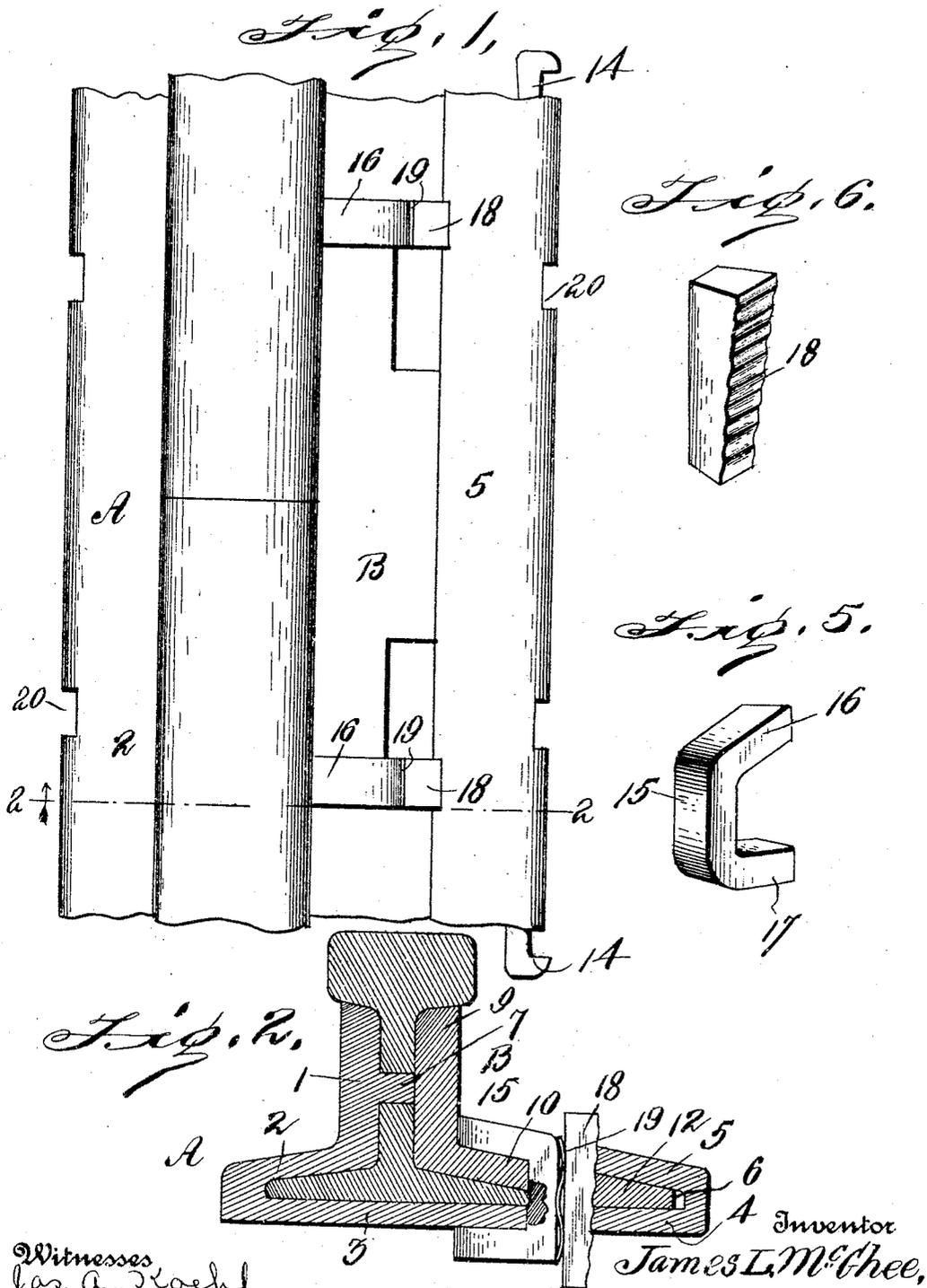


J. L. MCGHEE.
RAIL JOINT CHAIR.
APPLICATION FILED OCT. 3, 1904.

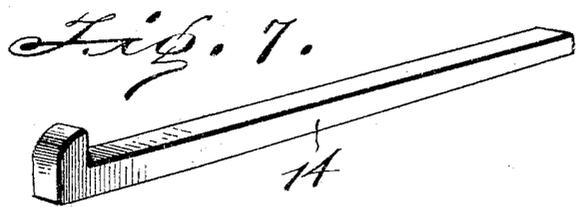
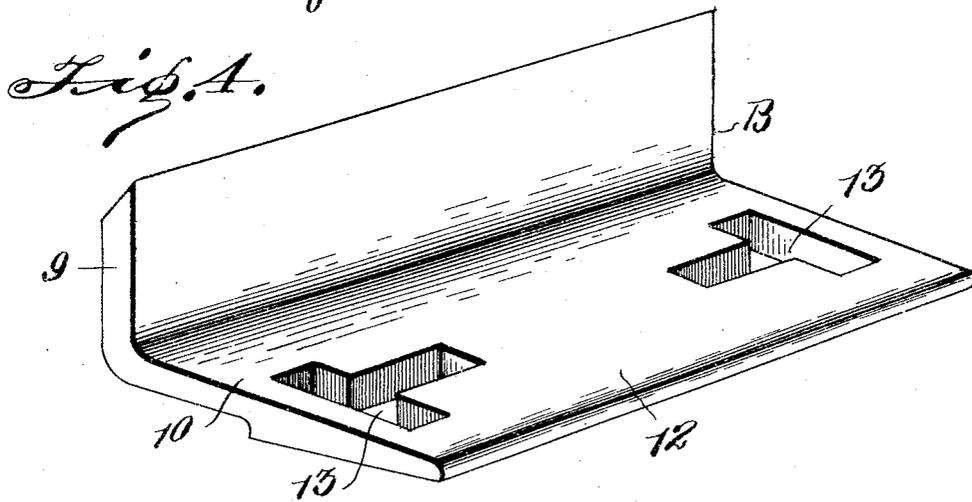
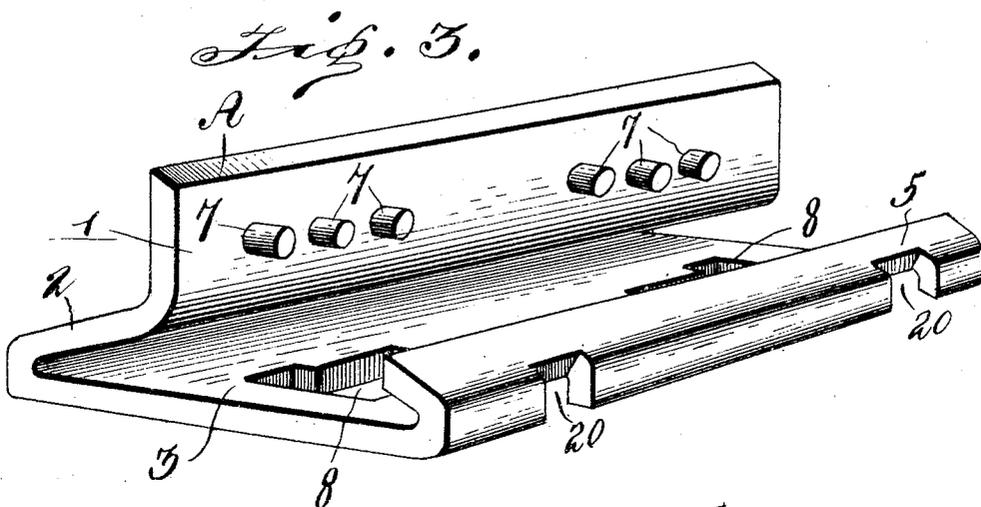
2 SHEETS—SHEET 1.



Witnesses
for A. Roehl
C. H. Girsbauer.

Inventor
James L. McGhee,
by A. B. Wilson
Attorney

J. L. MCGHEE.
RAIL JOINT CHAIR.
APPLICATION FILED OCT. 3, 1904.



Witnesses
for A. Stoehl,
C. H. Griesbauer.

Inventor
James L. McGhee.
By A. B. Wilson
Attorney

UNITED STATES PATENT OFFICE.

JAMES L. MCGHEE, OF ALLIANCE, OHIO.

RAIL-JOINT CHAIR.

SPECIFICATION forming part of Letters Patent No. 779,958, dated January 10, 1905.

Application filed October 3, 1904. Serial No. 226,992.

To all whom it may concern:

Be it known that I, JAMES L. MCGHEE, a citizen of the United States, residing at Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Rail-Joint Chairs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in chairs or fastening devices for railway-rail joints.

The object of the invention is to provide a chair for rail-joints which may be quickly and easily applied to the meeting ends of the rails and which will securely lock them together and prevent the creeping or spreading of the same.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view of the meeting ends of two rails, showing the application of the chair to the same. Fig. 2 is a vertical transverse sectional view of the same on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of one section of the chair. Fig. 4 is a similar view of the other section of the same. Fig. 5 is a detail perspective view of the locking-clamp. Fig. 6 is a similar view of the key for holding said clamp in place, and Fig. 7 is a similar view of one of the wedges used in applying the chairs.

