

No. 795,680.

PATENTED JULY 25, 1905.

J. G. BARRETT.
RAIL JOINT.

APPLICATION FILED NOV. 12, 1904.

2 SHEETS—SHEET 1.

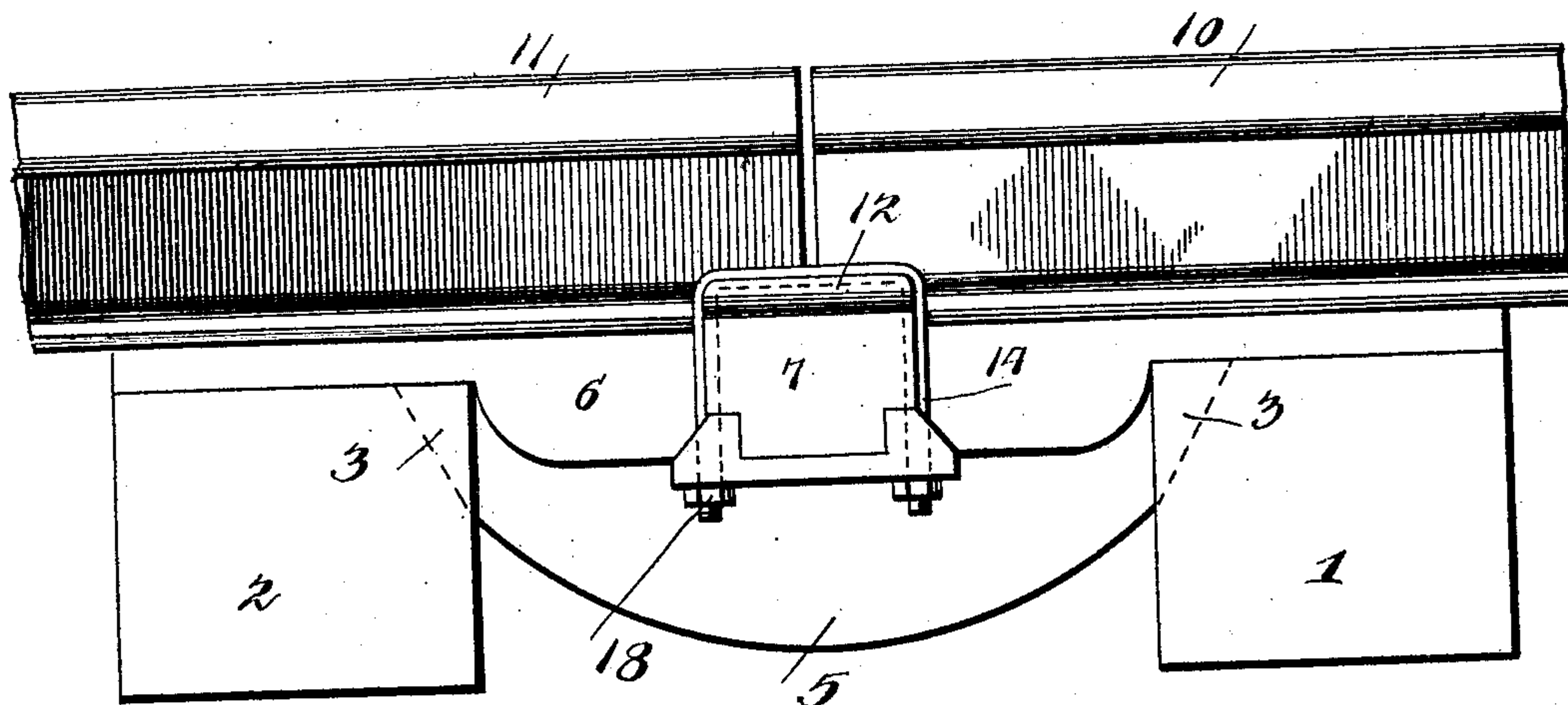


Fig. 1.

