

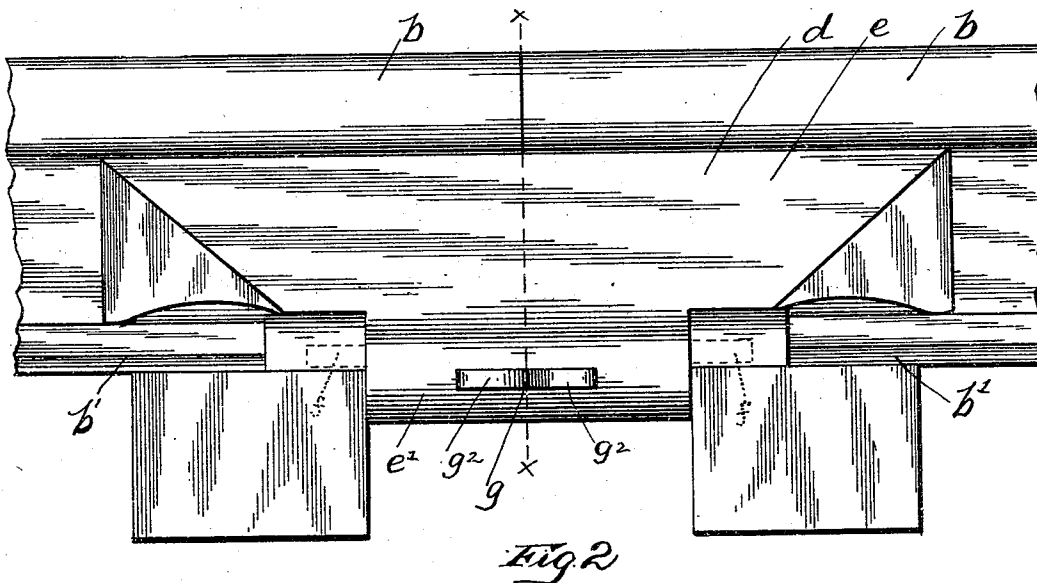
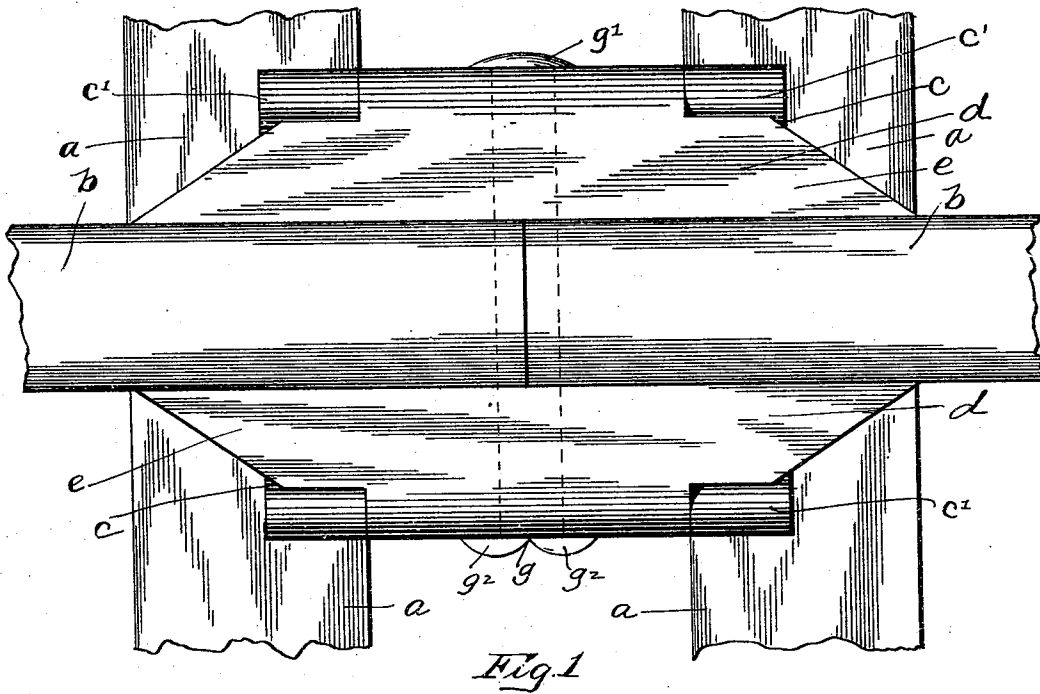
(No Model.)

