

T. H. GIBBON.

CONSTRUCTION OF RAILWAY TRACKS.

No. 347,236.

Patented Aug. 10, 1886.

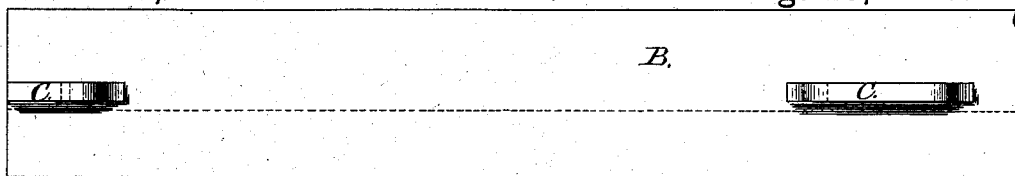


Fig. 1.

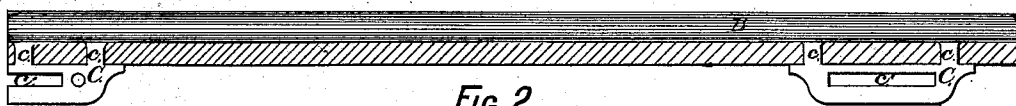


Fig. 2.

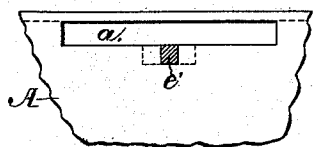


Fig. 5.

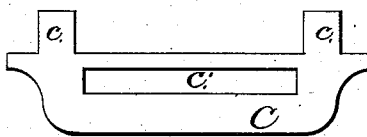
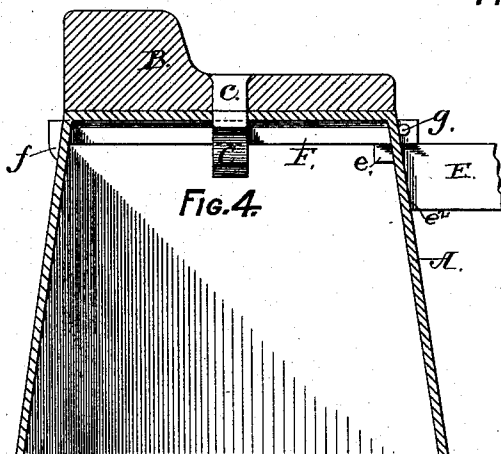


Fig. 3.



Witnesses:

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H. V. Scattergood.

Inventor:

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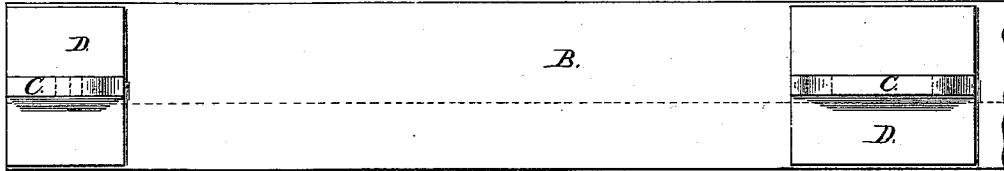


FIG. 6.

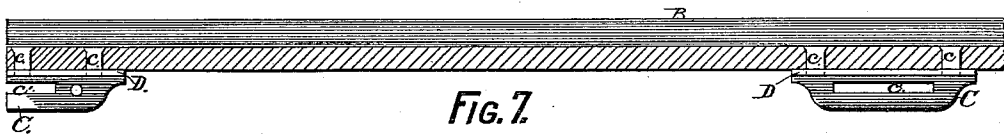


FIG. 7.

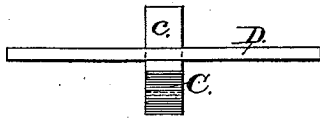


FIG. 8.

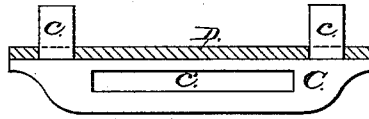


FIG. 9.

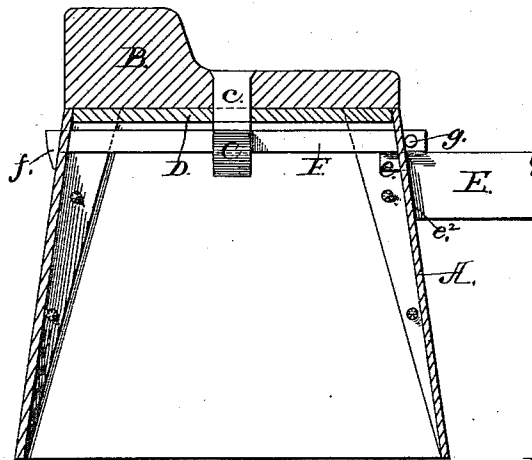


FIG. 10.

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UNITED STATES PATENT OFFICE.

THOMAS H. GIBBON, OF ALBANY, NEW YORK, ASSIGNOR TO THE METALLIC STEEL RAILWAY SUPPLY COMPANY, OF SAME PLACE.

CONSTRUCTION OF RAILWAY-TRACKS.

SPECIFICATION forming part of Letters Patent No. 347,236, dated August 10, 1886.

