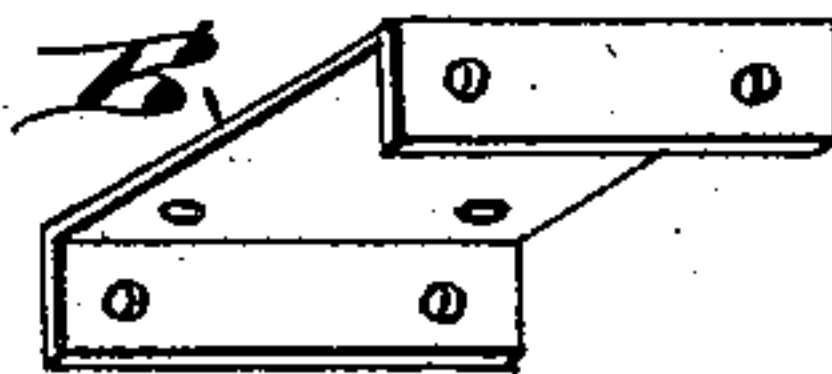
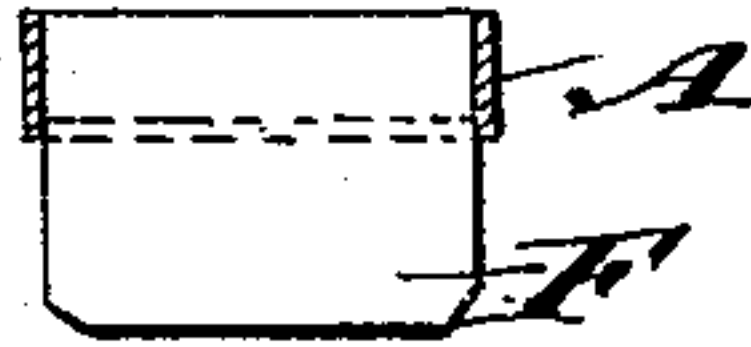
