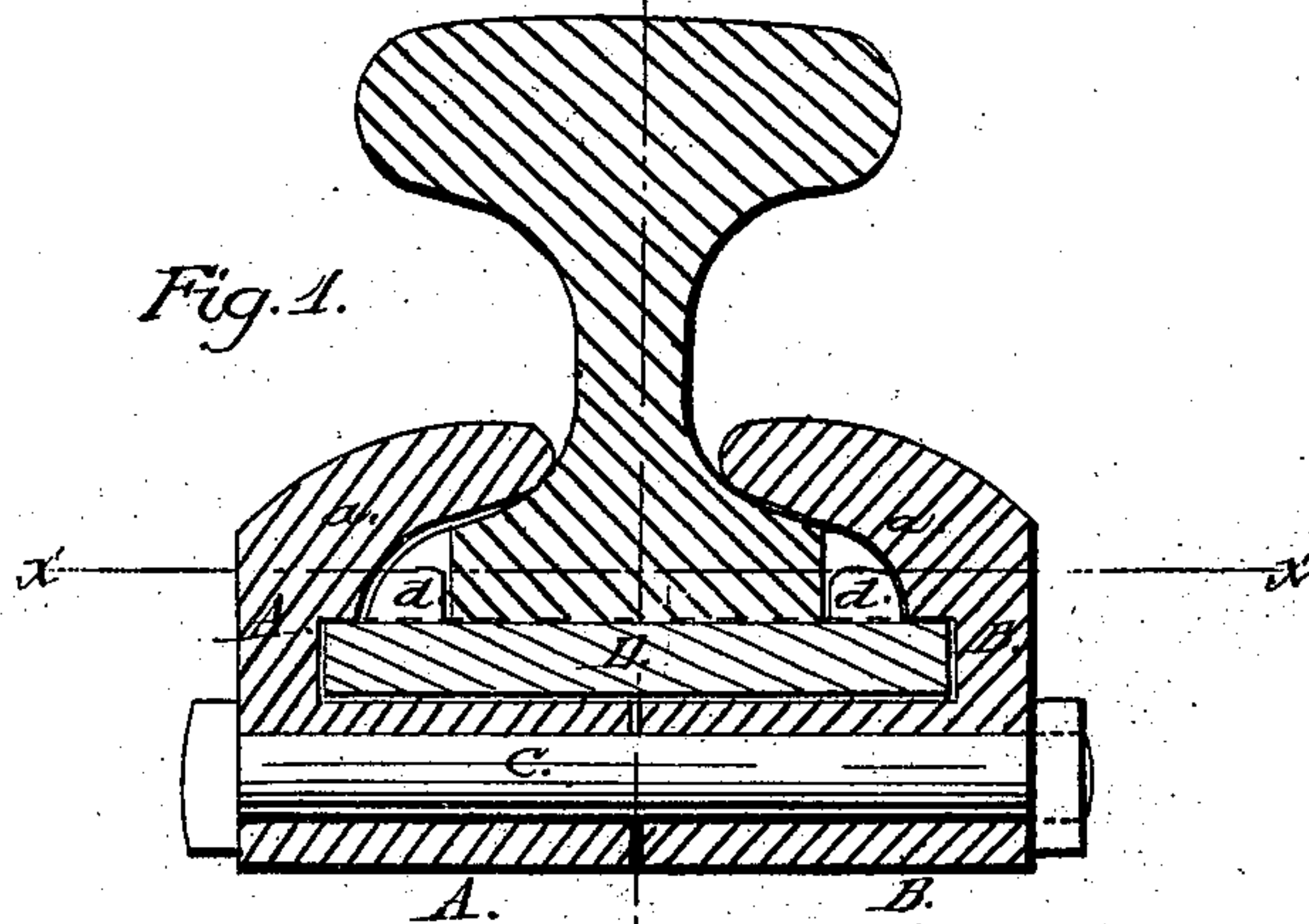


*L. J. Smith.*  
*Railroad Chair.*

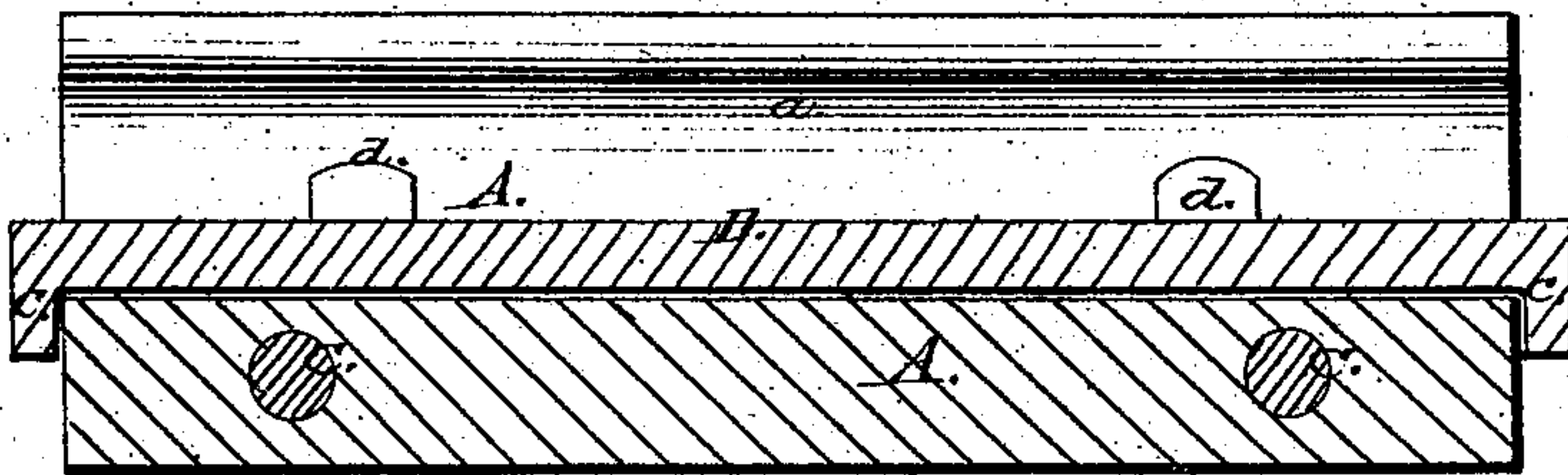
*N<sup>o</sup> 98,312.*

