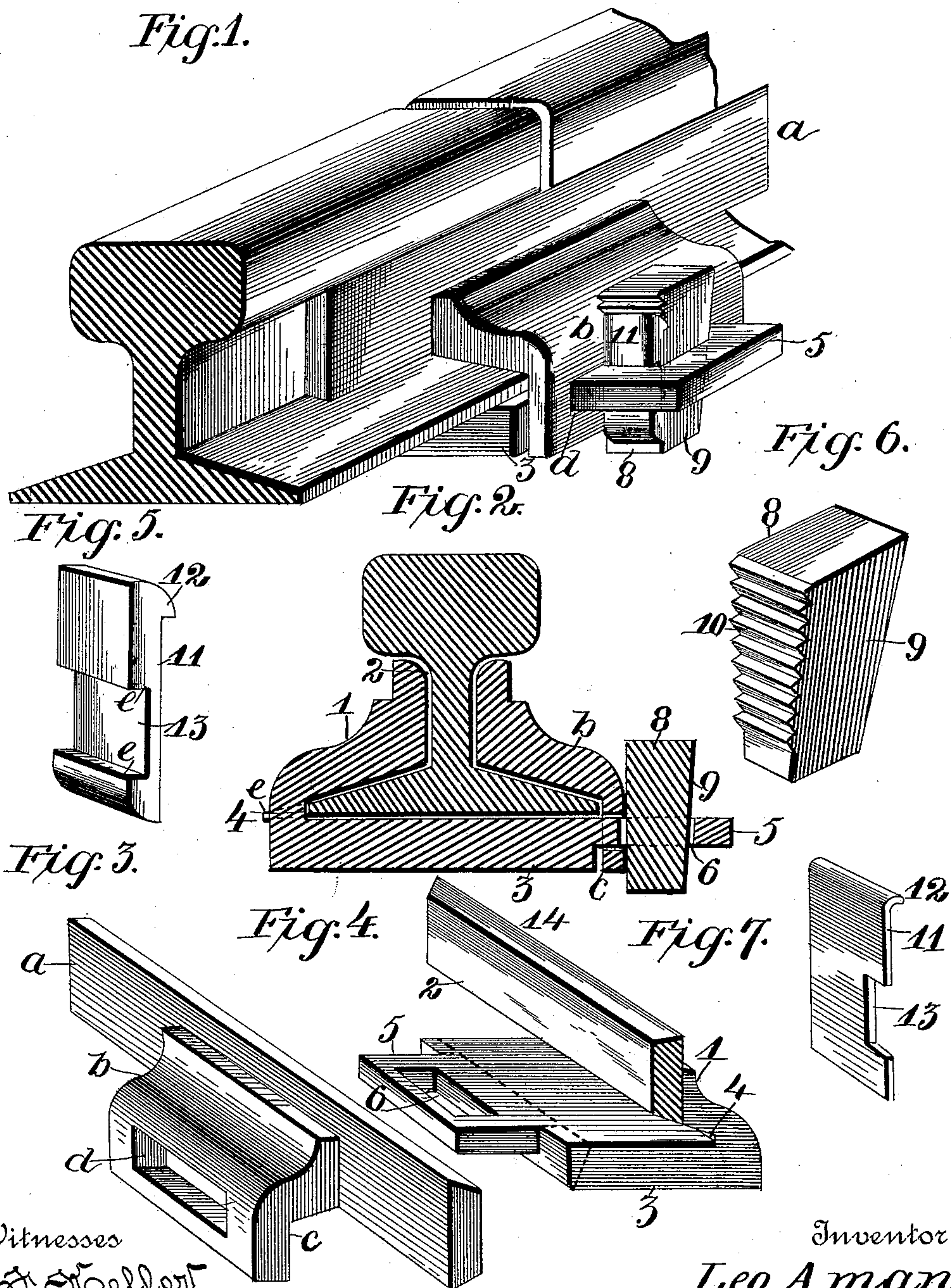


(No Model.)

L. AMAN.
RAIL JOINT.

No. 434,631.

Patented Aug. 19, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

LEO AMAN, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO THOMAS F. HOGAN, OF SAME PLACE.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 434,631, dated August 19, 1890.

