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F. B. ELLIOTT.  
RAIL JOINT.  
APPLICATION FILED MAR. 16, 1911.

1,013,002.

Patented Dec. 26, 1911

Fig. 1.

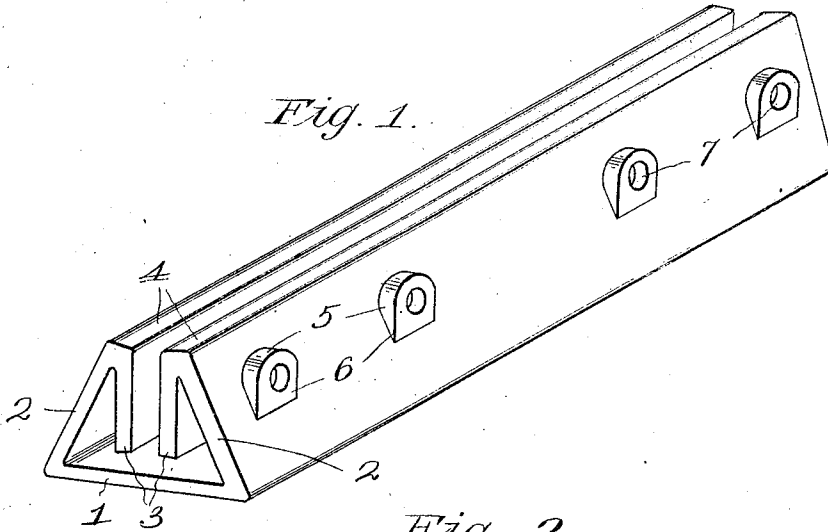
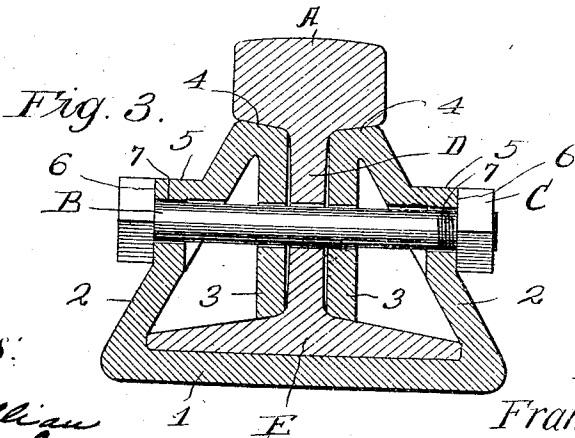
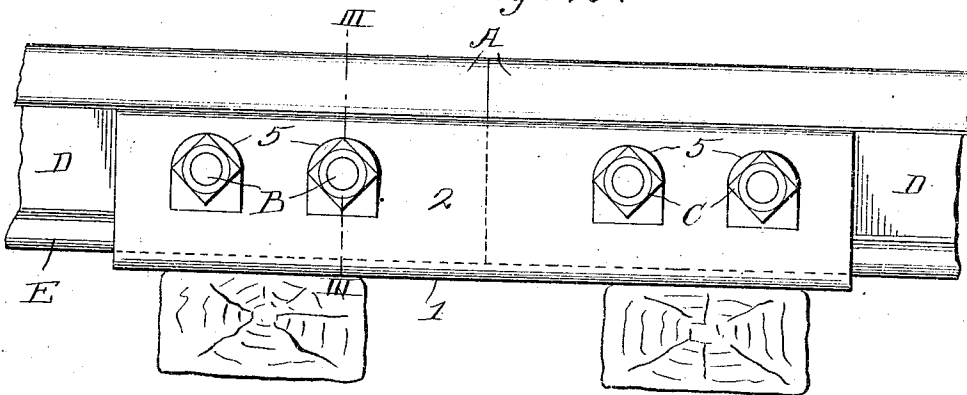


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

FRANK B. ELLIOTT, OF KANSAS CITY, MISSOURI.

## RAIL-JOINT.

1,013,002.

Specification of Letters Patent.

Patented Dec. 26, 1911.

Application filed March 16, 1911. Serial No. 614,884.

*To all whom it may concern:*

Be it known that I, FRANK B. ELLIOTT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to new and useful improvements in rail-joints, and one of my objects is to provide a novel device of this character for reliably securing the abutting ends of two rails together so that they can not be displaced either laterally or vertically by rolling-stock running over the same.

A further object is to provide a device of the character described having a certain amount of lateral resiliency whereby outward pressure is exerted on the nuts and the heads of the bolts passing through the joints and the rails, to prevent said units getting loose on the bolts.

The device consists, preferably, of one piece of pressed steel which practically envelops all of the abutting ends of the rails except the bolts thereof, and shaped to brace said abutting ends, both laterally and vertically.

In order that the invention may be fully understood reference will now be made to the accompanying drawing in which:

Figure 1 shows a perspective view of the improved joint. Fig. 2 is a side elevation of the joint in position on the ends of two abutting rails. Fig. 3 is a cross section on line III—III of Fig. 2.

In carrying out my invention I take a piece of metal, preferably steel, and form it into a base portion 1, a pair of sides 2 converging upwardly from said base, and a pair of depending wings 3 extending downward from the upper portion of sides 2. In bending the wings 3 downward from the sides 2, seats 4 are formed to engage the under sides of the rail balls A, and in forming the converging sides 2, abutments 5 are formed thereon with vertical faces 6 to receive the heads of transverse bolts B, and nuts C, said abutments having aligned openings 7 to receive the bolts B.

In practice wings 3 are preferably spaced apart to freely receive the vertical webs D of the rails, so that the same can be readily slipped into the joint, and their bases E rest upon the base portion 1 of the joint, as shown in Figs. 2 and 3. Bolts B are then placed through holes in the rails and the joints *a* and nuts C are tightened thereon to draw the wings 3 firmly against the opposite sides of the rail webs D, the outward pressure against the bolt heads and the nuts C serving to prevent the latter from becoming loose. The seats 4, snugly engaging the under sides of the balls A, reliably support the same, vertical movement being resisted by the wings 3, which rest upon the upper surface of the rail bases E, while lateral movement of the rails is overcome by the inclined sides 2, which act as braces. As the device is practically self retaining on the rails, bolts B are required chiefly to prevent independent longitudinal movement between the device and the rails, consequently the ends of the latter need not be weakened by numerous bolt-holes, as one or two bolts for each rail will suffice to hold the same from moving longitudinally-independently of the joint.

From the foregoing description it will be understood that I have produced a novel construction, which is strong and durable and well adapted for the purpose intended, and while I have shown the preferred construction of the device, it is obvious that changes following within the scope of the appended claim, may be resorted to without departing from the spirit and scope of the invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

A resilient one-piece device comprising a base portion adapted to underlie the bases of two abutting rails, upwardly converging side portions integral with said base, abutments on said side portions having vertical faces and aligned holes, depending wings adapted to engage the upper surface of the rail bases, forming in conjunction with the upper portions of the sides, seats to engage

the underside of the rail balls, the outer  
sides of said seats being substantially flush  
with the sides of the rail balls, and means  
adapted to extend through the rails and  
5 the alined holes of the abutments to draw  
the wings against the sides of the rail webs,  
substantially as described.

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

FRANK B. ELLIOTT.

Witnesses:

F. G. FISCHER,  
E. C. LILLIAN.