

(No Model.)

2 Sheets—Sheet 1.

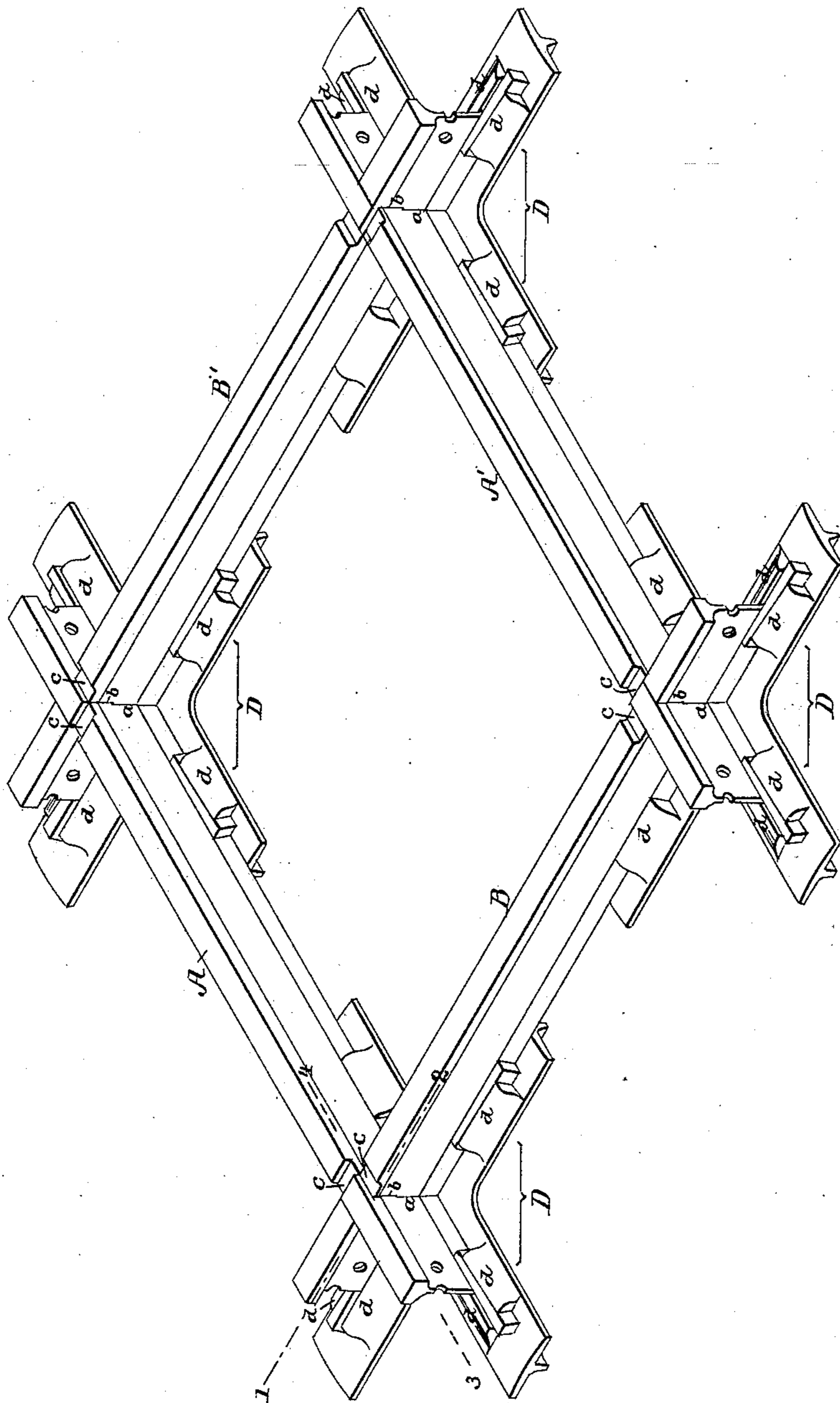
W. WHARTON, Jr.

RAILWAY CROSSING.

No. 359,116.

Patented Mar. 8, 1887.

FIG. 1.



Witnesses:  
Alex. Barkoff  
John E. Parker

Inventor:  
William Wharton, Jr.  
by his Attorneys  
Howson & Son

(No Model.)

2 Sheets—Sheet 2.

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No. 359,116.

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FIG. 2.

