

No. 667,901.

Patented Feb. 12, 1901.

W. H. BROWN.

RAIL JOINT.

(Application filed June 29, 1900.)

(No Model.)

Fig. 1.

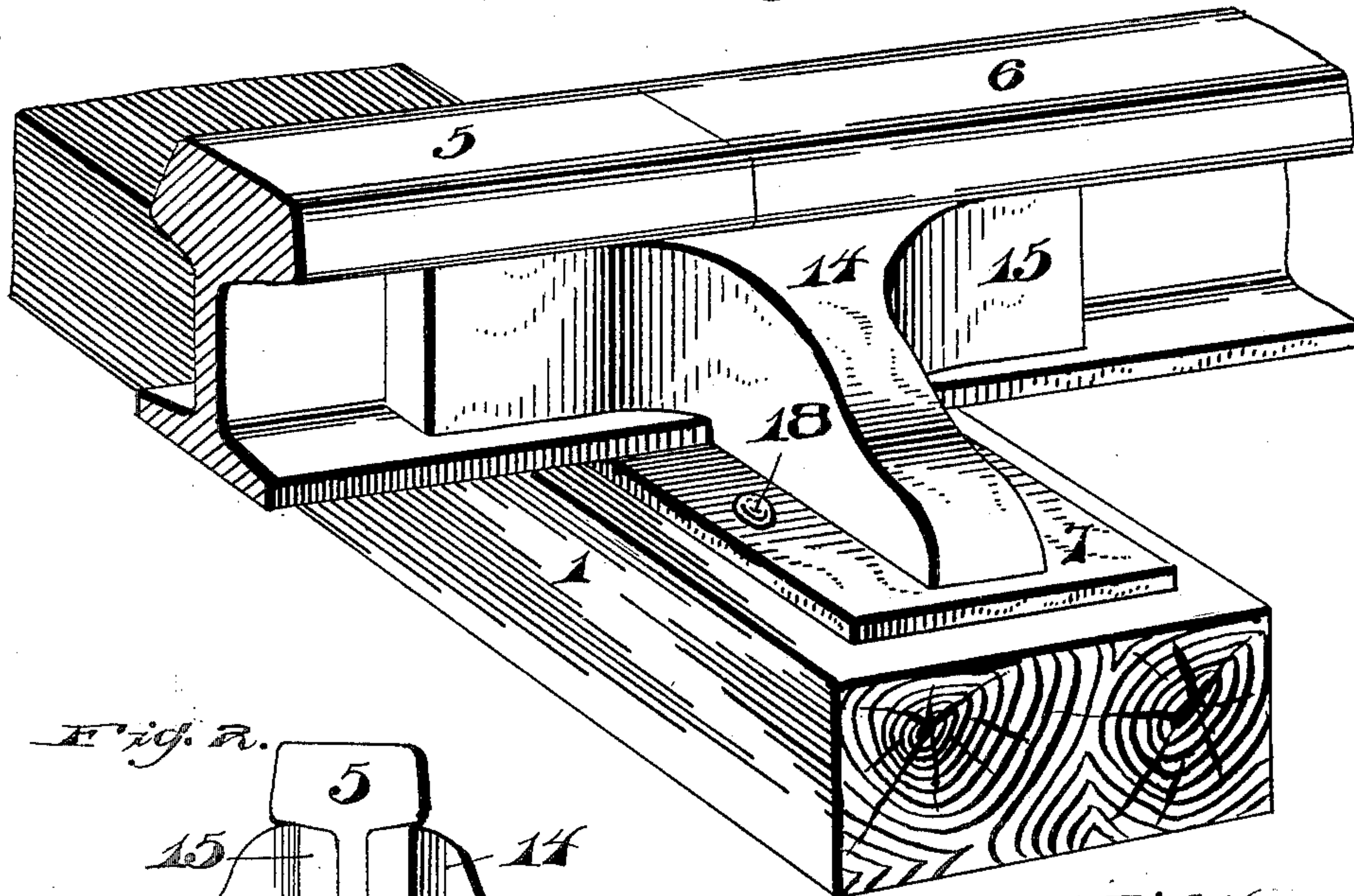


Fig. 2.

