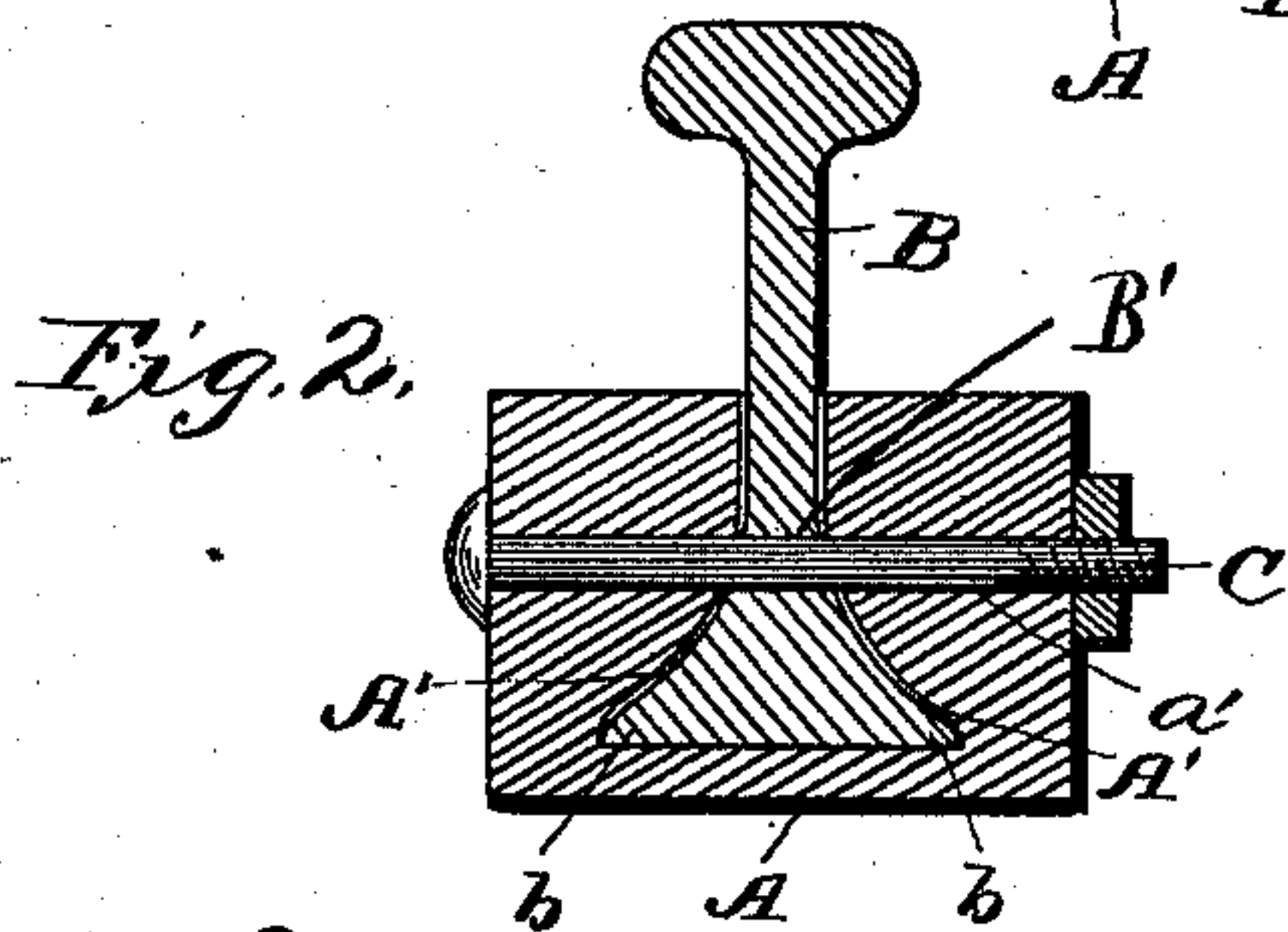