*Patented Dec. 28, 1869.*

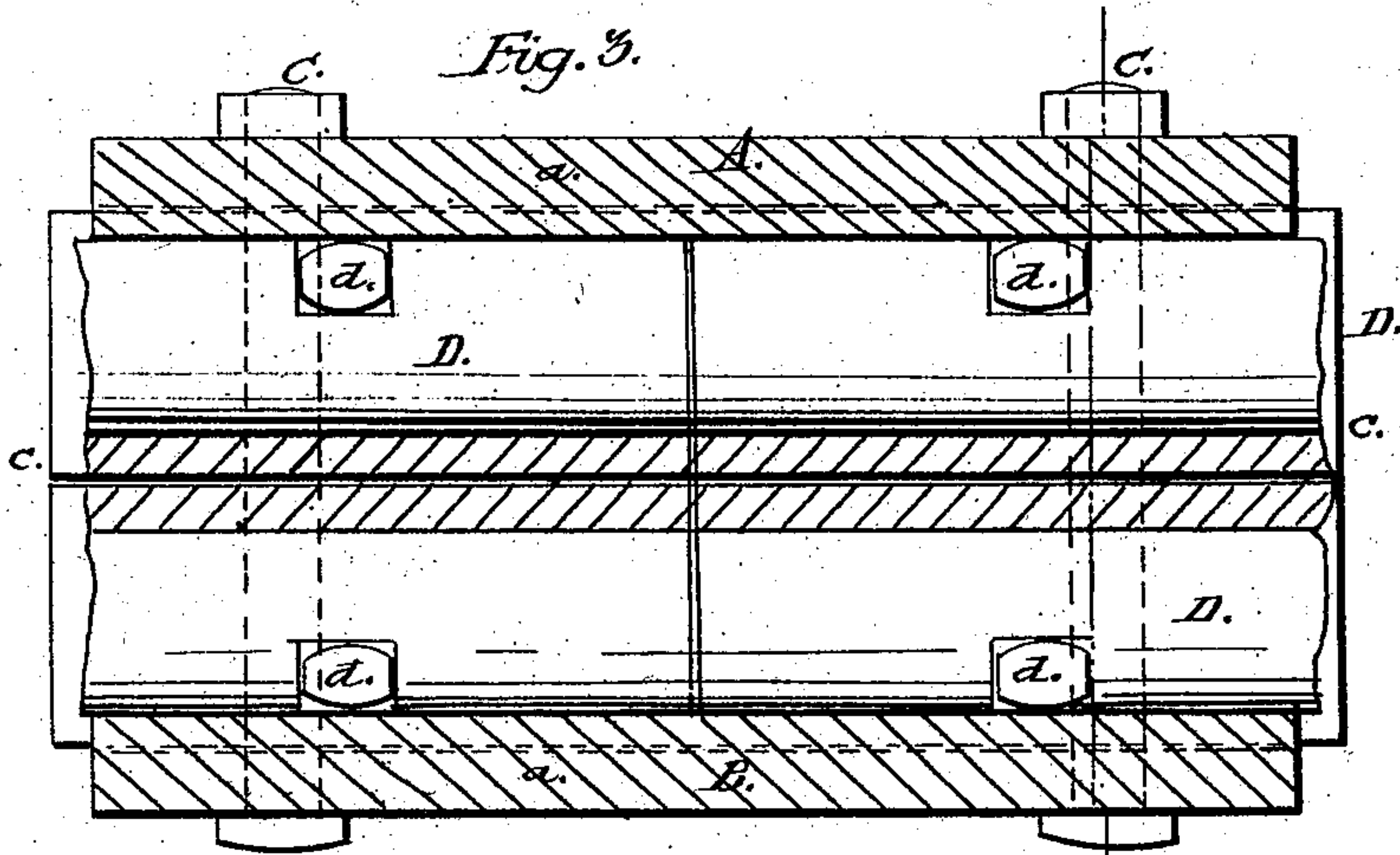
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*  
*Geo. W. Mabee*  
*Geo. E. Brooks*