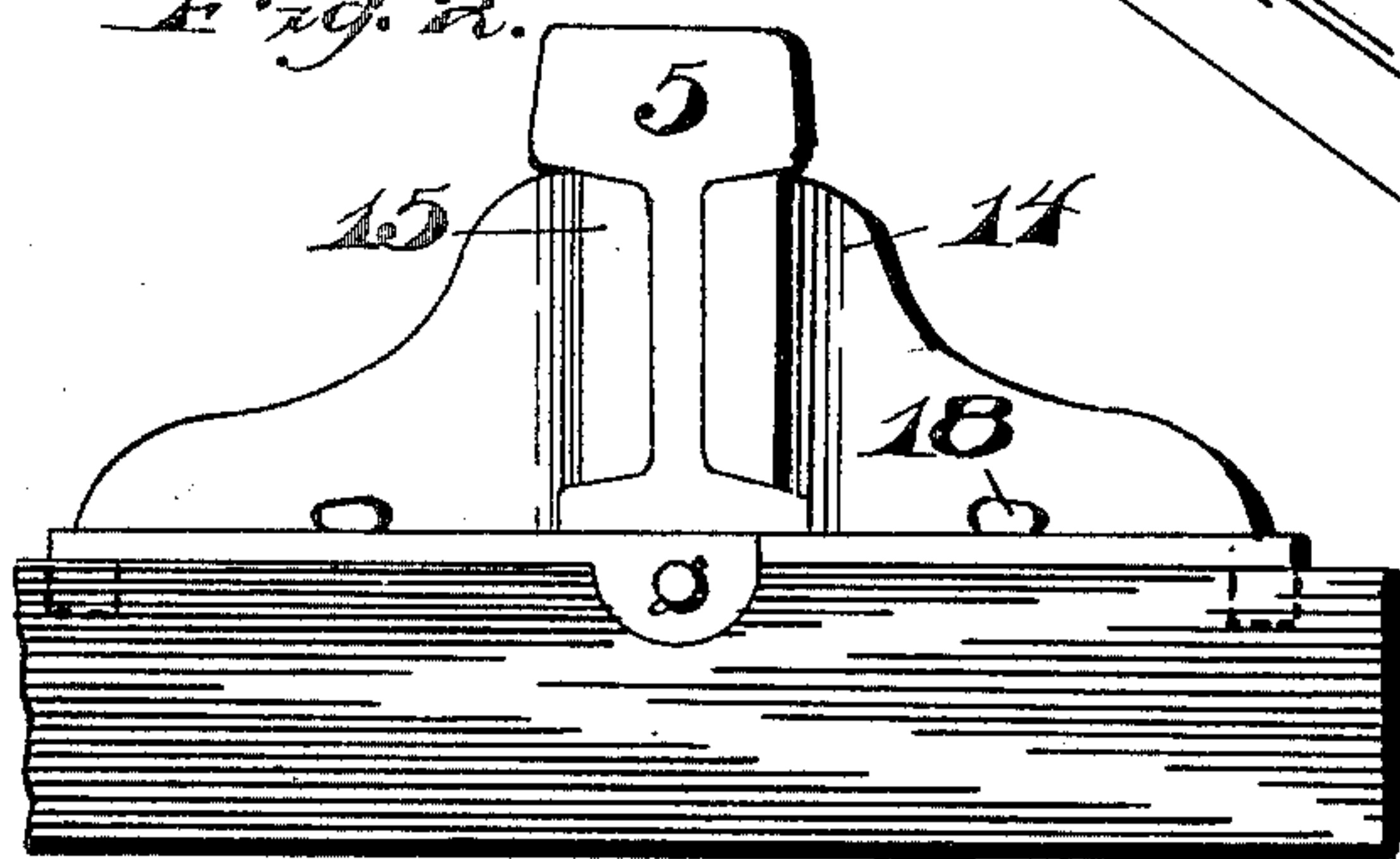


Fig. 4.

