No. 825,959. PATENTED JULY 17, 1906.

A. M. CLARK.

RAILWAY RAIL SPLICE.

APPLICATION FILED FEB. 12, 1906.

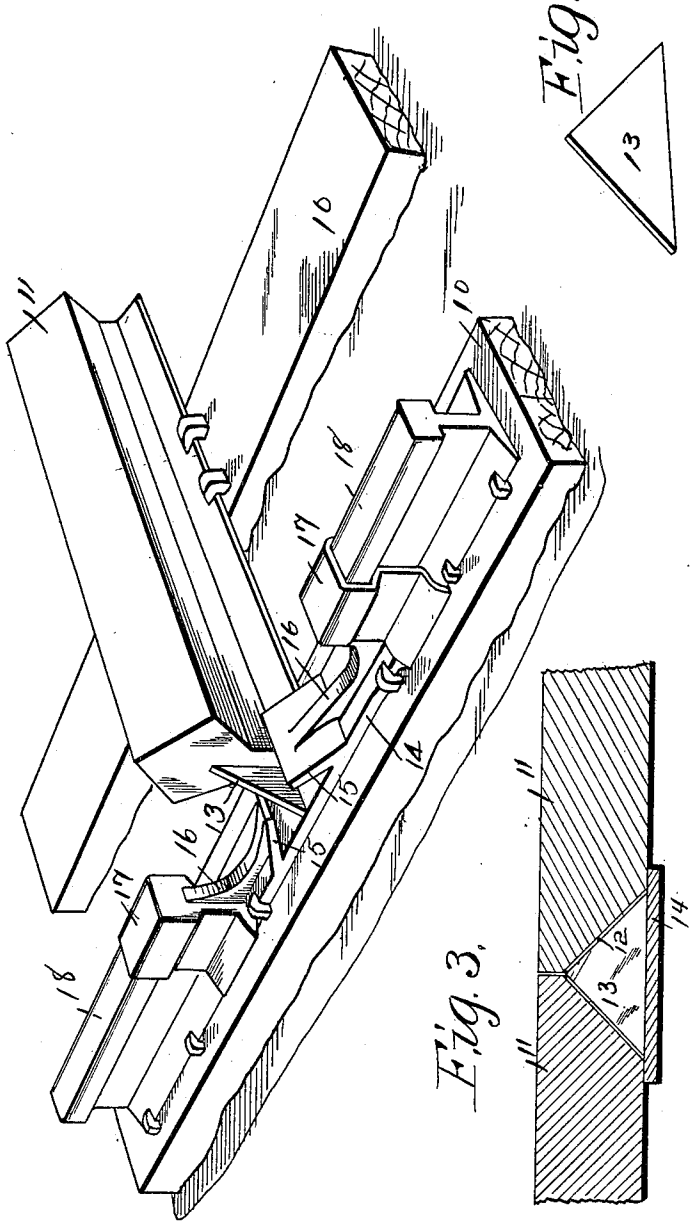

Fig. 1.

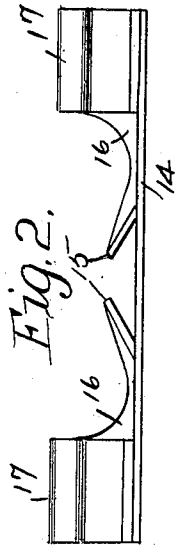

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

ALBERT M. CLARK, OF MARSHALLTOWN, IOWA.

RAILWAY-RAIL SPLICE.

No. 825,959. Specification of Letters Patent. Patented July 17, 1906.

Application filed February 12, 1906. Serial No. 300,782.

To all whom it may concern:

Be it known that I, ALBERT M. CLARK, a citizen of the United States, residing at Marshalltown, in the county of Marshall and State of Iowa, have invented a certain new and useful Railway-Rail Splice, of which the following is a specification.

My invention is especially designed for use in connection with a single-rail track, but may be used with any ordinary rail.

My object is to provide a splice for uniting the abutting ends of two rails in such manner as to firmly hold the abutting ends against lateral movement relative to each other and to maintain them accurately in line without having fish-plates or bolts or other devices projecting outwardly from the web of the rail, where they would likely be engaged by the flange of a wheel mounted upon the rail.

