

No. 623,191.

Patented Apr. 18, 1899.

J. C. TOWELL.
ANGLE BAR.

(Application filed June 6, 1898.)

(No Model.)

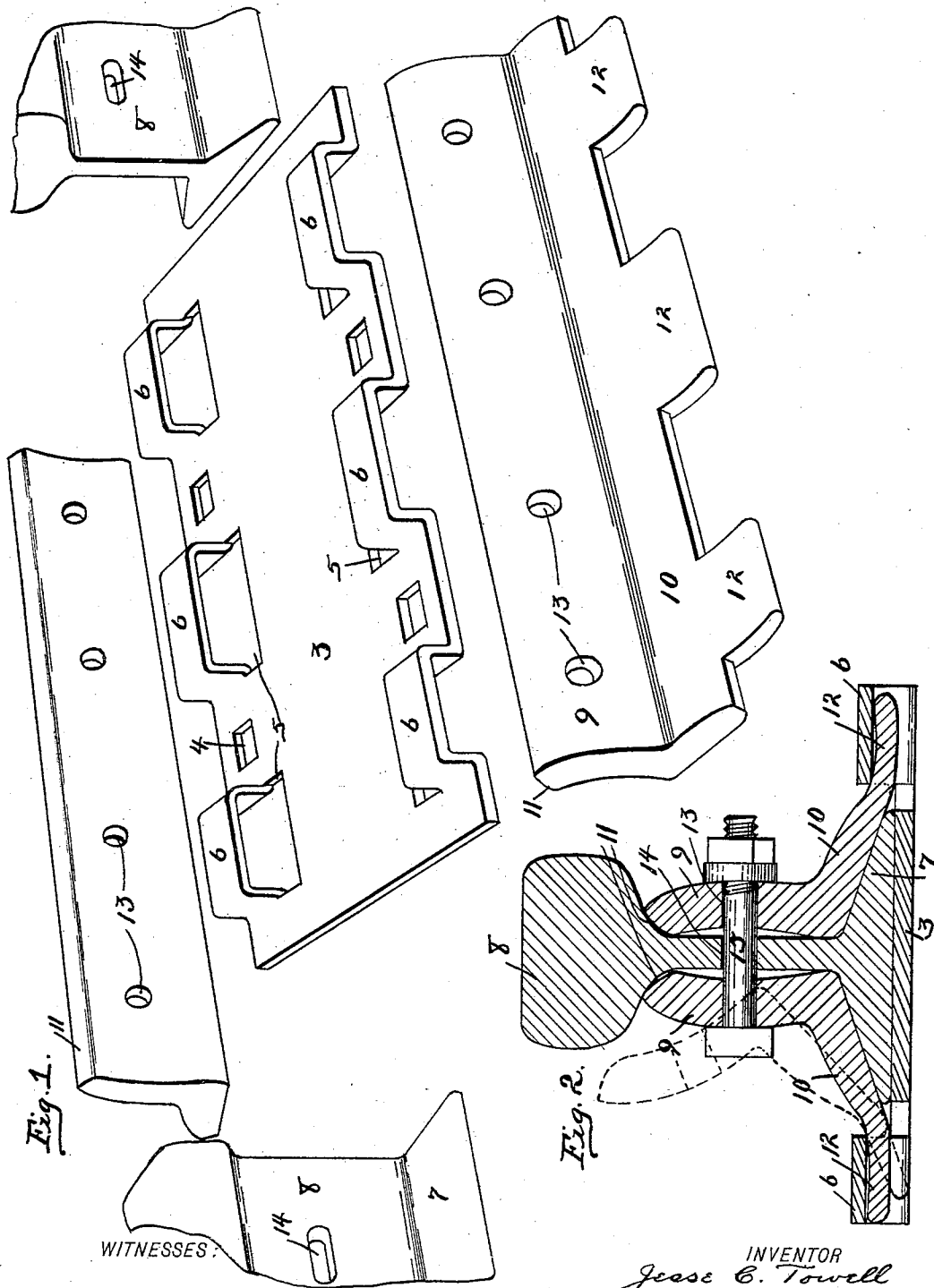


Fig. 1.

Fig. 2.

WITNESSES:

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JESSE C. TOWELL, OF KINGMAN, INDIANA.

ANGLE-BAR.

SPECIFICATION forming part of Letters Patent No. 623,191, dated April 18, 1899.

Application filed June 6, 1898. Serial No. 682,642. (No model.)

To all whom it may concern:

Be it known that I, JESSE C. TOWELL, a citizen of the United States, residing at Kingman, in the county of Fountain and State of Indiana, have invented a new and useful Angle-Bar, of which the following is a specification.

