

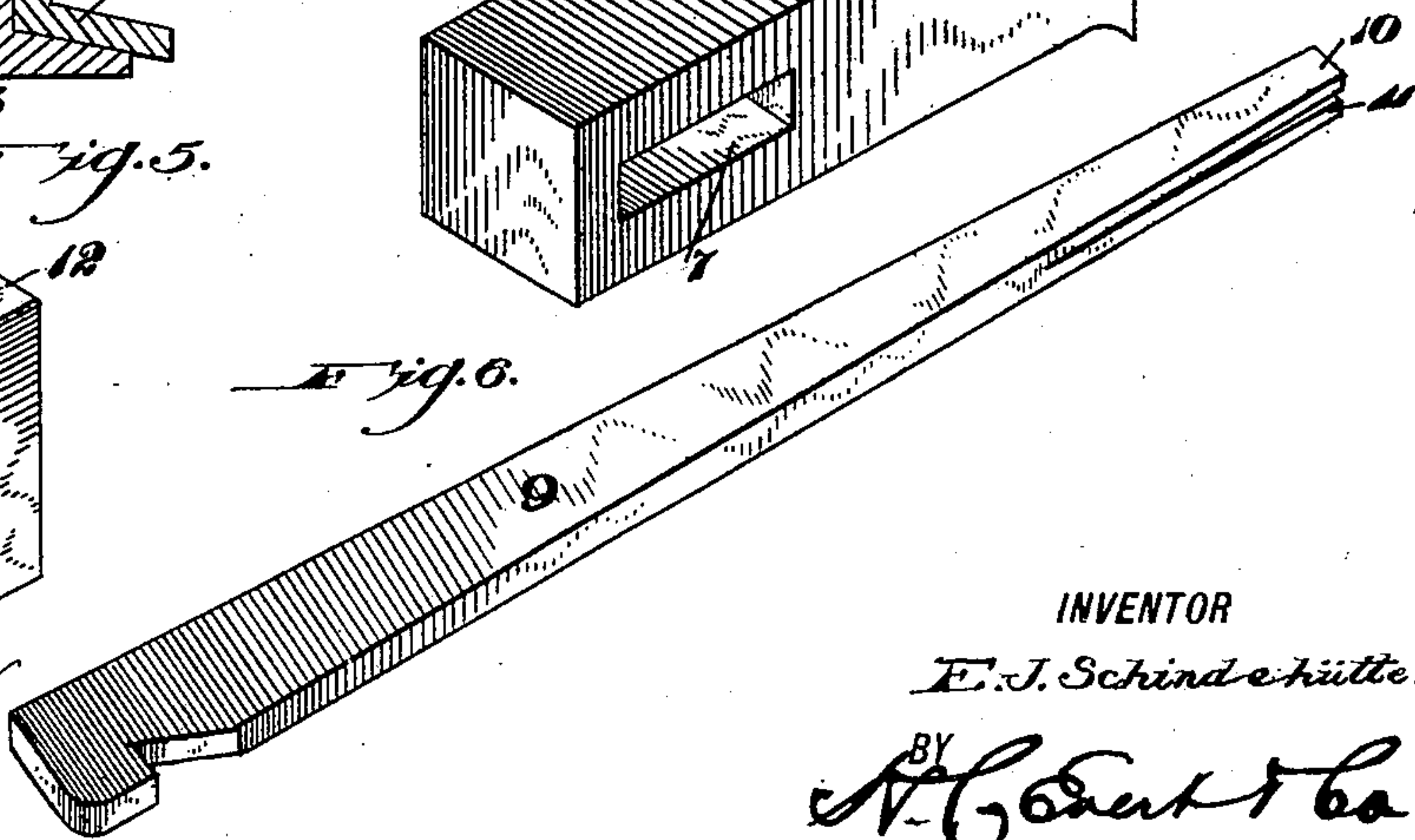
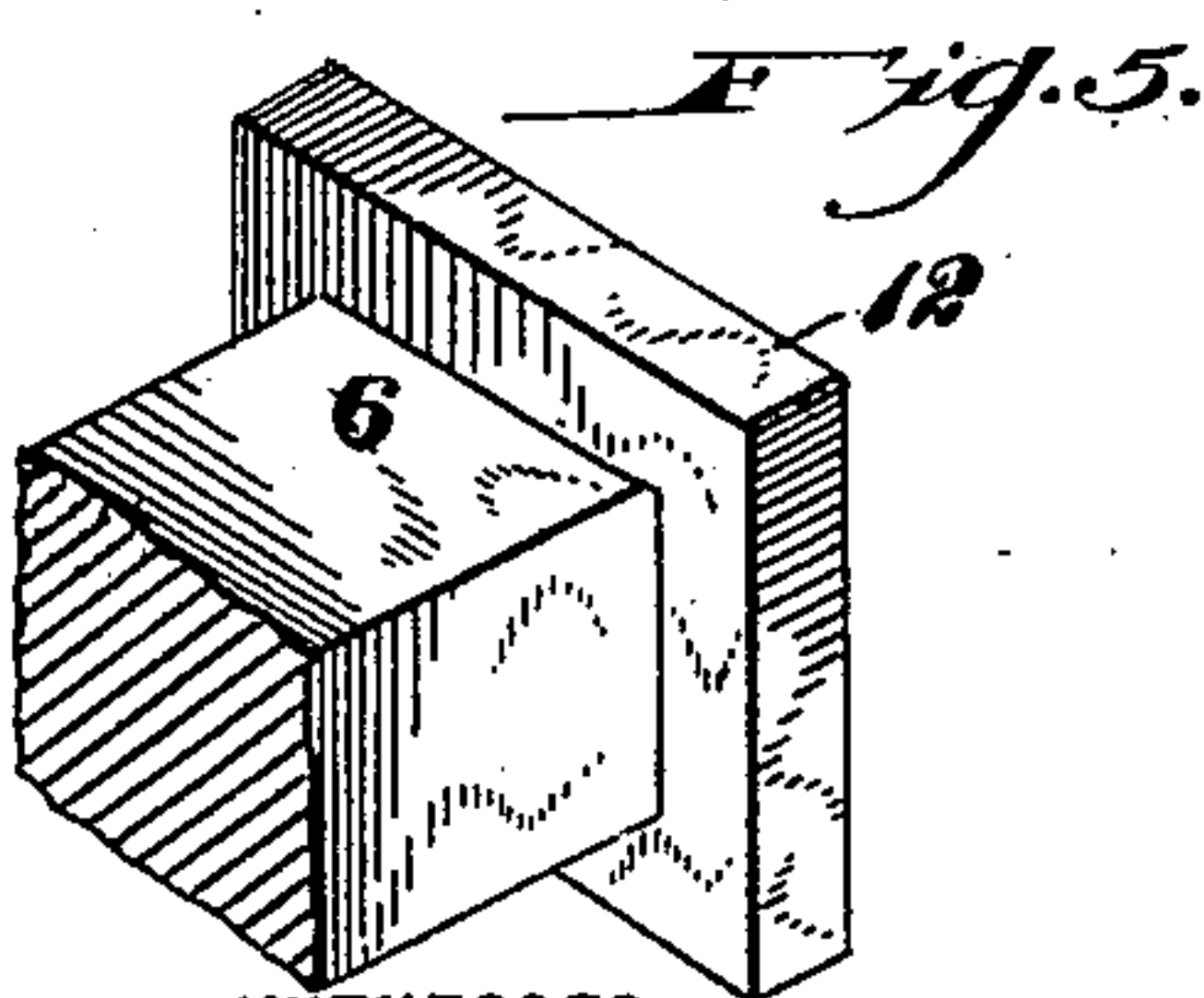
