

(No Model.)

W. NEFF.
Railroad Rail-Joint.

No. 227,917.

Patented May 25, 1880.

Fig. 1.

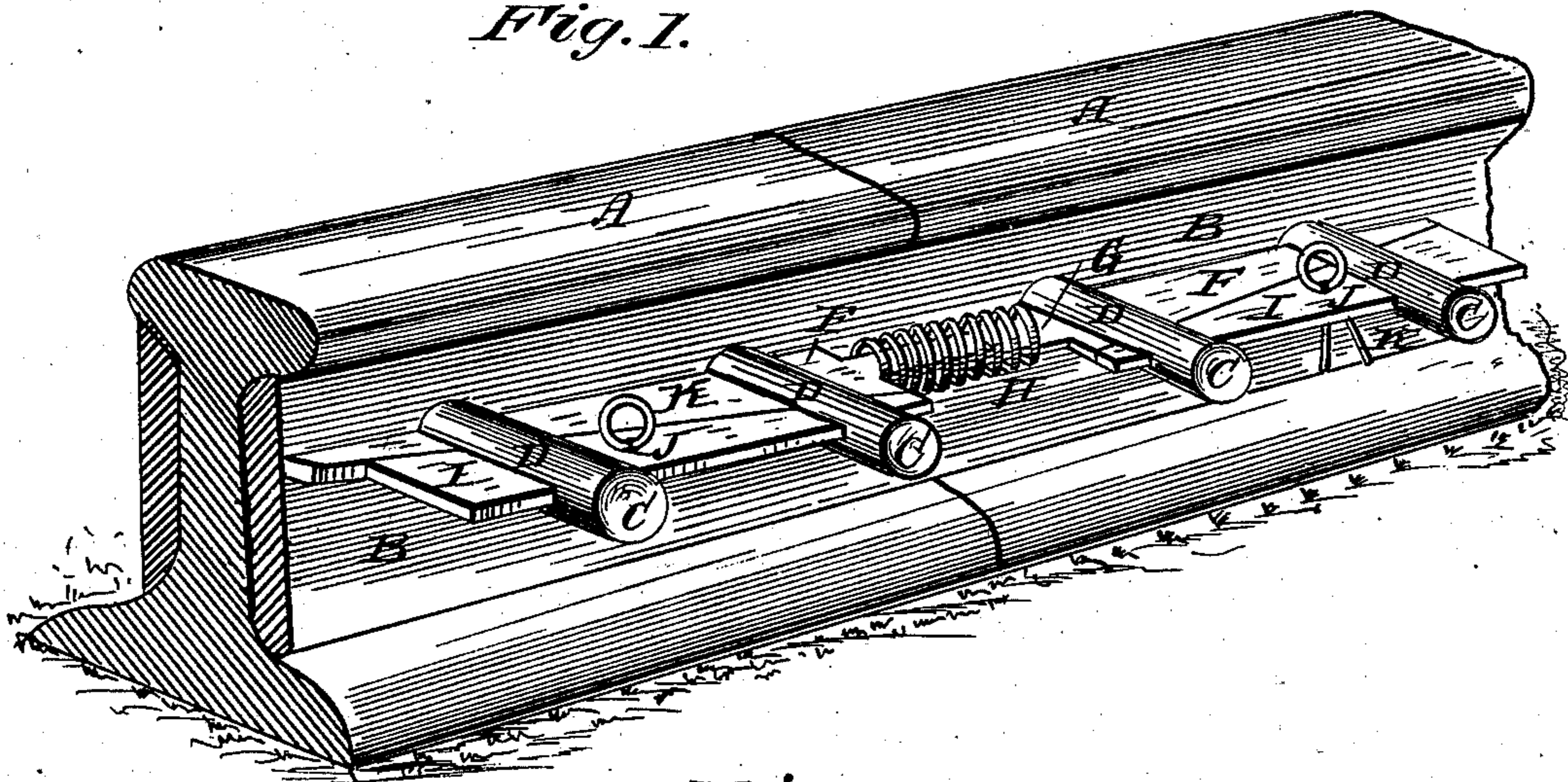


Fig. 2.

