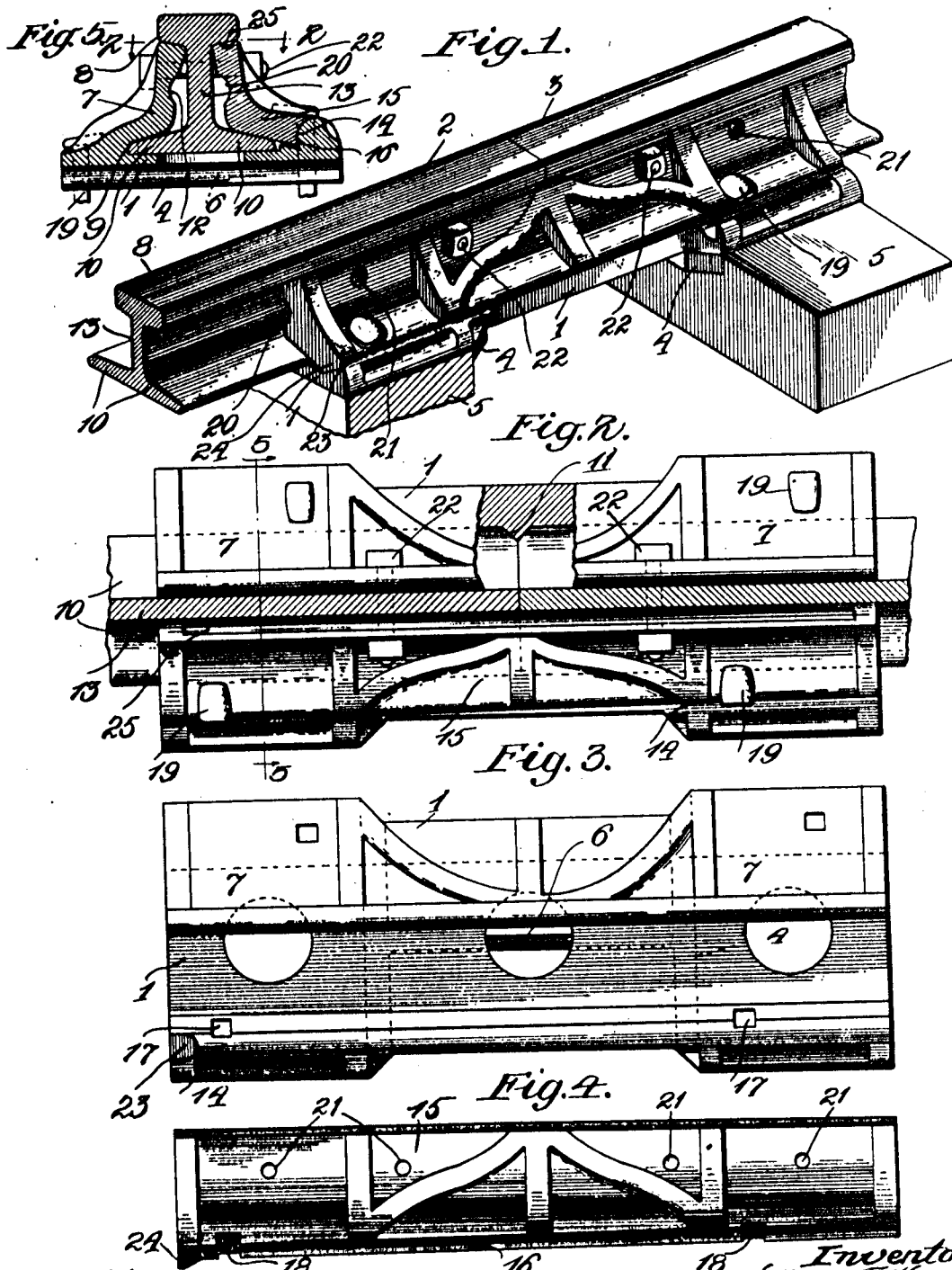


W. F. KERR.
RAIL JOINT.
APPLICATION FILED OCT. 3, 1911.

Patented Apr. 8, 1913.

1,058,443.



Witnesses:
Clarence Williams.
Halter C. Marston

Inventor
William F. Kerr
by *John S. Rogers*
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM F. KERR, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
HANNAH C. HARDING, OF LOS ANGELES, CALIFORNIA.

RAIL-JOINT.

1,058,443.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed October 3, 1911. Serial No. 652,678.

To all whom it may concern:

Be it known that I, WILLIAM F. KERR, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to improvements in chairs for railway joints, and it is an object of the invention to provide a rail receiving chair formed with side flanges and bracing portions adapted to brace the head of the rails with respect to the base of the chair.

It is also an object of the invention to provide a rail joint securing means having a base plate and side wedging flanges adapted to engage the heads of the rails, the said flanges being provided with recesses for receiving and holding bonding pieces against the metal of the rails.