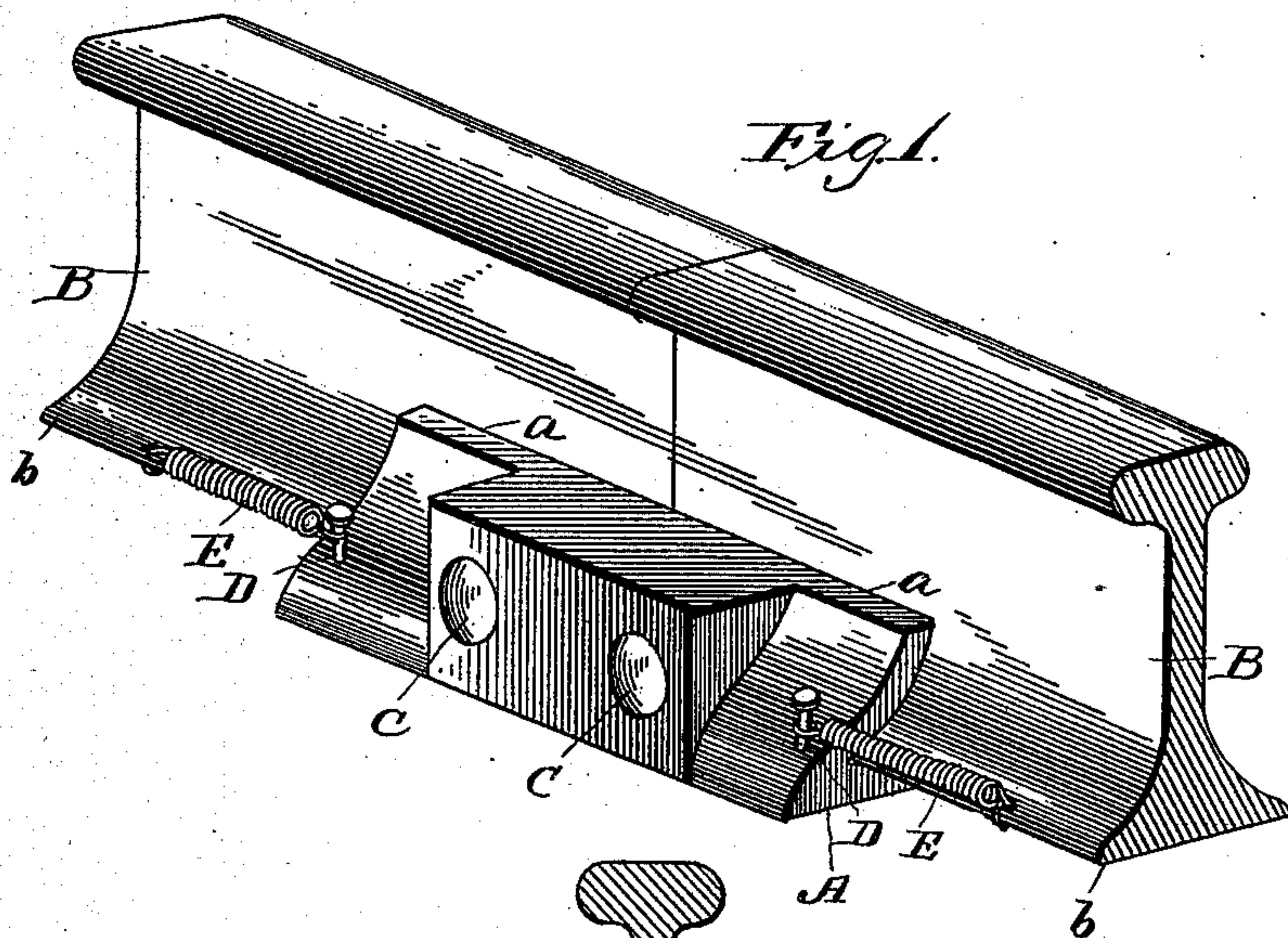


