No. 868,494. PATENTED OCT. 15, 1907.

V. H. SHAW.

RAIL JOINT.

APPLICATION FILED MAR. 21, 1907.

Fig. 1

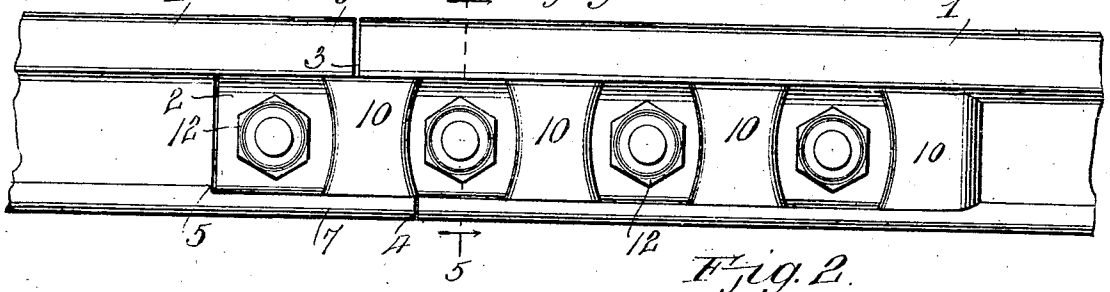


Fig. 2.

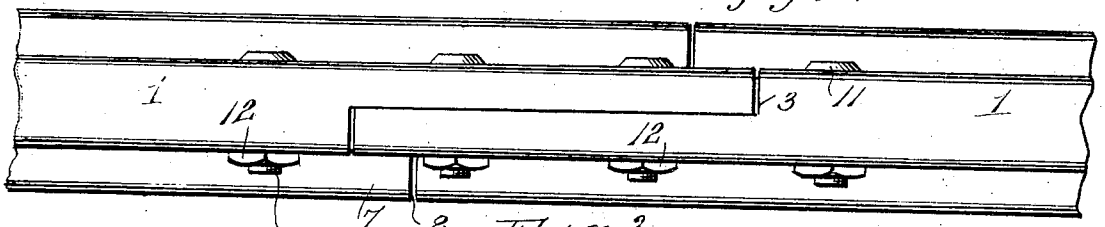


Fig. 3.

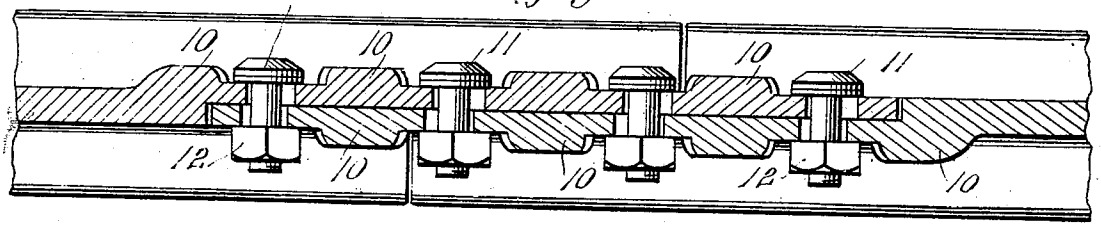


Fig. 4.

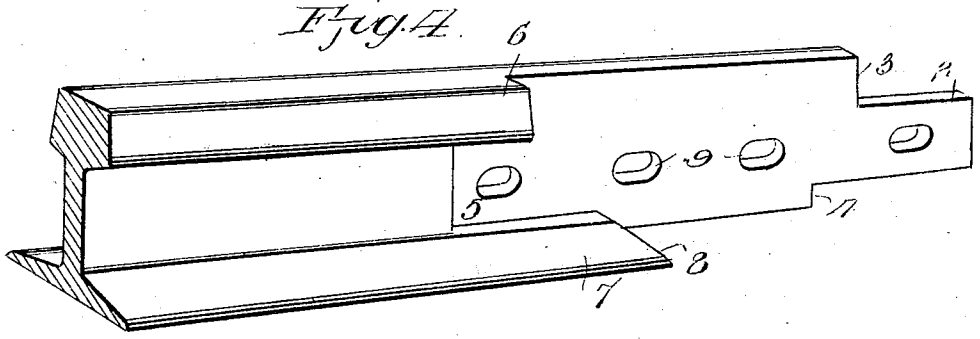
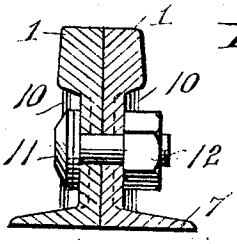