Application filed May 19, 1890. Serial No. 352,343. (No model.)

To all whom it may concern:

Be it known that I, LEO AMAN, of the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Rail-Joints, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has for its object to provide a novel construction in rail-joints; and it consists in the novel combination and arrangement of parts, as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my complete invention as applied to the rails. Fig. 2 is a cross-section of the same. Fig. 3 is a perspective view of one of the clamp-plates. Fig. 4 is a perspective view of the opposite clamp-plate. Fig. 5 is a perspective view of the spring-key for locking the wedge in position. Fig. 6 is a perspective view of the wedge, and Fig. 7 is a perspective view of a spring-key, somewhat modified to that shown in Fig. 5.

Referring to the drawings, 1 represents one of the clamp-plates, which is made of any suitable metal. The inner face 2 of the clamp 1 is flat and designed to fit and bear against the upright flat portion of the rails. Its lower portion is curved outward and forms a space 4, which space conforms in shape with the lateral extension and base of the rails, to engage and cover the lower edges of the same.

3 represents a base-plate formed integral with the clamp 1 and extending inward therefrom, which forms a chair for the rails and a connection for uniting the several parts of my invention together.

5 represents a shank formed with the base-plate, and is provided with an opening 6 for receiving the locking parts of my invention.

The base-plate 3 may be beveled, as shown by dotted lines in Fig. 4, causing the clamps to firmly grip the rails.

14 represents a flat-face cross-piece formed with the clamp 1 and extending on each side some distance therefrom, to give a greater bearing-surface.

b represents the opposite clamp-piece having an additional cross-piece *a*, which is similar in construction to the one previously de-

scribed and bears upon the rails in a like manner. An elongated opening *d* is formed in the lower portion *c* of the clamp *b*, through which opening the shank 5, carried by the opposite clamp, is inserted when the parts are united.

8 represents a wedge-pin, having one side thereof inclined, as shown at 9, for the purpose of drawing the parts together when forced in the opening 6 formed in the shank 5.

10 represents a series of corrugations formed on one side or edge of the wedge-pin 8, which operate in conjunction with nose of the spring-key 11, as hereinafter described.

11 represents a spring-key having a nose 12 formed upon its upper end, which nose bears against the corrugations formed on the wedge-pin 8 and prevents the same from working out after being forced and disconnecting the parts.

13 represents a cavity formed in the spring-key 11, the shoulders *e* of which hold the same within the opening 6 in the shank 5 when the wedge 8 is in a locked position.

In the modification shown in Fig. 7 a spring-key is made from a thin piece of metal, having a lip 12 formed upon the upper end thereof, and a cavity 13 formed in the edge of the plate 11, all of which operates in a like manner in connection with the wedge-pin 8 as the key previously described.

In carrying out my invention it will be seen that when the wedge-pin 8 is forced in the opening 6 the corrugations 10 formed thereon will come in contact with the nose 12 of the spring-key 11, allowing the said wedge to be forced to its full extent and locked in that position, it being impossible for the same to work out, as would be the case if the spring-key was not employed.

When it is necessary to disconnect the parts, the spring-key 11 is forced from the wedge, causing the nose 12 to be freed from the corrugations 10 of the said wedge and allow the same to be withdrawn.

The base of the rails may be notched, as shown at *e*, Fig. 2, to prevent the rails from creeping, the clamp 1 fitting therein.

Having fully described my invention, what I claim is—

1. A locking device for rail-joints, consist-

ing of a corrugated pin 8, and a spring-key 11, having a nose 12, for receiving the said corrugations, substantially as described.

2. A locking device for rail-joints, comprising the wedge-shaped pin 8, having corrugations 10, in combination with the spring-key 11, having a cavity 13, and the nose 12, for receiving the corrugations formed on the said wedge-pin, substantially as described.

10 3. In a rail-joint, the combination of the clamp 1, having the base-plate 3 and shank 5 formed integral therewith, the opening 6,

formed in the said shank, the clamp *b*, provided with the opening *d*, the wedge-pin 8, provided with corrugations 10, and the spring-key 11, having the cavity 13 and nose 12, substantially as described. 15

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

LEO AMAN.

Witnesses:

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