

No. 692,344.

Patented Feb. 4, 1902.

W. H. F. RAIFSNYDER.

RAIL JOINT.

(Application filed May 13, 1901.)

(No Model.)

Fig. 1.

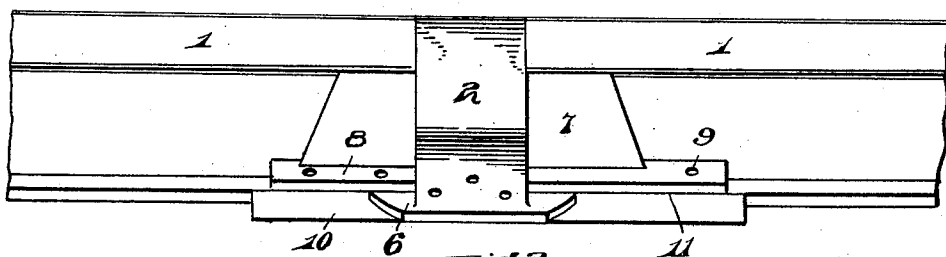


Fig. 2.

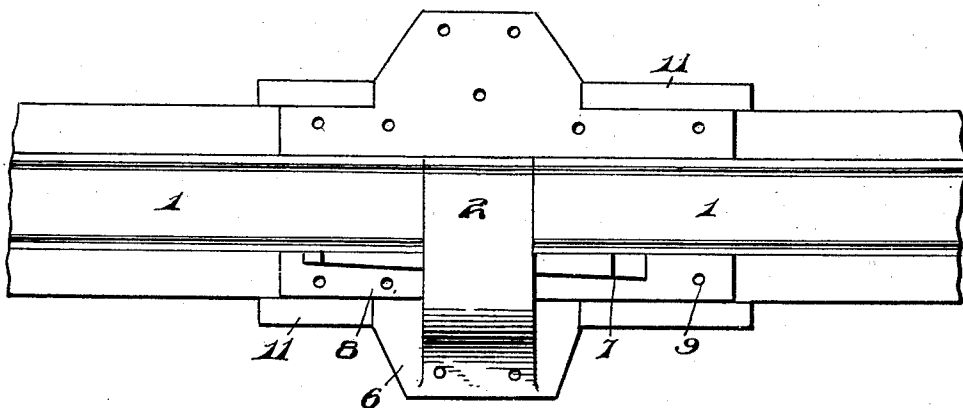


Fig. 3.

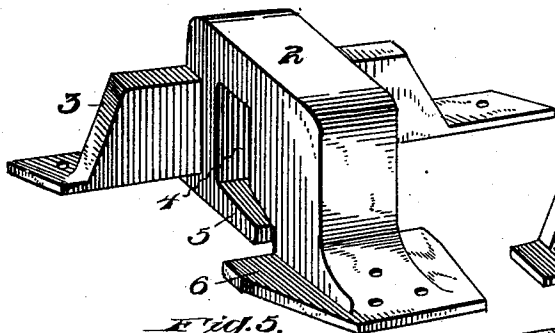


Fig. 4.

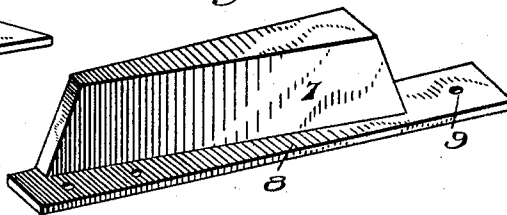
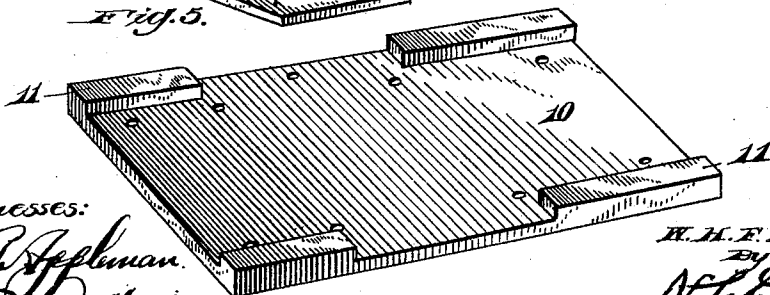


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. F. RAIFSNYDER, OF SACKETT, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 692,344, dated February 4, 1902.

