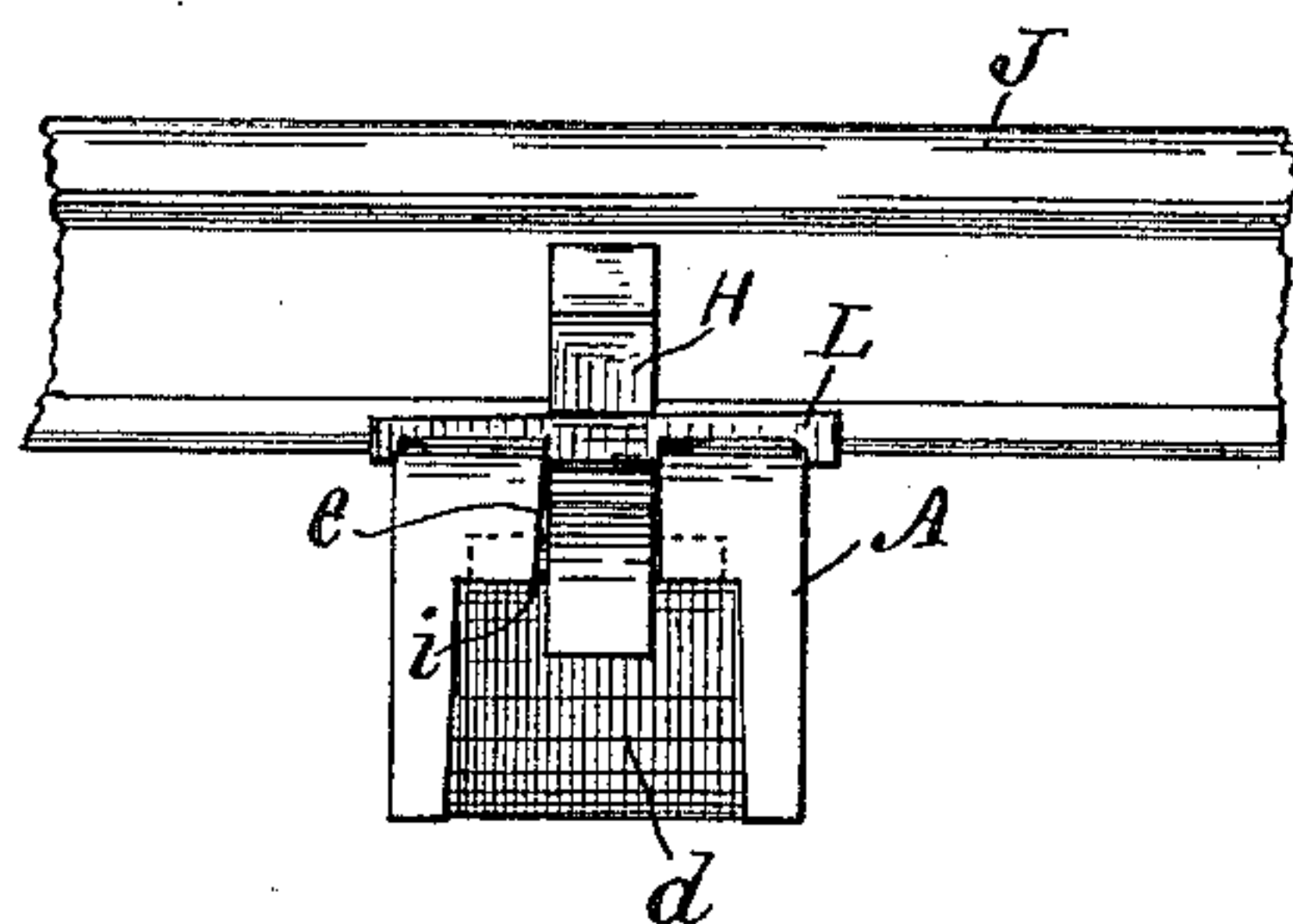


(No Model.)