2 Sheets--Sheet 1:

W. C. HILLIKER.
RAILWAY TRACK RAIL CONNECTION.

No. 551,821.

Patented Dec. 24, 1895.



WITNESSES:

H. B. Bradshaw
A. L. Phelps

INVENTOR

William C. Hilliker

BY

C. C. Shepherd,

ATTORNEY

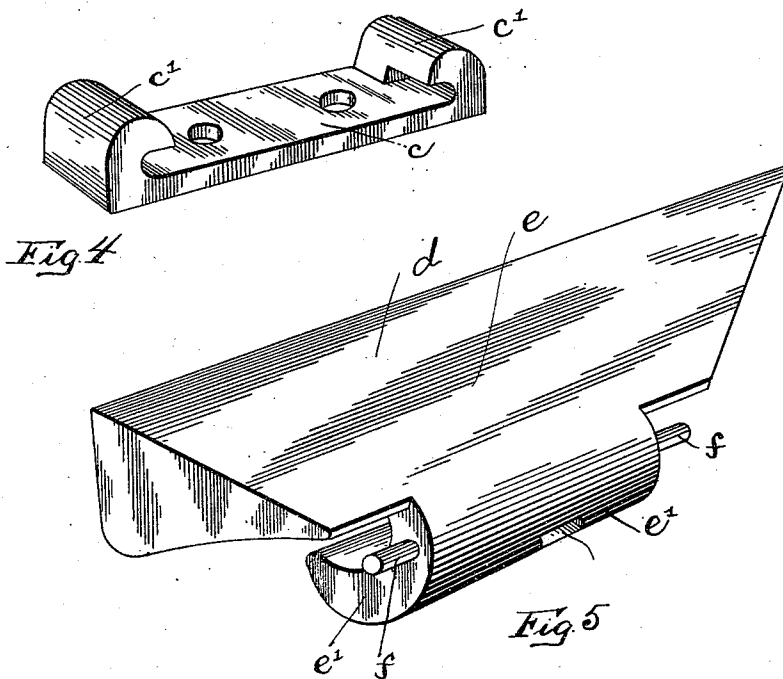
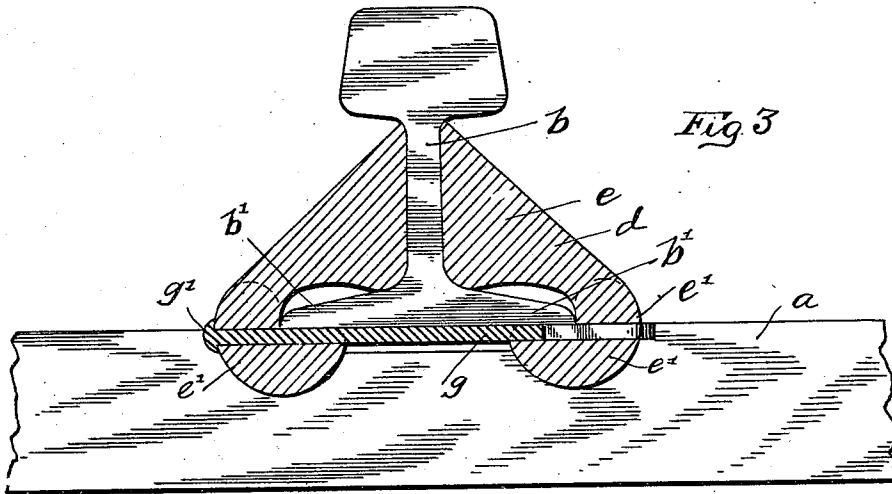
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UNITED STATES PATENT OFFICE.

WILLIAM C. HILLIKER, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO
F. E. DUTOIT, OF SAME PLACE.

RAILWAY-TRACK-RAIL CONNECTION.

SPECIFICATION forming part of Letters Patent No. 551,821, dated December 24, 1895.

Application filed May 18, 1895. Serial No. 549,756. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HILLIKER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Railway-Track-Rail Connections, of which the following is a specification.