In the embodiment of the invention I provide a rail-joint chair formed in two parts or sections A and B. The section A consists of a vertically-disposed web-engaging portion 1, on the lower edge of which is formed a laterally-projecting inclined flange-engaging portion 2, to the outer edge of which is connected a base-plate 3. Said base-plate extends below said flange-engaging portion 2 and is spaced from the same to form a seat in which the flange on this side of the rail is adapted to be inserted. The base-plate 3 extends below the rail and projects to a considerable dis-

tance beyond the opposite side of the same, as shown at 4. On the edge of this projecting portion 4 is formed an upwardly and inwardly projecting inclined overhanging flange 5, between which and the base-plate is formed a seat 6.

On the inner face of the web-engaging portion 1 of the section A is formed a series of inwardly-projecting studs 7, which are adapted to engage the bolt-holes formed in the meeting ends of the rail-sections. In the base-plate 3 of the section A adjacent to the inner edge of the overhanging flange 5 are formed vertically-disposed T-slots 8.

The section B of the chair consists of a vertically-disposed web-engaging portion 9, which is adapted to engage the web of the rail on the opposite side of the same from the portion 1. On the lower edge of the portion 9 is formed a laterally-projecting flange-engaging portion 10, which has formed on its outer edge an extension 12. Said extension is adapted to be inserted into the seat formed by the base-plate 3 and the overhanging flange 5. In the extension 12 are formed vertically-disposed T-shaped slots 13, which when the section B is in place are adapted to aline with the slots 8, formed in the base-plate 3.

Between the outer edge of the extension 12 and the adjacent vertical portion of the overhanging flange 5 at each end of the chair are adapted to be inserted headed wedges 14, which when driven inwardly between the edge of the extension 12 and the vertical portion of the flange 5 will force the two sections of the chair into tight engagement with the ends of the rail. When the parts have been in this manner forced into position, clamps 15 are inserted through the alined slots 8 and 13 in the base-plate 3 and extension 12. Said clamps consist of substantially U-shaped bars which after being inserted in the slots 8 and 12 are turned to bring the upper and lower arms 16 and 17 of the same into engagement with the flange-engaging portion of the section B and the base-plate of section A, as clearly shown in Fig. 2 of the drawings. After the clamps 15 have been so arranged the same are adapted to be locked into position by means of wedge-shaped keys 18, which are driven

through the slots 8 and 12 between the vertical portions of the clamps 15 and the adjacent walls of the slots and the inner edge of the flange 5, thereby securing said clamps in place.

5 If desired, the edge of the keys 18 which engages the walls of the slots may be formed with a series of corrugations, whereby said keys will be prevented from casually slipping out of place. Between the adjacent edges of the clamps 15 and keys 18 may be disposed stiff leaf-springs 19, whereby the corrugated edge of the keys 18 will be held in tight engagement with the edges of the slots and the overhanging flange 5. After the clamps 15 and keys 18 have been applied the wedges 14 may be removed from the spaces between the outer edge of the extension 12 and the vertical portion of the flange 5, these wedges being simply used to force the parts into tight engagement with the rails before the locking devices have been applied.

In the outer edges of the base-plate 3 and the portions immediately connected therewith are formed vertically-disposed notches or recesses 20, with which are adapted to be engaged the spikes which are driven into the ties to hold the chair in place.

A rail-joint chair constructed and applied in the manner herein shown and described will securely join the meeting ends of the rail-sections and will prevent the slipping or spreading of the same.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. A rail-joint chair comprising two sections, each having a portion to bear against one side of the rail-webs, and a flange portion to bear on the upper sides of the base-flanges on one side of the rails, one of said sections

being formed with a base extension to extend under the bases of the rails and provided with a seat to receive the flange portion of the other section, the flange portion of the last-mentioned section and the base extension of the other section having registering slots, clamps in said slots having portions to engage the upper side of the flange portion of one section and the under side of the base portion of the other section, and keys in said slots to secure the said clamps in engaged position.

2. A rail-joint chair comprising two sections, each having a portion to bear against one side of the rail-webs, and a flange portion to bear on the upper sides of the base-flanges on one side of the rails, said web-bearing portion having studs to extend through openings in the rails, and one of said sections being formed with a base extension to extend under the bases of the rails and provided with a seat to receive the flange portion of the other section, the flange portion of the last-mentioned section and the base extension of the other section having registering slots, clamps in said slots having portions to engage the upper side of the flange portion of one section and the under side of the base portion of the other section, and keys in said slots to secure the said clamps in engaged position.

3. A rail-joint chair formed in two opposing interlocking sections adapted to engage the opposite sides of the meeting ends of the rails, said sections having formed therein alined slots, U-shaped clamping-bars adapted to be inserted and turned in the alined slots of said chair-sections thereby clamping said sections together and into engagement with said rail ends, a corrugated wedge-shaped locking-key adapted to be inserted in said slots to hold said clamping-bars in place, and springs adapted to be inserted between said keys and said clamps whereby the former are held in position, substantially as described.

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

JAMES L. MCGHEE.

Witnesses:

EDWIN W. DIEHL,

JOHN J. BROWN.