

(No Model.)

B. S. DORAN.  
RAILROAD TRACK AND JOINT.

No. 385,253.

Patented June 26, 1888.

Fig. 1.

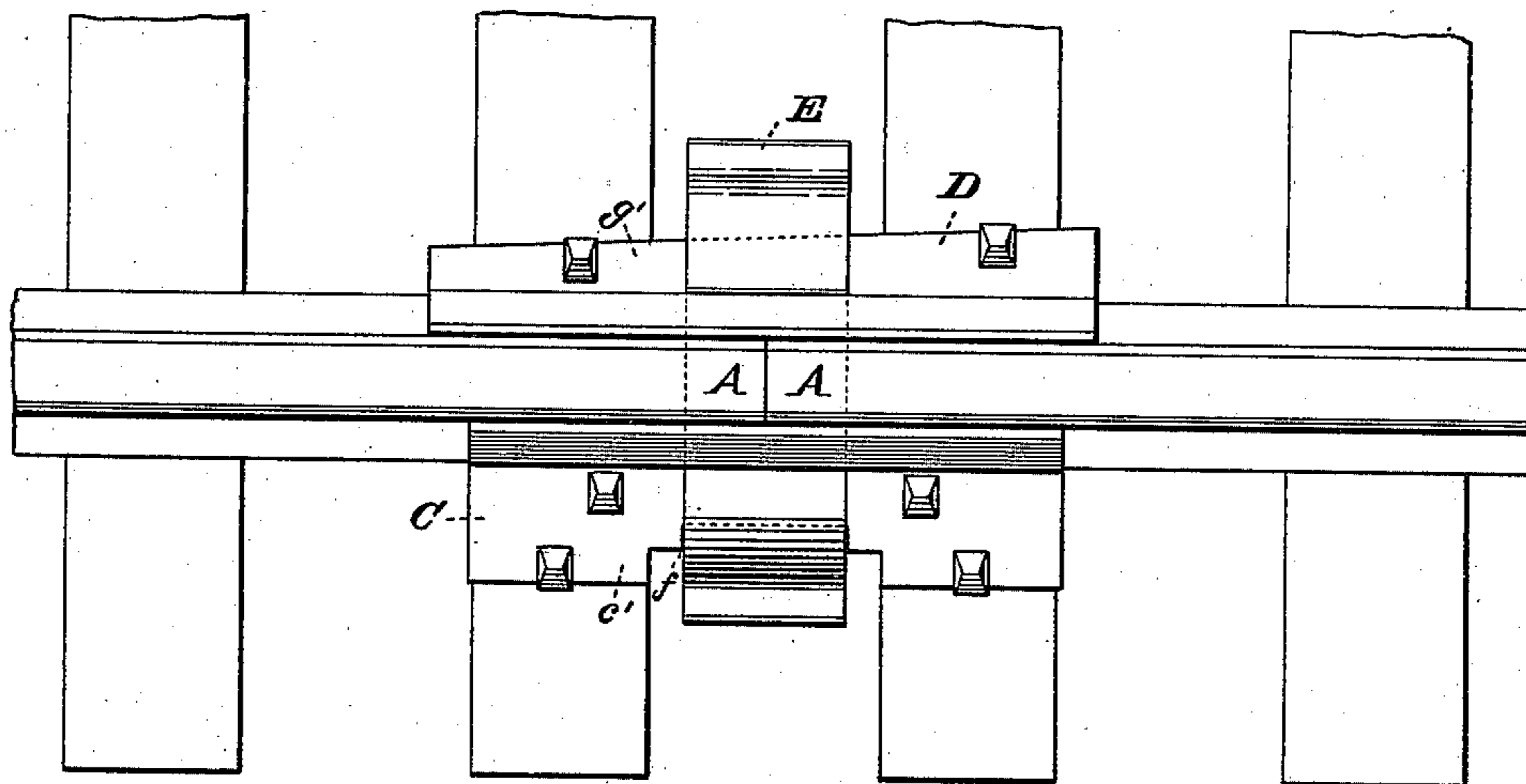


Fig. 2.