My invention relates to the improvement of railway-track-rail connections; and the objects of my invention are to provide improved means for producing a rigid and durable connection of track-rail ends and at the same time obviate the necessity of employing bolts and nuts; to so construct and arrange the parts of said connections as to retain the upper sides of two adjoining rail ends flush with each other at all times, and to otherwise produce in a simple and inexpensive manner a reliable and effective connection of track-rails. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of two track-rail ends, showing the same connected by my device. Fig. 2 is a side elevation of the same. Fig. 3 is a central vertical section on line $x x$ of Fig. 2. Fig. 4 is a detail view in perspective of one of the tie-plates; and Fig. 5 is a detail view in perspective of one of the clamping-plates, which I employ in the manner hereinafter described.

Similar letters refer to similar parts throughout the several views.

$a a$ represent portions of two railway-ties upon which are ordinarily supported the adjacent end portions of two track-rails b , these track-rails meeting at a point midway between said ties. In the upper sides of these ties, adjoining their inner edges, are formed longitudinal recesses within which are secured metallic bearing-plates c , each end of each of these bearing-plates being provided with an upwardly-projecting boxing-lug c' .

$d d$ represent rail-clamping pieces, each of which consists of a metallic clamping bar or plate portion e , which has its inner face shaped to conform to and fit against the side of a track-rail web between the flange and

tread of said rail. Each of these clamping-plate portions e is substantially triangular in cross-section and has its outer and lower portion terminating in a central inwardly-turned hook e' , the latter being of less length than the body of the clamping-plate e and projecting, as shown, beneath the latter. Each end of the hook portion e' has extending outward therefrom a pin or trunnion f , and these projecting pins of each of the clamping-pieces d are adapted to be journaled in two of the oppositely-located boxings c' of the tie-plates c . In this manner one of the clamping-pieces is journaled or hinged in its base portion on each side of the adjoining track-rail ends, and when said track-rails are placed in position between said clamps the base-flanges b' are adapted to engage, as shown in the drawings, in the longitudinal recesses of the hooks e' . The weight of the track-rails as they descend to their positions on the ties and the engagement of the track-rail flanges with said hooks, results in a downward pressure of the outer edges of the hook portions e' and in an inward clamping action of the plate portions e against the webs of the adjoining rails and on opposite sides of the latter. The above operation having been accomplished the hook portions of the clamping-pieces are firmly locked together by means of a transverse pin g , which passes through properly-shaped oppositely-located openings in said hook portions and extends, as shown, beneath the track-rail ends. This connecting-pin g is provided at one end with a flanged head portion g' , and has its opposite end portion split to form two terminating members g^2 , the latter being adapted, as indicated in the drawings, to be bent or clinched over against the outer side of one of the clamping-hooks. By the above means it will be seen that not only will the flanges of the track-rails be provided with seats in the hook-recesses, but that the upper sides of the clamping-plates will serve to engage with the under sides of the projecting tread portions of the rails and thus prevent any independent downward movement of the latter.

In order to prevent any possibility of the rail ends being raised one above the other

and insure the retention of the uppersurfaces of said rails in a flush position, I have employed the transverse connecting-pin *g*, said connecting-pin serving to firmly tie or lock
5 the clamping-pieces together.

From the construction and operation which I have described it is obvious that substantially continuous tracks may be formed without the employment of the usual forms of fish
10 plates or bolts and nuts. It will also be observed that the manner of connecting the rails, as herein shown and described, is exceedingly simple and that it affords a strong and durable connection of said rails.

15 Owing to the fact that my improved connecting-plates serve to retain the treads of the rails flush with each other, the usual clicking noise resulting from the passage of the wheels from one rail to another is obviated.

20 Having now fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

In a railway track rail connection, the combination with the clamping pieces *e* having a hinge connection with two cross ties on opposite sides of track rail ends, the upper portions of said clamping pieces being adapted to fit
25 against opposite sides of the track rail webs and the lower portions thereof having inwardly projecting hooks, with which the track-rail flanges are adapted to engage, of a transverse
30 locking pin *g* adapted as described to pass through said clamping piece hook portions and firmly unite the latter, substantially as and for the purpose specified.

WILLIAM C. HILLIKER.

In presence of—

C. C. SHEPHERD,
C. M. VOORHEES.