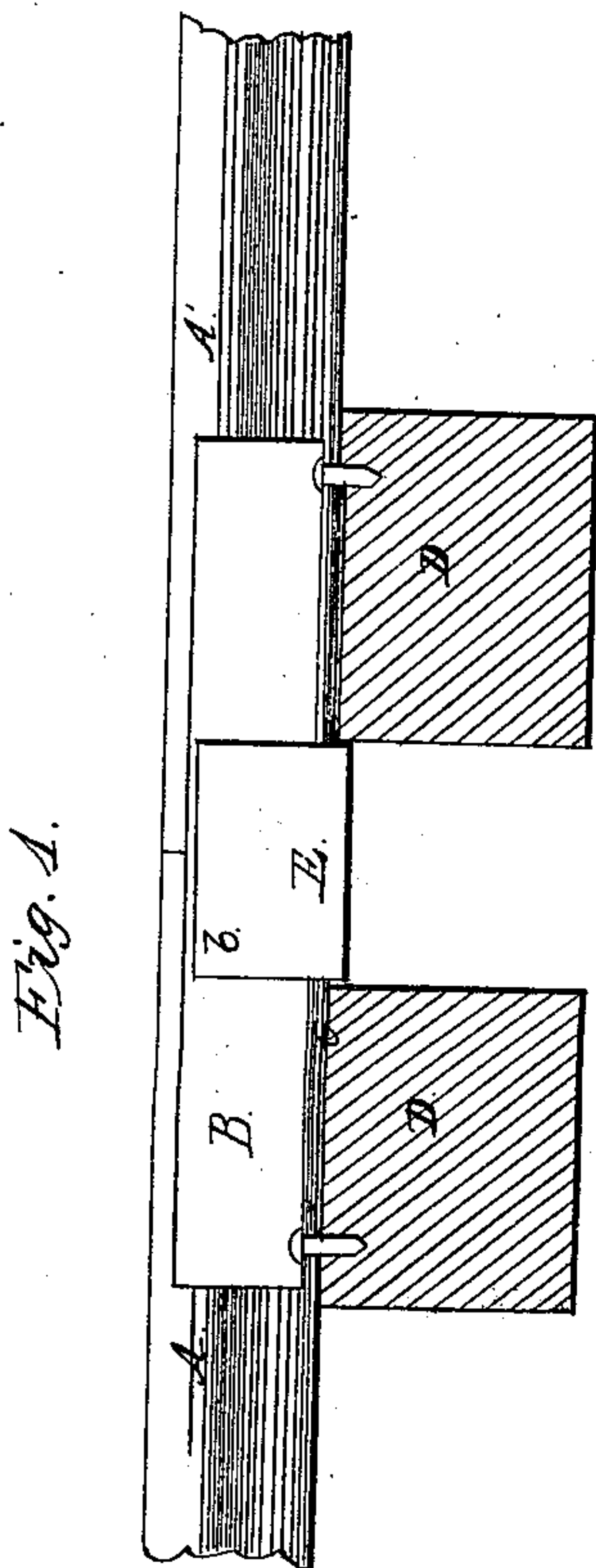
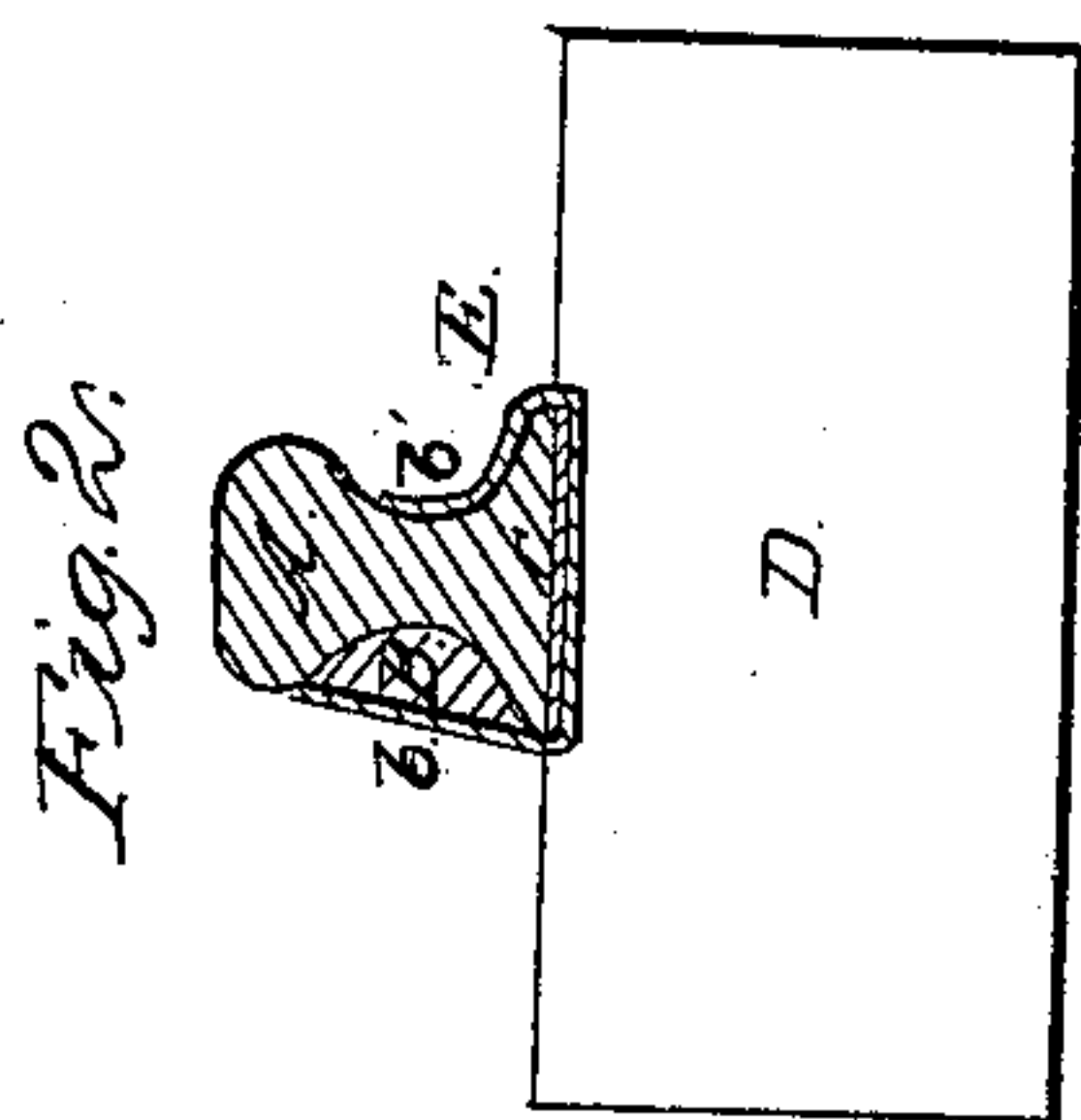