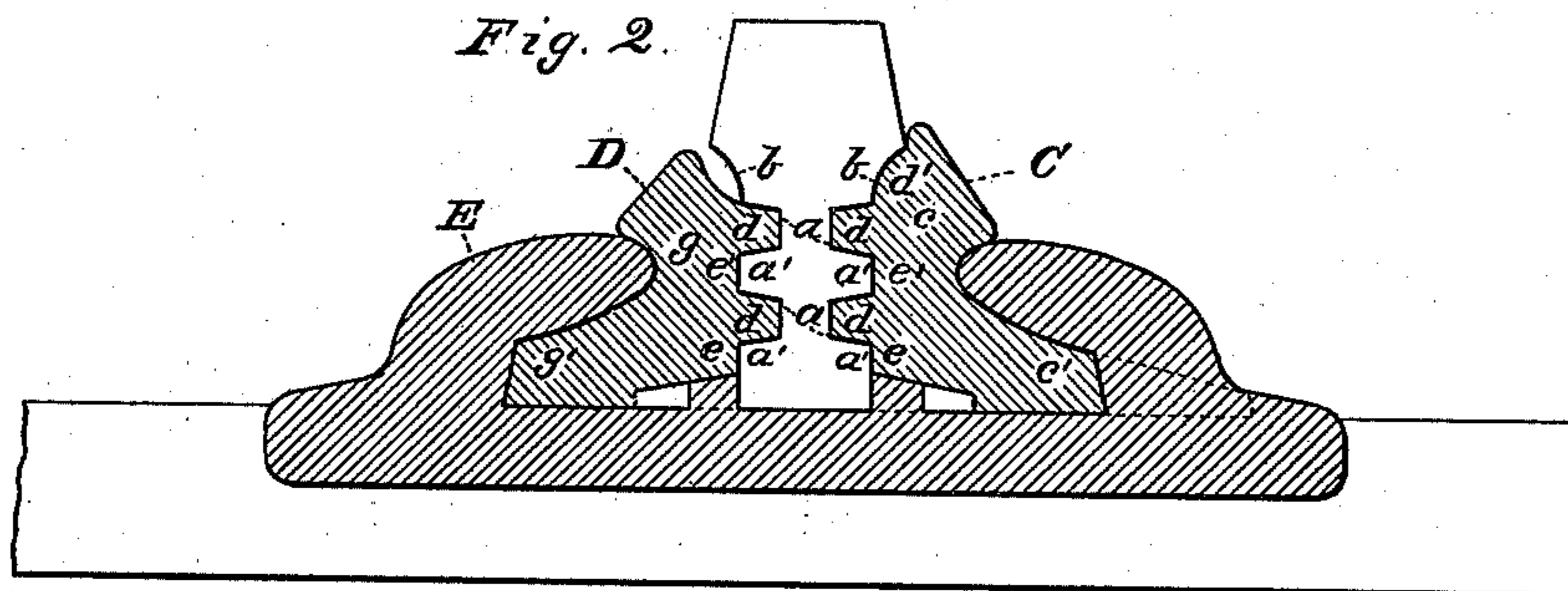


Fig. 3.

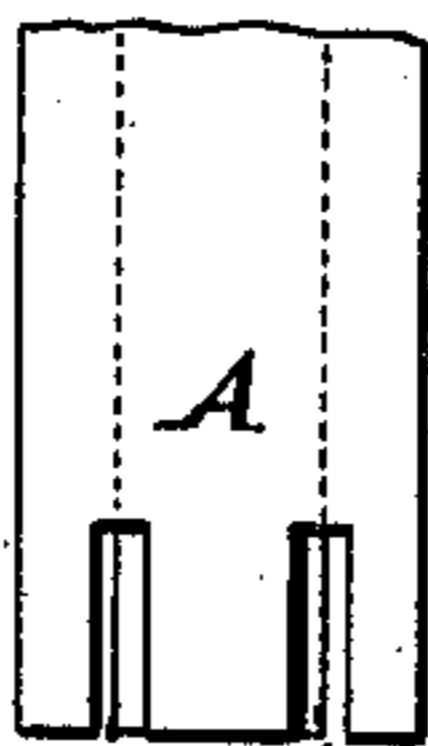


Fig. 4.