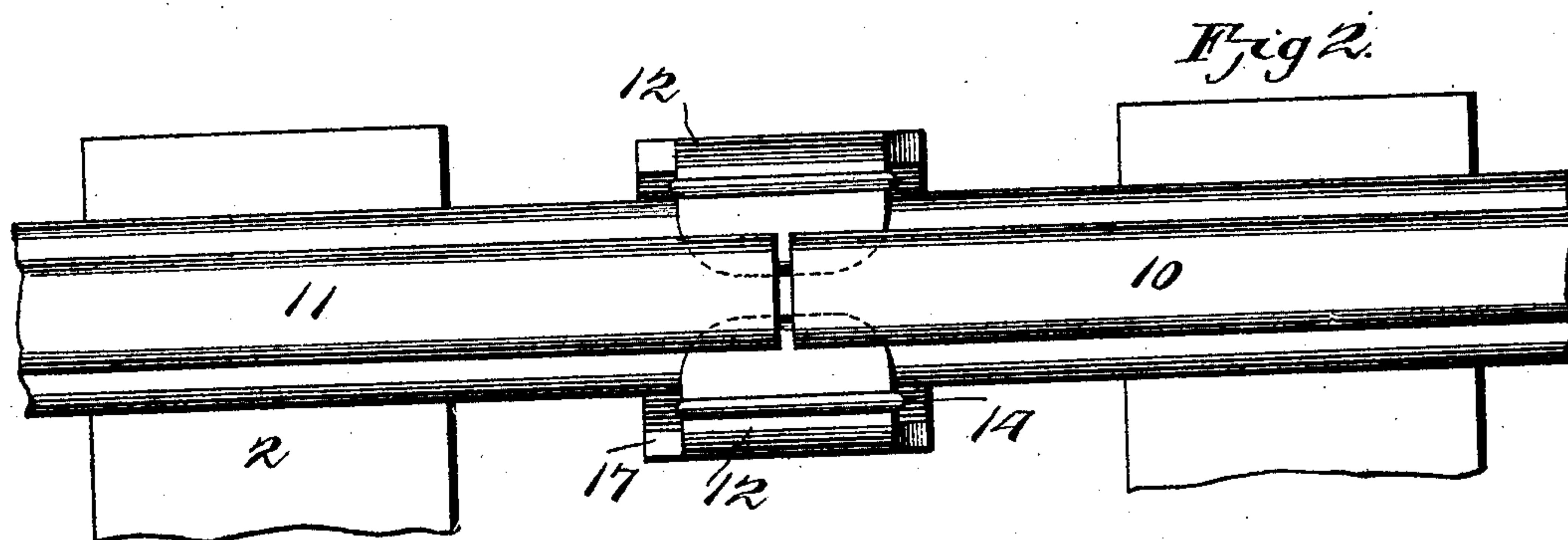


Fig. 2.