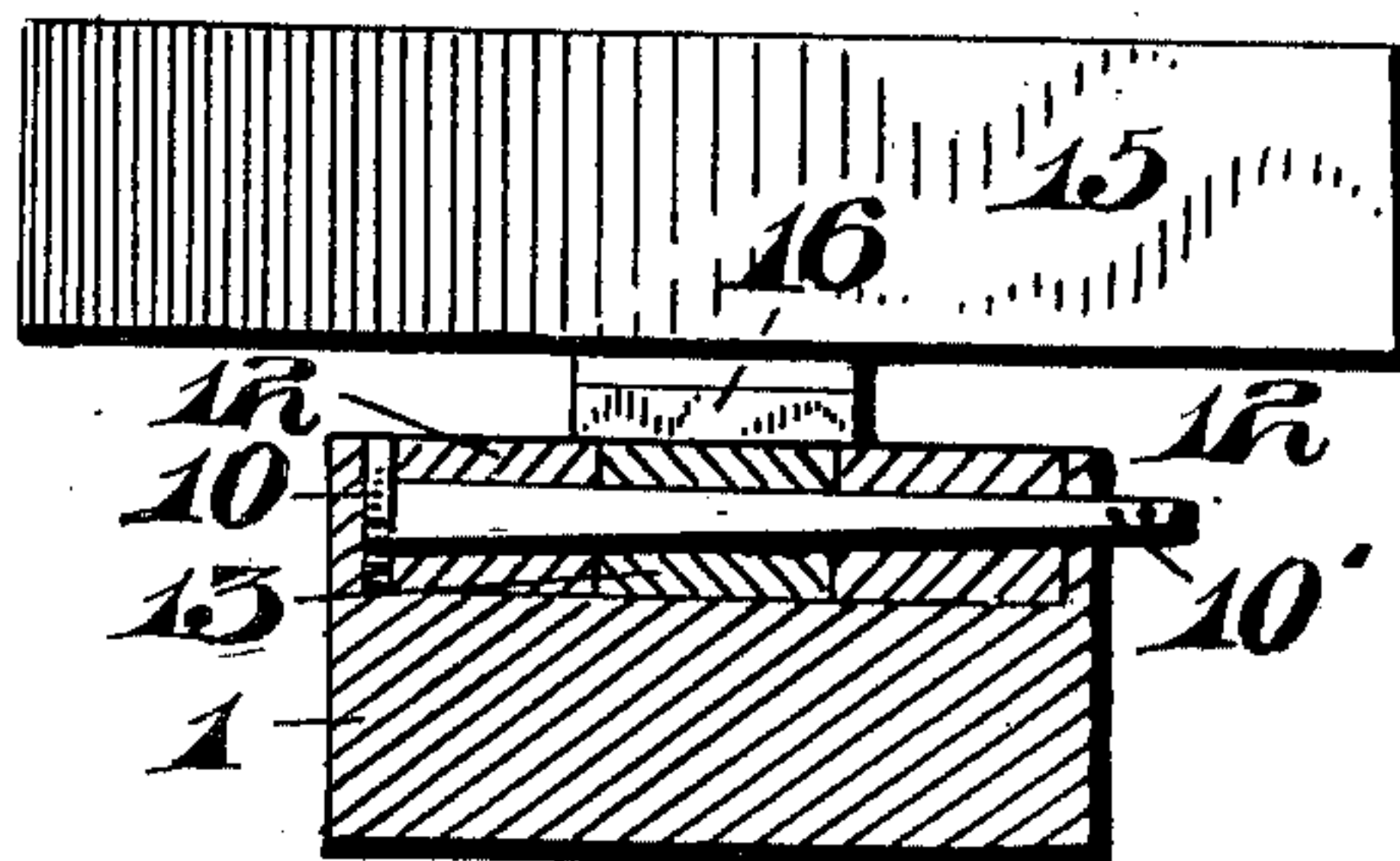


Fig. 3.

