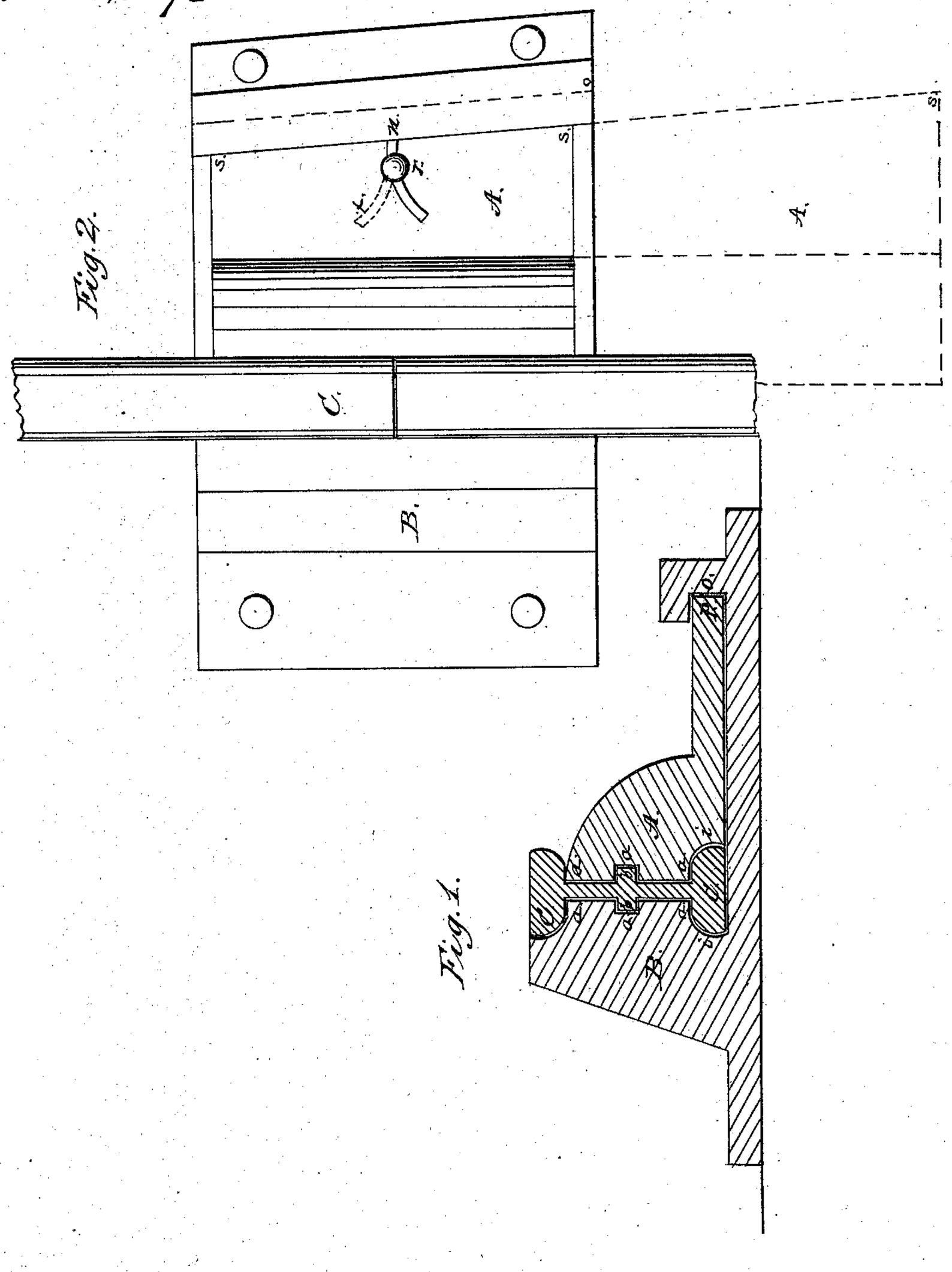
N. W. Northrup,

Railroad Chair,

No. 35,537. Patented June 10, 1862.



Witnesses:

S. A. Wood.

J. B. Woodruff.

Inventor:

Nelson W. Northrup.

UNITED STATES PATENT OFFICE.

NELSON W. NORTHRUP, OF GREENE, NEW YORK.

IMPROVEMENT IN RAILROAD CHAIRS AND RAILS.

Specification forming part of Letters Patent No. **35,537**, dated June 10, 1862.

To all whom it may concern:

Be it known that I, NELSON W. NORTHRUP, of the town of Greene, county of Chenango, State of New York, have invented a new and Improved Rail and Chair for Railroads, combined; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters marked thereon.

The nature of my invention consists in making a double headed rail and the necessary chair to hold it of peculiar style, adapted to railroad purposes.

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

Figure 1 is a side view of the chair and rail as put in full operation, showing the end of rail. Fig. 2 shows a top view of rails and chair as used.

Fig. 1, B A constitute the chair. B is the main post, made, the base of any proper dimensions required, and having the jaw of equal height of the rail, with a recess, *i*, to receive a part of the head of the rail *c* in the lower part, and groove *d*, for the rib or flange *b* on the rail, and has a rest, *a*, for the upper head, with its upper face full up with the top of the rail; the whole face of the jaw fitting to the face of the rail on the outside of the track, and also forming a continuous lap or splice to the rail when the ends do not meet in the chair.

A, Figs. 1 and 2, is the inner and movable jaw of the chair, with recess *i*, Fig. 1, and groove *d*, for the flange or rib *b*, and fitting under the upper head, *c*, with its face to fit the inner face of the rail from the shoulder of the upper head at *a* to the base. To keep the inner or movable jaw firmly in place, I make a lip-flange, *o*, Fig. 1, wedging to the center *s s s*, Fig. 2, as shown, and the movable jaw shaped to fit the groove *p* under the lip, so that it will be firmly wedged against the rail when driven to its place. In the follower or movable jaw A, I make a curve-slot, *r*, also one reversed in the lower part of the chair *t*, the ends of which meet and match over *n* to receive a spike driven in to prevent the possibility of the movable jaw getting loose, except by drawing the spike, and which, if crowded toward the rail, will incline the jaw still tighter.

The rail *c c*, Fig. 1, and *c*, Fig. 2, I make as shown in Fig. 1, *c c*, *b b*, *a a a a*, the heads alike, with a shoulder on each side under the head *a a a a*, with a rib or flange, *b b*, the whole length of the rail on both sides or faces, so that I can affix intermediate chairs at any place required. The advantage of a rail made in this way is to make it last twice as long as when made with one head, and not necessarily any more cost to lay the track. The advantage of the chairs in the style I make them, which, in addition to what is before described, I make the movable jaw in alternate pairs, right and left, to insure a firm and steady support of the rail on the outside of the track near the top of the rail, and by the alternate movable jaw the rail cannot be moved lengthwise of rail by the drawing strain of the engine approaching from either way, although the spike at *n*, Fig. 2, might be out in every chair; but as malicious persons could easily knock out the movable jaw, I insert the spike *n* to guard against their evil designs, and therefore will only have to draw one spike at each chair to take out a rail, which can be done in a few moments, and if only the movable jaw is driven at the ends of the rail a train can pass in safty, the outside jaw on each chair bracing the rail against the sway of the train right and left.

What I claim as my invention, is—

A double-headed rail, with the ribs or flanges and shoulders, with the chair composed of the two jaws, grooves, flanges, slots and wedge-shaped movable jaw, combined as specified, and for the purposes set forth.

NELSON W. NORTHRUP.

Witnesses:

S. W. WOOD,

J. B. WOODRUFF.