B. ROSS.

RAIL-JOINTS.

No. 195,844. Patented Oct. 2, 1877

Fig. 1.

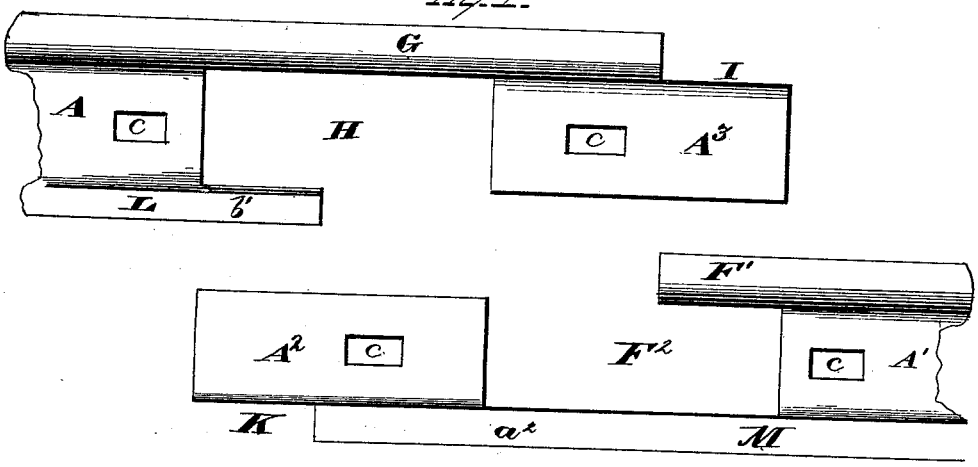


Fig. 2.

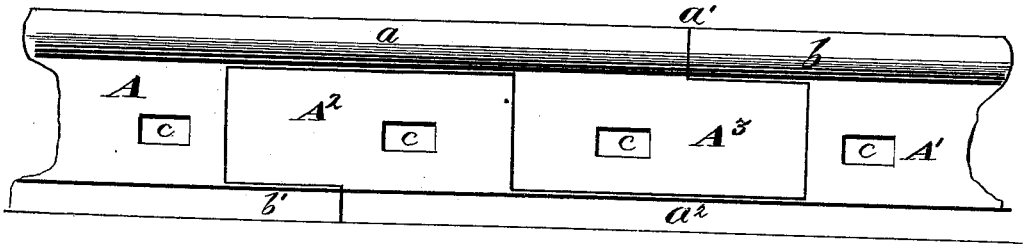
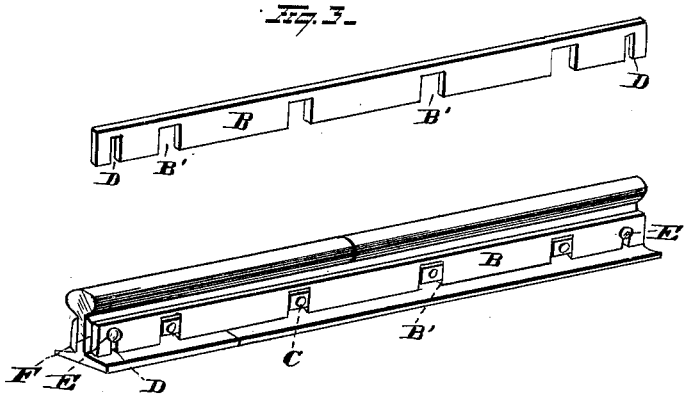


Fig. 3.



WITNESSES

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IMPROVEMENT IN RAIL-JOINTS.

Specification forming part of Letters Patent No. **195,844**, dated October 2, 1877; application filed July 23, 1877.

To all whom it may concern:

Be it known that I, BARNEY ROSS, of Amwell, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Railroad-Rail Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to railroad-rail joints.

In the drawing, Figure 1 represents the ends of two rails properly formed and separated; Fig. 2, the same rails closely fitted together; Fig. 3, views of a locking-plate attachment, and as applied to prevent the turning of the nuts.

My invention consists in the following-described manner of joining the ends of contiguous rails, by which means is accomplished a practically-continuous rail which shall not strain or yield to the pressure of a load placed upon it.

A A^1 are the rails, formed in counterpart, substantially as shown in Fig. 1 of the drawings. Rail A has a portion, A^3, of its web projecting beyond the tread G. Between the part A^3 and the main body of the web of the rail is formed a rectangular recess or opening, H. The flange L of rail A projects slightly beyond the web of the rail. Rail A^1 is also provided with a recess, F^2, the tread F^1 of the rail projecting partially over said recess. The flange M of rail A extends beyond the main web portion of the rail, and supports on its extreme end a web-section, A^2.

The two ends of the rails are locked together by a lateral movement of the rails.

It will be observed that the part A^3 of rail A snugly fits within the recess F^2 of rail A^1; also, the part A^2 of rail A^1 fits within the recess H of rail A.

The projecting portion F^1 of the tread of rail A^1 is seated upon the extreme end I of A^3, while the projecting end of the flange L of rail A serves to support the extreme end K of part A^2.

When thus formed and placed together, as shown in Fig. 2, it will be observed that a load passing over the portion *a* of the rail A will be received equally upon the rail A A^1, in such a manner that the joint a^1 will present an even surface, and will not spring or yield. If a train is passing in a direction from *a* to a^1, the weight would be received at the points $a\ a^2$; whereas if the load is passing in the opposite direction, the weight will be received first at *b b'*. In either case a practically-continuous unbroken rail is presented, and jolting at the joints effectually prevented, thereby increasing the pleasure of travel and decreasing the wear upon the rolling-stock.

c are holes formed through the web of the rails, through which pass bolts, attaching the ordinary connecting-bar or fish-plate.

The rails can be removed, if necessary, by a lateral displacement.

The joint *a* may be made either at right angles to the line of the track or at an angle or incline thereto, as may be deemed expedient.

B is a nut-locking plate, provided with recesses B′ for the accommodation of the nuts C, and two or more recesses, D, for the accommodation of the necks of the retaining bolts or buttons E. These bolts or buttons E are attached to the fish-plate F, and, by their heads, serve to retain the locking-plate B when it is placed in its locking position.

To place the plate B in its locking position, it is only necessary to push it down over the nut C and the necks of the retaining bolts or buttons E, when the said bolts will, by being embraced within the recesses B′, be securely prevented from turning until the plate B is removed.

The recesses B′ may be made of any form to suit the fashion of the nuts to be employed, and, instead of being square or rectangular, may be V-shaped to accommodate a nut at an eighth-turn.

The locking-plate B may be constructed from any suitable material, metal being preferred.

The immediately-above-described matter I do not specifically claim in this application, as it is broadly applicable as a nut-lock, and its use is not limited to a railway-joint of the present description. I hence reserve it as subject-matter for another application, and show it in this connection only as my preferred way of locking my railway-joint.

What I claim is—

The combination, with rail A, provided with the part A^3, recess H, and flange L, extending beyond the web, of the rail A^1, provided with the part A^2, recess F^2, and tread F^1, extending beyond the web of the rail, substantially as described.

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

BARNEY ROSS.

Witnesses:

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