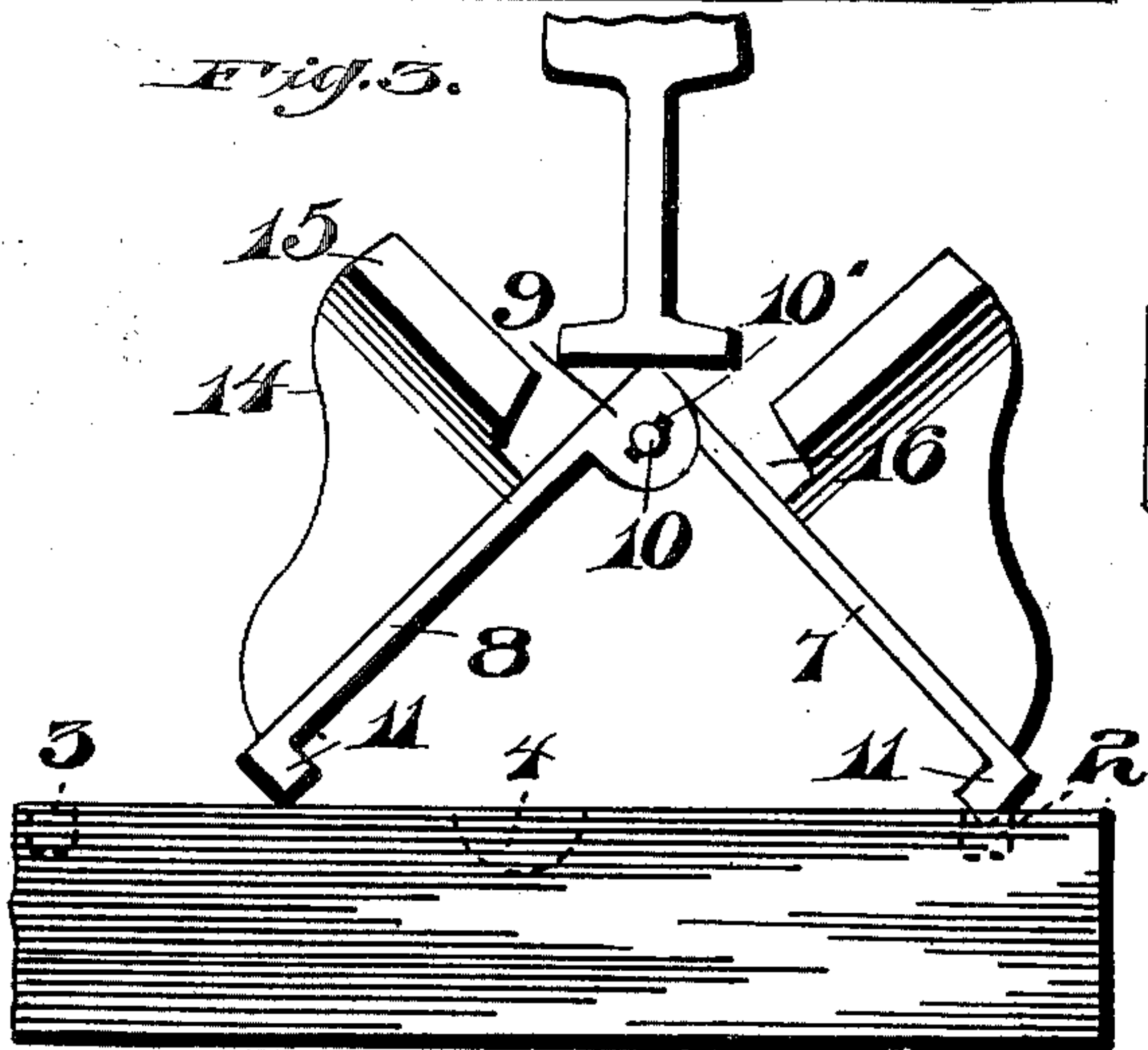
