threaded ends of the bolts, so as to bind the parts together, a locking-strip

having holes therein adapted to fit over the nuts, a bolt H passed through the locking-strip, a nut J run upon the threaded end thereof, a bar adapted to hold the last-named nut against rotation, and means for securing said bar against displacement, as specified.

2. The herein-described combination of the meeting ends of two rails, a plate arranged beneath the same, blocks B and C so formed as to fit against the webs of the rails and support the latter by their heads, bolts D passed through said blocks and rails, the heads of said bolts being fitted in recesses formed in the block B, nuts run upon the threaded ends of said bolts for binding the several parts together, a locking-strip having holes formed therethrough for the passage of the nuts, a bolt H passed through the locking-strip, blocks and rails and having its head let into said strip, a nut J run upon the threaded end of the bolt H, a bar having a hole there-through for the passage of the last-named nut, a bolt M passing through the plate and the outer end of the bar, a spring coiled about the lower portion of said bolt, and a nut run upon the threaded end thereof, all arranged substantially as and for the purpose set forth.

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

EDWIN PEACE.

Witnesses:

S. S. WILLIAMSON,
F. MATTNER.