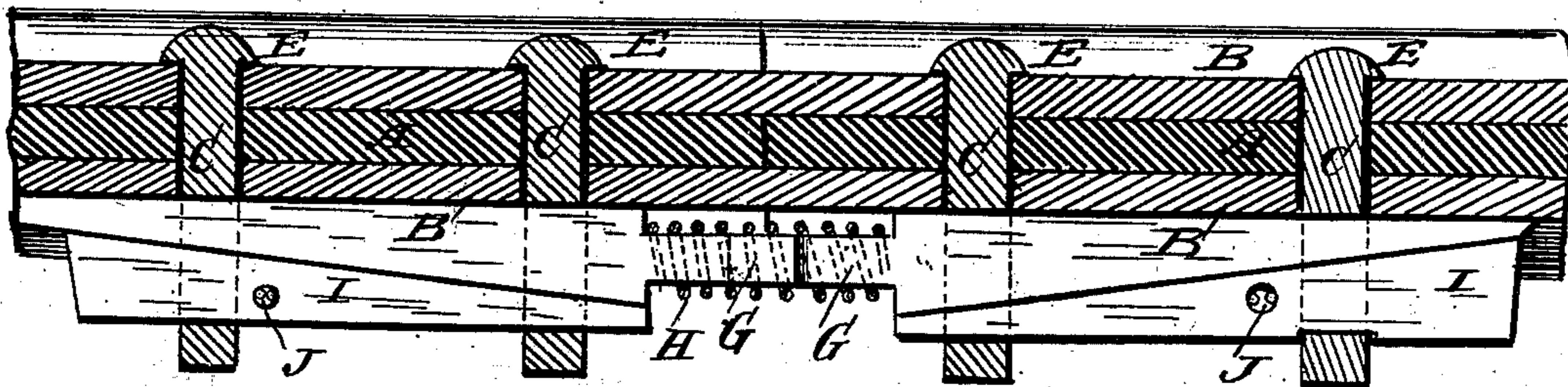
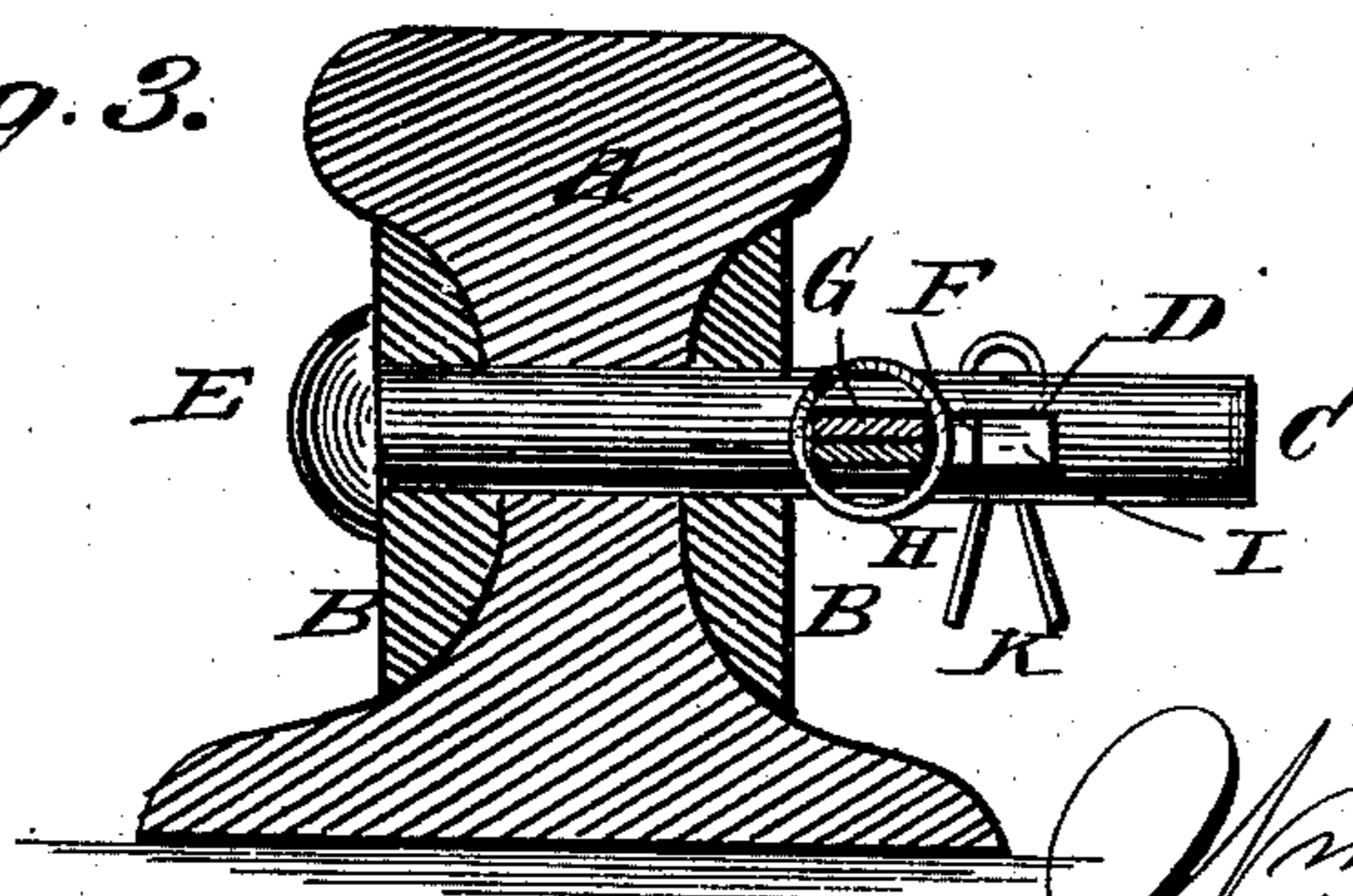