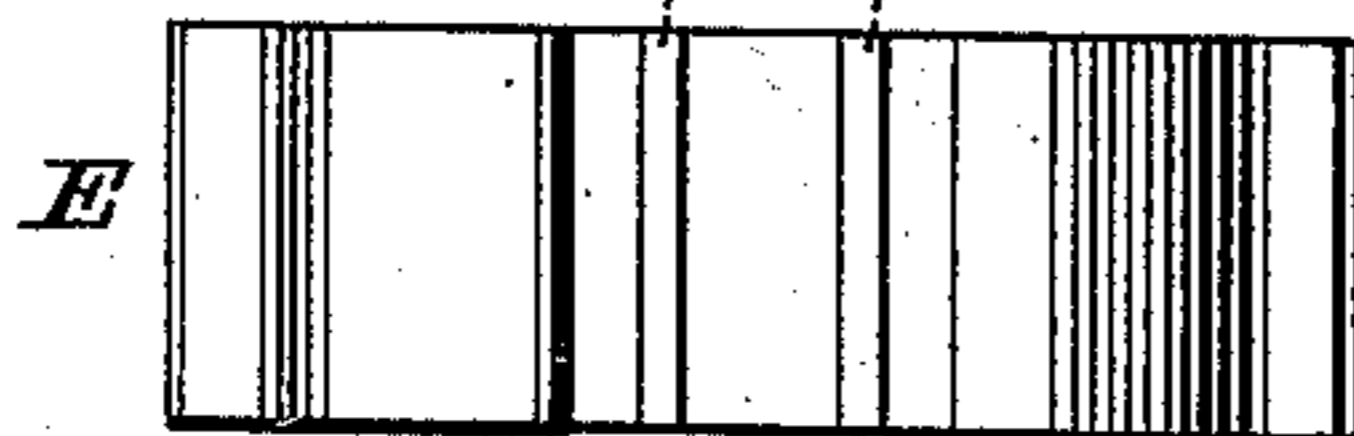


Fig. 5.

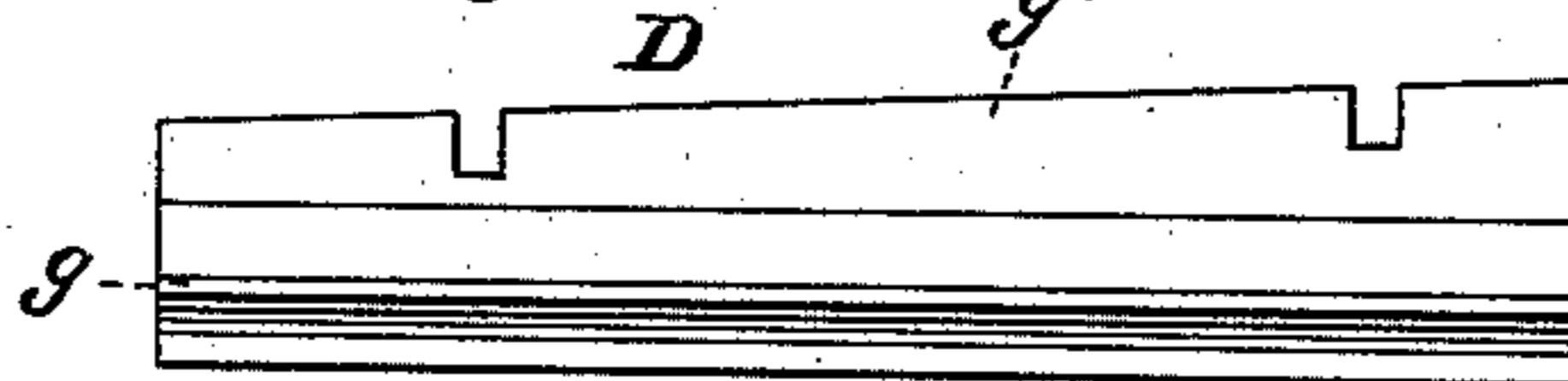
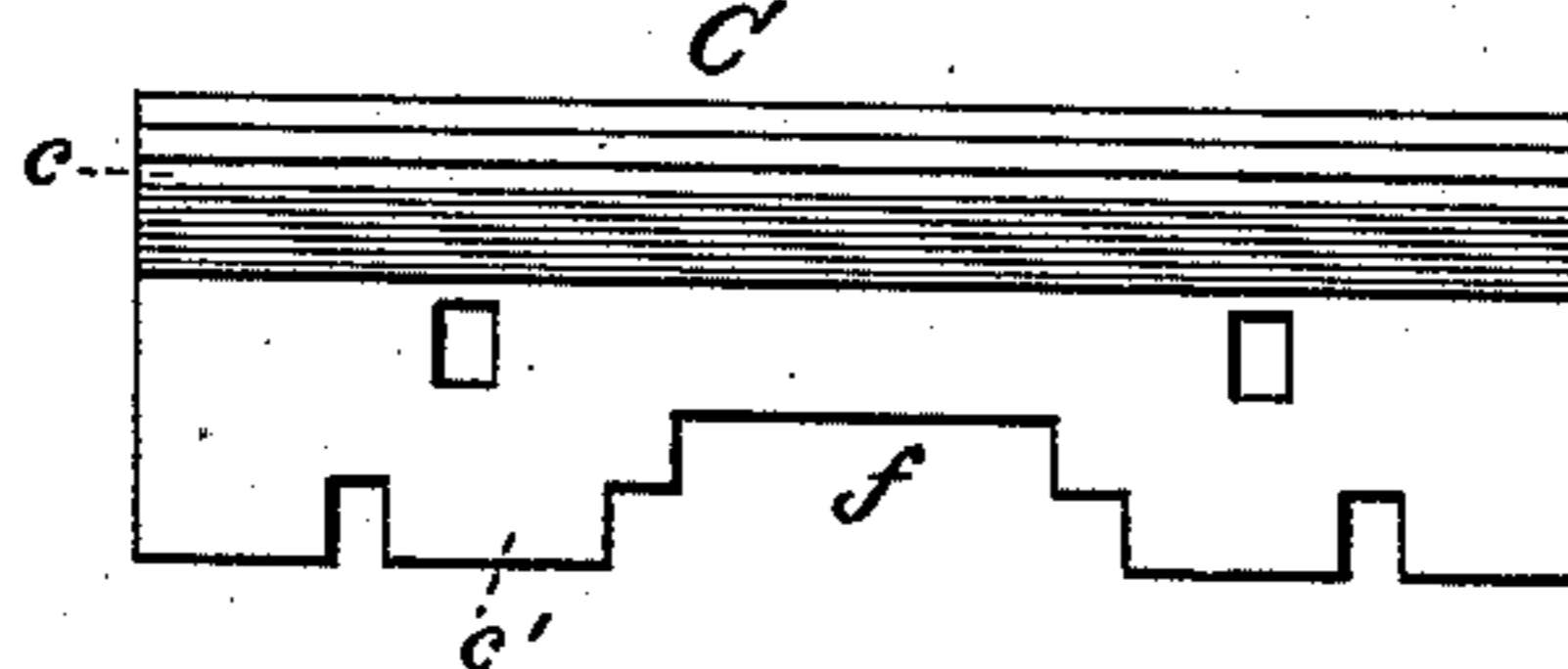