Application filed May 13, 1901. Serial No. 59,932. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. F. RAIFSNYDER, a citizen of the United States of America, residing at Sackett, in the county of Elk 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 rail-joints, and more particularly to that class wherein the use of nuts and bolts is entirely dispensed with.

15 The invention has for its object the provision of novel means whereby the two ends of the rails are joined together by simple and efficient means that will prevent the rail from spreading or otherwise becoming dislodged; furthermore, to provide novel means to allow 20 for the expansion and contraction of the rails.

The invention has for a further object the construction of a device of the above-described class that will be extremely simple, strong, durable, and comparatively inexpensive to manufacture; furthermore, one that 25 will be highly efficient in its use and may be easily applied to the rail and readily removed therefrom when desired.

30 The present invention further contemplates to construct a rail-joint that will practically take up the jar, that is a great objectionable feature in the present railway constructions, and produce a joint which will allow the train to easily travel over the rails, and, further, 35 provide means that will cushion the rails at their joints.

40 With the above and other objects in view the invention consists in the novel combination and arrangement of parts to be herein after more fully described, and specifically pointed out in the claims.

45 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, and in which—

50 Figure 1 is a side view of my improved rail-joint, showing the manner of attachment. Fig. 2 is a top plan view thereof. Fig. 3 is a perspective view of the chair carrying the integral fish-plate. Fig. 4 is a perspective

view of the wedge-shaped fish-plate forming the lock. Fig. 5 is a similar view of the base-plate.

55 In the drawings the reference-numerals 1 indicate the rail-sections, and 2 represents the chair interposed between said rail-sections. This chair carries an integral fish-plate 3 and has formed therein a central opening 4. The said chair also is provided with a suitable base 5 and 6. 60

The reference-numeral 7 represents the wedge-shaped fish-plate, carrying a base 8, the said base 8, integral fish-plate, and the 65 chair proper all being provided with suitable openings 9 to receive fastening means for attaching the device to the cross-ties. (Not shown in the drawings.)

70 The reference-numeral 10 represents a base-plate carrying on its upper face lugs 11, between which the device is seated, the said base-plate being of sufficient width to extend under the entire chair.

75 The manner of applying my improved rail-joint is as follows: The chair is interposed between the two sections of rails, being properly seated upon the base-plate. The wedge-shaped fish-plate is then inserted from the end, extending into and through the opening 80 4 of the chair, thereby wedging the rails tightly against the inner sides of the integral fish-plate 3 to form a perfect lock, that will prevent the dislodgment of the rails or the spreading of the same. When it is desired 85 to remove the rails, the wedge-shaped fish-plate is removed, and the device will then be in a position to admit the easy removal of the other parts and the rails.

90 It will be noted that by my improved construction one rail may be easily removed without disturbing the other rails or the other joints, and a new rail may be readily inserted in place of the old one.

95 The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

100 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 fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a rail-joint, the combination of a chair, suitable bases secured thereto, an integral
5 fish-plate carried by said chair, said chair having an opening formed therein, a base-plate, lugs carried thereby, a wedge-shaped fish-plate, a base secured thereto, the said
10 chair adapted to be interposed between the rails, substantially as described.

2. In a rail-joint, the combination of a chair, an upper face of the same contour as the tread of the rail secured thereto, said chair having
15 an opening formed therein, bases secured to said chair, a wedge-shaped fish-plate, a base secured to the lower face thereof, a base-plate, lugs carried on the upper face thereof, the said bases of the chair adapted to be secured
between said lugs, substantially as described.

3. In a rail-joint, the combination of a chair, 20 a fish-plate made integral with one side thereof, the said fish-plate being of less height than the said chair, the upper face of said chair conforming to the shape of the tread of a rail, said chair having an opening beneath said
25 upper face extending through said chair, bases secured to said chair, an independent wedge-shaped fish-plate, a base secured thereto, a base-plate, a pair of lugs carried on opposite sides thereof and having a space there- 30 between, substantially as described.

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

WILLIAM H. F. RAIFSNYDER.

Witnesses:

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