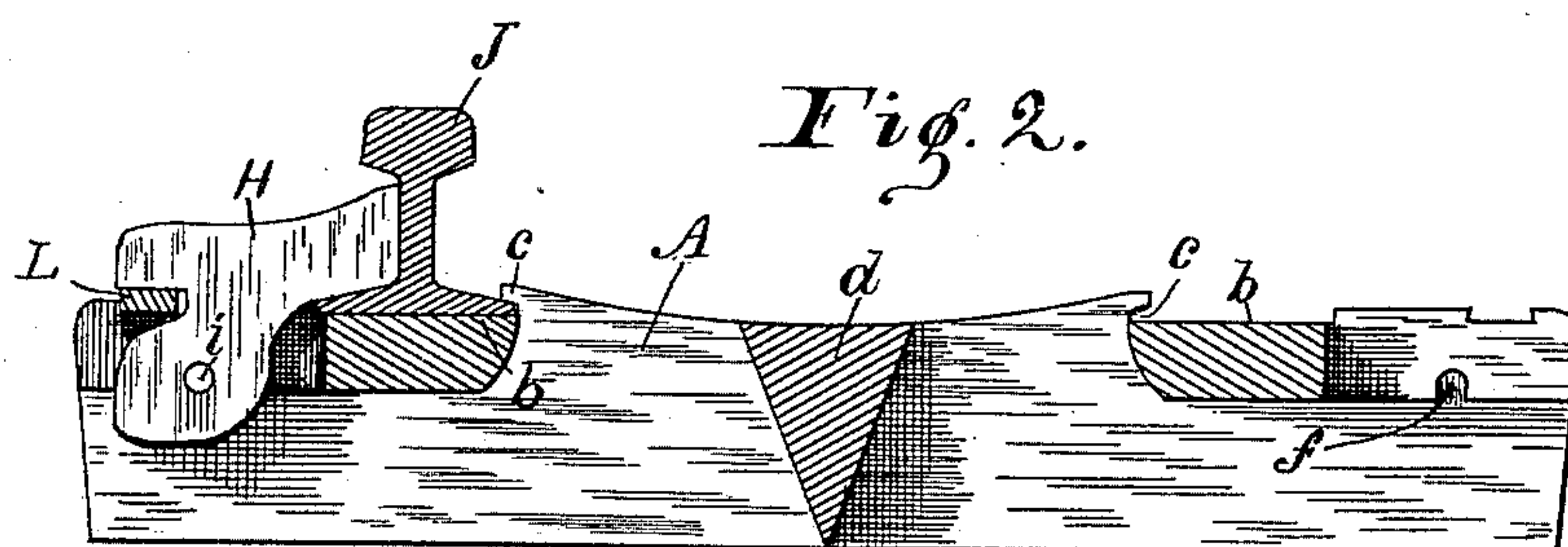
A. KIMBER.  
RAILROAD TIE.

No. 424,793.

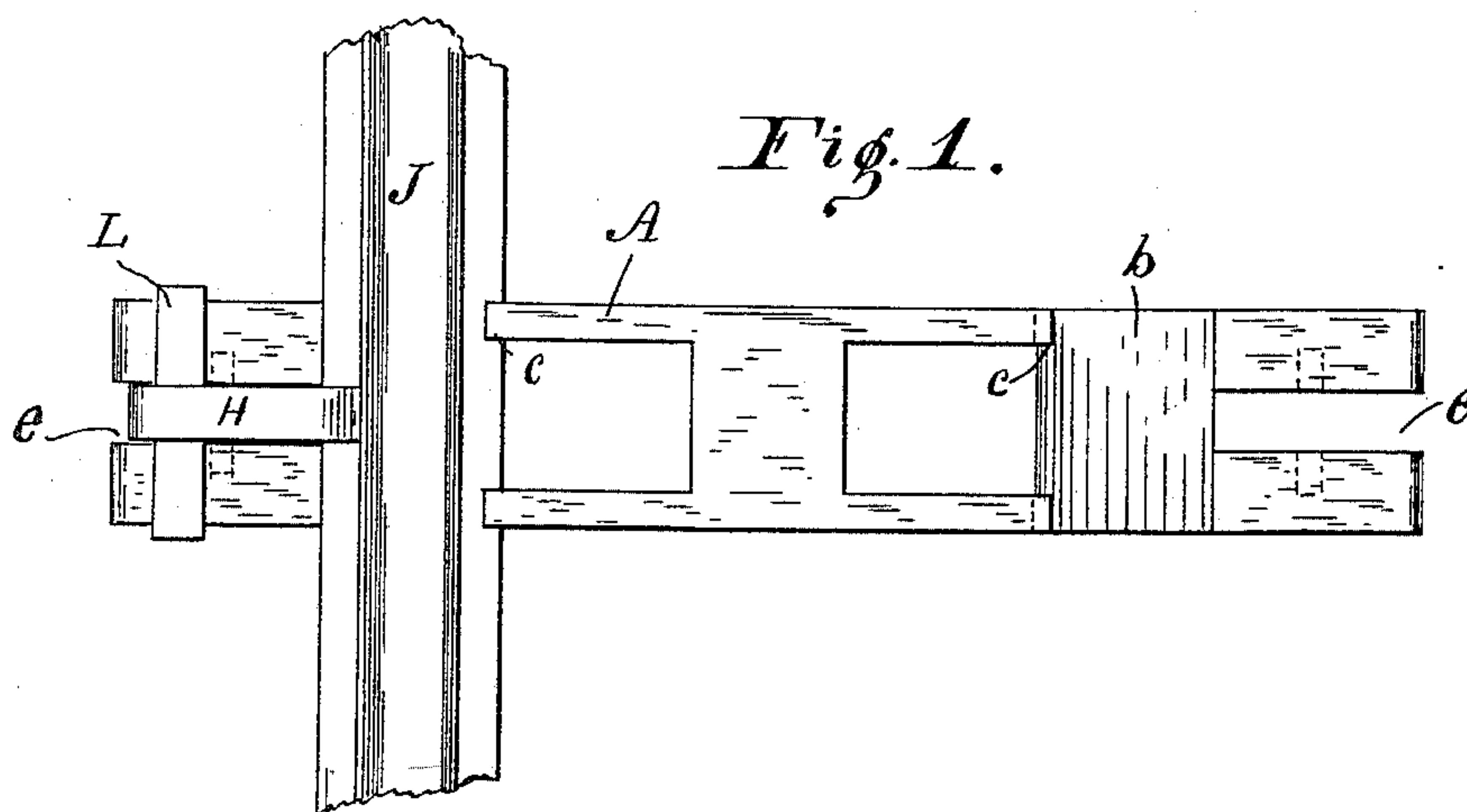
Patented Apr. 1, 1890.