Fig. 3.



WITNESSES
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WILLIAM NEFF, OF WALNUT, KANSAS.

RAILROAD-RAIL JOINT.

SPECIFICATION forming part of Letters Patent No. 227,917, dated May 25, 1880.

Application filed March 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM NEFF, of Walnut, in the county of Crawford and State of Kansas, have invented certain new and useful
5 Improvements in Railroad-Rail Joints; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same,
10 reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a perspective view of my improved rail-joint. Fig. 2 is a horizontal sectional view of the same; and Fig. 3 is a vertical sectional view.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to fish-joints for railroad-rails; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings, A A represent the ends of two adjoining railroad-rails, and B B the fish-plates. C C are bolts, which, instead of being threaded, as is usually the case, are provided with transverse slots D D.

The bolts, of which one or more may be used on each side of the joint, (usually two, as shown in the drawings,) are provided with heads E E, and are inserted in the usual manner through perforations in the rails and fish-plates.

F F are wedges, provided at their butt-ends with shanks G G. After placing the bolts in position one of these wedges is passed through the pair of bolts on each side of the joint with their shanks overlapping one another, as shown. Previous to overlapping the shanks,
40 however, a coiled spring, H, is placed upon them, as shown, in such a manner as to bear

against the butt-ends of the wedges and force them, in an outward direction, apart from each other. Separate wedges I I are then driven from the outside through each pair of bolts until the latter are firmly keyed by the two
45 pairs of wedges. To prevent displacement of the wedges I I they are provided, just inside the outer bolts, with perforations J, through which spring-keys K are inserted.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood. The wedges firmly lock the bolts and prevent any displacement.
50 Any slack caused by wear is instantly taken up by the spring, which forces the inner wedges outward in opposite directions, thus tightening the joint.

The device is simple, inexpensive, and durable; and nuts being dispensed with, the expense of tightening them, as well as the danger caused by lost nuts, is avoided.

Having thus described my invention, I claim and desire to secure by Letters Patent of the
55 United States—

As an improvement in railroad-rail joints, the combination, with the rails A A and fish-plates B B, of the bolts C C, having transverse slots D D, wedges F F, having shanks G G,
60 spring H, wedges I I, having perforations J J, and the spring-keys K K, all arranged and operating substantially as and for the purpose shown and specified.

In testimony that I claim the foregoing as
75 my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM NEFF.

Witnesses:

J. W. TALBOT,
E. P. HEIZER.