My invention relates to an improvement in angle-bars or fish-plates and cooperating parts.

The object of my invention is to produce a cheap and efficient device for securing the adjacent ends of rails and holding the same in strict alinement.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view of the several parts of my invention (the base-plate, the two angle-bars, and the adjacent ends of two rail-sections) separated one from the other. Fig. 2 is a vertical section through the parts in assembled position.

In the drawings, 3 indicates a base-plate formed, preferably, of sheet-steel and provided, if desired, with a series of spike-holes 4, through which spikes may be passed and the plate thus secured to the ties. Short portions are cut away near each side of the base-plate, as at 5, and the remaining portions 6, between the edge and the openings thus formed, are forced upward, so as to form a series of yokes or bridges along each side of the base-plate, the distance between the inner edges of the parts 6 being slightly greater than the width of the flanges 7 of the rails 8. For the purpose of securing the adjacent ends of the rails 8 to the base-plate I provide a pair of angle-bars or fish-plates, each of which consists, primarily, of a pair of arms 9 and 10, which lie at an obtuse angle to each other. The arm 9 is slightly convex, and its upper end is beveled, as at 11, so as to engage the under face of the head of the rail. Arm 9 is of sufficient length to extend from the head to the flange of the rail, and arm 10 is at such angle thereto as to lie upon and engage the flange 7 thereof. The end of arm 10 of the angle-bar is provided with one or more tongues 12, the number of said tongues corresponding to the number of yokes or bridges 6 upon each side of the base-plate. The tongues 12 are slightly curved and are so ar-

ranged that they may be easily passed beneath the bridges 6, the outer ends thereof engaging the under face of said bridges, as shown in Fig. 2. The arms 9 are perforated with a series of bolt-holes 13, which register with the usual holes or slots 14, formed through the web of the rails for the reception of bolts 15.

In operation the base-plate 3 is secured to the ties and the adjacent ends of the rails placed end to end upon said plate between the bridges or yokes 6. Tongues 12 of the angle-bars are then inserted beneath the bridges 6 and the arms 9 of said bars thrown down until they lie substantially alongside the web of the rail. Bolts 15 are then passed through the holes 13 and 14 and the nuts tightened thereon, thus drawing the outer ends of the tongues 12 tightly against the under faces of the bridges 6, at the same time forcing the arm 10 downward, thus clamping the flange of the rail between it and the base-plate, and also slightly straightening the arm 9 until its upper and lower ends are forced tightly against the head and flange, respectively, of the rail. By removing the bolts the angle-bars may be easily and quickly detached, as indicated in dotted lines in Fig. 2.

It is to be understood that the bridges or yokes 6 may be formed upon or carried by the base-plate in several ways other than that shown, and I do not desire, therefore, to be limited to the particular form shown, although that form is probably the best.

I claim as my invention—

1. In a device for uniting the adjacent ends of rails, the combination with a base-plate adapted to support the said adjacent ends, of a pair of fish-plates adapted to engage the opposite sides of said rails, one or more tongues carried by the lower edge of each of said fish-plates and projecting therefrom, and one or more yokes or bridges carried by each side of the base-plate and connected at their ends to said base-plate, beneath and into which the said tongue or tongues may be passed whereby longitudinal movement of the fish-plates may be positively prevented, and means for clamping the said fish-plates to the rails.

2. In a device for uniting the adjacent ends of rails, a base-plate therefor, the said plate having one or more yokes or bridges carried

near each side, the said yokes or bridges having ends connected to the base-plate, the arrangement being such that the lower ends of suitable fish-plates may be passed beneath
5 and into said yokes or bridges and longitudinal movement of said fish-plates thereby prevented.

3. In a device for uniting the adjacent ends of rails, a base-plate therefor, the said plate
10 having one or more bridges or yokes 6 upon each side, the said bridges or yokes being closed at their ends and integral with the plate and raised above the upper face thereof, substantially as shown and described.

15 4. In a device for uniting the adjacent ends of rails, an angle-bar, or fish-plate, therefor consisting of a pair of arms, one of said arms being arranged to lie alongside the web of said rails and the other arm being arranged

to lie along the flanges of the rails, and the
20 outer end of said second arm being provided with tongues projecting therefrom and adapted to be inserted beneath suitable yokes or bridges, substantially as and for the purpose
25 set forth.

5. In a device for uniting the adjacent ends of rails, an angle-bar, or fish-plate, therefor consisting of a pair of arms 9 and 10, and
tongues carried by the outer edge of the arm
10, the said tongues being adapted to be in-
30 serted beneath stationary yokes mounted adjacent the rails, substantially as and for the purpose set forth.

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Witnesses:

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