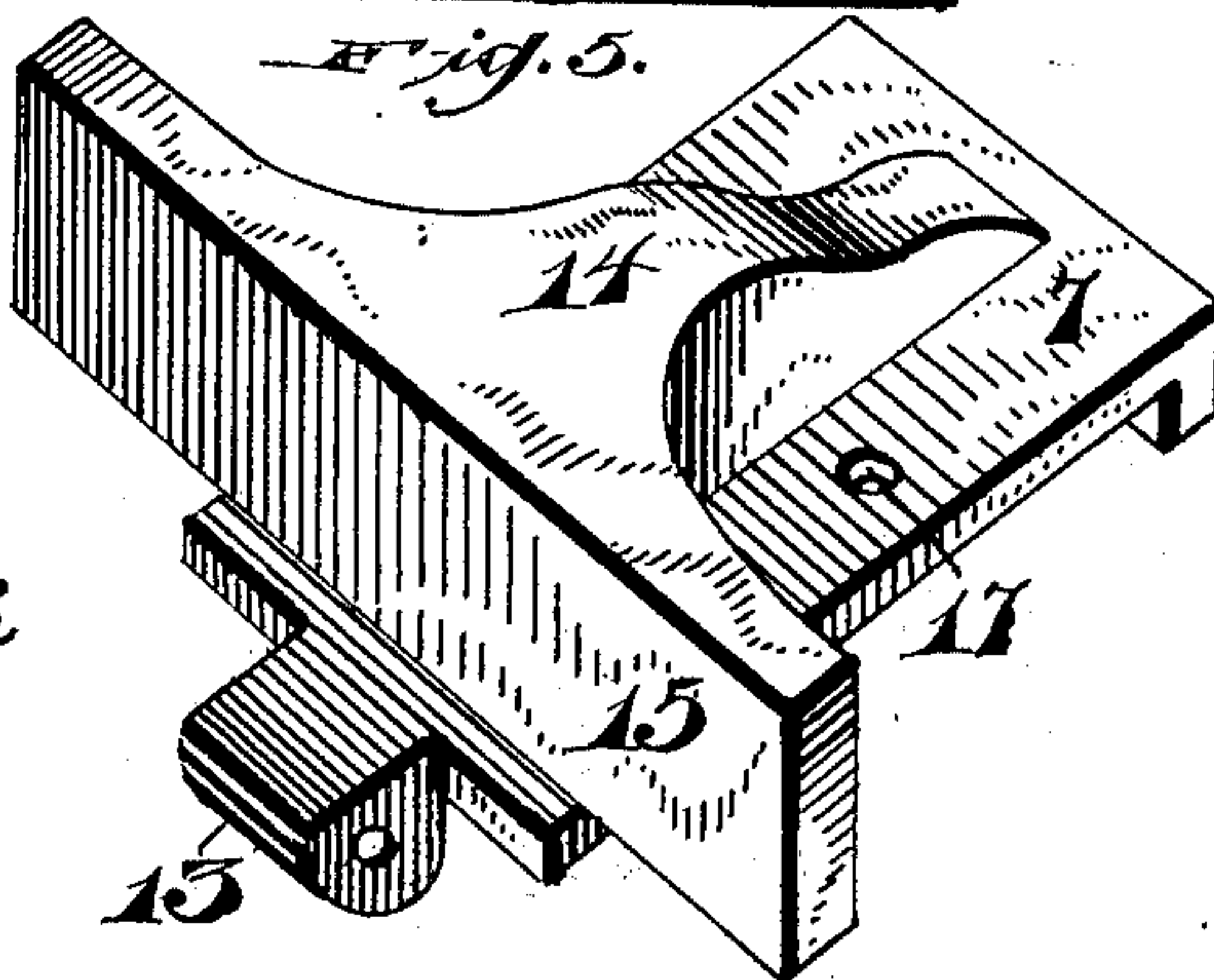


