

No. 610,093.

Patented Aug. 30, 1898.

B. C. SEATON.
THIRD RAIL FOR ELECTRIC RAILWAYS.

(Application filed Feb. 4, 1898.)

(No Model.)

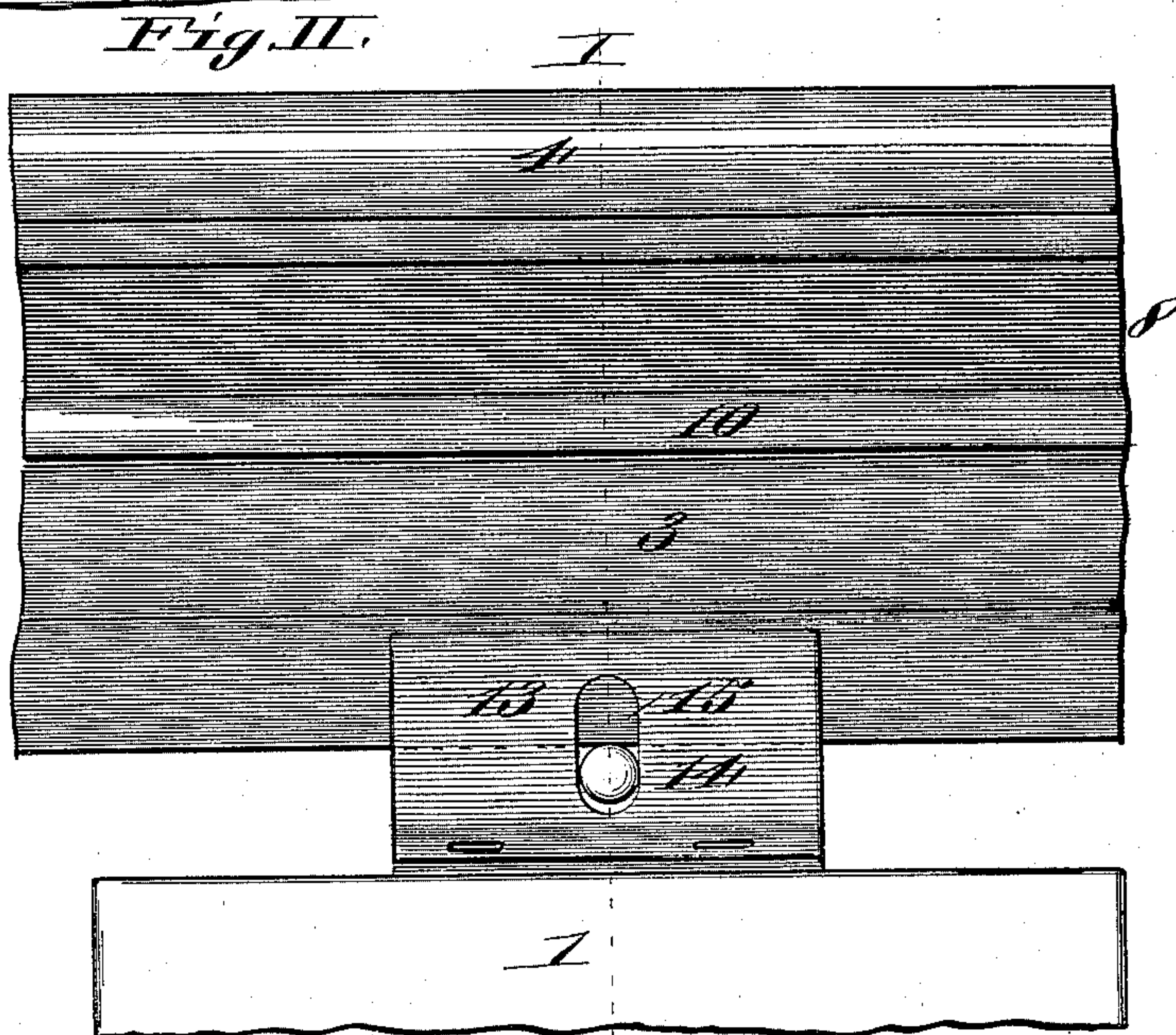
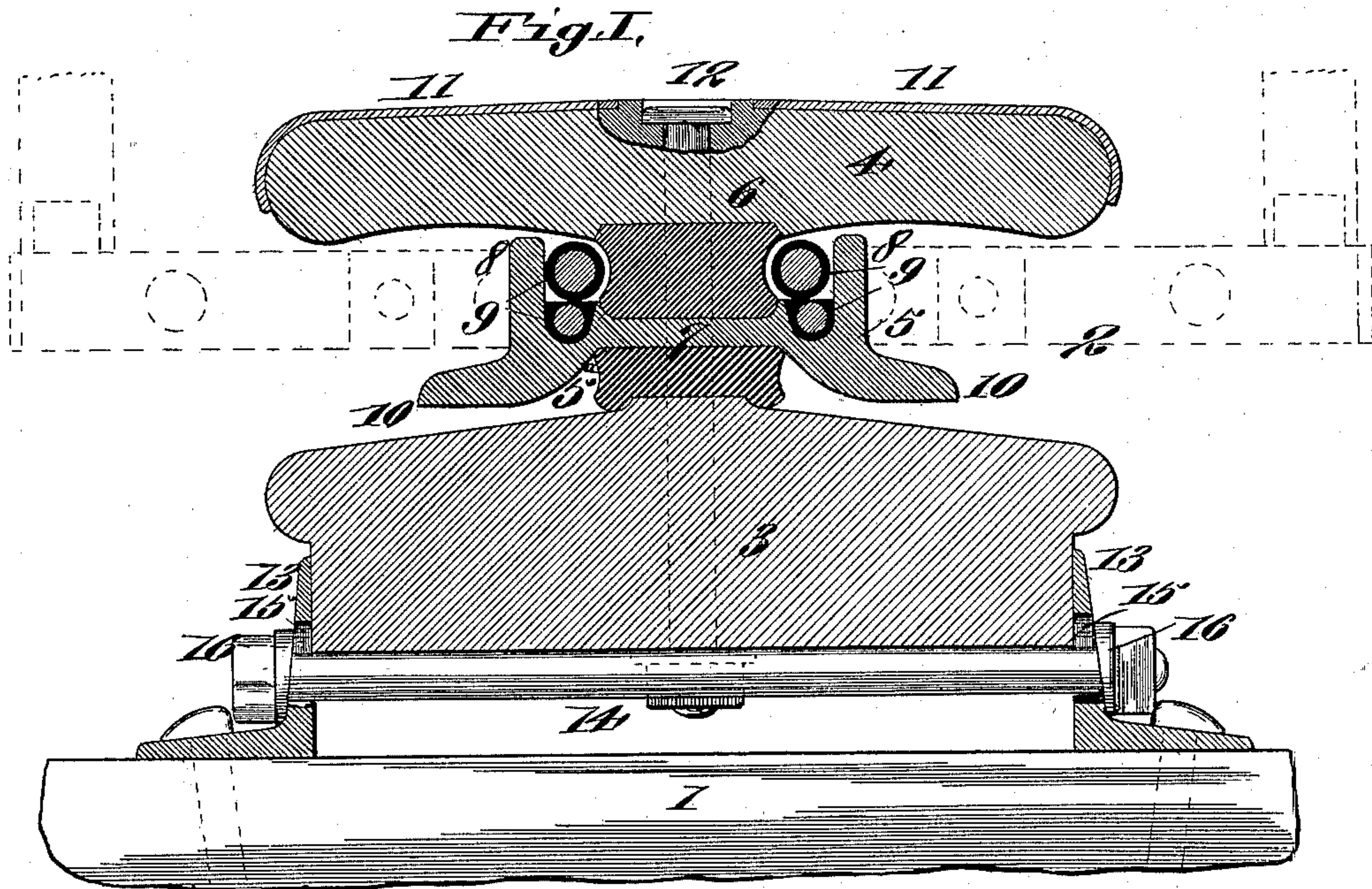


