

J. R. SULLIVAN.
Railroad-Chair.

No. 223,187.

Patented Dec. 30, 1879.

FIG. 1.

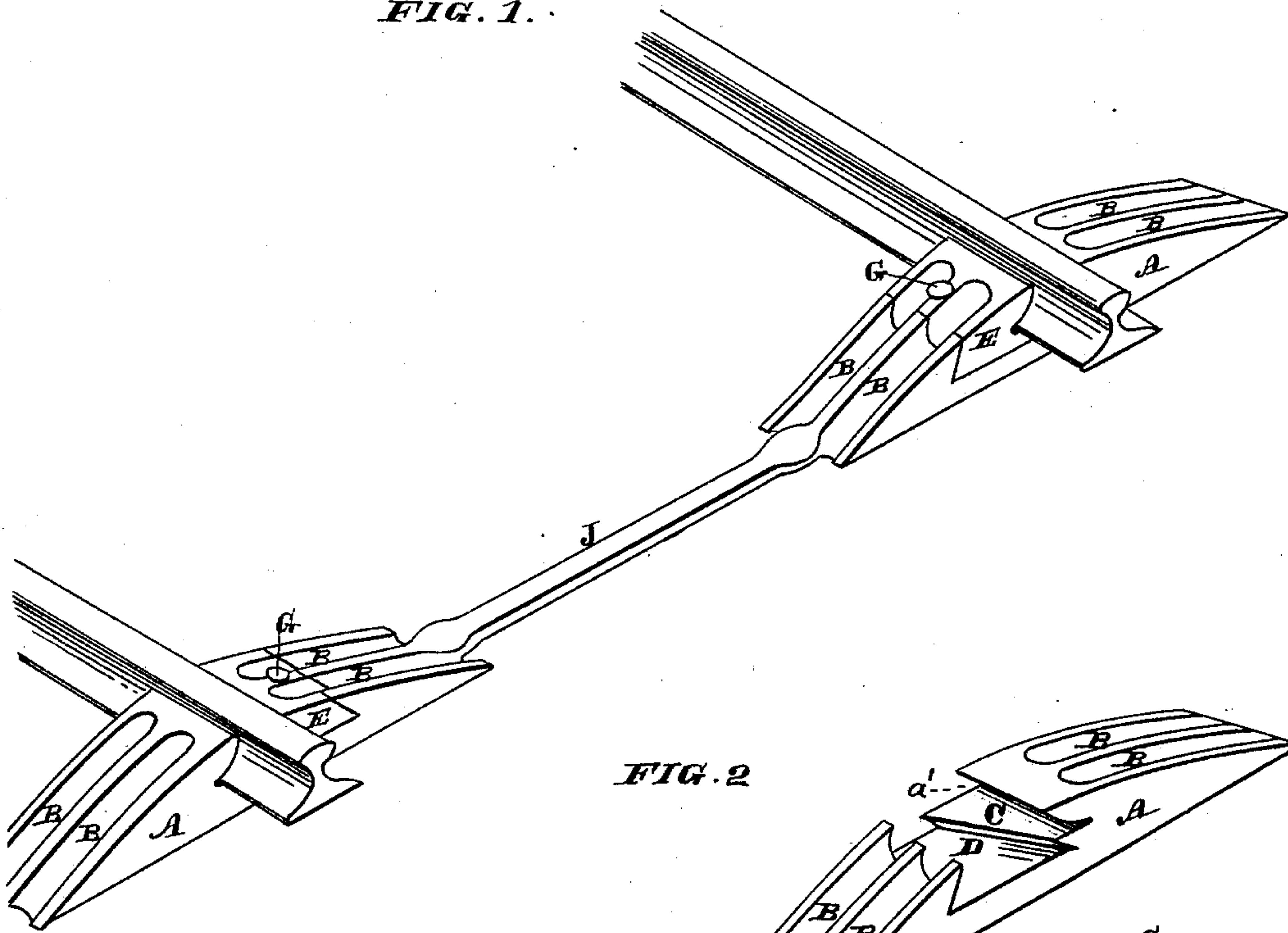
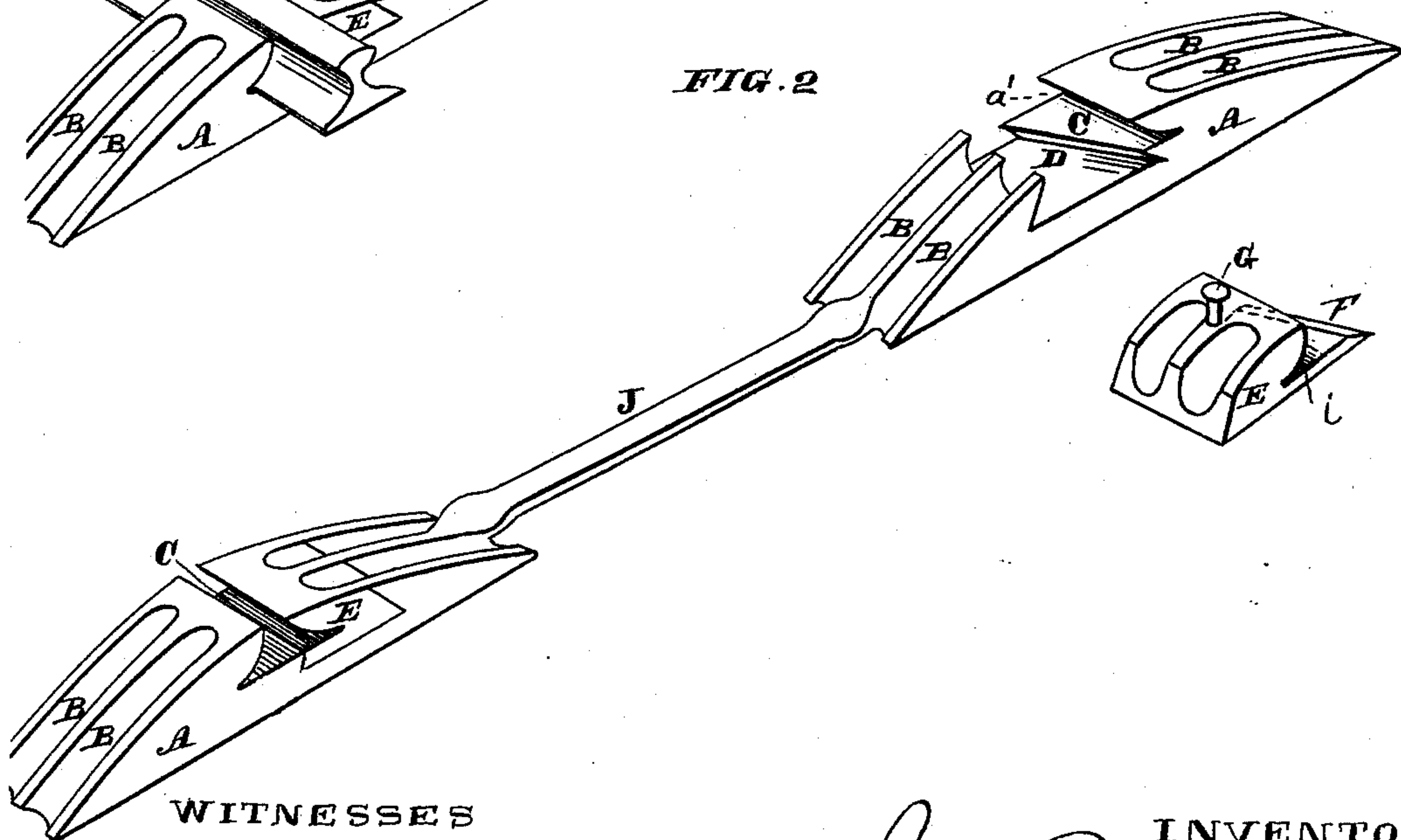


