

(No Model.)

G. DE BEAULIEU.

RAILWAY TIE.

No. 365,169.

Patented June 21, 1887.

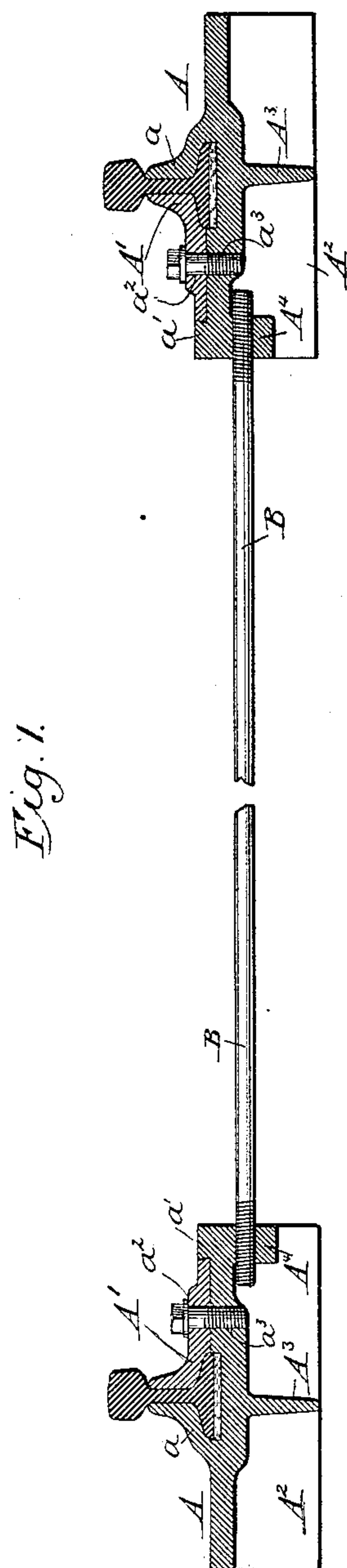


Fig. 3.