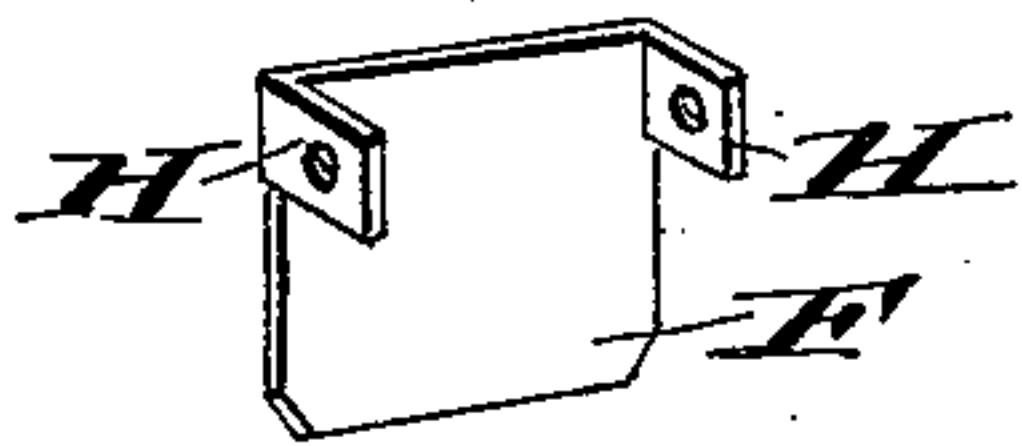
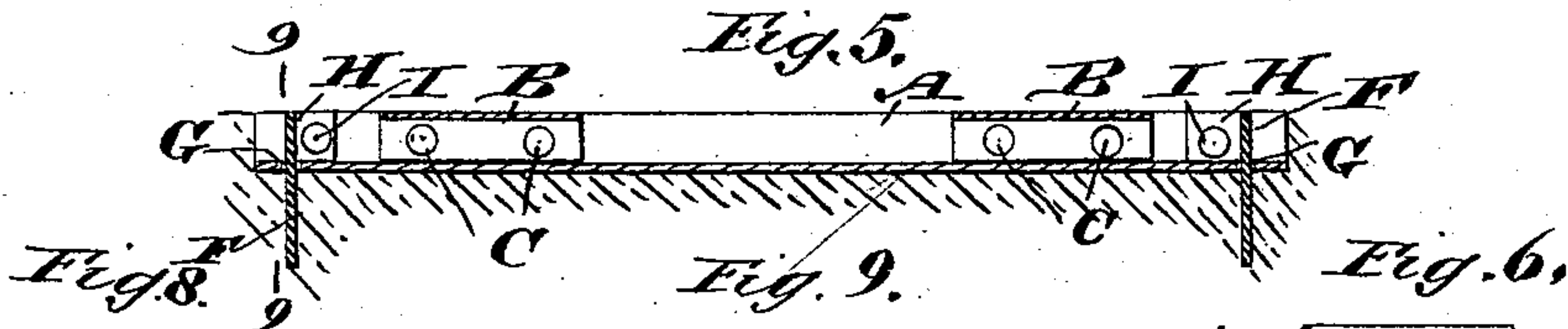
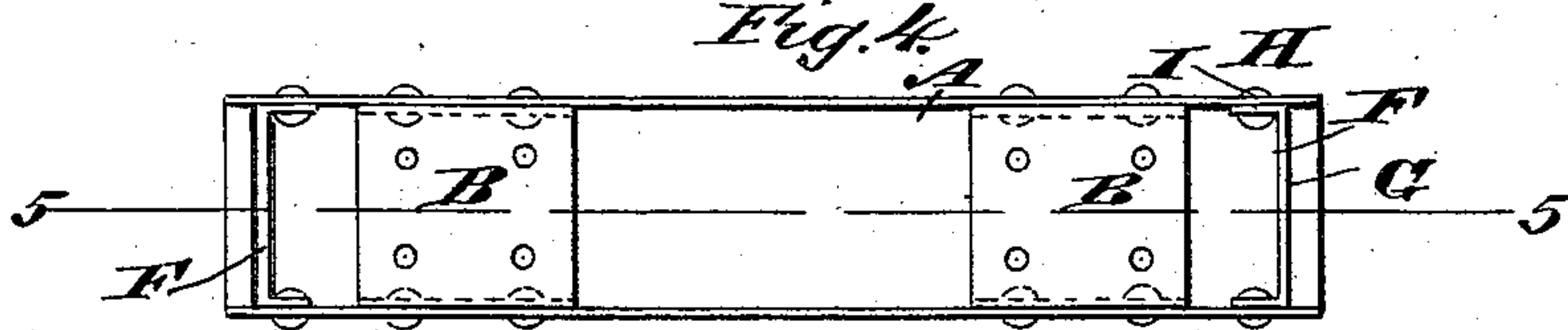
