

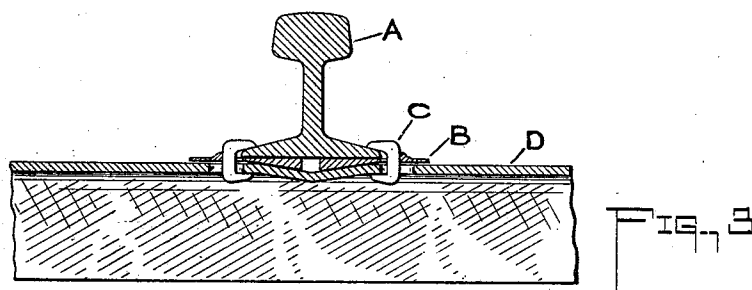
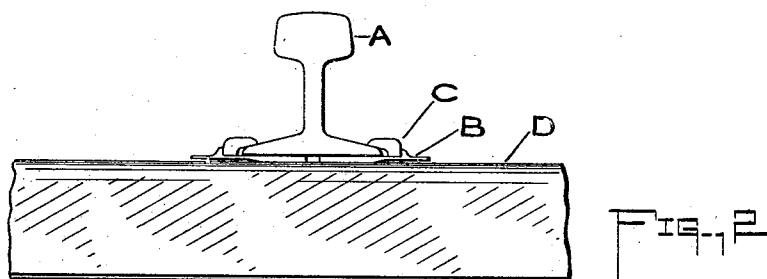
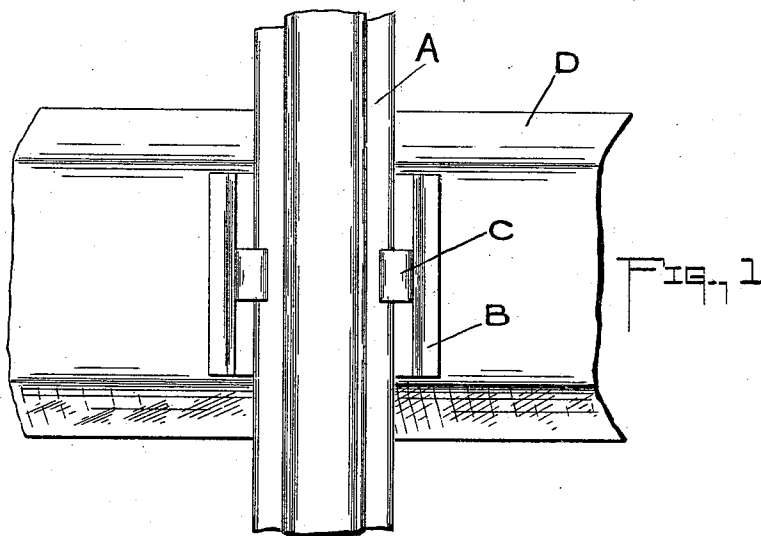
(No Model.)

4 Sheets—Sheet 1.

J. L. POPE.
RAIL SECURING DEVICE.

No. 508,047.

Patented Nov. 7, 1893.