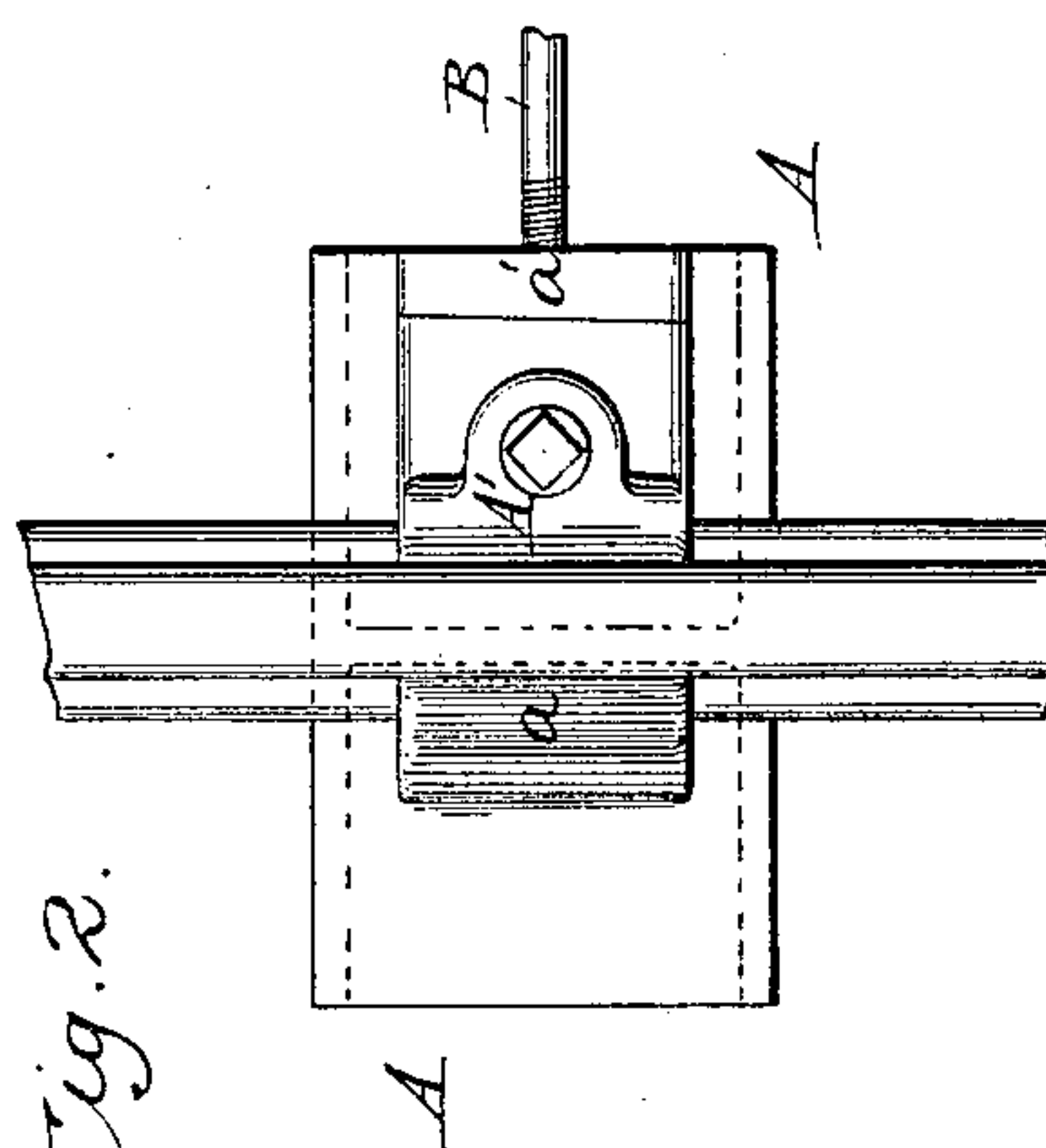
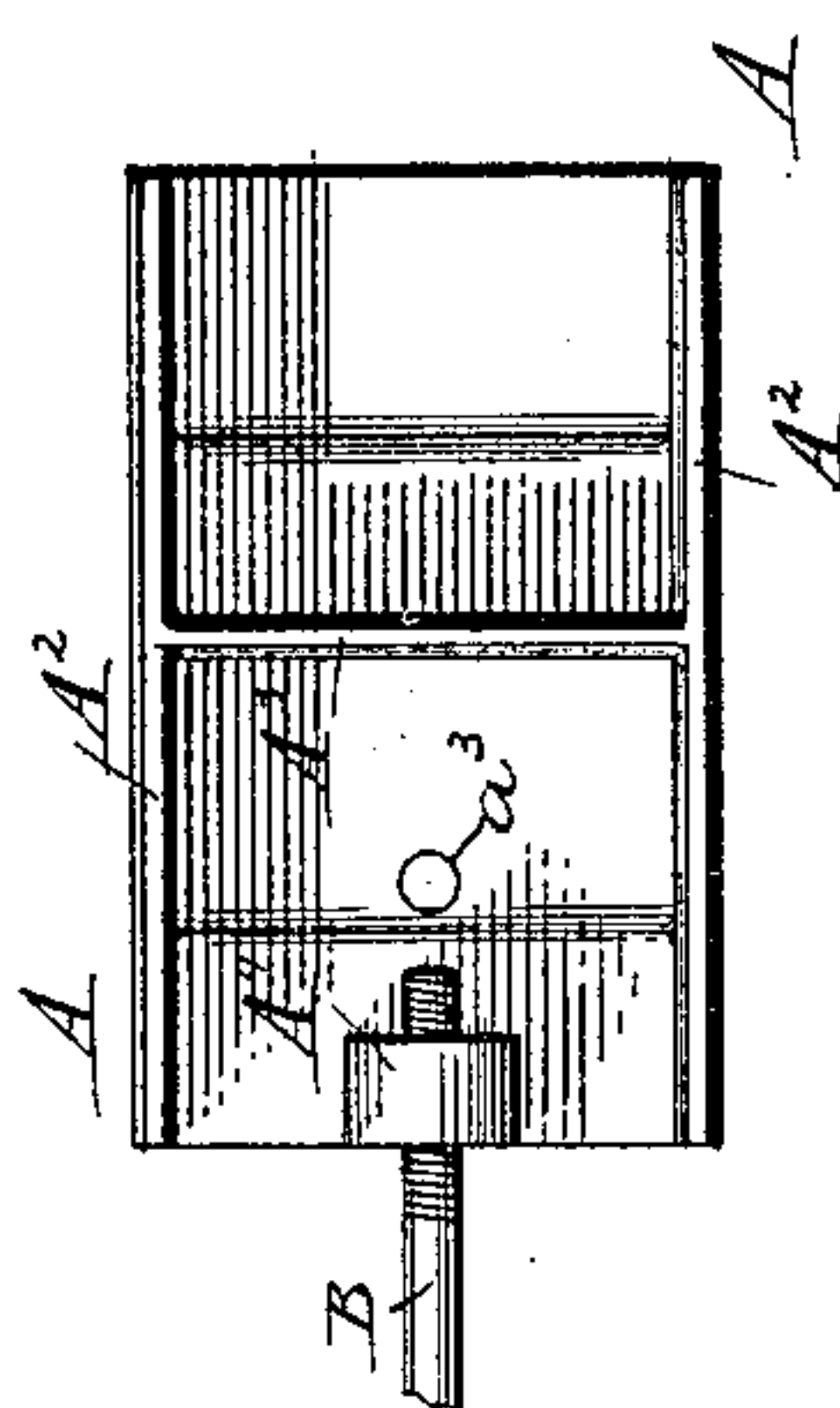


Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE DE BEAULIEU, OF TOLEDO, OHIO.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 365,169, dated June 21, 1887.

