

No. 776,006.

PATENTED NOV. 29, 1904.

J. H. ALLEN.
RAIL JOINT.

APPLICATION FILED FEB. 26, 1904.

NO MODEL.

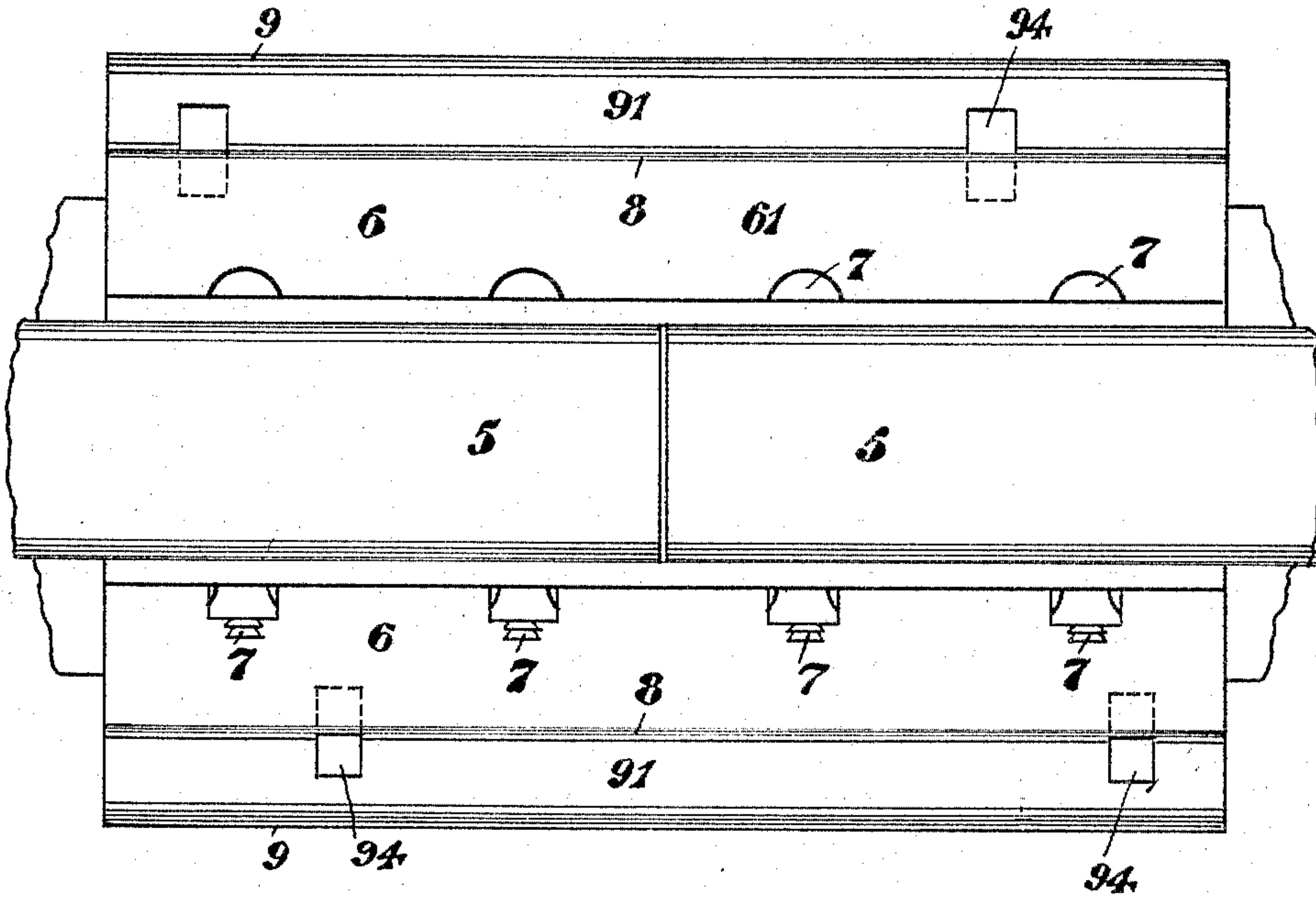
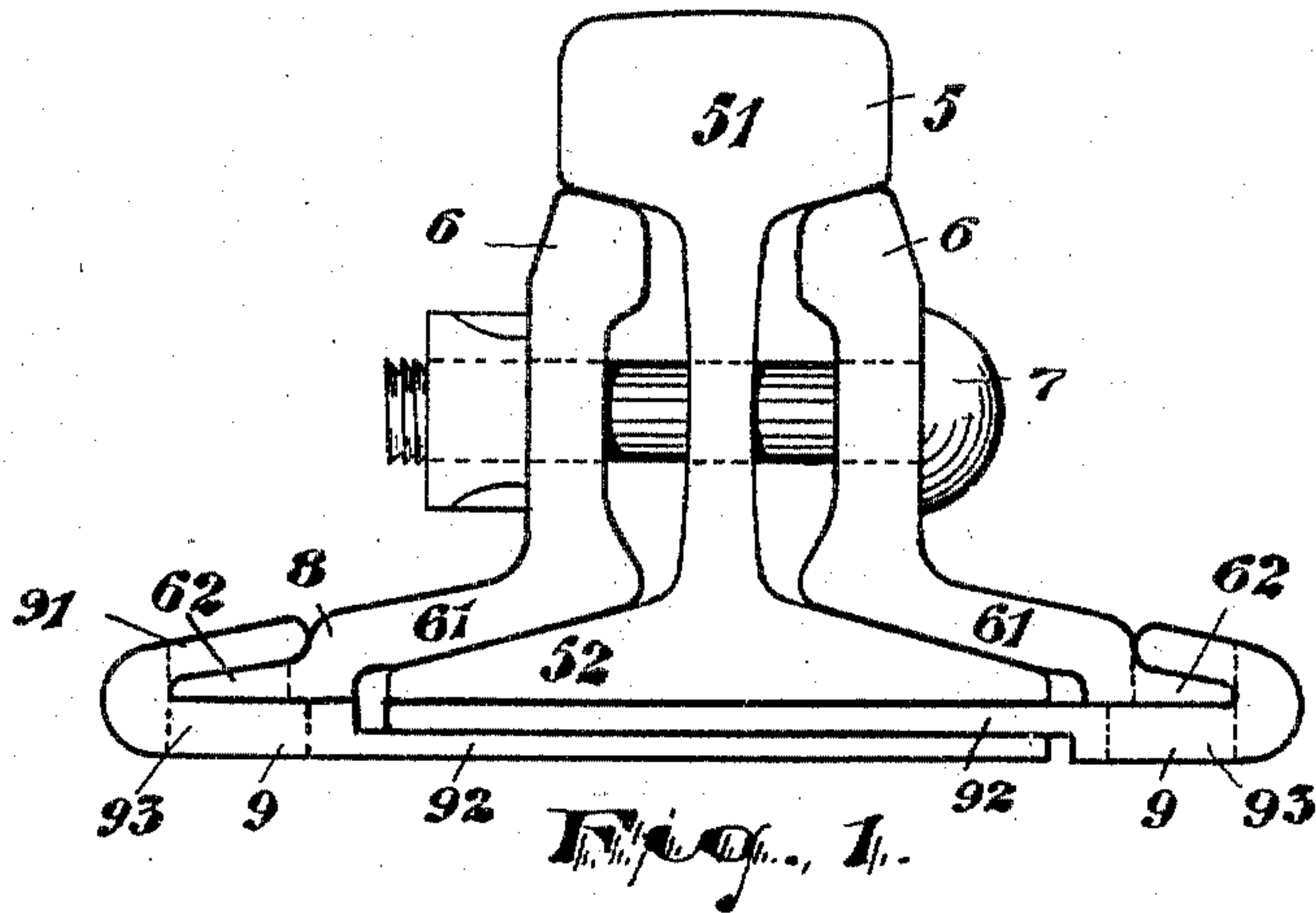