Fig. 5.



Witnesses

J. R. Appleman,  
J. P. Boan

Inventor

William H. Brown  
H. C. Everett & Co.  
Attys



# UNITED STATES PATENT OFFICE.

WILLIAM H. BROWN, OF PITTSBURG, PENNSYLVANIA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 667,901, dated February 12, 1901.

Application filed June 29, 1900. Serial No. 22,053. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BROWN, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in combined rail chairs and joints, and is particularly adapted for supporting as well as connecting rails of all kinds in a quick, cheap, and substantial 15 manner.

The invention has for its object to obtain such a construction and combination of chair, joint, and rail that a support for the rails, as well as a juncture, may be accurately, 20 quickly, and durably effected without the use of nuts, bolts, or screws extending in the ordinary manner through the web of the rail and fish-plates, and, furthermore, permitting the usual contraction and expansion 25 of the rails, to which end it consists in providing a hinged chair adapted to support the rails and forming integral with the upper face of the chair a pair of fish-plates, which are adapted to engage the web of the rails 30 for connecting a pair together. The chair is provided with a pair of retaining-shoulders, which are seated within the ties of a track for retaining the former in position.

35 With the above and other objects in view the invention finally consists in the novel construction and combination of parts to be hereinafter more fully described, and specifically pointed out in the claim.

40 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

45 Figure 1 is a perspective view of a pair of rails, showing my improved chair and joint connected to the ties of a railway-track for securing in position a pair of rail-sections. Fig. 2 is an end view thereof. Fig. 3 is an 50 end view of the chair, showing the same open to receive the end of the rail-sections. Fig. 4 is a rear elevation of one section of the

chair, showing the fish-plate formed integral therewith. Fig. 5 is a perspective view of one of the sections of the chair, showing the 55 fish-plate formed integral therewith.

Referring to the drawings by reference-numerals, 1 indicates a railway-tie, which is provided with the recesses 2, 3, and 4.

The reference-numerals 5 6 denote a pair 60 of rail-sections, which are adapted to be secured in position by means of my improved chair and joint.

Mounted upon the tie 1 is a rail-chair formed of a pair of rectangular-shaped plates or sec- 65 tions 7 8, hinged together, as at 9, by means of the pin 10, and have formed integral therewith at each end a downwardly-extending offset or shoulder 11 for positioning the same, and each of which is seated within the re- 70 cesses 2 3 of the tie when the chair is arranged in position, as shown in Figs. 1 and 2. The section 8 is formed with a pair of apertured lugs 12, suitably spaced apart, and the section 7 with an apertured lug 13, which is 75 adapted to be arranged between the lugs 12 of the section 8. The pin 10 extends through these lugs, forming a hinged connection. The pin 10 is secured in position by a split pin 10' or other desirable means. Formed integral 80 with the upper face of each of the sections 7 8, centrally thereof, is a tapering supporting web or bracket 14, terminating at its inner end into a fish-plate 15, which engages the 85 web of the rails. The lower portion of the fish-plate is cut away, as well as the web or bracket 14, forming a recess 16, in which is seated the base of the rails. Each of the sections 7 8 is provided with the openings 17 90 to receive suitable fastening means, as at 18, for securing the sections to the tie. The apertured lugs of each of the sections when the latter is in position are adapted to be seated within the recess 4, formed in the tie.

My improved chair and joint is set up in 95 the following manner: Assuming that the same is in position, as shown in Fig. 3, the abutting ends of the rails are placed between the same and by forcing downwardly against the chair the same will spread and assume 100 the position as shown in Fig. 2—that is to say, the shoulder or offset 11 engaging within the recesses 2 3, the apertured lugs seated within the recess 4, and the fish-plates engag-



ing the web of the rail-sections for securely connecting as well as retaining the same in position. Spikes or other fastening means are driven into the tie for securely retaining the chair in position.

The advantages of this construction are, first, that it secures an accurate, quick, and durable connection of the rails; second, that it does not interfere with the usual expansion and contraction of the rails, and, third, that the same is quickly attached, saving time, labor, and expense, and it is thought the many advantages of my invention can be readily understood from the foregoing description, taken in connection with the accompanying drawings, and, furthermore, it will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with the tie provided in its upper face with recesses 2, 3, 4, of the rail-joint comprising two rectangular plates 7, 8, each provided on the under face with an offset adapted to engage in the recesses 2, 3, of the tie, said plate 8 having a pair of apertured lugs formed integral with its inner end, an apertured lug 13 formed integral with the inner end of the plate 7 and adapted to fit between the apertured lugs of the plate 8, a pin for securing the lugs together, said lugs being adapted to seat within the recess 4 of the tie when the joint is in position, a bracket formed integral with the upper face of each of said plates, and a fish-plate carried by each of said brackets, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM H. BROWN.

Witnesses:

JOHN NOLAND,  
N. L. BOGAN.