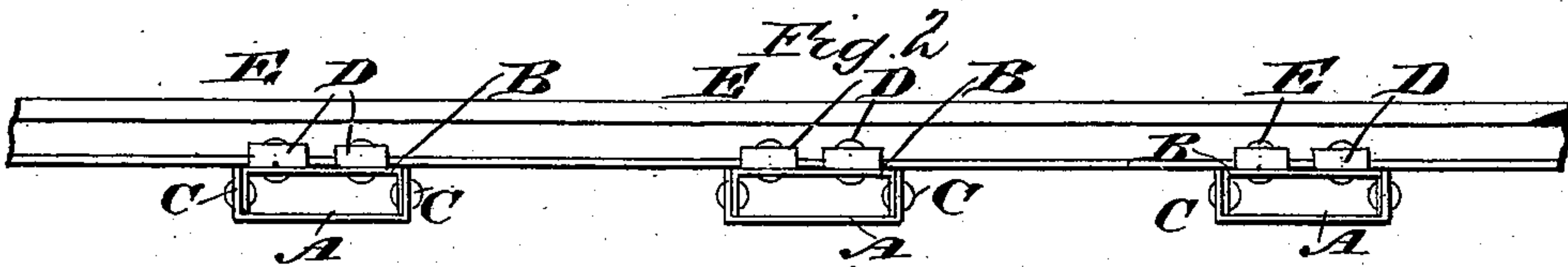
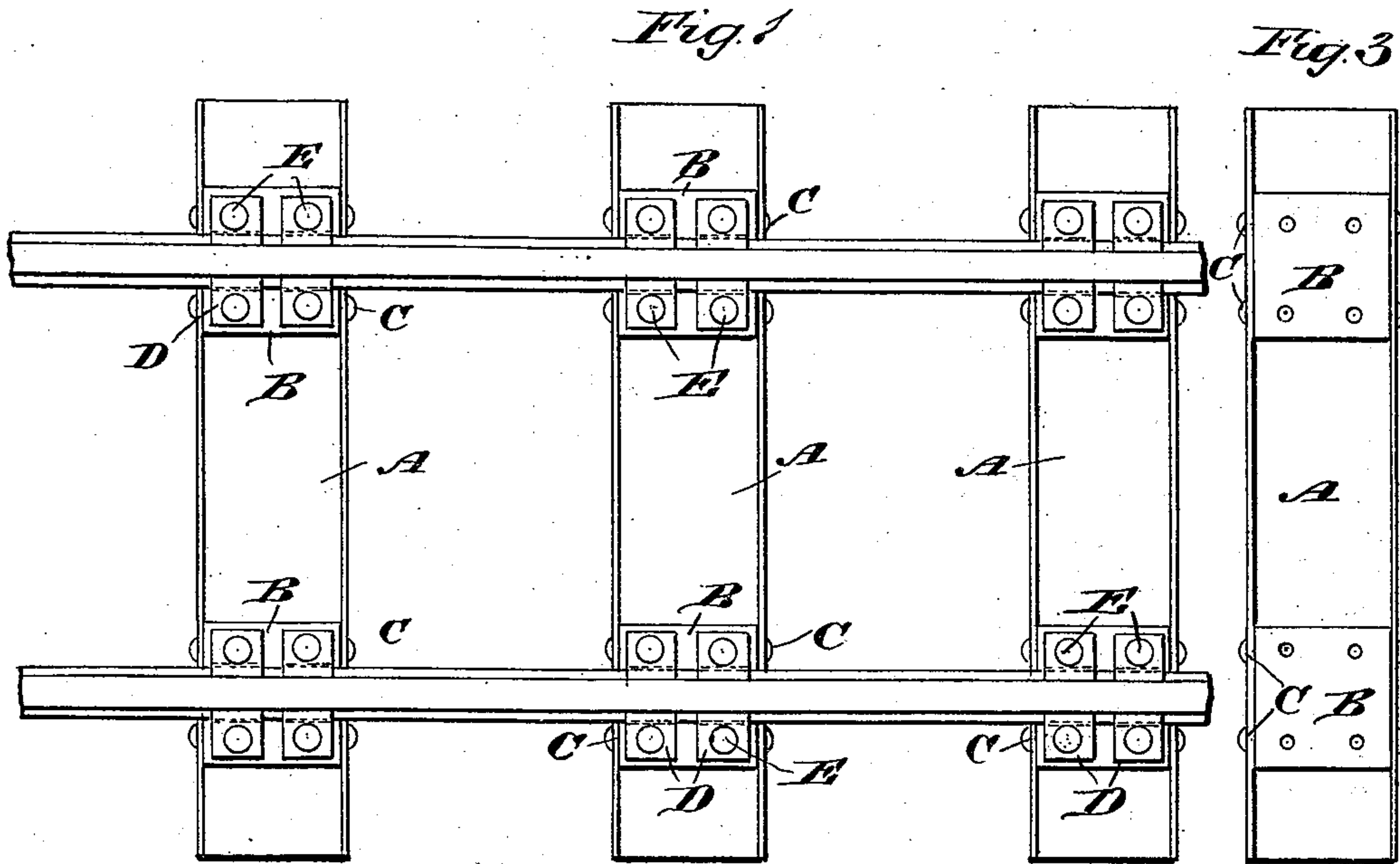


