(No Model.)

C. A. BEACH.

STREET RAILWAY TIE.

No. 448,005. Patented Mar. 10, 1891.

Fig: 1.

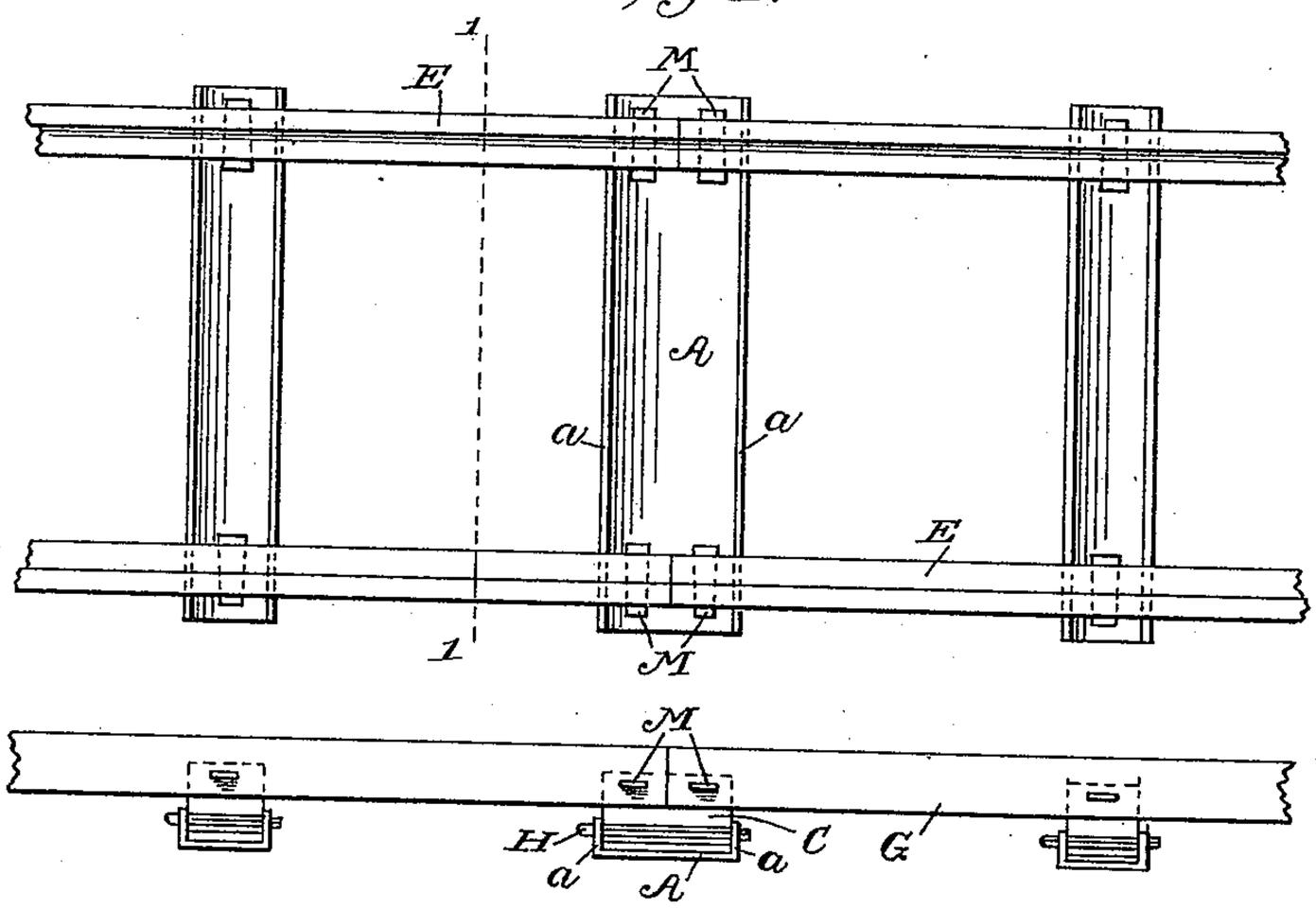


Fig: 2.

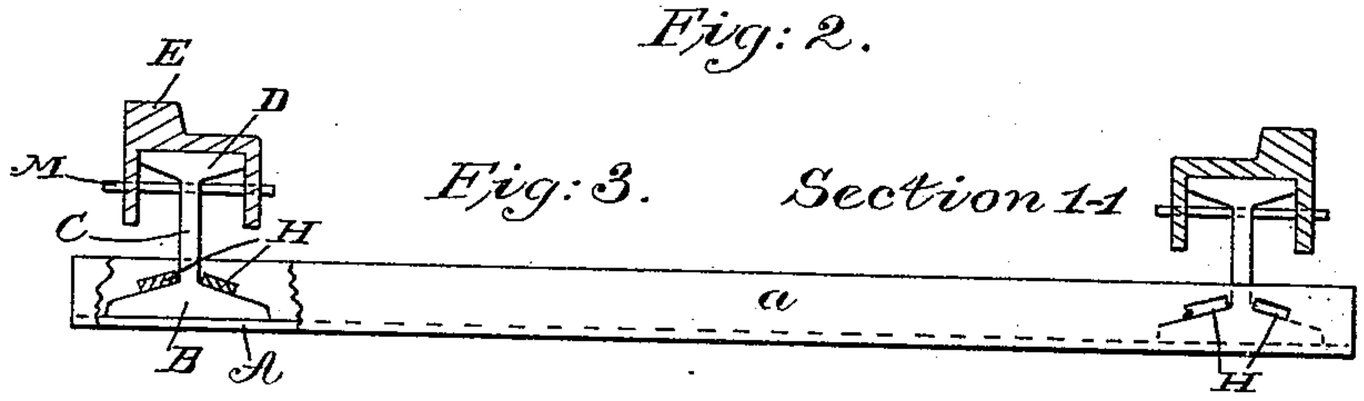


Fig: 3. Section 1-1

Fig: 4

Fig: 5.