Fig. III.

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UNITED STATES PATENT OFFICE.

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THIRD RAIL FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 610,093, dated August 30, 1898.

Application filed February 4, 1898. Serial No. 669,140. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN C. SEATON, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Third Rails for Electric Railways, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention relates to certain structural features of what is known as "third rails" for electric railways, the general character of the rail in this instance being the same as that set forth in my application for Letters Patent, filed December 7, 1897, Serial No. 661,104.

My present invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a transverse section of my improved rail, part of one of the supporting-ties being shown in elevation, the section being taken on line I I, Fig. II. Fig. II is a detail side view with the nut and washer of the clamping-bolt removed. Fig. III is a detail sectional view showing a modification.

1 represents part of one of the ties of a railway-track.

2 represents as a whole my improved third rail, of which 3 is the base, 4 the cap or hood, and 5 the conductor. The conductor is insulated from the base 3 by a strip 5^a and from the hood by a strip 6. The conductor is composed of a web 7, on the edges of which are vertical flanges 8, against which the contact-shoes connected to the car and which are shown in dotted lines, Fig. I, bear to take of the current.

9 are the feed-in wires lying in behind the flanges 8. The conductor has lateral flanges 10, that serve to keep the shoes from moving vertically out of contact with the flanges 8, so that when the car is in motion a constant bearing between the shoes and the conductor will be assured.

The body of the hood 4 is made of a non-conductor. It is covered by metallic strips 11, which serve to protect it and also serve as a conductor of a current for signal purposes.

The hood 4, insulating-strips 5^a and 6, conductor 5, and the base 3 are all bound together by vertical bolts 12, placed suitable distances apart. The base 3 is clamped between chairs 13 by bolts 14. The chairs are spiked to the ties, they being placed, say, six or seven feet apart, and the bolts 14 fit in slots 15 in the chairs.

16 are wedge-shaped washers placed between the heads and nuts of the bolts and the chairs. By adjusting the bolts up and down in the slots the rail may be raised or lowered to adjust the height of the conductor 5 to suit the elevation of the contact-shoes.

The device as a whole is inexpensive, effective, and durable.

It is possible that in some instances it would be sufficient for the conductor to have but a single vertical flange 8 and lateral flange 10 instead of having them on both sides.

In the modification shown in Fig. III the body of the hood is made narrower, and the metal strips 11 are extended back under the hood and riveted or bolted thereto.

I claim as my invention—

1. In a third rail for electric railways, a conductor having a vertical flange providing an exposed surface for the contact-shoes and a lateral flange, providing a guard for the contact-shoes substantially as and for the purpose set forth.

2. In a third rail for electric railways, a conductor consisting of a web having at each edge a vertical flange providing an exposed surface for the contact-shoes and a lateral flange, providing a guard for the contact-shoes substantially as and for the purpose set forth.

3. A third rail for electric railways having a main conductor, and a cap or hood of non-conducting material covered by metallic strips, insulated by the cap or hood from the main conductor, and serving as conductors for signal-currents substantially as and for the purpose set forth.

BENJAMIN C. SEATON.

In presence of—

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