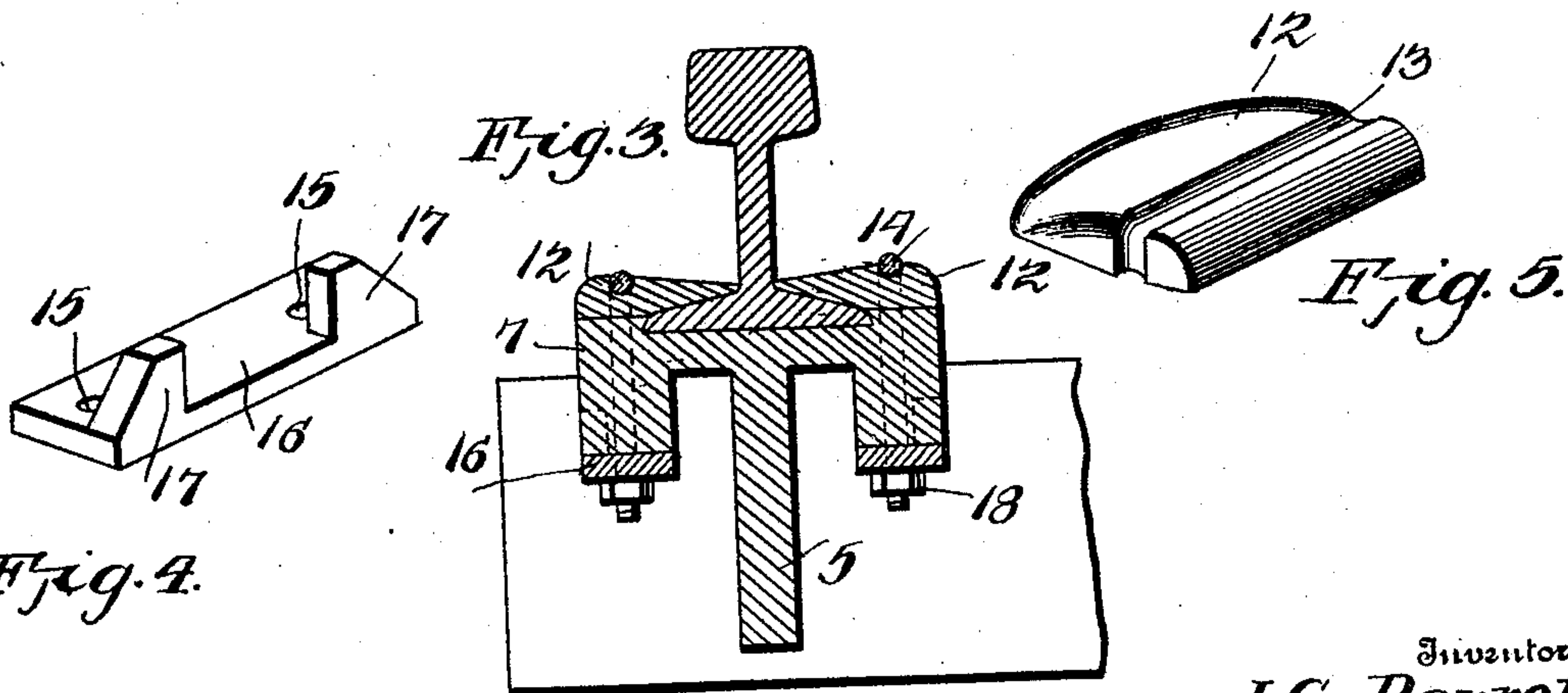


Fig. 4.

Fig. 5.

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2 SHEETS—SHEET 2.

Fig. 6.

