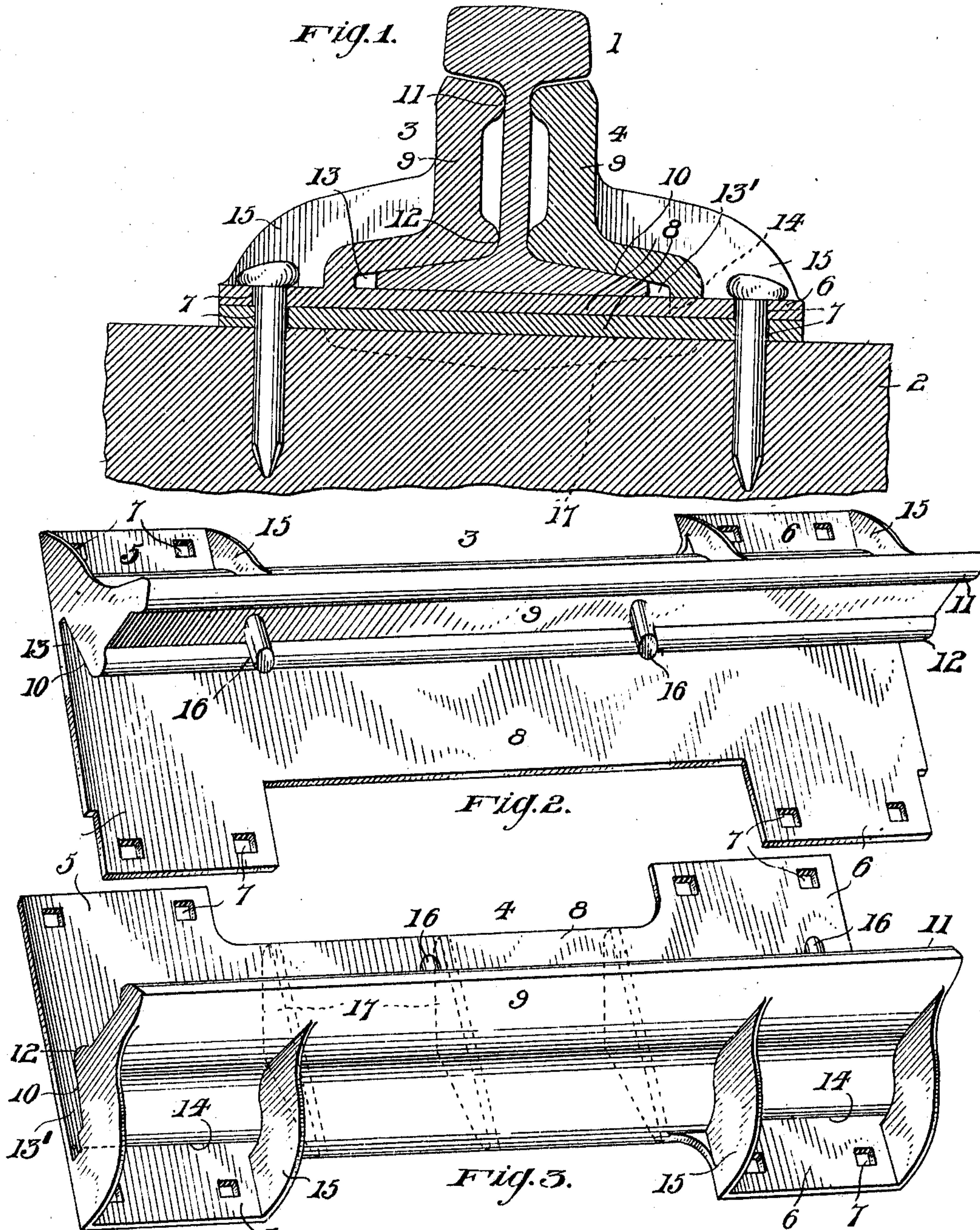


G. A. HASSEL.
 COMBINED RAIL JOINT AND TIE PLATE.
 APPLICATION FILED MAR. 27, 1909.

993,598.

Patented May 30, 1911.



witnesses:

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UNITED STATES PATENT OFFICE.

GUSTAV A. HASSEL, OF McKEESPORT, PENNSYLVANIA, ASSIGNOR TO PITTSBURGH TRACK SPECIALTY COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF DELAWARE.

