(No Model.)

J. P. KELLY.

RAILWAY RAIL JOINT.

No. 428,757. Patented May 27, 1890.

Fig. 1.

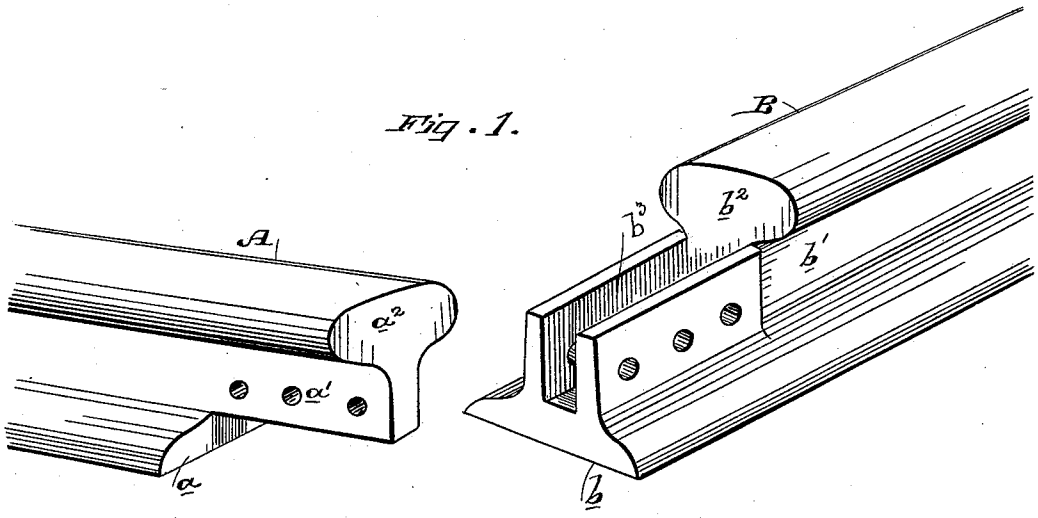


Fig. 2.

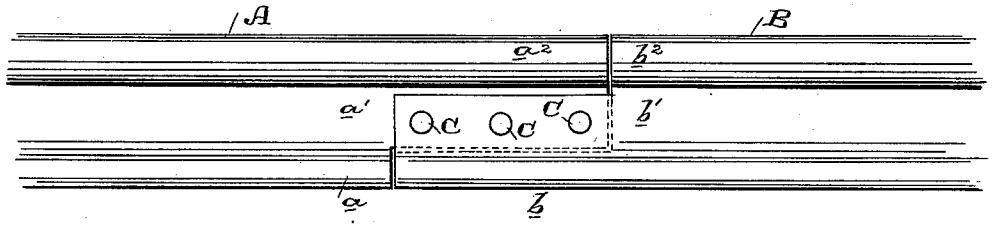
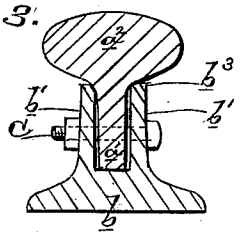


Fig. 3.



Witnesses,
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UNITED STATES PATENT OFFICE.

JOSEPH P. KELLY, OF SAN FRANCISCO, CALIFORNIA.

RAILWAY-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 428,757, dated May 27, 1890.

Application filed March 11, 1890. Serial No. 343,519. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. KELLY, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Railway-Rail Joints; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of railway-rail joints or splices in which the end of one rail is fitted directly into the end of the other rail.

My invention consists in the novel construction of the adjacent ends or terminals of the rails, hereinafter fully described, and specifically pointed out in the claims.

The object of my invention is to provide a simple and effective joint for rails which will avoid the use of the ordinary fish-plates and which will make a practically continuous rail.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of the ends of the rails, showing them separated. Fig. 2 is a side elevation of the completed joint. Fig. 3 is a vertical cross-section at the joint.

A is one rail, and B is another rail. The foot a of the first rail terminates short of the end of web a' and head a^2 of said rail, so that said web and head project beyond the foot. The head b^2 of rail B terminates short of the end of web b' and the foot b of said rail, so that said web and foot project beyond the head. The projecting part of the web b' of rail B is formed with a groove or channel b^3 wide enough to receive the web a' of rail A. When the two rails are fitted together, the end of the foot a of rail A abuts against the end of foot b of rail B. The end of head a^2 of rail A abuts against the end of head b^2 of rail B, while the web a' of rail A fits down into the groove or channel b^3 in web b', and its end abuts against the base of said groove or channel. Securing-bolts C are passed directly through the grooved or channeled web b' and intervening web a', whereby the two rails are secured together. It will thus be seen that the rails are fitted intimately together in such a manner as to practically form a continuous rail.

I am aware that it is not new to terminate the heads of both rails short of the end of the web and foot and to fit over the exposed or headless portion of both webs a grooved or channeled connecting or splice piece having a head which continues the line of the rail-heads, said piece in some cases fitting its foot upon the feet of the rails and in other cases embracing them by lapping over and under them. It will be seen, however, that in such constructions there are necessarily two joints in the rail-heads—namely, one where one head abuts against one end of the connecting-piece and another where the other head abuts against the other end of said piece. It will also be seen that in this construction a separate piece for connecting the two rails is employed, which necessitates extra handling. In my construction I avoid any separate connecting-piece by reason of forming the ends of the rails themselves in such a manner that they shall fit into one another, making a continuous rail with no double parts, such as having both the foot of the connecting-piece and the foot of the rail, and having but one joint in the rail-head. It will also be seen that I obviate the necessity of fish-plates entirely. There are three points or lines of support in this joint—namely, the bottom of web a', resting in bottom of channel b^3, and the head a^2, resting on each side of the channeled web.

I do not claim, broadly, the fitting of one rail directly into the end of another rail; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. Railway-rails the ends or terminals of which are formed one with a head and web projecting beyond the foot and the other with a web and foot projecting beyond the head, the web of said last-named rail being grooved or channeled in its projecting portion to receive the projecting web of the first-named rail, whereby a joint is formed between the two rails, substantially as herein described.

2. A railway-rail joint formed by the end or terminal of one rail made with a head and web projecting beyond its foot and the end or terminal of the other rail made with a web and foot projecting beyond its head, the projecting web of the last-named rail being grooved or channeled to receive the projecting web of the first-named rail, the ends of

heads and feet of the two rails abutting, substantially as herein described.

3. A railway-rail joint comprising one rail having its end or terminal formed with a head and web projecting beyond its foot and the other rail having its adjacent end or terminal formed with a web and foot projecting beyond its head, the projecting web of said last-named rail being grooved or channeled to receive the projecting web of the first-named rail, the ends of heads and feet of the two rails abutting, and the bolts passing through the channeled or grooved web of one rail and the intervening web of the other rail, substantially as herein described.

In witness whereof I have hereunto set my hand.

JOSEPH P. KELLY.

Witnesses:
S. H. NOURSE,
H. C. LEE.