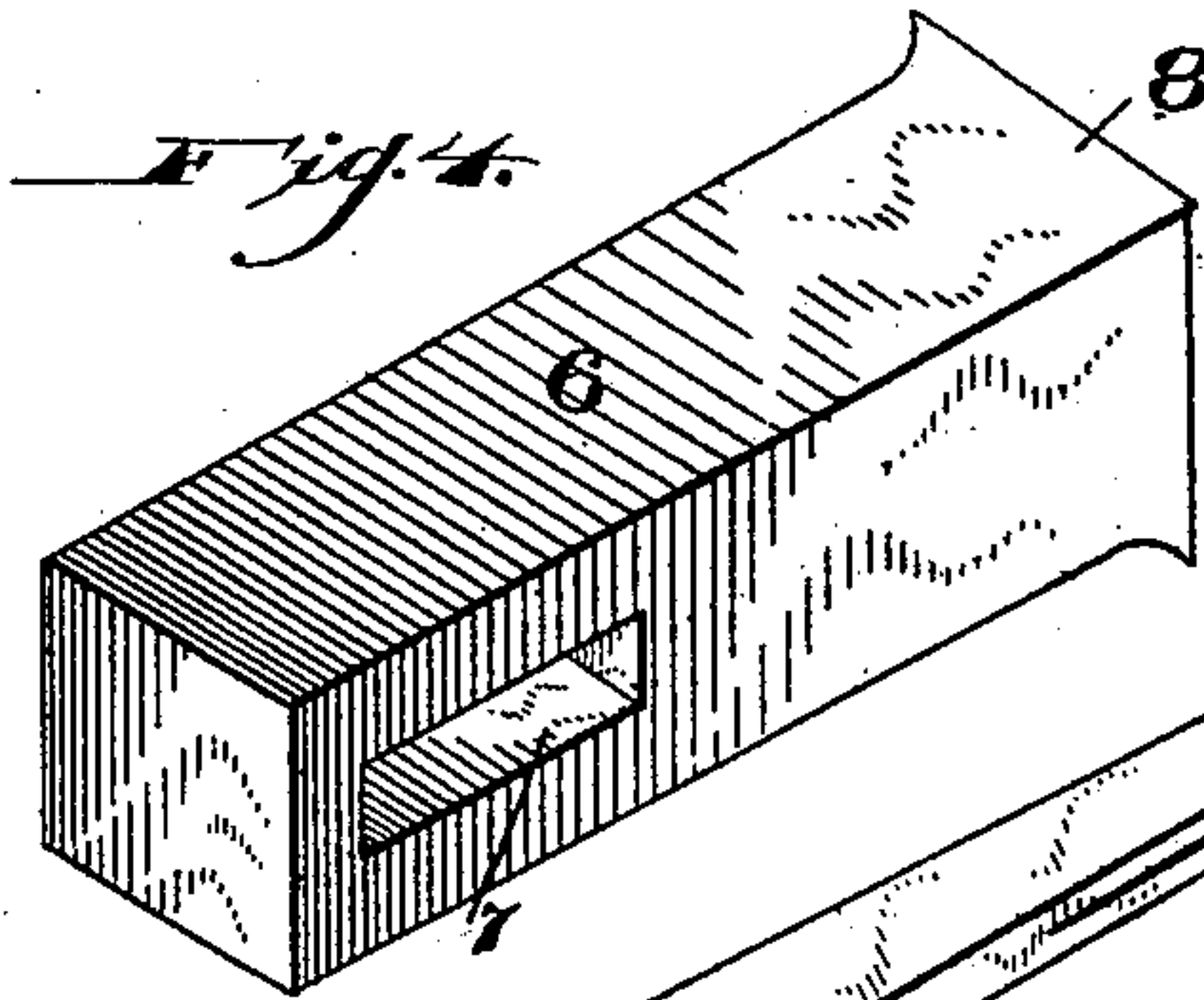
