H. F. COX.
RAIL SPLICE.

Patented May 10, 1887. No. 362,722. test

## United States Patent Office.

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## RAIL-SPLICE.

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Application filed August 24, 1886. Serial No. 211,708. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. Cox, a citizen of the United States, and a resident of the city and county of Philadelphia, State of Pennsyl-5 vania, have invented a new and useful Improvement in Rail Splices, of which the following is a true and exact description, due reference being had to the accompanying draw-

ings, which form part hereof.

The object of my invention is to provide an improved splice or support for railroad-rails by means of which the abutting ends of two rails may be firmly held together and prevented from moving vertically with reference 15 to each other; and my invention consists of the clip or supporting-splice, made substantially as shown in the drawings, and hereinafter more fully described.

Reference is now had to the drawings, which 20 show a rail-joint provided with my improved supporting-splice, and in which Figure 1 is a side elevation; Fig. 2, a vertical cross-section on the line x x of Fig. 1; Fig. 3, a plan view with the upper end of one clamping-piece cut

25 away on the line y y of Fig. 2.

A A are the abutting ends of two rails, a a being their flanged bases; B B, the usual railsplices.

C C C are the bolts which secure the splices

30 to the rails.

D D are ties.

E, Fig. 1, is my improved rail splice, which consists of two wedge-pieces, F and G, Figs. 2 and 3, each provided with inwardly-pro-35 jecting clamps J J and inclined surfaces H and H', adapted to slide upon each other, and when the clips F and G are drawn together they clamp the base a a of the rails tightly be-

40 supporting surfaces F' of the wedge-piece F. I is a bolt passing through bolt-holes in the bottom of the wedge-pieces F and G, and by means of which they are drawn together and made to clamp the ends of the rails between 45 the clamps J J and the supporting-surface F'.

tween the projecting clamps J and the rail-

The bolt-holes in one or both of the wedgepieces should be made of larger size than the bolt, preferably of elongated section, so as to permit of the sliding of the one piece on the other. In one of the wedge-pieces F or G, I 50 prefer to make a central projecting rib, K, and I cut away the corners L L of the abutting rails to provide a recess into which the rib K can enter. By this device the rail-splice E is held in position and prevented from moving 55 longitudinally away from the rail-joint.

My device may be used in connection with what is called the "double-angle splice," and it may also be used without any fish-plate splice, as it is in itself adapted to preserve both the 60 horizontal and vertical alignment of the rails and to hold them firmly together. I prefer, however, to use my device in connection with fish-plates, which are greatly re-enforced by its use and are less liable to break. Care 65 must be taken to insure that the spaces jj are sufficiently large to clear the edges of the railbase a, so that the bottom of the rail shall be tightly clamped between the projections J and the base F', it being of the greatest importance 70 that the bases of the rails shall be firmly and evenly supported on their under sides.

To insure the tight clamping of the railbase it is also important that the clamps J should not come in contact with the web or 75 head of the rail, as this would interfere with the action of the wedges and clamps.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a rail-splice, substantially as specified, the combination of the wedge-piece F, having a projection, J, inclined surface H, and railsupporting surface F', the wedge-piece G, having a projection, J, and inclined surface H', 85 and the bolt I.

HENRY F. COX.

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Witnesses:

P. B. PRINCE, AL. P. BURCHELL.