

J. P. HERRON.

Improvement in Railroad-Rail Splice Pieces.

No. 128,487.

Patented July 2, 1872.

Fig. 1.

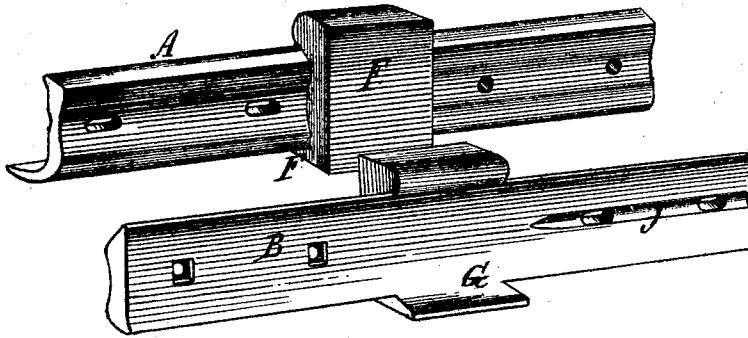


Fig. 2.

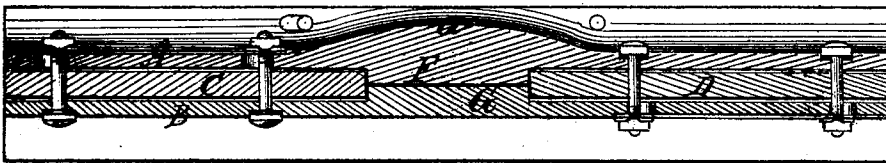
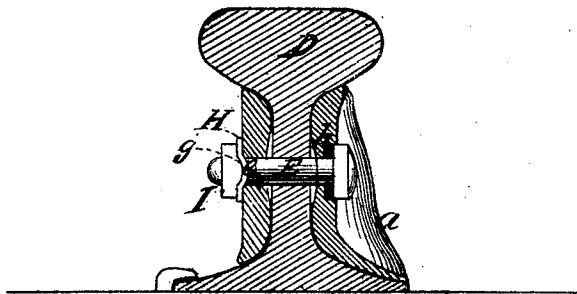


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES P. HERRON, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN RAILWAY RAIL-SPLICES.

Specification forming part of Letters Patent No. 128,487, dated July 2, 1872; antedated June 15, 1872.

Specification describing certain Equalized Connections for Railroad Rails, invented by JAMES P. HERRON, of Wilmington, in the county of New Castle and State of Delaware.

The nature of this invention consists in constructing each plate in the center with an enlargement, resembling in cross-section the one-half of a rail, which enlargements enter between the ends of the adjacent rails, and come in contact so as to form a short sectional end of a rail to fill the gap between the ends of the rails to be spliced, the object being to make a stronger joint than can be obtained where the fish-plates pass along the sides of the rails only.

Figure 1 represents a perspective view of the fish-plates. Fig. 2 is a horizontal section through the webs of two adjacent rails spliced together by my improved plates. Fig. 3 is a transverse section thereof drawn on a larger scale than Figs. 1 and 2.

The same letters of reference are used in all the figures in the description of identical parts.

A and B refer to the improved plates used for splicing together two adjacent rails, C and D. Midway between its ends each plate is constructed with an enlargement, F and G, respectively, which extends around the inner face and both edges of the plate, and is made in the form clearly shown in Fig. 1, so as to constitute a short end of a rail severed vertically in the direction of its length, when the flat faces of the enlargements are brought together and matched in splicing the rails. The plate A is rigidly secured to the rail D with its enlargement F abutting against the end of that rail, and can slide on the bolts which fasten it to the rail C, between the end of which and the rail F a small space is left to provide for the expansion of the rails. The plate B is in like manner rigidly secured to the rail C, and can slip a short distance on the rail D. The fish-plates on their outer sides may be

formed with swells or enlargements, as shown at *a*, on plate A, to strengthen them where the greatest strength is required; or they may be straight, as shown by plate B; or the plate on one side of the rails may be constructed with a swell, and the opposite one without it. The heads of the bolts E enter square seats in the rigidly-secured ends of the plates, and after passing through the rails and elongated holes in the plates upon the opposite side of the rails, the bolts receive washers H and nuts I. The washers are stamped to form a convex rib, *e*, upon the side coming in contact with the plate, and this convexity enters a concave-bottomed groove, *f*, in the plate to prevent the washer from turning thereon. Upon the opposite side the washer has a concave groove or two concave grooves crossing each other, which receive a corresponding rib or ribs, *g*, on the nut, as shown in Figs. 2 and 3. The head of the bolt is cushioned against a rubber or other spring, *h*, or equivalent device, to provide for the required endwise movements of the bolt in tightening the nut.

This arrangement of parts constitutes an efficient lock for the nuts, and prevents their unscrewing by the jars of the rails. The ribs *g*, besides serving in connection with the spring *h*, washer H, and groove *f* to lock the nut, also serve to strengthen it at a point where the greatest strength is required.

What I claim as my invention, and desire to secure by Letters Patent, is—

The fish-plates A B, having the sections F G, when the same are bolted to the rails with the slots on opposite ends, as and for the purpose set forth.

The above specification signed by me this 9th day of October, 1871.

JAMES P. HERRON.

Witnesses:

CHARLES HERRON,
LAURA J. HERRON.