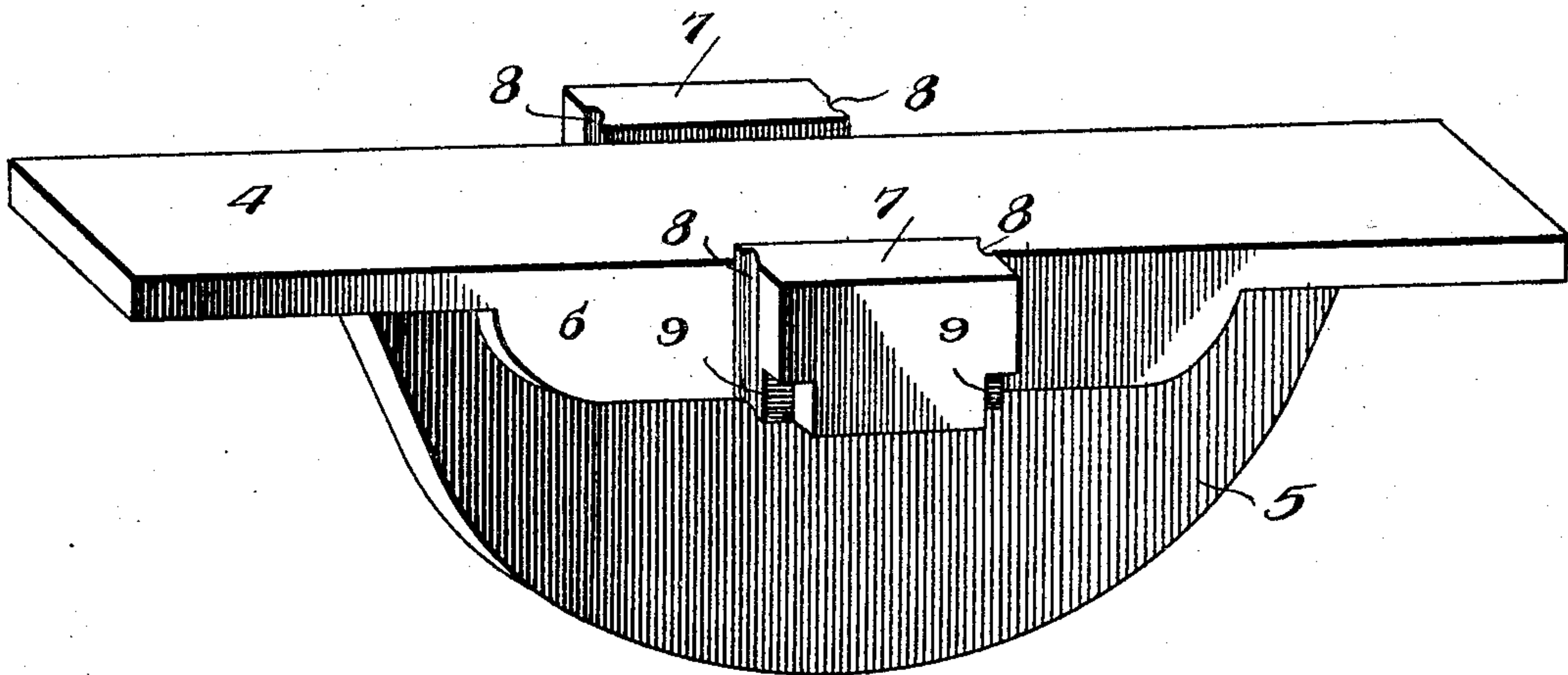


Fig. 7.