E. St John,

Railroad Chair,

N^o 42,885.

Patented May 24, 1864.



Witnesses:

J. W. Coombs
Geo. W. Reed

Inventor

E. St John
per Munroe & Co
Attorneys

UNITED STATES PATENT OFFICE.

E. ST. JOHN, OF ELMIRA, NEW YORK.

IMPROVEMENT IN RAILROAD-CHAIRS.

Specification forming part of Letters Patent No. 42,885, dated May 24, 1864.

To all whom it may concern:

Be it known that I, E. ST. JOHN, of Elmira, in the county of Chemung and State of New York, have invented a new and useful Improvement in Railroad-Chairs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side elevation of my invention. Fig. 2 is a transverse vertical section of the same.

Similar letters of reference in both views indicate corresponding parts.

This invention is an improvement on that class of railroad-chairs on which a patent was allowed to me May 19, 1863, and which consists in the employment or use of a sustaining-bar that extends across two sleepers or cross-ties, and fits into the necks of adjoining rails, and, being held in place by a bed-piece, supported by the underlying cross-ties at the weak points, serves not only as a sustaining, but as a reacting support to keep the rails in line and in surface.

The nature of this present improvement consists in the combination, with the bed-piece and sustaining-bar, of an independent clamp which holds the bed-piece and sustaining-bar together with the ends of the adjoining rails, in such a manner that each of the three parts—viz., the sustaining-bar, the bed-piece, and the clamp—can be readily produced by rolling or other means, and that a chair is produced which is cheap, durable, and readily applied, and which keeps the track level and in line, and is not liable to get out of order.

To enable those skilled in the art to make and use my invention, I will proceed to describe it.

A A' are adjoining rails, the ends of which are supported by the sustaining-bar B, bed-piece C, and clamp E. The bed-piece is made twenty-four inches long, (more or less,) and its ends are to rest upon the cross-ties D, six by seven inches, and it is held in its place by a clamp, E, which is to be made about six

inches (more or less) long and provided with lips *b' b'*, that on the innerside to be turned over and up, so as to fit snugly in the neck and yet rest under the head of the rail; but that on its outside to be turned up, so that it shall be nearly as high as the top of the rail, thus leaving an opening between its inner surface and the neck of the rail to receive the sustaining-bar, as clearly shown in Fig. 2 of the drawings. The bed-piece is intended to be let into the cross-ties to the depth of its thickness, and then spiked down by four or more spikes. The two ties are to be laid sixteen inches (more or less) from center to center, each tie having about eight inches face. The cross-ties having been made in their proper positions, the clamp is placed between them, and after the bed-piece is secured in its place the rails are inserted from both ends into the clamp, so as to meet midway between the cross-ties, when the sustaining-bar is forced home to its place, which completes the joint. The sustaining-bar is made long enough to extend across the two cross-ties D, or nearly so, as clearly shown in Fig. 1 of the drawings, and it fits perfectly the necks of the rails, as shown in Fig. 2, and the clamp E ought to be made of such a length that it fits nicely between the two cross-ties. By this arrangement all the advantages of my former chair are obtained, and, furthermore, I am enabled to produce the sustaining-bar, the bed-piece, and the clamp in the simplest and cheapest manner by rolling, or other means, and the rails are kept perfectly level and in line by the combined action of the sustaining-bar, clamp, and bed-piece.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the sustaining-bar B and bed-piece C, of the clamp E, all applied to each other and to the rails A A' and cross-ties D, substantially as and for the purposes herein shown and described.

E. ST. JOHN.

Witnesses:

STEPHEN ROSE, Jr.,
SAML. G. COWLES.