WITNESSES=

G. L. Myers
W. H. Pope

INVENTOR=

J. L. Pope

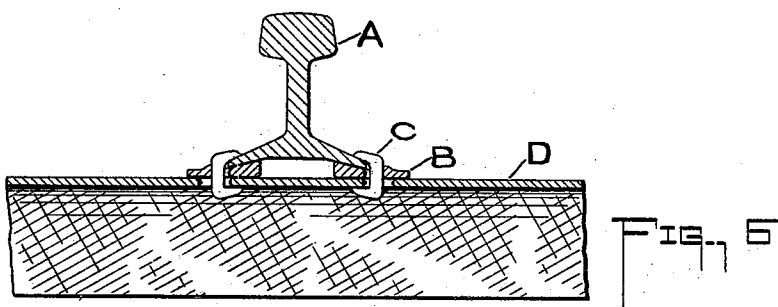
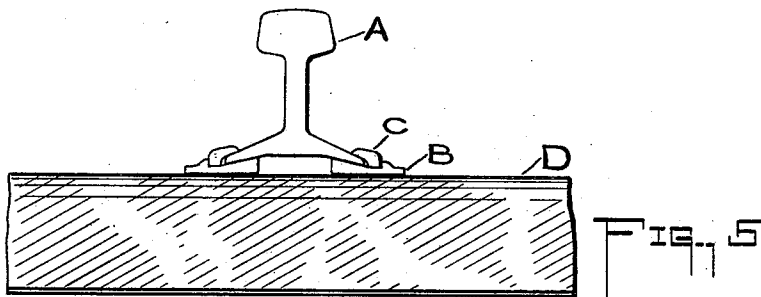
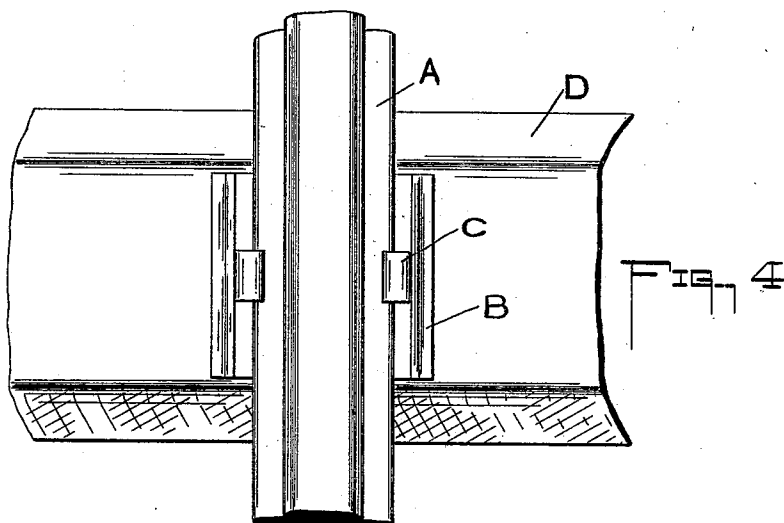
(No Model.)

4 Sheets—Sheet 2.

J. L. POPE.
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4 Sheets—Sheet 3.

J. L. POPE.
RAIL SECURING DEVICE.

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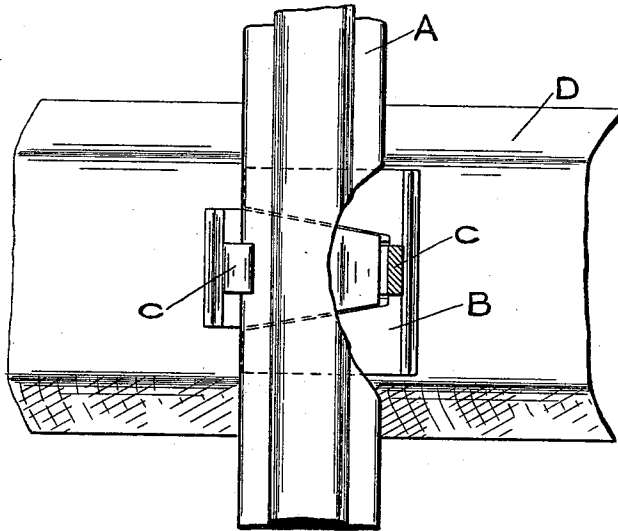