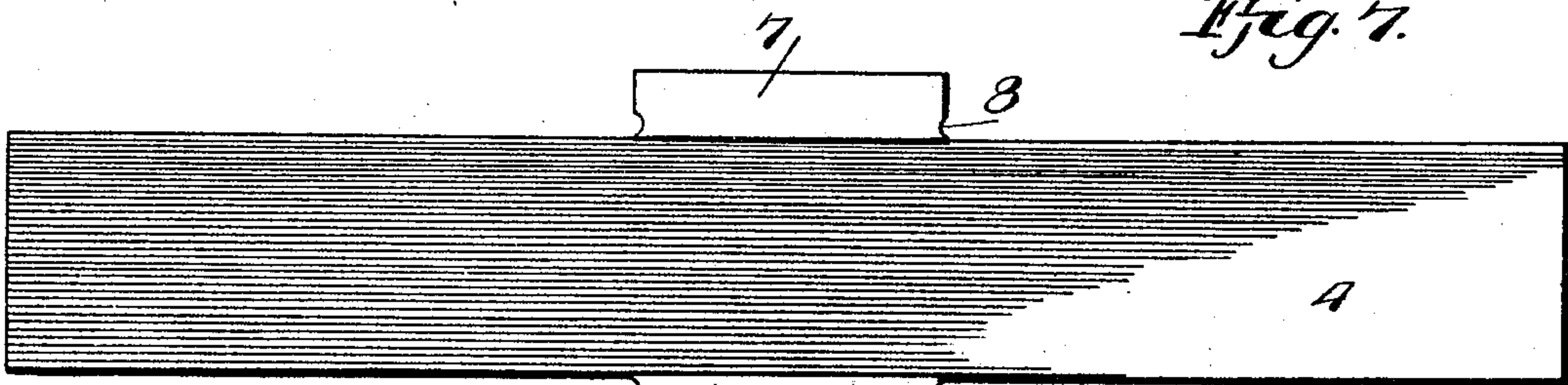
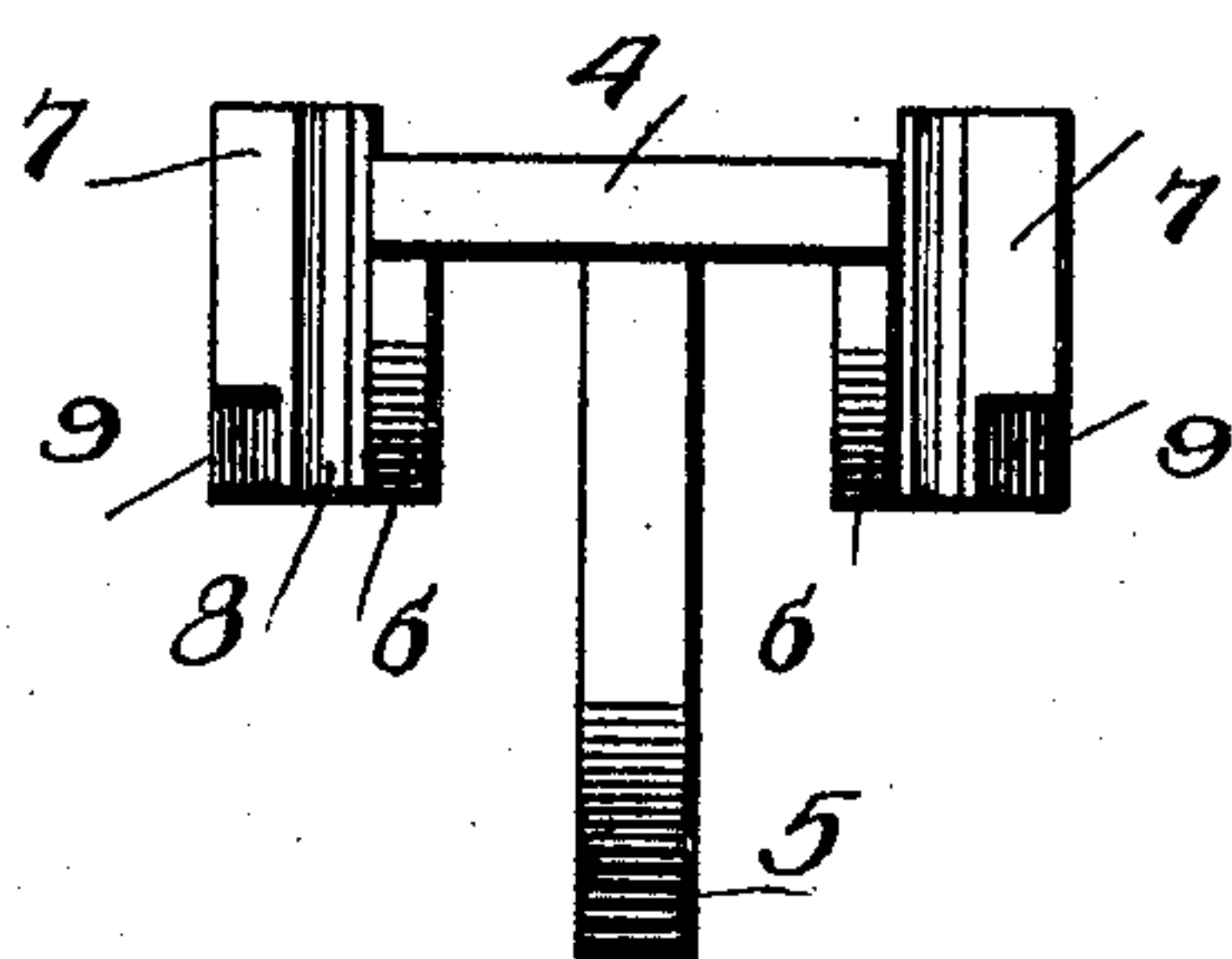


Fig. 8.



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UNITED STATES PATENT OFFICE.

JAMES G. BARRETT, OF WILLIAMSTOWN, MASSACHUSETTS.

RAIL-JOINT.

No. 795,680.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed November 12, 1904. Serial No. 232,534.

To all whom it may concern:

Be it known that I, JAMES G. BARRETT, a citizen of the United States, residing at Williamstown, in the county of Berkshire and State of Massachusetts, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to bridge-pieces or rail-joints.

The objects of the invention are to improve and simplify the construction of such devices; furthermore, to decrease the expense attending their manufacture.