FIG. 2



WITNESSES

Frank A. Brooks
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INVENTOR

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Atty

UNITED STATES PATENT OFFICE

JOHN R. SULLIVAN, OF SAN RAFAEL, CALIFORNIA, ASSIGNOR OF ONE-HALF
OF HIS RIGHT TO ROBERT A. ROTCHE, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-CHAIRS.

Specification forming part of Letters Patent No. **223,187**, dated December 30, 1879; application filed
September 9, 1879.

To all whom it may concern:

Be it known that I, JOHN R. SULLIVAN, of San Rafael, county of Marin, and State of California, have invented an Improved Railroad-Chair; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to that class of railroad-chairs wherein two chairs and a connecting metal bar serve to secure the track; and the object of my invention is to provide such a chair as will give a broad sustaining-surface to the rail and yet greatly cheapen its construction.

My invention consists in certain details of construction of the chairs, as hereinafter more specifically described and claimed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my chair, showing the rails in position. Fig. 2 is a view showing the grooves or slots and the locking-plates.

A A are the ends or rail-supporting bases. These are cast of iron, with flat bases, in form like a parallelogram.

The upper side is made to slope in each direction from the line where the rail crosses it to the outer end, and these inclined upper faces are grooved, as shown at B, so that a large base may be obtained without undue weight.

Each pair of bases are united by means of a wrought-iron bar, J, which has its ends laid into the mold, so as to be cast with them.

The top of the base A has a double slot formed across it, as shown. The outer side, C, of this slot has its bottom of the height at which it is desired to have the base of the rail stand, and it is also beveled under the outer face, at a' , so that one flange of the rail will lie in this groove.

The inner part of the slot has its bottom D lower than the plane of C, and the meeting-edge between the two is inclined and dovetailed or beveled downward and backward.

A block or key-piece, E, is formed, so that when in place its contour will be and form a part of the base A. This key-piece has a beveled edge, F, which fits the incline in the meeting edges between C and D, and thus serves as a key to hold it firmly in place. The upper

part above this incline F is also beveled back at i , so that this retreating bevel will stand on a level with the opposing one, a' , and when the rail is in place it will be securely keyed by the piece E. A pin, G, passes through this key-piece and into the base A, thus holding it securely in place.

When it is desired to lay a line of track the chairs are first placed in position and the key-pieces removed. The rails are then resting upon the side C. The key-pieces E are then inserted into the slots D and driven or forced to place, when the beveled incline will lock them into the chair, and at the same time they will clasp the flange of the rail by the inclined groove i , and hold it firmly in place. The pin G may then be dropped into place, and the whole will be securely locked.

The proportion of the bases may be varied to suit the requirements of the road-bed; but I have found that for ordinary use the best proportions are twenty-four inches long by eight inches wide, and the center line of the rail should be inside of the center of the base, so that the outside length will be thirteen and the inside length eleven inches.

The uniting-bar may be one and three-fourths inch by one-half an inch, and its ends may extend two and one-half inches into the cast bases.

The bases may be perforated, so as to be secured to bridges or trestles, when desired.

The whole forms a cheap and convenient railway-tie.

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

The bases A, having the transverse slots C and D, with their inclined and dovetailed faces, as shown, in combination with the key E, adapted to support one side of the rail, and having the inclined groove i , and the locking-pin G, the whole constructed to operate substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand.

JOHN R. SULLIVAN.

Witnesses:

S. H. NOURSE,
F. A. BROOKS.