In a single-rail track it is essential to secure the rail against tilting movements more firmly than in a two-rail track, and it is therefore one of my objects to provide a splice device especially designed to prevent tilting movements of the rail.

My invention consists in the construction, arrangement, and combination of the parts of the splice whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of a railway-rail having my improved rail-splice device applied to it and to rail-ties as in use. Fig. 2 shows a side elevation of the central portion of the rail-chair forming part of my invention. Fig. 3 shows a detail view of the abutting ends of two rails in longitudinal section resting upon the rail-chair and illustrating the splice-plate in position therein, and Fig. 4 shows a perspective view of the splice-plates detached.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate railway-ties, and 11 a railway-rail. The form shown is especially designed for use in connection with a one-rail track and is preferably somewhat larger and heavier than an ordinary rail and provided with a slightly-heavier web portion than that of an ordinary rail. At the end of each rail I have formed a slot extending from a point near the top of the rail downwardly and toward the center of the rail, said slot being indicated by the numeral 12 in Fig. 3 and being formed in the vertical center of the rail to extend longitudinally of the rail. I have provided a splice-plate 13 substantially triangular in outline and designed to fit into the slots 12 of two abutting rails, as shown in Fig. 3. By means to this plate 13 the rails are held accurately in line, and no bolts or fastening devices of any kind are used on the exterior of the rails. It is, however, essential that a firm base be provided for the plate 13, and for this purpose I have provided the rail-chair hereinafter described.

The reference-numeral 14 indicates the flat base of the rail-chair, which is designed to be secured to a railway-tie by spikes, as shown in the drawings. On opposite sides of the center of the base 14 are two flanges 15, projecting upwardly and toward each other and designed to engage the rail-flange. These flanges 15 are braced by the ribs 16 at their centers, and the flanges and ribs are so arranged that they do not project over the web of the rail in such a way as to interfere with a wheel-flange running along the under surface of the ball of the rail. On each end I have formed a socket 17, open at its outer end and closed at its inner end and shaped to receive the end of an ordinary railway-rail section 18.

In use a short railway-rail section is placed in each of said sockets 17 and secured to the tie 10 by spikes, said rail-sections being of such length as to extend outwardly from the rail to a point near the end of the railway-tie to which they are spiked. The inner ends of the sockets 17 are spaced apart from the center of the railway-chair far enough so that they will not in any way interfere with a wheel flange engaging the under surface of the ball of the rail.

In use it is obvious that the abutting ends of two rails provided with the splice-plate 13 and resting in the rail-chair will be securely and accurately held in line. Furthermore, the rail will be firmly held against tilting movement, and the rail-sections 18, forming part of the rail-chair, will materially aid in bracing and strengthening the rail-chair.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. The combination with a railway-rail, having a longitudinal slot formed in its end inclined from a point near the center of the ball of the rail downwardly and away from the end of the rail, and a splice-plate having a straight lower edge and side edges inclined

from the center of the plate downwardly and outwardly to enter the slot in the rail.

2. In a railway-rail splice, a flat base, flanges projecting upwardly and toward the center of the base to receive the web of a rail between them and to engage the top of the rail-flange and sockets formed on the outer ends of the base, said sockets being open at their outer ends.

3. In a railway-rail splice, a flat base, flanges projecting upwardly and toward the center of the base to receive the web of a rail between them and to engage the top of the rail-flange, sockets formed on the outer ends of the base, said sockets being open at their outer ends and reinforcing-ribs extending from the flanges to the sockets.

4. In a railway-rail splice, a flat base, flanges projecting upwardly and toward the center of the base to receive the web of a rail between them and to engage the top of the rail-flange, sockets formed on the outer ends of the base, said sockets being open at their outer ends and railway-rail sections fitted into the outer ends of said sockets.

5. The combination with a railway-rail having a longitudinal slot in its end extending downwardly and away from the end, a rail-splice plate fitted in said slot being flush with the bottom of the rail, a chair-base engaging the bottom of the rail and the bottom of the splice-plate and flanges on the chair-base to overlap a rail-flange resting on said base.

Des Moines, Iowa, January 13, 1906.

ALBERT M. CLARK.

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