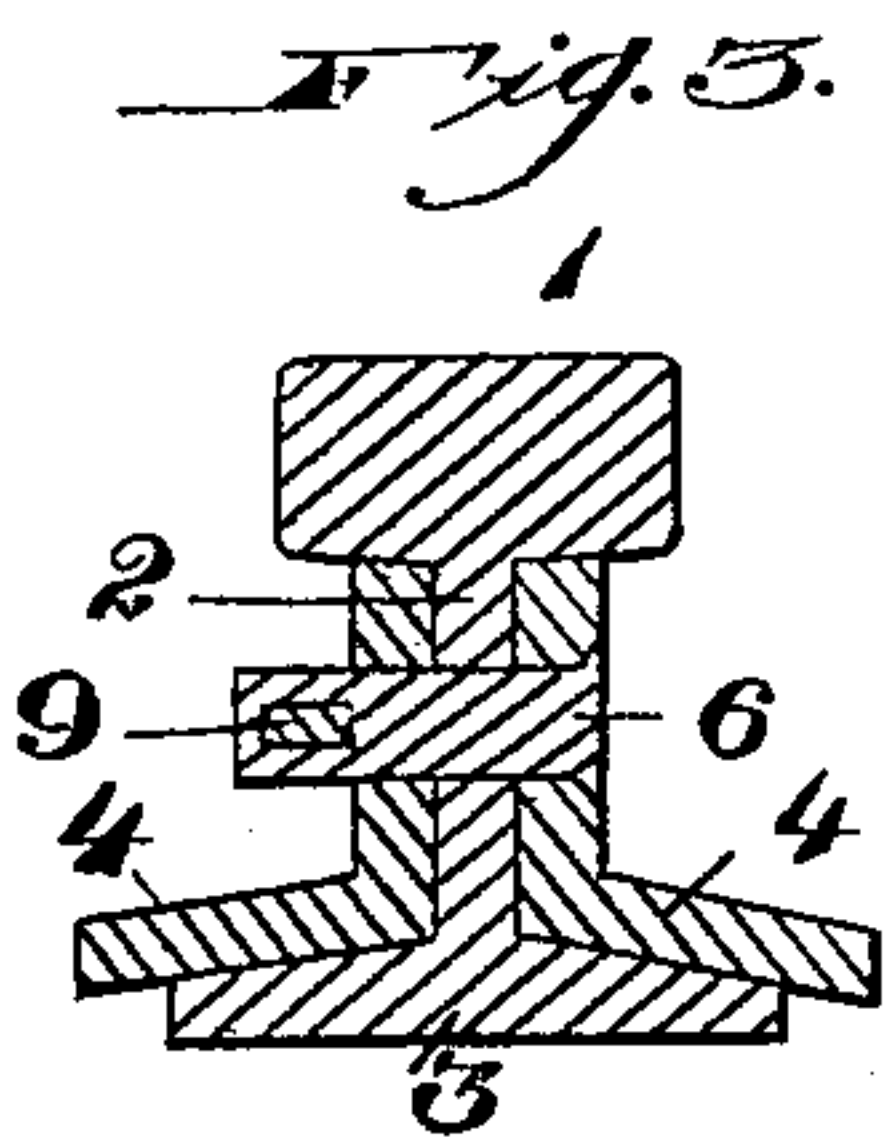
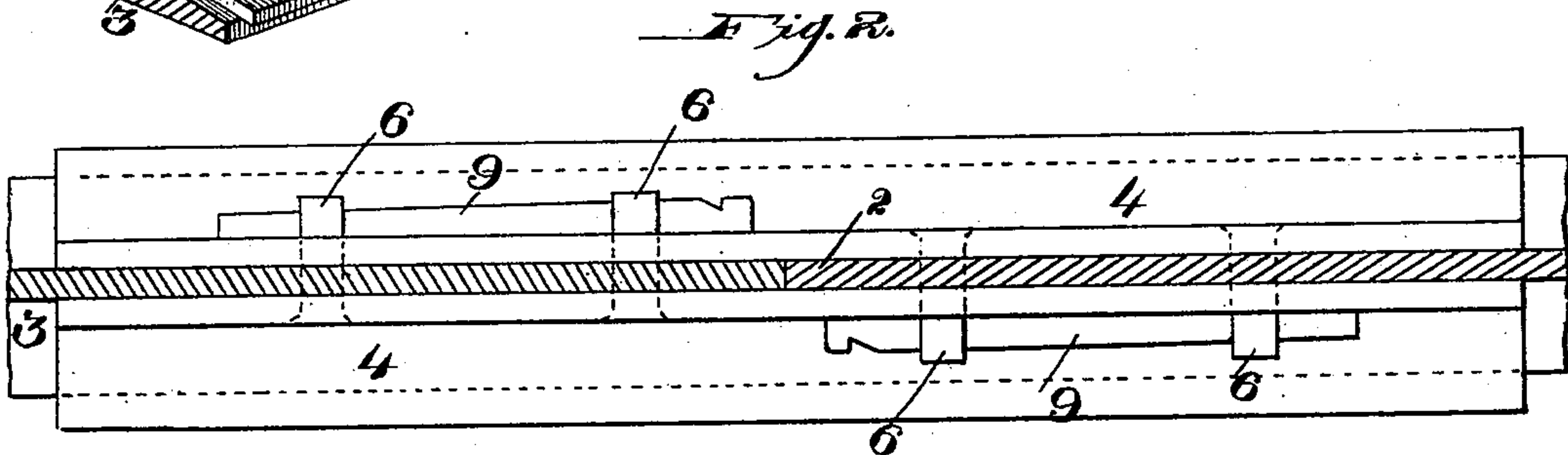
