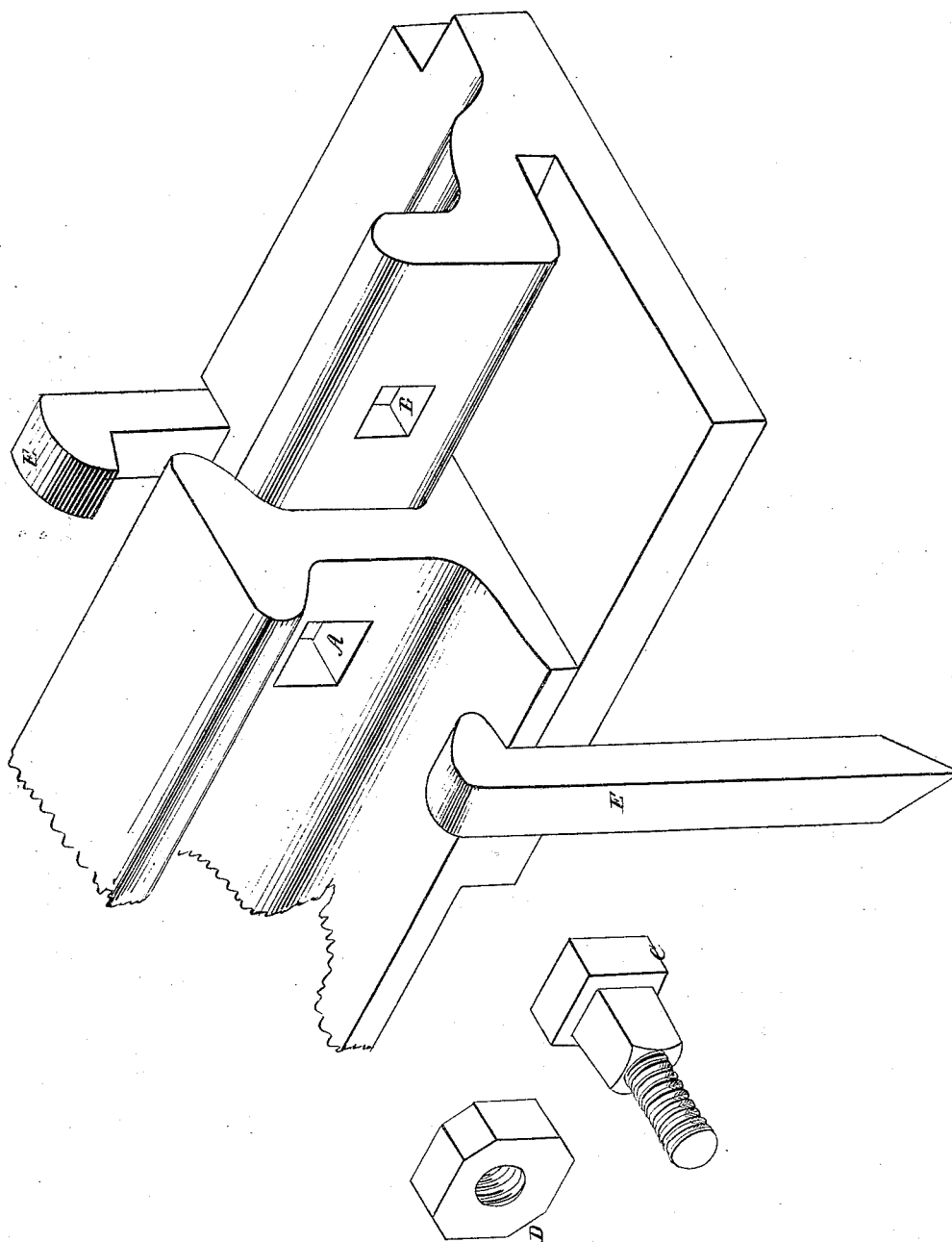


M. Robinson.
Securing Railroad Rails in their Chains.
Nº 1,105. Patented Mar. 16. 1839.



Witnesses;
Thos B. Jones
J. J. Greenough

Inventor;
M. Robinson

UNITED STATES PATENT OFFICE.

MONCURE ROBINSON, OF PHILADELPHIA, PENNSYLVANIA.

MODE OF CONSTRUCTING THE CHAIRS OF RAILROADS AND ATTACHING THE RAILS THERETO.

Specification of Letters Patent No. 1,105, dated March 16, 1839.

To all whom it may concern:

Be it known that I, MONCURE ROBINSON, of the city of Philadelphia and State of Pennsylvania, have invented a new and Improved Plan of Securing Rails in Their Chairs on Railroads; and I do hereby declare that the following is a full and exact description of the same.

The nature of my invention consists in providing a chair (which having been adopted by me on the Philadelphia & Reading Railroad has been therefore termed the Reading chair) having a shoulder on one side only, with holes or openings to receive screw bolts which are to pass also through similar holes or openings in the ends of the rails, the holes or openings in the rails being sufficiently long to afford the requisite play for expansion and contraction of the rails in all changes of temperature.

The accompanying drawing will enable others to understand and make use of my invention. This exhibits the end of a rail in its place in the chair, with the opening A in the rail placed opposite a corresponding opening in the chair. A second opening B is seen in the chair, opposite which an opening in the end of the next rail would come when placed. Through these holes in the chair and rails the screw-bolts C are passed, secured by the screw nuts D, and both the chair and rails may be secured to a cross-

sill or longitudinal timber, if the rail has a bottom-web, by the clamp-spikes, marked E, or any other mode of securing the chair to the cross sill or longitudinal timber may be adopted.

The advantages of the above invention seem to me to consist in the great economy and simplicity of the chair, the facility of placing the rails in it, the facility of adjusting them completely in line by the introduction, when necessary of their plates of steel, iron, or other metal between the rail and shoulder of the chair, the facility of forcing and keeping the rails in line, and the power of securing them more effectually than any other mode admits of.

What I claim as my invention is—

The plan of attaching the ends of rails to chairs by screw bolts, passing through openings in the chairs, and corresponding openings in the rails, leaving open the chair on one side and giving a shoulder to the opposite side, whereby the rail is thoroughly supported against the lateral action of engines and cars, and at the same time the means are afforded of placing and forcing the rails in line as above described.

MONCURE ROBINSON.

Witnesses:

H. KING,
HENRY BISHOP.