No. 794,180. PATENTED JULY 11, 1905.

J. HUBBARD.

RAIL JOINT.

APPLICATION FILED JAN. 30, 1905.

FIG. 1.

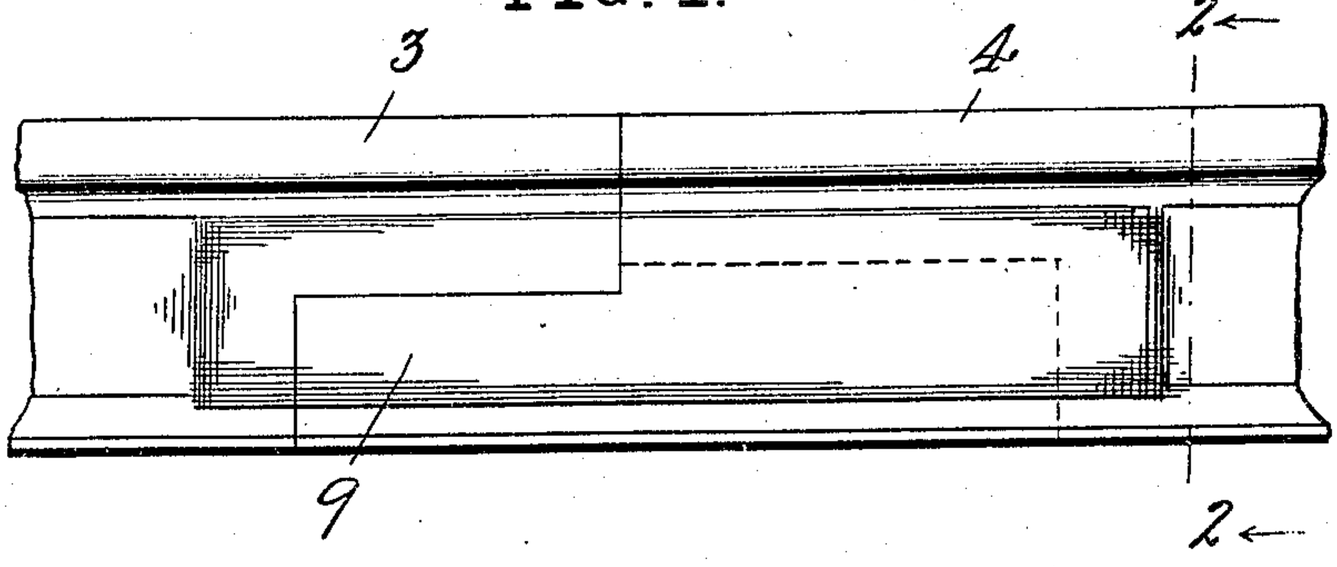


FIG. 2.

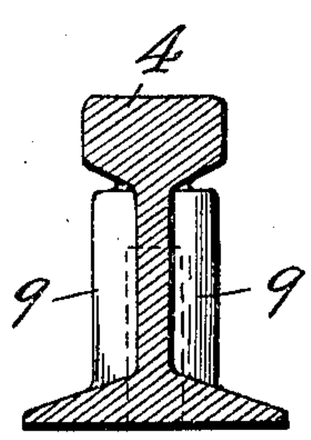


FIG. 3.

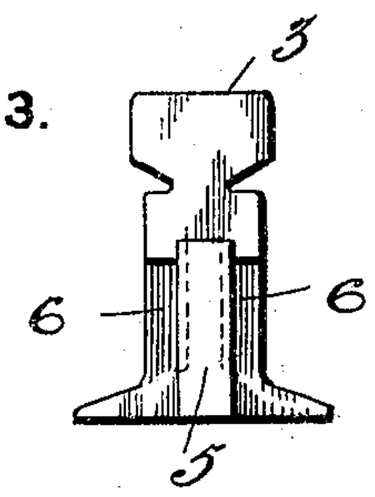


FIG. 4.

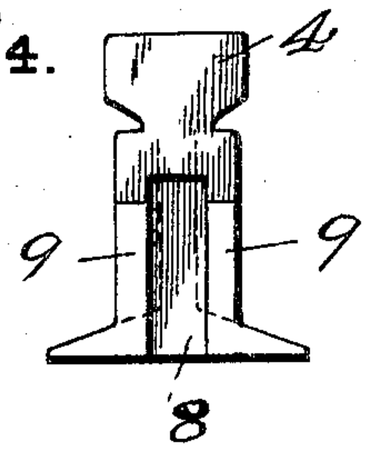


FIG. 5.