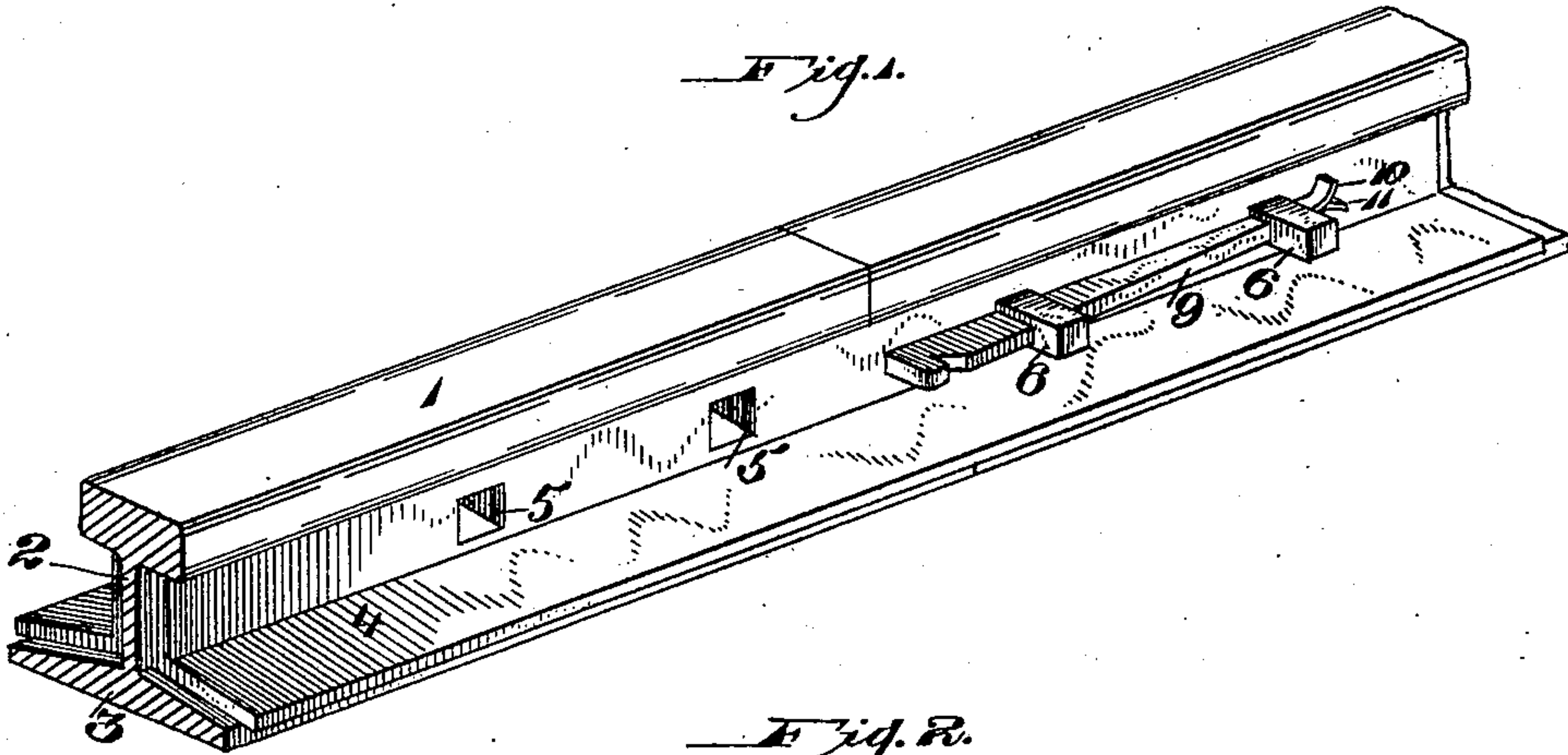
No. 632,023.