(No Model.)

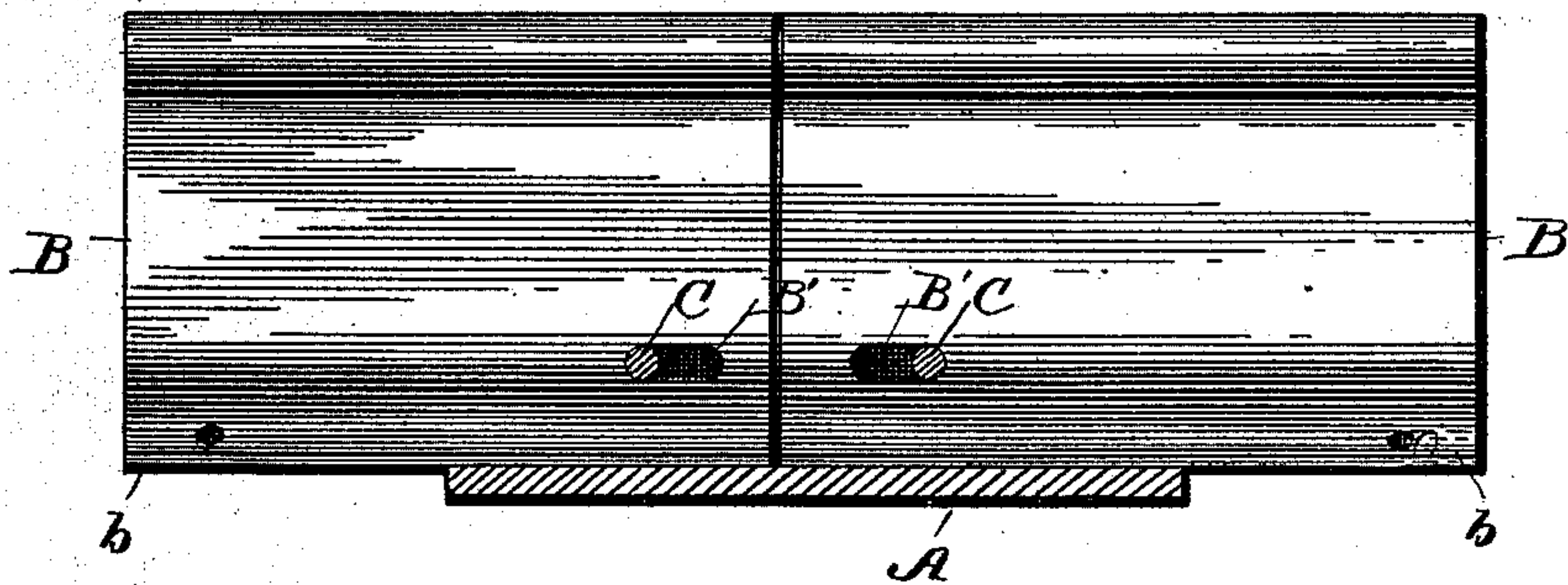
S. B. KINARD, J. B. MCKINLEY & J. R. THAXTON.  
RAIL JOINT.

No. 413,857.

Patented Oct. 29, 1889.



*Fig. 3.*



Witnesses

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*Steven B. Kinard*

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By their Attorneys,

*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

STEVEN BARTOW KINARD, JAMES B. MCKINLEY, AND JAMES R. THAXTON,  
OF TOWALIGA, GEORGIA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 413,857, dated October 29, 1889.

Application filed June 14, 1889. Serial No. 314,223. (No model.)

### *To all whom it may concern:*

Be it known that we, STEVEN BARTOW KINARD, JAMES B. MCKINLEY, and JAMES R. THAXTON, citizens of the United States, residing at Towaliga, in the county of Butts and State of Georgia, have invented a new and useful Rail-Joint, of which the following is a specification.

Our invention relates to improvements in rail-joints; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of our improved rail-joint. Fig. 2 is a transverse section of the same, and Fig. 3 is a longitudinal section.

In carrying out our invention, we employ a chair A, provided with flanges or walls *a* at its side edges, and the said walls are provided on their inner faces with the longitudinal grooves A'. At or near its center the chair is provided with the transverse bolt-holes *a'*, as shown. The rails B B are seated in the chair, and the flanges *b* at the base of the rails engage the longitudinal grooves A', and thereby hold the rails within the chair. The rails are provided with longitudinal slots B' near their ends, through which and the bolt-holes *a'* in the flanges of the chair the securing-bolts C C are passed. The chair is secured to the ties by means of spikes D driven through the corners of the chair, and extensible springs E are secured to the spikes and the flanges of the rails, as clearly shown. By the use of these springs the rails will be firmly held together, and the enlargement of the space between the ends of the rails will to a large degree be prevented.

From the foregoing description it will be seen that we have provided a rail-joint which is composed of very few parts and is very simple in its construction. The ends of the rails will be securely held together, and the contraction and expansion of the rails will not cause any breaking or bending of the securing-bolts, as the longitudinal slots in the rails allow the rails to move over the bolts without affecting the same. The rails are prevented from rising by the chair, and the track will be firm and substantial.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the chair, the rails secured therein, and the springs secured to the chair and the rails, as set forth.

2. The combination of the chair having vertical flanges at its side edges, the rails fitting in the chair and having longitudinal slots, the bolts secured in the flanges of the chair and passing through the longitudinal slots of the rails, and the springs having their opposite ends secured to the rails and the chair, as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

STEVEN BARTOW KINARD.  
JAMES B. MCKINLEY.  
JAMES R. THAXTON.

Witnesses:

JOSEPH JOLLY,  
JAMES F. CARMICHAEL.