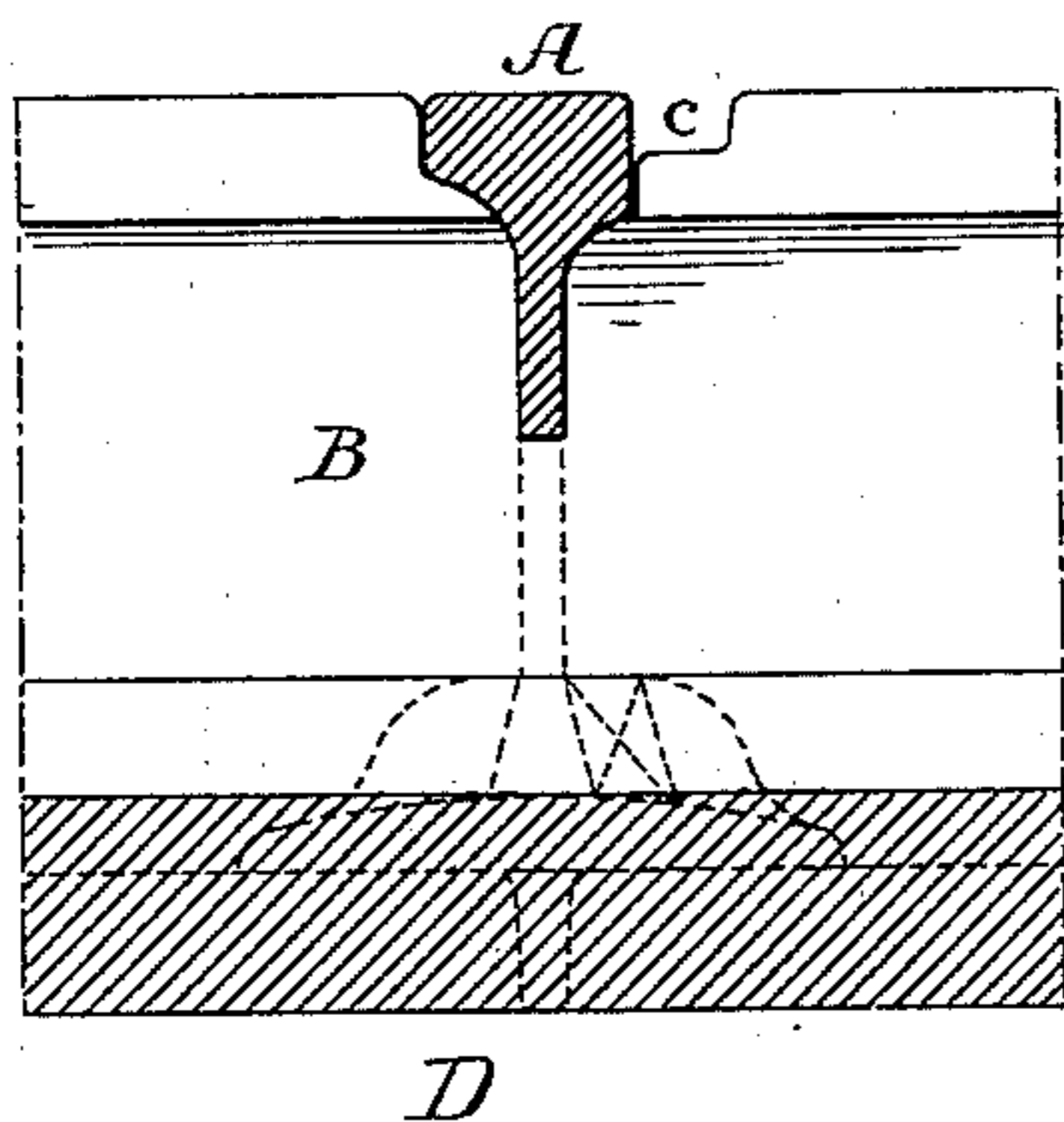


FIG. 3.