FIG. 7

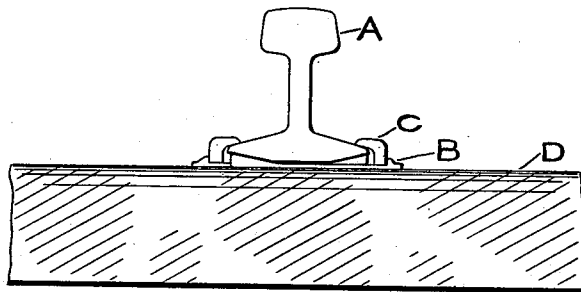


FIG. 8

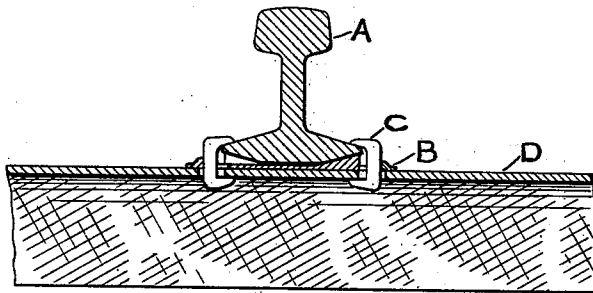


FIG. 9

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4 Sheets—Sheet 4.

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Patented Nov. 7, 1893.

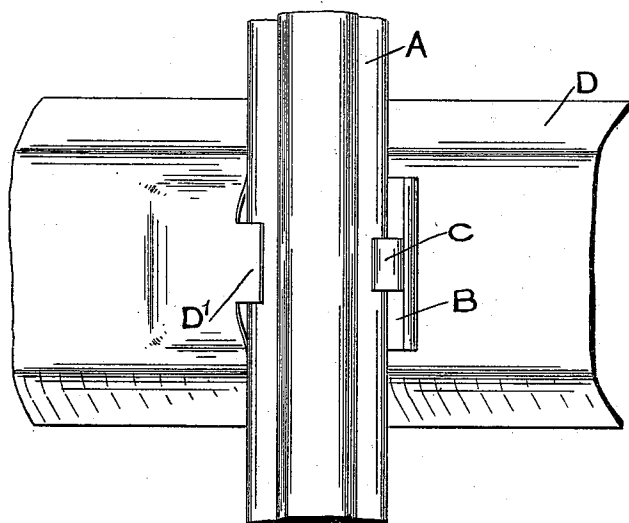


Fig. 10

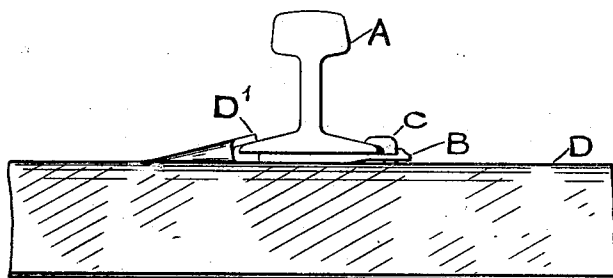


Fig. 11

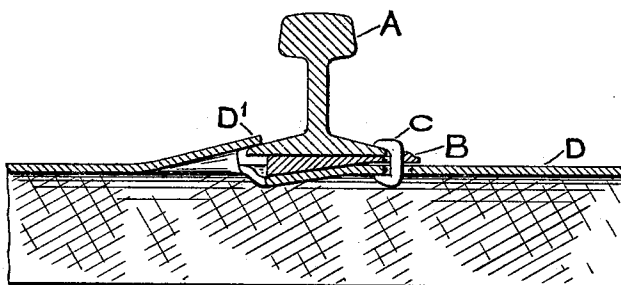


Fig. 12

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UNITED STATES PATENT OFFICE.

JOHN L. POPE, OF CLEVELAND, OHIO.

RAIL-SECURING DEVICE.

SPECIFICATION forming part of Letters Patent No. 508,047, dated November 7, 1893.

Application filed September 8, 1892. Serial No. 445,303. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. POPE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Rail-Securing Devices, of which the following is a full, clear, and exact description.

The object of my invention is to provide improved means for fastening railway rails to the ties or other rail-supporting devices, which shall be adapted to act automatically in compensating for wearing of the parts and in preserving a constantly tight connection between the rail and tie.