Fig. 6.



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# UNITED STATES PATENT OFFICE.

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## RAILROAD TRACK AND JOINT.

SPECIFICATION forming part of Letters Patent No. 385,253, dated June 26, 1888.

Application filed March 20, 1888. Serial No. 267,894. (No model.)

*To all whom it may concern:*

Be it known that I, BERNERD STEAVEN DORAN, a citizen of the United States, and a resident of Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Railroad Tracks and Joints; and I do 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention and is a top view. Fig. 2 is a vertical cross-section through the clamp-chair and clamp-plates. Fig. 3 is a detail and bottom view, and shows the end of a rail. Figs. 4, 5, and 6 are details and top views of the device.

The invention relates to improvements in rail-joints for railways; and it consists in the construction and novel combination of parts, as hereinafter specified.

Referring by letter to the drawings, A A designate two adjoining rails having the longitudinal grooves *a* in the web, the shoulders *a'*, and the concave portions *b* at the lower edge of the rail-head.

C and D designate the clamping plates, and E is the clamp-chair.

The clamp-plate C consists of the vertical flange *c* and the horizontal flange *c'*. The inner face of the flange *c* is provided with the two parallel longitudinal ribs *d*, adapted to fit in the grooves *a* of the rail, and the convexed portion *d'*, designed to enter the concavity *b*. The horizontal flange *c'* is shouldered, as shown at *e e'*, to engage the shoulders *a'* and the base of the rail. The outer edge of the flange *c'* is doubly recessed, as shown at *f*, forming a seat for the clamp-chair E.

The clamp-plate C is designed for the outer side of the rail, and the necessary spike-holes are provided.

The vertical flange *g* of the plate D is similar to the flange *c*. This plate, however, does not bear upon the rail-head. The horizontal flange *g'* of the plate D tapers from end to end on its outer edge and is designed to be driven or forced in place as a wedge.

The clamp-chair E fits over the horizontal flanges of the clamp-plates, as shown, and to hold it firmly in place the two transverse ribs *h* on the chair are engaged by the slots *h'* formed in the ends of the base of the rails.

It will be observed that after the clamping-plates and chair are properly placed and spiked to the ties a strong joint is effected without the use of bolts and nuts.

Having described my invention, what I claim is—

1. The railway-rail having the longitudinal grooves in its web, the concave portions, the shoulders *a'*, and the slots *h'* in the base, in combination with the clamp-plates and clamp-chair, substantially as described.

2. The combination of the rails, the side plate having the vertical flange provided with the ribs *d*, the concave portion, the shoulders *e e'*, and the horizontal flange having the double recess, the clamp-plate having the vertical flange provided with the ribs and the shoulders, the horizontal flange tapering on its outer edge, and the clamp-chair provided with the transverse ribs, substantially as specified.

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

BERNERD STEAVEN DORAN.

Witnesses:

F. P. WEIR,  
W. P. RANKIN.