(No Model.)

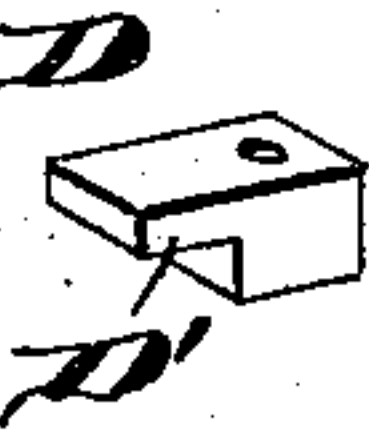
A. MATTIJETZ.  
METALLIC RAILROAD TIE.

No. 487,952.

Patented Dec. 13, 1892.



*Fig. 7*



WITNESSES:  
*F. McAnally*  
*C. Sedgwick*

INVENTOR:  
*A. Mattijetz*  
BY *Mumford*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

ANDREAS MATTIJETZ, OF GIDDINGS, TEXAS.

## METALLIC RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 487,952, dated December 13, 1892.

Application filed July 6, 1892. Serial No. 439,125. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREAS MATTIJETZ, of Giddings, in the county of Lee and State of Texas, have invented a new and Improved  
5 Metallic Railroad-Tie, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved metallic railroad-tie which is simple and durable in construction, very  
10 effective in operation, and arranged to prevent the spreading of the rails and displacement of the ties in the railroad-bed.

My invention is an improvement in that class of metallic railroad-ties which are made  
15 of channel-iron and (when in use) arranged with their sides projecting upward. The novel features are hereinafter indicated.

The invention also consists of certain parts and details and combinations of the same, as  
20 will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate  
25 corresponding parts in all the figures.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of one of the channel-irons and the cross-plates secured thereon. Fig. 4 is a  
30 plan view of a tie as used on curves, the fastening device on the cross-plates being removed. Fig. 5 is a sectional side elevation of the same on the line 5 5 of Fig. 4. Fig. 6 is a perspective view of one of the cross-plates.  
35 Fig. 7 is a perspective view of one of the fastening devices. Fig. 8 is a perspective view of one of the plates for holding the tie in place in the bed, and Fig. 9 is a transverse section of the improvement on the line 9 9 of Fig. 5.

40 The body A of the tie is made of channel-iron and when laid as required for use its sides extend upward, being connected with each other by cross-plates B, made in inverted-U shape and having their sides secured to the  
45 sides of the channel-iron by means of rivets C. The middle portion of each cross-plate B reaches to the top edges of the sides of the channel-iron A and is adapted to receive the base of the rail, as will be readily understood  
50 by reference to Figs. 1 and 2. Two cross-plates B are used on each channel-iron A, the said cross-plates being placed a sufficient dis-

tance apart, according to the gage of the railroad-track.

On the top or middle portion of each cross-plate are held fastening devices adapted to  
55 engage the base of the rail, so as to lock the latter to the respective cross-plate. For these fastening devices I prefer blocks D, each formed with an inwardly-extending flange D',  
60 adapted to engage the top surface of the base, the block D being fastened by rivets E or other means to the middle portion of the cross-plate B. As shown in Fig. 1, I prefer to use  
65 four blocks D for each cross-plate B, two of the blocks engaging with their flanges one side of the base, while the other two engage the opposite side of the base, as shown.

In order to prevent the tie from shifting on the bed of the railroad-track, I prefer to use  
70 vertically-extending plates F, passed through slots G, formed in the ends of each channel-iron A. Each of the plates F is provided near its upper end with flanges H, fitting onto the  
75 innersurfaces of the sides of the channel-irons A, and these flanges are fastened by rivets I or other means to the sides of the channel-irons. The plates F project a suitable distance below the bottom or middle portion of  
80 each channel-iron, so as to extend a suitable distance into the railroad-bed to prevent a lateral shifting of the tie.

It will be seen that a railroad-tie constructed in this manner can be very cheaply manufactured, is very durable, and securely holds the  
85 rails in place, at the same time preventing lateral displacement of the ties, especially on curves, by the use of the vertically-extending plates F.

Having thus described my invention, I  
90 claim as new and desire to secure by Letters Patent—

1. A metallic railroad-tie comprising a U-shaped channel-iron having its sides extending upward, cross-plates secured to the sides  
95 of the said iron and adapted to support the bases of the rails, fastening devices held on the said cross-plates and adapted to engage the bases of the rails to lock the latter in position on the cross-plate, and vertically-ex-  
100 tending plates fastened to the said channel-iron near the ends thereof, the said plates passing through slots in the bottom of the channel-iron, substantially as shown and described.

2. A metallic railroad-tie comprising a U-shaped channel-iron having its sides extending upward, inverted-U-shaped cross-plates secured by their sides to the sides of the said  
5 channel-iron, flanged lugs secured to the said cross-plates and adapted to engage the bases of the rails to lock the latter in position on the cross-plate, and flanged vertically-extending plates passing through slots in the ends

of the channel-iron, the flanges of the said cross-plates being fastened to the sides of the said channel-iron, substantially as shown and described.

ANDREAS MATTIJETZ.

Witnesses:

E. SEXTTLER,  
HERM. GRASSE.