Patented Aug. 29, 1899.

E. J. SCHINDEHÜTTE.
RAILROAD RAIL SPLICER.

(Application filed Jan. 16, 1899.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

ERNEST J. SCHINDEHÜTTE, OF McKEES ROCKS, PENNSYLVANIA.

RAILROAD-RAIL SPLICER.

SPECIFICATION forming part of Letters Patent No. 632,023, dated August 29, 1899.

Application filed January 16, 1899. Serial No. 702,257. (No model.)

To all whom it may concern:

Be it known that I, ERNEST J. SCHINDEHÜTTE, a citizen of the United States of America, residing at McKees Rocks, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Rail Splices, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in rail-splices.

This invention relates to certain new and useful improvements in rail-splices; and it has for its object, among others, to provide an improved splice and fastening by which the rails may be securely retained in position, easily removed when desired, and provisions made for preventing rattling sounds as the cars pass over the rails. I provide fish-plates with bearing-surfaces which abut against the lower portion of the web of the rail, which are adapted to receive the bolt, and which may be either round or square, the said bolt receiving a tapering split key, the ends of the said key being split, and this split end, after it has been inserted through the bolts, converging upwardly and downwardly to prevent the loosening or the removal of the same accidentally.

Other objects and advantages of the invention will be hereinafter set forth, and the novel features thereof will be specifically described by the appended claims.