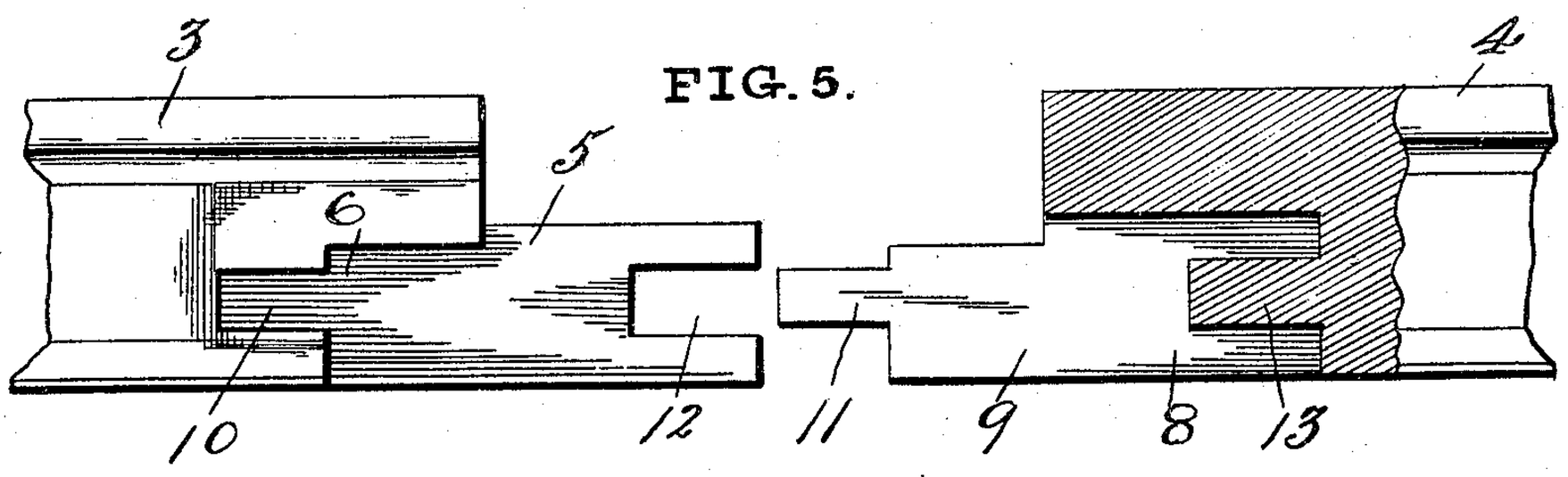


FIG. 6.

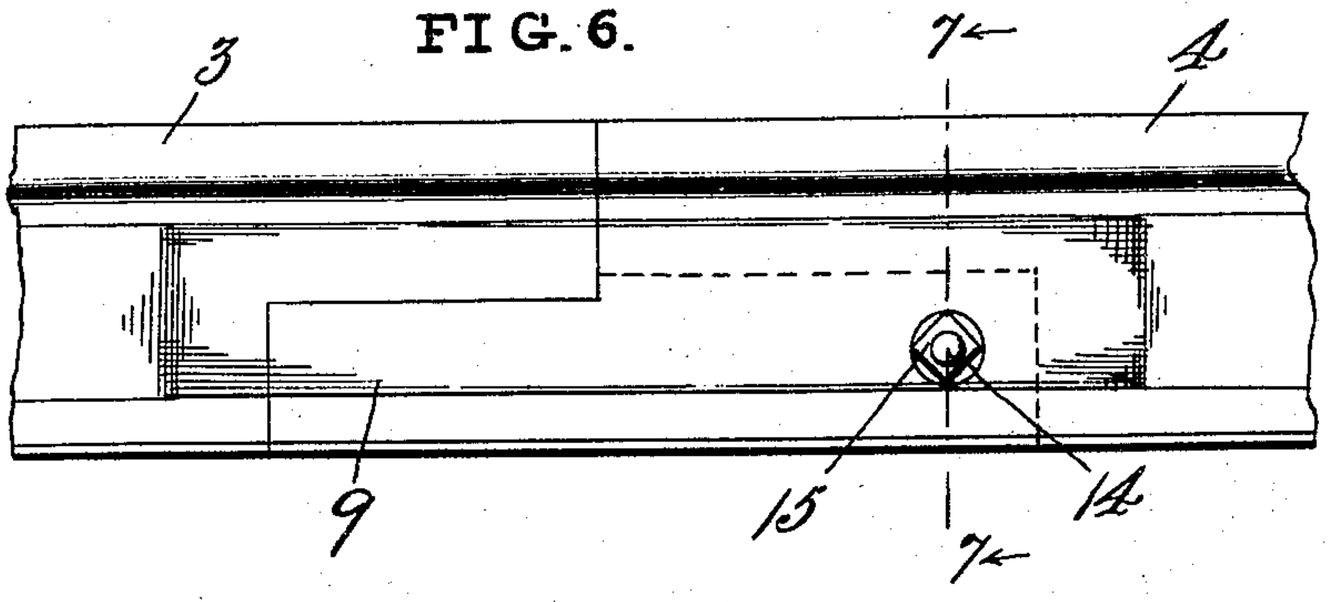
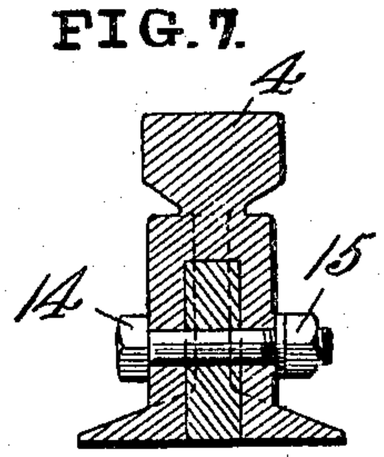