Fig. 5.



Witnesses

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RAIL-JOINT.

No. 868,494. Specification of Letters Patent. Patented Oct. 15, 1907.

Application filed March 21, 1907. Serial No. 363,610.

To all whom it may concern:

Be it known that I, VERNON H. SHAW, a citizen of the United States, residing at Grangeville, in the county of Idaho and State of Idaho, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints and one of the principal objects of this invention is to provide a rail joint which will firmly hold the meeting ends of railway rails without the use of fish plates.

Another object of the invention is to provide a rail joint which will prevent spreading, sinking, or creeping of the rails, said joint being formed without the use of fish plates.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing in which:—

Figure 1 is a side elevation of a rail joint, made in accordance with my invention. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section, taken through the web-portions of the rails. Fig. 4 is a perspective view of one of the rail ends. Fig. 5 is a vertical sectional view on the line 5—5, Fig. 1.

Referring to the drawing for a more particular description of the invention, the numeral 1 designates the meeting ends of a pair of railway rails, each being formed identically. As shown in Fig. 4, the end of the rail has a portion of the tread, the web and the base flange thereof cut away and providing a projecting tongue 2, a shoulder 3 and a shoulder 4 back of the shoulder 3. A recess 5 is formed underneath the projecting tread portion 6 and the base flange 7 terminates in a shoulder 8. A series of slots 9 for the bolts extend through the web-portion of the joint and upon the outer sides of the joint portions of the rails enlargements 10 are formed between the bolt apertures 9. When the rail ends are secured together, the tongue 2 on one of the rail ends is fitted in the recess 5 of the other rail end and the shoulder or projecting portions 6 abut, bolts 11 extending through the apertures 9, fitted with nuts 12 disposed between the enlargements 10.

Referring to Fig. 1, it will be seen that one of the enlargements 10 is located in line with the joint in the rails. Owing to the slots 9, a contraction and expansion is permitted to the rails without interfering with the efficiency of the joint.

From the foregoing, it will be obvious that a rail joint made in accordance with my invention will firmly unite the meeting ends of railway rails, will firmly hold the same against spreading, sinking or creeping, that fish plates are entirely dispensed with, and that the ends of the rails are firmly held together by bolts which permit a degree of expansion and contraction, and that the enlarged portions between the bolts serve to give rigidity to the joints.

Having thus described the invention, what I claim as new is:—

1. A rail joint comprising rail ends cut away upon a median line vertically and provided with a projecting tongue at the outer end, a recess between the extended tread portion and the base flange, enlargements at intervals and bolt apertures between the enlargements, and bolts passing through said apertures, substantially as described.

2. A rail joint comprising rail ends cut away upon a median line through the tread portion, the web, and the base flange, and provided each with a projecting tongue, a recess and overhanging tread portion and a base flange shoulder, bolt apertures extending through the rail ends and enlargements between the bolt apertures, and bolts passing through said apertures.

3. A rail joint comprising rails having their ends cut away, projecting tongues on the rail end sections, and a recess in each rail end, enlargements upon the outer side of the cut away portions and bolt apertures between the enlarged portions.

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

VERNON H. SHAW.

Witnesses:
L. M. HARRIS,
GEO. N. ADAM.