Application filed October 14, 1885. Serial No. 179,909. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. GIBBON, of the city and county of Albany, in the State of New York, have invented new and useful Improvements in the Construction of Railway-Tracks, of which the following is a specification.

This invention relates to improvements on the invention for which Letters Patent No. 320,869 were granted to me on the 23d day of June, 1885, and in which the rail was required to be made in a special form, having a longitudinal tongue or rib on its under side, the said rib being mortised at required intervals to receive a transverse plate or key, by which the rail is secured to a metallic sleeper, as fully set forth in said patent; and the object of my present invention is to dispense with the necessity for using said special rail by adapting the construction to the use of any of the common and well-known forms of rails now commonly employed in the construction of street-railways, and to avoid the necessity for using a partially-covered metallic sleeper, as shown and described in my said patent. This object I attain by means of the devices illustrated in the accompanying drawings, which are herein referred to and form part of this specification.

In said drawings, Figure 1 is an inverted plan view of a piece of one well-known form of street-rail provided with my fastening-lugs; Fig. 2, a longitudinal section of the same; Fig. 3, an enlarged front elevation of my fastening-lug before it is secured to the rail; Fig. 4, a transverse section of said rail when secured to a cast metallic sleeper; Fig. 5, a detached portion of the side of the metallic sleeper, showing the mortise therein; Fig. 6, an inverted plan view of the rail adapted to use with an open-top metallic sleeper; Fig. 7, a longitudinal section of Fig. 6. Figs. 8 and 9 are respectively an enlarged end elevation and a side elevation of my fastening-lug and centering-plate for use with an open-top metallic sleeper, and Fig. 10 a transverse section of an open-top metallic sleeper and rail provided with my fastening-lug and centering-plate.

As shown in the drawings, A is the metallic sleeper, made in the form of an oblong box

with its sides and ends inclined inwardly and upwardly. As shown in Fig. 4, said sleeper is represented as when made of cast metal with an open bottom and partially-closed top; but in Fig. 10 said sleeper is shown as when made of sheet metal with the corners flanged and riveted and its top and bottom open. Said sleeper is provided with mortises *a*, for receiving the fastening-plates by which the rails are secured and the heads of the transverse tie-rods by which the tracks are prevented from spreading apart.

B is the track-rail, which may be made in the transverse sectional form shown, or in any other shape that may be preferred. Said rail is perforated by drilling or punching at required intervals, for receiving the fastening-lugs C. Said lugs are provided with studs *c*, which are adapted to fit into the holes that are made in the rails B to receive them, and said studs are riveted into the rails to secure said fastening-lugs in place. The fastening-lugs C, (shown at the left side of Figs. 2 and 7,) which are used at the ends of each rail, are provided with an open-ended slot, *c'*, so that when the ends of the two rails are conjoined the two slots will combine to form a mortise of the proper width to receive a transverse fastening-plate, by which the rails are secured to the sleepers. The intermediate fastening-lugs, C, as shown in Figs. 3 and 9, are provided with mortises *c'*, for receiving the transverse fastening-plates above referred to.

As shown in Figs. 6 to 10, a centering-plate, D, is interposed between the upper edge of the fastening-lugs C and the lower face of the rail B. The studs *c* of said lugs pass through holes in said plate, as shown in Fig. 9, so that by riveting the said studs to secure the fastening-lug the said centering-plate will also thereby be secured in place. The said centering-plate fits between the sides of the metallic sleeper A, as shown in Fig. 10, and thereby effects the centralization of the rail on said sleeper.

The cross-ties E, by which the sleepers A under the opposite tracks are connected together, are provided at each end with a T-head, *e*, that is adapted to engage with the inner surface of the side of the sleeper A. In attaching said ties to the sleepers the T-head

e is passed through a mortise, *a*, and then the head is forced downward to bring the neck *e'* of the tie into the notch in the lower side of the mortise, so that the upper face of the tie
 5 will lie flush with the lower side of the mortise. When this is accomplished, the T-head *e* will bear against the inner side of the sleeper and the shoulder *e''* will bear against the outer side of said sleeper.
 10 The transverse fastening-plate F is fitted to pass through opposite mortises, *a*, in the sides of the sleeper and through the mortises *c'* of the fastening-lugs, so as to secure the rails B to the sleepers A, and when inserted in place
 15 each of said fastening-plates will bear down upon an adjoining end of one of the tie-rods E, so as to securely hold that end of the tie-rod in place. The outer end of the fastening-plate F has a head, *f*, which bears against the
 20 side of the sleeper to prevent the fastening-plate from being forced inwardly out of its place; and a movement in the opposite direc-

tion is prevented by a pin, *g*, which may be inserted in said fastening-plate, either in a horizontal or vertical direction, as may be
 25 found most convenient.

I claim as my invention—

1. The rail B, provided with fastening-lugs C, having mortises *c'*, as herein described, the said lugs being made independently of the
 30 rail and secured to the latter, substantially as specified.

2. The combination, with an open-top metallic sleeper, A, of the rail B, having attached to its under side fastening-lugs C and
 35 centering-plates D, the said centering-plates being adapted to engage inside of the sleeper for the purpose of centralizing the rail B on said sleeper, as herein specified.

THOMAS H. GIBBON.

Witnesses:

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 S. B. BREWER.