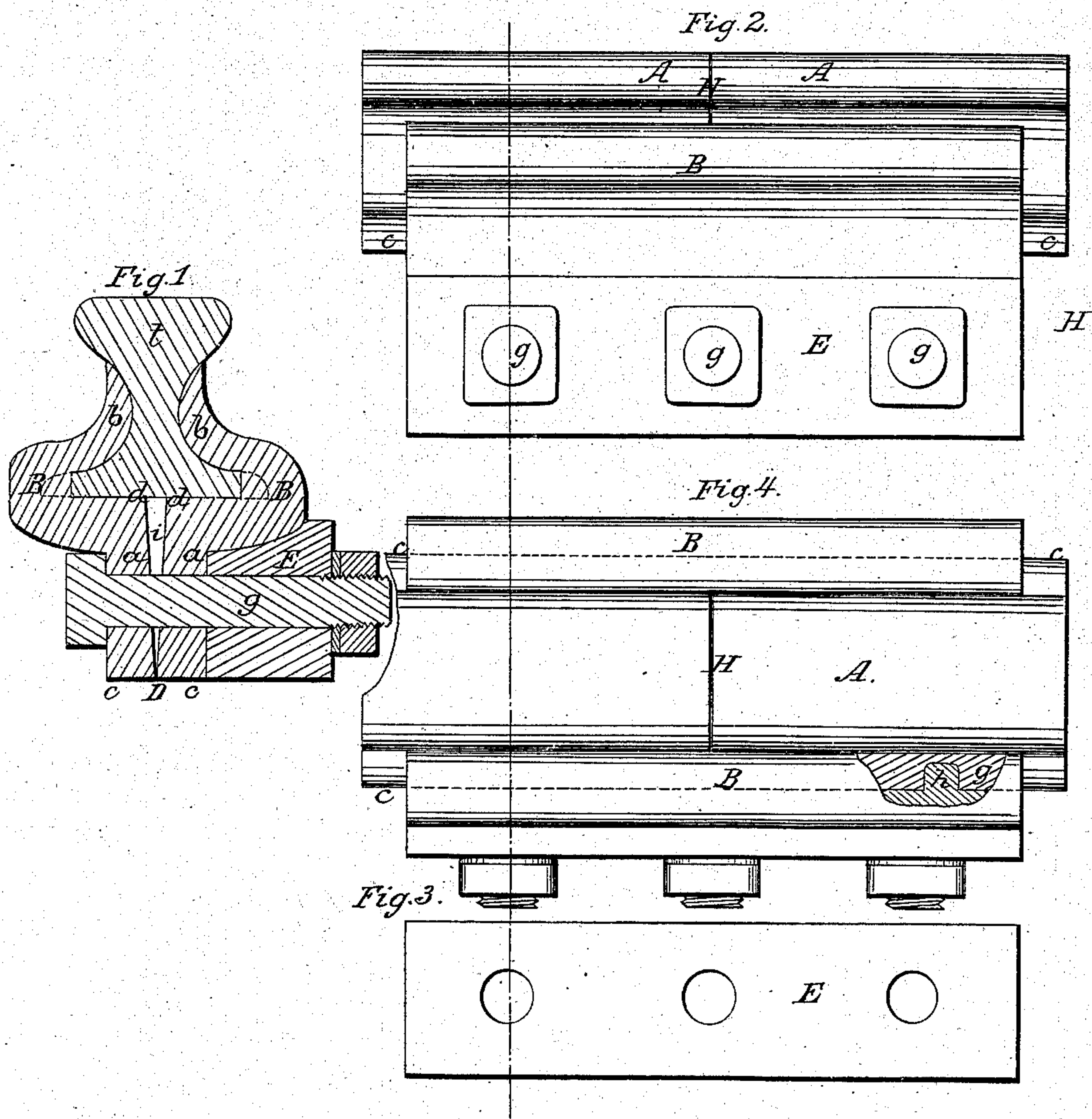


B. Scott.

Railroad Rail Joint.

N^o 68,122.

Patented Aug. 27, 1867.



Witnesses.

Geo. A. Morrison.

Chas. D. Smith.