With the foregoing and other minor objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed as a practical embodiment thereof.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a rail-joint constructed in accordance with the present invention. Fig. 2 is a plan view thereof. Fig. 3 is a transverse vertical section thereof. Fig. 4 is a detail perspective view of one of the retaining-plates. Fig. 5 is a similar view of one of the clamping-plates. Fig. 6 is a detail perspective view of the bridge-piece. Fig. 7 is a plan view thereof. Fig. 8 is an end elevation.

Similar numerals of reference indicate corresponding parts in the different views.

The reference-numerals 1 2 indicate rail-ties, which preferably are slotted, as indicated by the dotted lines 3 in Fig. 1. Resting at its ends upon the rail-ties 1 2 is a bridge-piece 4, having an enlarged depending central web 5, which fits at its ends into the slots 3 of the rail-ties 1 2. On each side of the central depending web 5 the bridge-piece 4 is provided with a supplemental web, such as 6, which preferably is of a length equal to the distance between the two rail-ties, so that the two supplemental webs 6 serve to space apart said rail-ties. Each of the webs 6 is provided with an enlargement 7, which projects at its upper end above the level of the bridge-piece 4, as shown at 8 in Fig. 6, thus providing means to prevent lateral displacement of the rails upon the bridge-piece. Each of the enlargements 7 is formed with vertical grooves 8' in its edges and with recesses or cut-away portions 9 adjacent to its lower end.

In forming a rail-joint according to this invention the meeting ends of two rails, such as 10 and 11, are placed upon the bridge-piece 4

so that the base portions of said rails fit between the upwardly-projecting ends of the enlargements 7 and are thus prevented from becoming laterally displaced. A clamping-plate such as 12, having therein a groove 13, is fitted on each of the enlargements 7 so that it projects over the base portions of the two rails, as shown in Fig. 2. Each of the clamping-plates 12 is retained securely in position upon its enlargement 7 by means of a retaining-band 14, which fits into the groove 13 of the clamping-plate and into the grooves 8' of the enlargement 7. The lower ends of each retaining-band 14 project through perforations 15 in a retaining-plate 16, such as shown in Fig. 4, said retaining-plate being fitted against the lower portion of one of the depending webs 6 and having upwardly-projecting lugs 17, which fit into the recesses 9 of the enlargements 7. Nuts, such as 18, are placed upon the lower ends of each retaining-band to hold the same securely in position.

A rail-joint constructed in accordance with this invention is strong, simple, durable, and inexpensive in construction, as well as thoroughly efficient in use. It will be apparent that the arrangement of the various parts is such that the rails are held securely in position without the necessity of employing fish-plates or bolts or of perforating either the bridge-piece or the web portions of the rails. Furthermore, the necessary expansion and contraction of the rails is permitted without causing undue strain upon the joint.

Changes in the precise embodiment of invention illustrated and described may be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed is—

1. The combination of a bridge-piece having a depending central web, a supplemental depending web on each side of the central web, an enlargement on each of the supplemental webs, a retaining-plate fitted against the lower portion of each of the enlargements, a clamping-plate resting upon the upper end of each of the enlargements, and a retaining-band fitted around each of the clamping-plates and enlargements and extending through the adjacent retaining-plate.

2. The combination of railway-ties having slots, a bridge-piece spanning said ties and having a depending central web fitting at its ends into the slots thereof, a supplemental

depending web on each side of the central web, each of the supplemental webs being of a length equal to the distance between the ties, a grooved enlargement on each of the supplemental webs, each of the enlargements extending above the upper surface of the bridge-piece and having recesses in its lower portion, a retaining-plate fitted against the lower portion of each of the supplemental webs and enlargements, and having lugs fitted into the recesses thereof, a clamping-plate resting upon the upper end of each of the en-

largements, each of the clamping-plates being grooved, a retaining-band fitted into the grooves of each clamping-plate and enlargement, the ends of each retaining-band extending through one of the retaining-plates, and nuts on the ends of each retaining-band.

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

JAMES G. BARRETT.

Witnesses:

SUMNER I. PRINDLE,

SAML. J. KELLOGG.