Fig. 2.

WITNESSES:

Ralph Lancaster

M. V. Day

John H. Allen
INVENTOR:

By Charles H. Bell
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN H. ALLEN, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO THE CONTINUOUS RAIL JOINT COMPANY OF AMERICA, A CORPORATION OF NEW JERSEY.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 776,006, dated November 29, 1904.

Application filed February 26, 1904. Serial No. 195,396. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. ALLEN, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Rail-Joints; and I do hereby 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, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

The objects of this invention are to secure greater rigidity, strength, and durability in a rail-joint and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved rail-joint, in the rail connections therefor, and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth, and finally embraced in the claims.

Referring to the accompanying drawings in which like numerals of reference indicate corresponding parts in each of the figures, Figure 1 is an end elevation of one of the rails and the connecting-plates, and Fig. 2 is a plan of the improved joint.

In the drawings 5 5 indicate the rails. 6 6 are the connecting-plates or angle-bars, disposed at opposite sides of said rails and held in connection therewith by suitable bolts 7 in any ordinary manner, the upper parts of the said angle-bars 6 being of any usual construction adapted to bear against the under side of the heads 51 of the rails and upon the top sides of the base-flanges 52 of said rails, the bearing-surfaces of said angle-bars against said heads and base-flanges being oppositely inclined, as indicated in Fig. 1, to enable the said connecting angle-bars to be wedged between said parts, and thus rigidly and firmly holding said rail in alinement, as will be understood.

At the lower outer edges of the approximately horizontal portions 61 of the angle-

bars 6 are formed longitudinal "toes" 62, 50 which are reduced in vertical thickness, as shown in Fig. 1, a shoulder being formed, as at 8, against which a hook-shaped extension 91 is adapted to bear, as hereinafter described. The toes 62 extend from end to end of the angle-bar, their continuity being interrupted by notches or spike-passages 94, as hereinafter described. These are preferably disposed near the opposite ends of the angle-bars, so as to enable the said bars and base-plates to be spiked to the ties, the space between which is bridged by the said bars and base-plates.

Underneath the base-flange of the rail are arranged two overlapping hook-shaped base-plates 9 9 of peculiar construction, the outer ends of which extend laterally beyond the flanges 52 of the rails and are bent upward or are doubled to form longitudinal hooks, the metal in the hook-shaped parts being suitably thicker than the overlapping inner parts 92 of the said base-plates. When the overlapping parts 92 are brought together, the said overlapping parts together will be of a thickness about equal to the thickness of each of the outer parts 93. The overlapping parts are flat, so that one part can slide on the other transversely of the rail without affecting the elevation of said rail with respect to the ties on which it is supported. Said inner and thinner overlapping parts 92 are of a width a little greater than the width of the base-flange 52 of the rail, as shown, and the doubled parts are so disposed that the extensions 91 hook upon the toes 62 of the connecting-plates. The base-plates 9 extend beneath the rail and form a broad bearing for the ties and a firm seat for the rails. The hooked parts of said overlapping base-plates are vertically perforated, as at 94, to receive the spikes (not shown) by which said parts are secured to the ties.

In assembling the parts to form the joint the rail-connecting plates 6 are bolted together and are brought to their bearings by screwing up the nuts of the bolt 7 in the usual manner, and then the base-plates are driven home by a spiking-maul and afterward spiked in place.

Having thus described the invention, what I claim as new is—

1. The combination with the railway-rails, of connecting-plates bolted at opposite sides of said rails and having toes at their lower, outer edges, which extend laterally and downward to the level of the under side of the rail, of base-plates overlapping one another beneath the rails and having their upper surfaces lie flush with the bottom of the rail at points horizontally beyond the said bottom, the outer edges of said base-plates being hooked over said toes at their outer parts, substantially as set forth.

2. The combination with the rails, of connecting-plates having longitudinal toes at their lower projecting edges, and hooked-shaped base-plates caught upon said toes and having overlapping, reduced flat inner parts beneath the rail, substantially as set forth.

3. A connection for railway-rails comprising angle-bars having toes at their lower longitudinal edges and base-plates having hooked outer parts to engage the toes, and horizontal parts to lie beneath the rails, the hooked parts

being perforated to receive spikes for fastening said base-plates to the ties, substantially as set forth.

4. In a railway-joint, the combination with angle-bars having toes extending from end to end thereof, of base-plates extending underneath the rail and at their outer edges having hooked parts engaging the toes from end to end thereof, substantially as set forth.

5. In a railway-joint, the combination with the angle-bars having toes extending from end to end thereof, of base-plates extending underneath the rail and at their outer edges having hooked parts engaging the toes from end to end thereof, said base-plate being perforated and the toes correspondingly notched to enable spikes to be driven through said parts.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of February, 1904.

JOHN H. ALLEN.

Witnesses:

CHARLES H. PELL,
C. B. PITNEY.