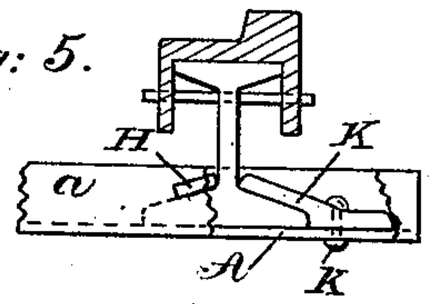


Fig: 7.

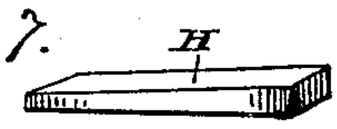


Fig: 6.

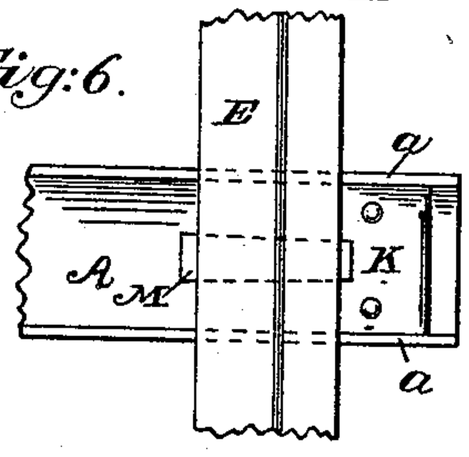
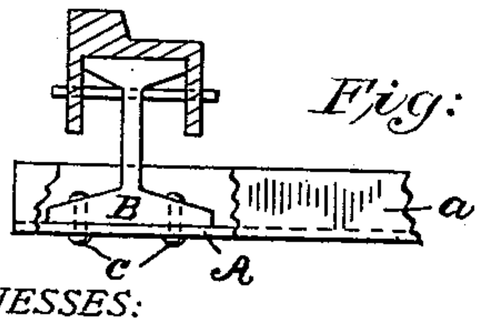


Fig: 8.



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STREET-RAILWAY TIE.

SPECIFICATION forming part of Letters Patent No. 448,005, dated March 10, 1891.

Application filed August 14, 1890. Serial No. 362,037. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BEACH, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Street-Railway Ties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to construct a strong and durable cross-tie for street-railway tracks and to provide suitable means for securing a rail-supporting chair to said tie. These objects I accomplish by substantially the means illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a cross-tie embodying my invention shown in connection with street-railway tracks. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse section of the parts shown in Fig. 1, taken on line 1 1 of said figure. Fig. 4 is a perspective view of a modification of tie. Fig. 5 is a sectional side view of the end of a cross-tie, showing modification of means for securing the chair to the tie. Fig. 6 is a plan view of the same. Fig. 7 is a perspective view of a fastening-key. Fig. 8 is a sectional end view of tie, showing a further modification of means for securing the chair to the cross-tie.

As illustrated in the drawings, A represents a metallic cross-tie formed of a channeled bar arranged with its open side uppermost and having vertical side flanges *a*. A rail-supporting chair rests within the open side of the cross-tie, and consists of a base-flange B, having a vertical web C extending therefrom in the direction of the length of the rail.

Locking-keys H are passed through slots formed in the flanges *a* of the tie, so as to bear against the base-flange B of the chair and prevent movement of the chair. Instead of this construction, however, a clamping-plate K may be secured to the tie at one end by means of rivets, and the other end of the plate may bear against the base-flange of the chair, and thereby hold the chair firmly in position.

The under surface of the tie may be provided with a central longitudinal rib *a'* to add greater strength to the tie, and this construction is especially adapted to be used where a single tie supports the chair, holding the meeting ends of two rails. In such cases I prefer to make the tie wider than when supporting a chair holding the central portion of the rail. It is not essential, however, that a single tie should support the meeting ends of two rails; but two ties placed near each other may be used instead, if desired.

The rail E is shown provided with side flanges extending downward, and is secured to the chair by means of spring-keys M, passed through the flanges of the rail and the web C of the chair, as shown in Fig. 3.

What I claim is—

1. The combination, with a metallic cross-tie having its open side uppermost, of a rail-chair having a base-flange resting within the channel of the tie and a locking-key passed through an opening formed in the vertical flanges of the tie, substantially as shown and described.

2. The combination, with a metallic cross-tie having its open side uppermost, of a rail-chair having a base-flange resting within the channel of the tie, a locking-key passed through openings formed in the vertical webs of the tie, and a clamping-plate secured to the tie so as to overlap the base-flange of the chair, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. BEACH.

Witnesses:
ROBERT W. HARDIE,
EDWIN G. DAY.