*Inventor:*  
*L. J. Smith*  
*per Minnott & Co.*  
*Attorneys.*

# United States Patent Office.

LOYST J. SMITH, OF WHITEHALL, NEW YORK, ASSIGNOR TO HIMSELF AND  
E. H. GARDINER, OF SAME PLACE.

*Letters Patent No. 98,312, dated December 28, 1869.*

## IMPROVED RAILWAY-RAIL CHAIR.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, LOYST J. SMITH, of Whitehall, in the county of Washington, and State of New York, have invented a new and improved Railroad-Chair; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a vertical transverse section of my improved railroad-chair.

Figure 2 is a vertical longitudinal section of the same.

Figure 3 is a horizontal section of the same, taken on the plane of the line *x-x*, fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new suspension railroad-chair, which is so constructed that it will constitute a durable and reliable connection of rail-ends, and a noiseless support of the same.

The invention consists chiefly in arranging upon the horizontal bed formed by two jaws, and between the cheeks of the same, a horizontal supporting-plate, on which the rail-ends are placed, said plate being broader than the rail, as its sides are fitted into grooves that are formed on the cheeks of the jaws.

A and B are the two jaws or side pieces of the chair.

They are horizontal plates of considerable strength, to fit under the rail-ends, and are provided with projecting cheeks *a a*, that lap over the base of the rail, as is clearly shown in fig. 1.

The two parts A B are bolted together under the rail-ends by means of strong bolts C C, and are thereby securely connected. Still, if the rails were placed upon the horizontal plates of these jaws, they would

be apt to displace such jaws longitudinally, by bending the bolts.

To prevent this, I have placed upon the base plates of the jaws a plate, D, which has transverse ribs *c c* on its under side, at the ends, to lap over the ends of the jaw-bottoms, as in fig. 2.

The sides of the plate D fit into grooves that are provided in the cheeks *a*, as in fig. 1, to prevent vertical displacement.

The ribs *c* prevent the longitudinal displacement of the plate D, and also that of the jaws.

The rail-ends are placed upon the plate D, between the cheeks *a a*, as shown.

The plate D is also provided with upward-projecting lugs *d d*, that fit into notches in the bases of the rail-ends, to prevent the rails from becoming longitudinally displaced.

A rubber plate may, if desired, be interposed between the rail bases and the plate B, or between the latter and the base-plates of the jaws, in order to make a still more silent support.

This chair is more particularly intended to be used between and not upon the ties or sleepers.

Having thus described my invention,

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

The arrangement, upon the bases of the jaws A B, and between the cheeks thereof, of a plate, D, with transverse ribs *c c*, and projecting-lugs *d d*, all as shown and described, to prevent the longitudinal displacement of the rails and the constant strain upon the bolts.

The above specification of my invention signed by me, this 1st day of June, 1869.

Witnesses:

LOYST J. SMITH.

FRANK BLOCKLEY,

ALEX. F. ROBERTS.