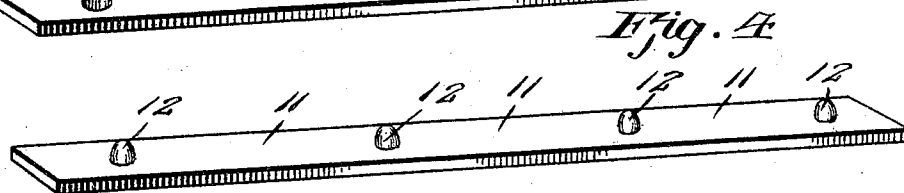
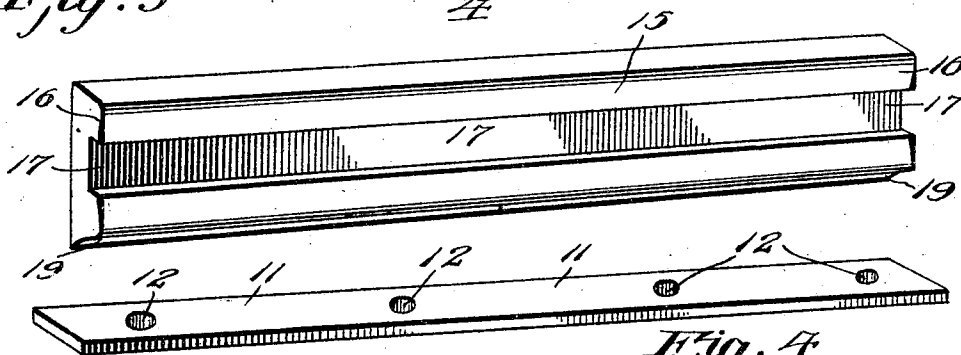
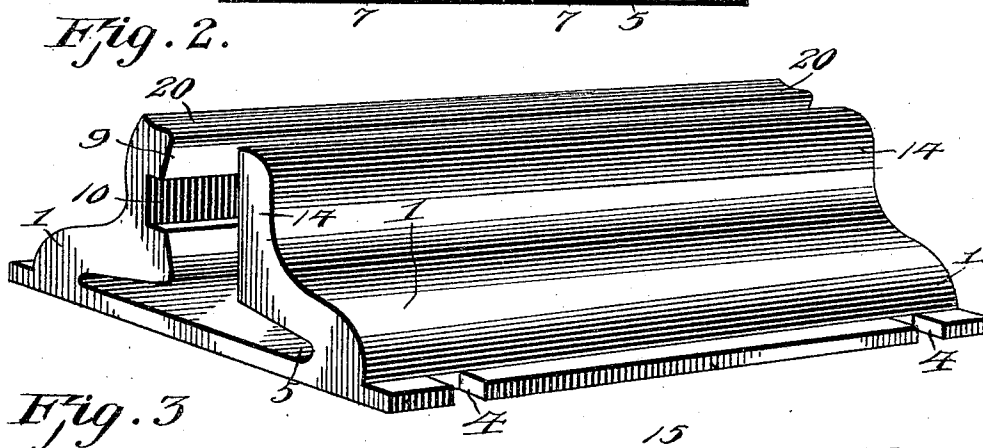
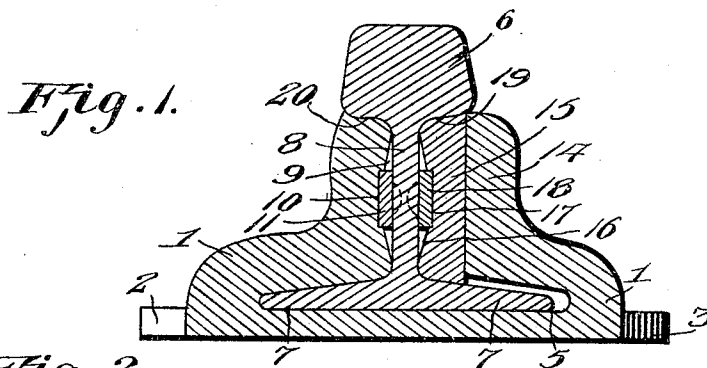


No. 800,008.

PATENTED SEPT. 19, 1905.

I. A. OLIVER.  
RAIL JOINT.

APPLICATION FILED FEB. 17, 1905.



*Fig. 5.*

Witnesses

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# UNITED STATES PATENT OFFICE.

IMMANUEL A. OLIVER, OF SANTA CLARA, CALIFORNIA.