FIG. 7.



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No. 794,180. Patented July 11, 1905.

UNITED STATES PATENT OFFICE.

JAMES HUBBARD, OF STRAWBERRY PLAINS, TENNESSEE.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 794,180, dated July 11, 1905.

Application filed January 30, 1905. Serial No. 243,283.

To all whom it may concern:

Be it known that I, JAMES HUBBARD, a citizen of the United States, residing at Strawberry Plains, in the county of Jefferson and State of Tennessee, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to rail-joints, and has for its object to provide a joint for rails which may be manufactured with but slight additional cost and which may be conveniently placed and be reliable in its function.

A further object of my invention is to provide a rail-joint which shall be rigid to a lateral strain thereon caused by passing trains, but which will permit the longitudinal contraction and expansion of the rail without creeping.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view in side elevation of my improved rail-joint assembled. Fig. 2 is a transverse sectional view of a rail embodying my improvement and taken on line 2 2 of Fig. 1. Fig. 3 is a view in end elevation of one member of my rail-joint shown at 3 in Fig. 1. Fig. 4 is a view in end elevation of the other member of my improved rail-joint as shown at 4 in Fig. 1. Fig. 5 is a slight modification of my improved rail-joint, showing lugs formed in the ends of the scarfs, with one member shown in section. Fig. 6 is a modification showing the use of my improved rail-joint with a bolt passed through to prevent the displacement of the parts. Fig. 7 is a transverse sectional view of my improved rail-joint, taken on line 7 7 of Fig. 6 and showing a bolt passed through the members of the joint.

Like characters of reference designate corresponding parts throughout the several views.

In the preferred embodiment of my invention I construct one member 3 of my rail-joint with a longitudinally-extending scarf 5, disposed centrally of the member and formed in the lower part of the rail only and beneath the tread. The member 3 is also provided with recesses 6 upon opposite sides and extending backward from the end of the rail and preferably proportioned so that the surfaces of the recesses are approximately in a plane with the surfaces of the scarf 5.

The member 4 of my improved rail-joint is provided along its under surface with a centrally and longitudinally disposed opening 8 of requisite conformation and proportion to receive the scarf 5 of member 3. The walls 9 of the member 4 are extended longitudinally beyond the end of the said member, with their inner surfaces forming a plane with the surfaces of the opening 8 and of the requisite conformation and proportion to fit and engage the recesses 6 in the opposite sides of the member 3. If desired, the recess 6 may be provided with an additional offset recess 10 and the walls 9 provided with an extended tongue 11 to engage the said recesses 10. The scarf 5 may likewise be provided with a notch 12 and the opening 8 provided with a lug 13, adapted and disposed to engage therewith. If desired, a bolt 14 may be passed through the scarf 5 and walls 9 and provided with a nut 15 to retain it therein.

From the foregoing description of the construction of my rail-joint its operation will be fully and sufficiently understood without a further and extended description thereof.

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

1. In a rail-joint, one member provided with a centrally and longitudinally disposed opening in the under side and with the side walls of said opening extending longitudinally beyond the junction-point, of the tread, and the other member being provided with

recesses and scarf extending longitudinally from the web beyond the junction-point of the tread, said scarf being of proper conformation to engage the opening and extended side walls.

2. A rail-joint comprising one member provided with a centrally and longitudinally disposed opening in the under side and with the said walls of said opening extending longitudinally beyond the junction-point of the tread, the other member being provided with a centrally-disposed scarf extending longitudinally from the web beyond the junction-point of the tread and adapted to engage and fill the opening and having a recess in each side to receive the extended side walls.

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

JAMES HUBBARD.

Witnesses:

L. H. McGHEE,

CELIA McBEE.