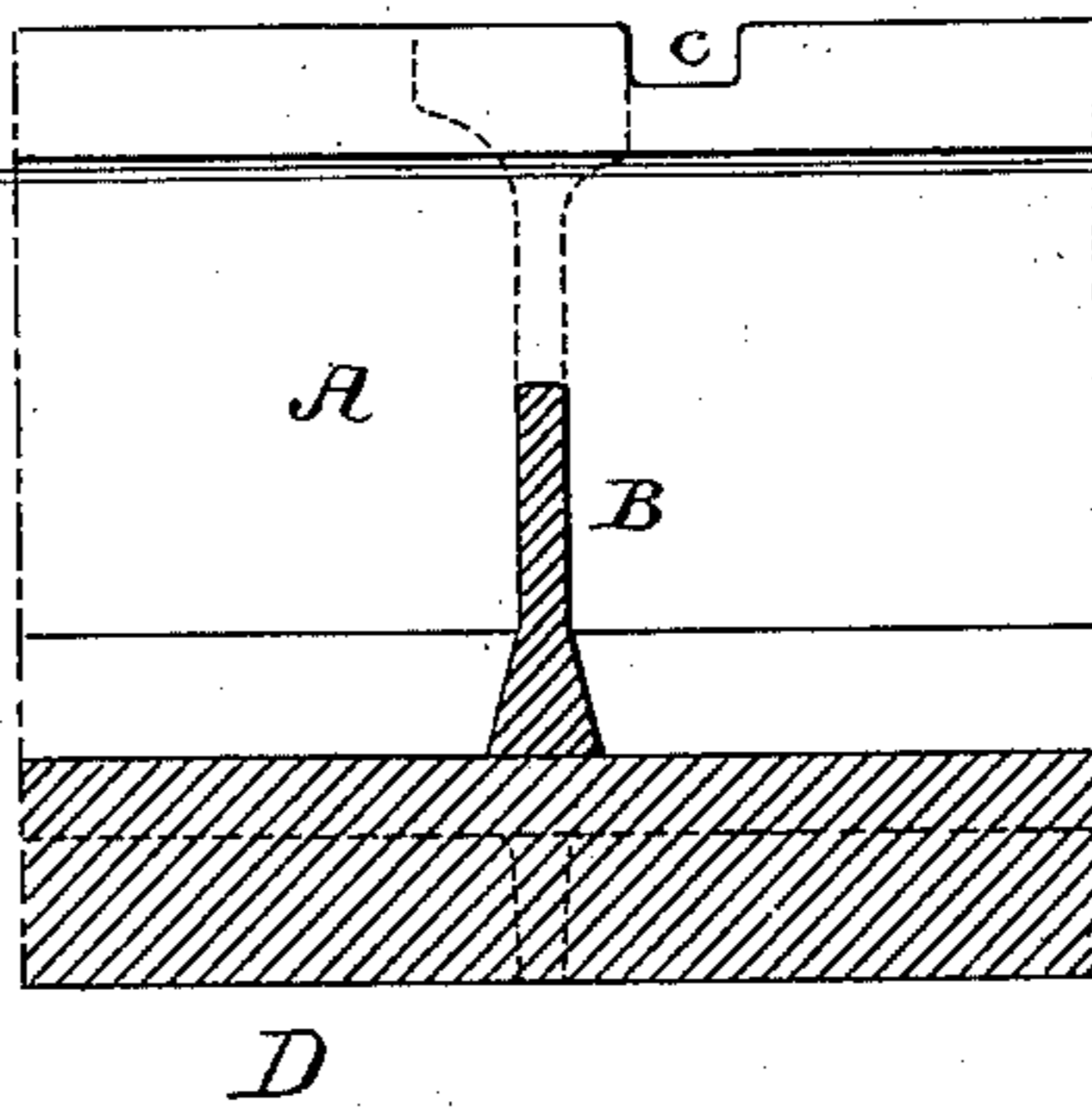


FIG. 4.