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

Figure 1 is a perspective view of a pair of rails, showing one of my improved fish-plates held in position by means of the securing-bolt and the fastening-key. Fig. 2 is a top plan view thereof with a part of the rail removed. Fig. 3 is a cross-sectional view thereof. Fig. 4 is a perspective view of one of the fastening-bolts. Fig. 5 is a modified form of a head for one of the fastening-bolts. Fig. 6 is a perspective view of the split key.

Referring to the drawings by reference-numerals, 1 indicates a part of a rail, 2 the web, and 3 the support or bottom therefor.

4 indicates the fish-plates, the vertical portion thereof adapted to bear against the web of a rail and the horizontal portion against the base or support of the rail, as shown in Figs. 1 and 3. These fish-plates are provided with apertures, as at 5, and, as shown, substantially square in contour, although a circular aperture may be used to receive a circular bolt, if so desired. These apertures are arranged in series, and, as shown, in a series of four, two being countersunk to receive the head of the bolt, as shown in Fig. 2, and the other two receiving the ends of the bolt, as also shown in Fig. 2.

6 indicates a fastening-bolt, which, as shown, is of square formation and is provided with an oblong aperture 7 to receive the split key and a tapering head, as at 8. This tapering head is adapted to fit in the countersunk portion, as heretofore described. If desired, a round bolt may be used instead of a square one.

9 indicates a tapering key, which is split at one end, forming the two members 10 11. These members are adapted to be bent, one upwardly and the other downwardly, as shown in Fig. 1 of the drawings, when in position for fastening the bolts. This split key is substantially wedge-shaped, as shown.

In Fig. 5 of the drawings is shown a modified form of fastening-bolt head instead of tapering, having an enlarged head 12 formed integral with the outer end of the bolt.

In practice the fish-plates are applied at the joints of the rails extending a certain distance on each side thereof, when two of the bolts are inserted with the heads on one side of the fish-plates, while two are inserted with heads on the opposite side of the fish-plates and in the countersunk portion thereof. These bolts are secured in position by the split key 9, one end on each side of the web of the rail, as shown, and after the key has been wedged in the slot formed in the bolts the ends thereof are forced upwardly and downwardly, as shown in Fig. 1.

I have found that by placing the two pairs of keys through the fish-plates and rails in opposite directions a much more rigid and secure joint is formed, as the keys 9, being thus brought one in engagement with each of the fish-plates, the bearing-surface extends

throughout the length of the key on each side of the rails, while were the bolts inserted through the rails and fish-plates in the one direction the bearing-surface on the one side of the rail would be entirely upon the head of the bolts. The keys being inserted in the bolts in opposite directions and on opposite sides of the rails, as shown in Fig. 2, they serve to draw the fish-plates into firm engagement with the web of the rails throughout the entire length of said fish-plates. Furthermore, by constructing the fish-plates, as shown, with the countersunk portion of one pair of bolt-holes on the opposite side of the fish-plate from the countersunk portion of the other pair of bolt-holes the fish-plates may be used upon either the right or left hand side of the rails, simplifying the construction and requiring no special order for new fish-plates.

It is thought that the many advantages of my improved device can be readily understood from the foregoing description, taken in connection with the accompanying drawings.

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—

1. The combination in a rail-splice of two fish-plates having apertures arranged therein, a pair of bolts adapted to be inserted in the said apertures, the heads thereof countersunk

in one of the fish-plates; a pair of bolts adapted to be inserted through the other aperture the heads thereof countersunk in the opposite fish-plate, and a key adapted to secure the said bolts, in position, substantially as set forth.

2. In a rail-splice a pair of fish-plates adapted to engage the web of the rail, said fish-plates being provided with a series of apertures, a pair of bolts adapted to have the heads thereof countersunk in one of the fish-plates, a pair of bolts adapted to have the heads thereof countersunk in the opposite fish-plate, and a wedge-shaped key adapted to secure the said bolts in position, substantially as set forth.

3. In a rail-splice a pair of fish-plates adapted to engage the web of the rail, said fish-plates being provided with a series of apertures, a pair of bolts adapted to have the heads thereof countersunk in one of the fish-plates, a pair of bolts adapted to have the heads thereof countersunk in the opposite fish-plate, a wedge-shaped key adapted to secure the said bolts in position, said key having one of the ends thereof split, substantially as set forth.

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

ERNEST J. SCHINDEHÜTTE.

Witnesses:

JOHN NOLAND,
WILLIAM E. MINOR.