In the accompanying drawing forming a part of this specification, Figure 1 is a perspective view of a rail joint provided with the improved chair. Fig. 2 is a sectional view through the meeting ends of rails at a joint taken immediately below the heads of the rails and showing the side flanges or braces of the chair in top plan, a portion of one of the said side flanges or braces being broken away to show the base flanges of the rails. Fig. 3 is a top plan view of the improved chair with the brace or side piece thereof removed. Fig. 4 is a side elevation of the wedge shaped removable side piece of the chair. Fig. 5 is a vertical transverse section view taken through the chair at one side of the joint between the rails on the line 5-5 of Fig. 2.

The details and features of the invention will now be more particularly described, reference being had to the said drawing in which—

1 indicates the base of the chair, 7 the fixed side or flange thereof and the removable wedge shaped side or brace of the chair. The base portion 1 is made of suitable width to properly receive and support the base flanges of railroad rails 2 and 3 and is made of sufficient length to reach from one tie to another as shown in Fig. 1 of the drawing. The said base is also preferably provided upon its under surface with ribs or projections 4 adapted to bear against the adjacent faces of the ties upon which

the chair is mounted, so as to properly space them and prevent the chair from slipping out of proper position thereon.

The upper surface of the base 1 is provided with an angular inwardly extending portion or projection 9, the said projection extending from the base to the flange or side 7 of the chair. The said projection 9 is preferably arranged at the longitudinal center of the chair and the ends of the rail flanges which are inserted in the chair are preferably beveled at 11, so as to fit against said projection. The projection is thus capable of preventing the creeping of the rails in the chair and also properly centers the rails with respect to said chair. The side walls of the chair are so arranged as to offer inclined braces to the heads of the rails as clearly shown in Fig. 5 of the drawing. The rails are thus connected at their meeting ends so as to afford thorough rigidity and great strength at the meeting points of the rails.

The removable side or wall 15 of the chair is preferably slightly tapered from one end toward the other as shown in Figs. 2 and 4 so that the said side portion must be inserted in place by pushing its smallest end between the base and the head of the rail first. The base upon the open side of the chair is provided with a rounded edge flange, or bead 16 between which and the head of the rail the removable wedge shaped wall 15 is adapted to be slipped. The bracing position of the said wall 15 will be readily understood by reference to Figs. 1 and 5 of the drawing. It will also be observed that the said wall 15 cannot escape from its position between the said flange 16 and the heads of the rails without being moved longitudinally from such position. The inward longitudinal movement of the wall 15 when it is being inserted in place, is limited by means of a projection 24, which is adapted to engage a correspondingly beveled surface 23, formed at one end of the rounded bead or flange 16. The chair is provided with apertures 19 and 17 to receive spikes for securing it in place upon the ties and the wedge shaped wall 15, is also formed with edge notches 18 adapted to fit against one side of the spikes driven into the apertures 17, whereby the wall is held against longitudinal movement after it has been put in place.

In securing rails together, especially for electric lines, the adjacent rails are usually bonded by being connected with wire or other conductors. These bonds are ordinarily exposed both to the action of the weather and to the tampering of unauthorized parties. The chair is so constructed that the bonds applied to the rails may be covered and protected. Thus the inner surface of the walls 7 and 15 are preferably formed with longitudinal grooves 12 and 20 adapted to afford a space between said walls and the webs of the rails for receiving the said bonds. The space is usually made of such a size that the bonds will be tightly pressed against the rails and a proper electric connection between the parts is thus assured. The said bonds are also protected against corrosion due to the action of the weather. Instead of placing the bonds in the usual position, a bond may also be placed in a groove 25 formed in the upper edge of the removable wedge shaped wall 15 and held by the same against the under surface of the rail heads as clearly shown in Fig. 5. A comparatively short bond can thus be made as effective as the longer bonds heretofore used and will be thoroughly protected.

The chair thus provided is admirably adapted to receiving the adjacent ends of rails to be united and forms a stiff strong joint. The rails while prevented from creeping by the projection 9 are however capable of

expanding and contracting under the varying conditions of heat and cold without danger of breaking any of the parts. A proper bonding of the rails can also be effected because of the forcing of the bonds against the rails by the insertion of the wedging member 15.

What I claim is:

A chair for rail joints, comprising an apertured base having an integral flange extending upwardly therefrom on one side of the rails and also having an inclined, convex bead having a beveled end upon the other side of the rails, an angular wedge provided with a concave groove adapted to fit upon said bead and bear against the adjacent heads of the rails, and coinciding notches on said wedge to coincide with apertures in said base for receiving spikes to prevent the parts from slipping, an inclined faced projection on said base to engage the beveled edges of the rail base, and a limiting projection carried by said wedge and adapted to bear upon said beveled end of said bead for limiting the inward movement of the wedge when being put in place.

In testimony whereof I have set my hand in the presence of two witnesses.

WILLIAM F. KERR.

Witnesses:

F. J. McCLARY,
ANTON GLOETZNER, Jr.