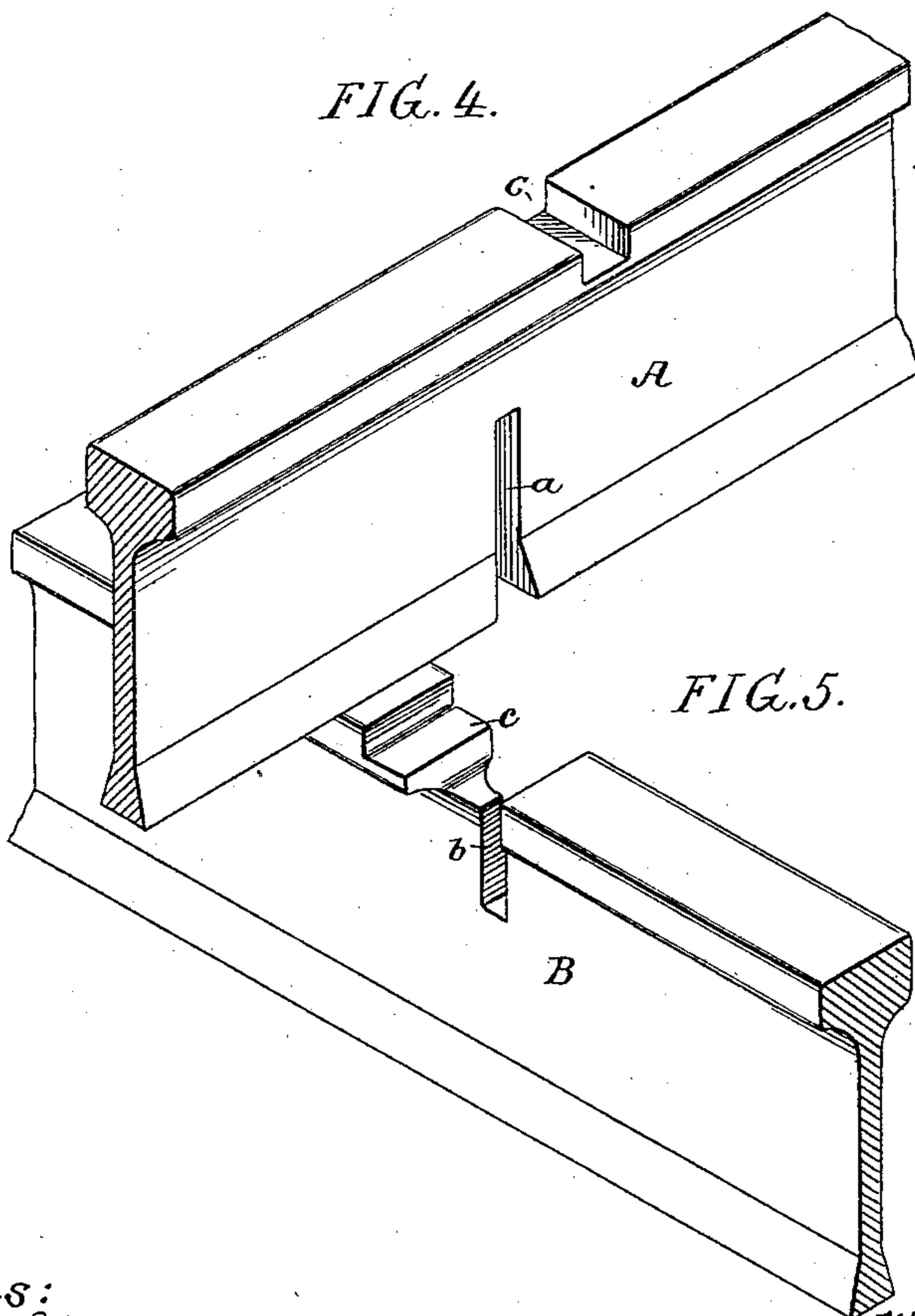


FIG. 5.

Witnesses:  
William D. Soumer  
Joseph H. Klein

Inventor:  
William Wharton Jr.  
by his Attorneys  
Horton & Co

# UNITED STATES PATENT OFFICE.

WILLIAM WHARTON, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR  
TO WILLIAM WHARTON, JR., & CO., (LIMITED,) OF SAME PLACE.

## RAILWAY-CROSSING.

SPECIFICATION forming part of Letters Patent No. 359,116, dated March 8, 1887.

Application filed November 9, 1886. Serial No. 218,384. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM WHARTON, Jr., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Railroad-Crossings, of which the following is a specification.

The object of my invention is to construct a railroad-crossing of four rails, thus dispensing with the usual heavy crossing-castings now used extensively in street-railways, and with the complicated steam-railway crossing formed of a number of small pieces of rails.

In the accompanying drawings, Figure 1 is a perspective view of my improved railway-crossing. Fig. 2 is a section on the line 1 2, Fig. 1. Fig. 3 is a section on the line 3 4, Fig. 1; and Figs. 4 and 5 are perspective views of two rails detached from each other.

A A' are the rails of one track, B B' the rails of another track crossing at an angle thereto. In the drawings I have shown the tracks as crossing at right angles; but I do not limit my invention to right-angled crossings.

The rails illustrated in the drawings have very high webs, intended more especially for street-railways, and are adapted to be fastened directly to the cross-ties by means of chairs, thus dispensing with the usual wooden stringers.

The rails A A' are transversely slotted on their under sides at *a a* to about one-half their height, portions of the bases and webs being cut away. The rails B B' are transversely slotted at their upper sides at *b b*, portions of the heads and webs being cut away. The rails A A' and B B' are then fitted together or

"halved," the upper portion of the web of the rails A A' fitting into the slots *b* and the lower portion of the web of the rails B B' fitting into the slots *a* in the rails A A', thus forming a neat and strong halved joint. Each of the rails is grooved at *c*, adjacent to the joint, to allow for the passage of the flanges of the car-wheels.

Under each of the halved joints I prefer to place a base-plate, D, as shown in Fig. 1. This plate has tapering undercut ribs *d* on the upper surface, between which and the dove-tailed bases of the rails tapered wedges are inserted for securing the rails firmly in place and to the base-plates D.

The rails may be secured at the joints by angle fish-plates or elbow-pieces; but I prefer in all cases to use the base-plate D, whether the angle fish-plates or elbow-pieces are used or not. By this construction I am enabled to form a crossing of ordinary girder or web rails without interfering with the continuity of the tracks, and at the same time a very strong, neat, and simple crossing is produced, which can be readily put down and easily repaired.

I claim as my invention—

The railway-girder crossing composed of four rails halved together at the joints, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM WHARTON, JR.

Witnesses:

HARRY SMITH,  
HENRY HOWSON.