In the accompanying drawings, Figure 1 is a plan view of a part of a railway rail and tie, showing my rail-holding device in what I regard as the preferable form of construction. Fig. 2 is an end view, and Fig. 3 a cross-sectional view of the same. Figs. 4, 7 and 10 are plan views, showing slight modifications in details of construction, which are hereinafter more particularly described. Figs. 5, 6, 8, 9, 11, and 12, are end views and cross-sections of the device shown in Figs. 4, 7, and 10, respectively.

In the drawings, B represents a plate constructed according to the principle of my invention and common to all the modified forms illustrated in the several figures. The plate B has a beveled surface on one side which rests on a corresponding beveled surface upon the tie D, and as the rail rests upon the top of said plates the weight of the rail and pressure upon it tend to draw the plates toward the center of the rail.

C, C, are clips or hooks which pass through said plates and through transverse slots in the top of the tie, and as the plates are drawn inwardly by the pressure of the rail, the clips are drawn with them and caused to bear firmly against the top beveled surface of the foot of the rail and under the top plate of the tie, thereby binding the rails firmly to the tie.

In Figs. 1, 2 and 3, I show two plates B set upon oppositely inclined surfaces on the tie so that downward pressure exerted by the rail will draw them together.

In Figs. 4, 5 and 6, I show the plates made with their under faces flat, their upper faces upon which the rail bears being outwardly inclined, and the bearing faces at the base of

the rail being correspondingly inclined. With this construction the bearing and pressure of the rail upon the plates act directly in tending to draw them inwardly and in pressing the clips firmly against the rail.

In Figs. 7, 8 and 9 I show a construction in which the plates B are caused to move outwardly by downward pressure. This is effected by forming the plates with tail-pieces, which extend to respectively opposite sides of the rail and are provided with the clips. This may be done conveniently by forking one of the plates as shown in Fig. 7, and setting the other plate within the fork. The bevels on the rail (or tie) and on the plates are so arranged as to force the plates outwardly, with the result of drawing inwardly the clips in the tail-pieces and causing them to engage and hold the rails.

In Figs. 10, 11 and 12, I show how my invention can be applied with only one movable plate and movable clip. In this case the single plate B is preferably arranged so as to extend beneath the greater portion of the rail's width and by downward pressure of the rail is drawn laterally so as to force the clip inwardly against one side of the rail. On the other side of the rail I form a stationary clip D', which may be made integral with the tie, and which is preferably inclined, so that when the rail is forced against it by the opposite movable clip, the resultant force shall bind the rail tightly to the tie.

Other modifications of this part of my invention will suggest themselves to those skilled in the art, those illustrated in the drawings being designed not to show exhaustively all forms of the improvement, but merely as illustrative of certain classes thereof.

I claim—

1. The combination of a railway rail and tie or other rail-support, a plate having an inclined bearing on its supporting surface, and a separately formed clip or hook which engages the rail and rail support, said plate being actuated by downward pressure to cause the clip or hook to clasp the rail to the tie; substantially as described.

2. The combination of a railway tie or other rail-support, having oppositely beveled faces, beveled plates bearing thereon, a rail and clips formed separately from said plates, engaging

the rail and tie, and adapted to be forced inwardly by the plates to bind the rail to the tie; substantially as described.

3. The combination of a railway rail and tie
5 or other rail-support, a beveled plate, and a clip or hook made separate from the plate, and fitting in a slot in the tie, said plate being actuated by downward pressure to cause the clip or hook to clasp the rail to the tie; substantially as described.
10

4. The combination of a railway rail and tie, a plate bearing on an inclined surface on the

tie, and a separately formed clip or hook actuated by the plate and fitting against the top of the rail-flange and the under side of the tie, 15 said plate being actuated by downward pressure to force the clip or hook to clasp the rail to the tie; substantially as described.

In testimony whereof I have hereunto set my hand this 1st day of September, A. D. 1892. 20
JOHN L. POPE.

Witnesses:

W. B. WHITING,
C. W. POPE.