COMBINED RAIL-JOINT AND TIE-PLATE.

993,598.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed March 27, 1909. Serial No. 486,076.

To all whom it may concern:

Be it known that I, GUSTAV A. HASSEL, a resident of McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Combined Rail-Joints and Tie-Plates, of which the following is a specification.

My invention relates to a combined rail-joint and tie-plate.

An object of the present invention is the provision of a combined rail-joint and tie-plate, preferably constructed of two separable main-members or parts, capable of ready application to the meeting ends of two adjacent rails and of such construction as to provide a rigid support for the ends of the rails between two ties and to afford an efficient seat and brace for the rails on the ties.

In the accompanying drawing, which illustrates an application of my invention, Figure 1 is a vertical sectional view of my invention shown in connection with a rail and a railway-tie; and Figs. 2 and 3 perspective views of the main-members constituting the combined rail-joint and tie-plate embodying my invention.

Referring to the drawing 1, designates a rail of the usual construction and 2 a railway tie.

The combined rail-joint and tie-plate as illustrated and as preferred comprises two interfitting main-members or sections 3 and 4. Sections 3 and 4 each preferably comprise an integral cast-metal structure although they may be formed of other suitable material. These sections while not being duplicates are very similar and each comprises two tie-plate members 5 and 6 of such dimensions as to afford an ample bearing seat for the rails on the ties. Each of the tie-plate-members is designed to extend under the base of each of the adjacent rails and to project for an equal distance from both sides of the bases of the rails, and each is formed with spike-receiving-openings 7. Members 5 and 6 are connected by a bridge or base-member 8, adapted, when the parts are assembled, to bridge the space between two railway-ties.

Extending throughout the length of each section is a splice-bar or fish-plate-member

9. Member 9 of each section extends upwardly and inwardly from the outer edge of the base-member 8 and comprises an inclined bearing face 10 and upper and lower rounded flanges 11 and 12. The inclined bearing face 10 is disposed relatively to base-member 8 to form a recess 13 which latter is adapted to receive that portion of the base of the rail lying on one side of its web. To permit the tie-plate-members of section 3 to be passed into operative position I form on section 4 two openings 14. These openings 14 together with the recess 13, which is larger than the corresponding recess 13 of section 3, constitute the important differences existing between the two sections 3 and 4.

Each section is preferably provided with strengthening ribs 15 and in the drawing I have shown the sections formed with lugs or pins 16 designed to pass through holes formed in the webs of the rails, but these lugs may be omitted.

The upper flanges 11 are designed to be drawn close against the opposite faces of the webs of the rails below the heads of the rails and the lower flanges 12 of the respective fish-plate-members tightly against the opposite faces of the lower portion of the webs, thus providing a continuous clamping-device extending over the space between two adjacent ties and also the width of the two ties.

Instead of supporting the rails by extending the upper portions of the splice-bars or fish-plate-members up into close engagement with the under-sides of the heads of the rails, I stop them short thereof, and support the rails between the ties by means of the bridge or base-members 8 located under the bases of the two rails.

The spike openings of the tie-plates are so located that they are only in exact register when the sections tightly impinge the sides of the rails; in other words, the operation of driving the spikes through the openings forces the two sections inwardly until their rail engaging parts tightly clasp the opposite sides of the rails.

Section 4, in addition to the parts or members above described, is preferably provided on the under side of its bridge-member 8, with laterally extending ribs or

flanges 17, as shown in dotted lines. These ribs, if desired, may extend longitudinally of the base or bridge-member 8.

What I claim is:

- 5 A combined rail-joint and tie-plate comprising two sections each formed with two broad overlapping tie-plate-members, formed with spike-receiving-openings, a base-member connecting the tie-plate-members and adapted to extend under the bases
10 of two adjacent rails, a fish-plate-member, said openings of the tie-plate-members of the respective sections arranged to be drawn into register by means of a spike driven
15 through the openings, said fish-plate-member

ber of each section comprising a vertical portion formed with an upper flange adapted to engage the web of the rail below its head and a lower flange, strengthening ribs connecting the tie-plate-members and
20 fish-plate member, one of said sections formed with openings to receive the tie-plate-members of the other section and with ribs on the under side of its base-member.

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

GUSTAV A. HASSEL.

Witnesses:

A. C. WAY,

W. G. DOOLITTLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