Application filed September 4, 1886. Serial No. 212,723. (No model.)

To all whom it may concern:

Be it known that I, GEORGE DE BEAULIEU, of Toledo, in the county of Lucas and State of Ohio, have invented certain Improvements in Railway-Ties, of which the following is a specification.

This invention relates to that class of railway ties or sleepers in which two separate sleeper-blocks are united by a tie rod.

10 The object of the invention is to provide a simple and effective combined chair and sleeper to which the rail may be secured by means of a single bolt.

15 A further object is to so connect the sleeper-blocks by their tie-rod as to render the blocks adjustable for railways of different gages.

A further object is to secure the individual sleeper-blocks against sliding or shifting while in use.

20 With these objects in view the invention consists in novel features and combinations, to be described in the following specification, and claimed in the clauses at the close thereof.

25 Referring to the accompanying drawings, Figure 1 represents a sectional elevation of my improved sleeper, the rails being in position; Fig. 2, a plan view thereof. Fig. 3 is a bottom plan view of the sleeper.

30 Referring to the drawings, the sleeper-blocks A are made preferably of cast metal, a wing, *a*, being cast integral therewith and formed to receive one side of the foot of a railway-rail and support one side of the web thereof. The upper end of the wing fits snugly under the head of the rail, as shown. Upon the other end of the 35 sleeper-block is cast a shoulder, *a'*, against which abuts the outer end of a keeper-plate, A', the other or inner end of said keeper-plate being shaped to correspond with the wing *a*, to embrace the foot and web of the railway-rail, as shown. This keeper-plate A' is provided with a bolt-hole, *a''*, registering when the parts are in position with a bolt-hole, *a'''*, in the sleeper-block, in order that the parts 40 may be secured rigidly together by a single bolt. I prefer to provide the upper face of the sleeper-block centrally with a groove to receive the foot of the rail, and this groove may be sufficiently deep to receive a cushion 45 of wood or other substance, as shown. The

side edges of the sleeper-block are formed with downwardly-projecting flanges A², which serve to prevent the slipping of the sleeper-block longitudinally with respect to the rails, and I provide an additional flange or rib, A³, 55 arranged centrally and in line with the rail-seat, which is an additional guard against the endwise slip of the sleeper-block, and also strengthens and braces the edge flanges at their center. These flanges may of course be made 60 of any desired depth, though in practice I have found that a depth of six inches is sufficient for ordinary use. The inner ends of the sleeper-blocks are provided midway between the side-flanges with a lug, A⁴, tapped centrally to receive the threaded end of the tie-rod B, though 65 it will be understood that this lug may be extended to form an additional flange connecting the inner ends of the side flanges.

To provide for the ready adjustment of the 70 sleeper-blocks, the threads upon the ends of the tie-rod B are cut in opposite directions—that is, a right-hand thread is formed on one end and a left-hand thread upon the other—and the lugs A⁴ upon the sleeper-blocks are cut to receive the right and left hand threads, so that by turning the tie-rod in one direction 75 or the other the sleeper-blocks are simultaneously drawn toward each other or forced apart, as the case may be. Owing to this construction, the gage of the rails may be maintained without expense or trouble, as the gage may be readjusted by turning the tie-rod the required distance and retamping the sleeper-blocks. 80

The sleeper-blocks constructed as described serve the double purpose of a sleeper and chair, and in the latter capacity they render the rails very rigid, as the wings *a* and A' embrace the web of the rail tightly and fit snugly under 85 the head thereof. To enable me to take up any wear between the web of the rail and the wings, I arrange the inner face of the shoulder *a'* at a slight angle with relation to the face of the wing *a*, and form the outer edge of the 90 keeper-plate A' with a corresponding incline, in order that the said outer edge of the keeper-plate may be forced against the shoulder *a'* with a wedging action, thereby clamping the web of the rail tightly between the wings *a* A'. 100

In order to admit of this adjustment the bolt-hole a^2 should be elongated, as will be readily understood.

Having thus described my invention, what I claim is—

1. The combined chair and sleeper consisting of the single casting having the transverse and longitudinal flanges on its under side, the flange or wing a on its upper side, and a tapped ear, A^1 , to receive a tie-rod.

2. The combined chair and sleeper cast in one piece, with the flanges on its under side, the wing or flange a on its upper side, and the undercut shoulder a' , in combination with the clip-plate A' , and the fastening-bolt applied thereto, substantially as described.

3. In a metal tie for railways, the combination, with the tie-rod provided at its ends with oppositely - arranged screw - threads, of the sleeper-block having tapped lugs to receive the screwed tie-rod, and fitted with downwardly - projecting side flanges, and a cross flange or rib connecting the said flanges at the center.

In testimony whereof I hereunto set my hand, this 24th day of August, 1886, in the presence of two attesting witnesses.

GEORGE DE BEAULIEU.

Witnesses:

SPENCER STEWART,
CHAS. T. LEWIS.