## RAIL-JOINT.

No. 800,008.

Specification of Letters Patent.

Patented Sept. 19, 1905.

Application filed February 17, 1905. Serial No. 246,144.

*To all whom it may concern:*

Be it known that I, IMMANUEL A. OLIVER, a citizen of the United States, residing at Santa Clara, in the county of Santa Clara and State of California, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail-joints.

The objects of the invention are to improve and simplify the construction of such devices; furthermore, to decrease the expense attending their manufacture and installment and to increase their durability, strength, and effectiveness.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the novel combination and arrangement of parts and in the details of construction hereinafter described and claimed as a practical embodiment thereof.

In the accompanying drawings, forming a part of this specification, Figure 1 is a transverse vertical section through a rail-joint constructed in accordance with the invention. Fig. 2 is a perspective view of the improved chair. Fig. 3 is a similar view of the wedge. Figs. 4 and 5 are detail perspective views of the clamping-strips.

Like reference-numerals indicate corresponding parts in the different views.

The reference-numeral 1 indicates the chair of the improved rail-joint, which is formed with a broad base portion to rest upon the rail-ties and is provided with laterally-extending flanges 2 3, having notches 4 therein to receive the ordinary spikes or bolts for fastening the chair in position upon the ties. The chair 1 is formed with an undercut groove 5, shaped to receive the base and web portions of the rail or rails 6. The lower portion of the undercut groove 5 in the chair 1 is wider than the base 7 of the rail, so as to permit the rail to be adjusted laterally in the manner hereinafter described. One wall of the chair 1 adjacent to the web portion 8 of the rail is curved, as shown at 9, and longitudinally grooved, as shown at 10. Fitted into the longitudinal groove 10 is a clamping-strip 11, which preferably is formed with a plurality of projections 12, as shown in Fig. 5, to fit into the ordinary bolt-holes in the web portion of the rail or rails 6. The projections 12 are formed, preferably, by stamping the clamping-strip 11 with a die or other suitable implement, although, if desired, said projec-

tions may be formed in any other suitable manner.

The wall 14 of the undercut groove 5 opposite the grooved and curved wall 9 is straight, as shown clearly in Fig. 1. Driven in between the straight wall 14 of the chair 1 and the web portion 8 of the rail is a wedge 15, which is tapered slightly from end to end and is formed on the side thereof next to the web 8 with a curved face 16, having a longitudinal groove 17 therein. Seated in the longitudinal groove 17 is a clamping-plate 18, which is similar in form and construction to the clamping-plate 11.

The upper edge 19 of the wedge 15 preferably is shaped to conform to the under surface of the head of the rail. Furthermore, the upper edge 20 of the chair 1 on the side of the groove 5 opposite the wedge 15 is also curved, as shown in Fig. 1, in order to conform to the shape of the under portion of the head of the rail.

The improved rail-joint of this invention is strong, simple, durable, and inexpensive in construction, as well as thoroughly practical and efficient in use. When the wedge 15 is driven home, the rail ends, which are fitted into the chair, are held securely in position, so as to prevent the possibility of their becoming displaced from the chair and to avoid the pounding which occurs at a rail-joint when the ends of the rails are not held rigidly in position.

Minor changes in the precise embodiment of invention illustrated and described may be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed as new is—

1. A rail-joint comprising a chair having an undercut groove shaped to receive the base and web portions of the rail, one wall of the undercut groove being formed with a longitudinal groove, a clamping-strip fitted into said longitudinal groove on one side of the rail-web, a wedge fitted into the undercut groove on the opposite side of the rail-web, said wedge being formed with a longitudinal groove, and a clamping-strip fitted into said longitudinal groove and bearing against the rail-web.

2. A rail-joint comprising a chair having an undercut groove shaped to receive the base and web portions of a rail, the lower portion of said groove being wider than the base of

the rail, one wall of said undercut groove being curved and formed with a longitudinal groove and the other wall being straight, a wedge fitted between the straight wall of the  
5 chair and the rail-web, said wedge being formed on the side thereof adjacent to the web with a curved face having a longitudinal groove therein, a clamping-strip fitted into the groove of the wedge, and a similar clamping-strip fitted into the groove of the curved

wall of the chair, each of said strips being formed with stamped projections to fit the bolt-holes in the rail-web.

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

IMMANUEL A. OLIVER.

Witnesses:

ROSS C. WINSLOW,  
E. F. JORDAN.