Inventor.

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Attys.*

United States Patent Office.

BENJAMIN SCOTT, OF NEW BRIGHTON, PENNSYLVANIA.

Letters Patent No. 68,122, dated August 27, 1867.

IMPROVED RAILROAD-RAIL JOINT.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, BENJAMIN SCOTT, of New Brighton, in the county of Beaver, and State of Pennsylvania, have invented a new and useful improvement in Clamp Truss-Joint for Railroad Rails; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, which are made part of this specification, and in which—

Figure 1 is a transverse vertical section of rail, clamps, and block.

Figure 2 is a side elevation of the same.

Figure 3 is a side view of combination block.

Figure 4 is a plan view of clamp, showing the groove and tangs in the angle.

This invention consists of two sections of a clamp, so constructed as to form a truss-joint, to operate between the cross-ties, for joining and supporting the ends of railroad rails. The said clamp is so made and applied as to embrace the base, webs, and necks of the rails, with flanges bevelled from below upward, and projecting downward to any desirable length, meet at their lower edges to form a fulcrum or bearing-point for the screw-bolts, two or more passing through the said flanges above their point of contact, and acting on the principle of the lever, to press firmly the ends of the jaws of the clamp against the necks of the rails, thus constituting, in effect, a truss-joint of great strength and durability.

The invention further consists in combining, with the aforesaid clamp, a block of hard wood, which adds strength to the joint, and brings the nuts into convenient position to be reached by a wrench from above, and prevents their working loose by the jarring of the rails. There are also tangs in the angles of the grooves, which engage in notches in the base of the rails to keep the clamp permanently in place, and, at the same time, permit sufficient play to allow room for expansion and contraction.

A A represent railroad rails of ordinary construction. B B represent the two sections of a wrought or rolled iron clamp, of any length or width desirable, each section of the clamp consisting of a body, *a*, and jaw, *b*, made to fit closely the base and web of the rails, with the end of the jaw pressing against the neck of the rails, and a flange, *c*, projecting beneath the rails to any length necessary to give the required leverage power. D represents the fulcrum point, and *d d* the bevel of flanges from the fulcrum to the base of the rails, and *i* the space formed by the bevels *d d*. E represents the combination block. H represents side view of joint, showing the bolts *g g*. G represents a plan view of a section of the clamp, showing the tangs *h h*, made to engage in the slots of the rails.

My truss-joint is not intended to rest upon the ties, but occupies a position between the ties, being supported only by the rails. The joint is thus made very elastic, and the ends of the rails are less subject to wear and battering than when rigidly supported. The sections B B of the clamp are so constructed that they will fit closely around the base and neck of the rail, and when they are adjusted to the rails, and the lower edges of the flanges are brought in contact, they form a fulcrum, D, so that when the bolts *g g* are applied through the flanges above the point of contact, they act as a lever, having the space *i* for its sweep, and make the bodies and jaws of the clamp, together with the flanges, operate as braces of strength sufficient to secure firmly the ends of the rails in place, and the whole, in combination with the rails, form a truss between the cross-ties.

I am aware that railroad chairs have been constructed, in two parts, in such a way that the downward pressure of the rail upon the inner edges of the base of the chair, using the connecting-bolts as a fulcrum, will cause the jaws to gripe the neck of the rail, as shown in D. W. Crocker's patent of January 25, 1859; also, that it has been proposed to make railroad chairs with a flexible connection at bottom, and screw-bolts above to clamp the jaws upon the rail. These inventions, therefore, I do not claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the two rigid parts, B B, of a divided clamp-joint, constructed with jaws *b b* fitting closely around the base and neck of the rails, and downwardly-projecting flanges *a a*, meeting at their lower edges D, and bevelled upward to form a space, *i*, between them, when used in connection with bolts *g* passed through the flanges *a a* above the fulcrum-point D, all as herein shown and described, and for the purposes specified.

2. I further claim, in combination with the above, the block of hard wood E, fitting the angle between the flange and body of the clamp to facilitate the working of the nuts from above, and to obviate the jar, and thereby prevent the unscrewing of the nuts.

BENJAMIN SCOTT.

Witnesses:

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