*Fig. 3.*



*Fig. 2.*



*Fig. 1.*

Witnesses  
A. M. Hood.  
E. K. Hood.

Inventor  
Abraham Kimber  
By His Attorney  
H. P. Hood.

# UNITED STATES PATENT OFFICE.

ABRAHAM KIMBER, OF INDIANAPOLIS, INDIANA.

## RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 424,793, dated April 1, 1890.

Application filed December 26, 1889. Serial No. 334,972. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM KIMBER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Railroad-Ties, of which the following is a specification.

My invention relates to an improvement in metallic railroad ties.

10 The object of my improvement is to provide improved means for securing the rails to the tie, all as hereinafter set forth.

The accompanying drawings illustrate my invention.

15 Figure 1 is a plan; Fig. 2, a longitudinal section, and Fig. 3 an end elevation.

A is a hollow iron beam open on the under side, and having at each end on the top surface gains *b*, extending transversely across the tie and of suitable width and depth to receive the flanges of the rails. The outer edges *c* of gains *b* are undercut, so as to receive the outer edge of the rail-flanges; but the inner edges are vertical.

25 For the purpose of strengthening the center of the tie between the rails and causing the weight of a train passing over the rails to operate to force the ballast from the center toward the ends of the tie, and thus pack it most solidly immediately under the rails, I form a central wedge-shaped transverse rib *d*, having its point downward.

The rails are secured to the tie in the following manner: The upper surface of the tie outside the rails is slotted, as at *e*, and is provided on the under side on each side of the slot with an open bearing *f*. 35

Mounted in the slot *e* is a clamping-bar *H*, having on each side a pin *i*, which rests in the bearing *f*. One end of the bar *H* projects over and fits upon the top of the outside flange of the rail *J* and against the web of the rail, while on the opposite side of the pivot the bar projects over a wedge *L*, which lies on the top of the tie across the slot *e*. Only one 45 rail is shown; but the rails are secured to both ends of the tie in the same manner.

In operation the inner edge of the rail-flange is caught under the shoulder *c*. Clamp *H* is then put in position, as shown. Wedge *L* is 50 then driven under the outer end of the clamp, thus swinging the other end downward and firmly clamping the rail to the tie.

I claim as my invention—

In a railroad-tie, the combination of the 55 rail, the tie having gain *b*, slot *e*, and bearings *f*, formed in the sides of said slot and open from beneath, clamping-bar *H*, having pins *i*, and wedge *L*, all arranged to co-operate as and for the purpose set forth.

ABRAHAM KIMBER.

Witnesses:

H. P. HOOD,  
A. M. HOOD.