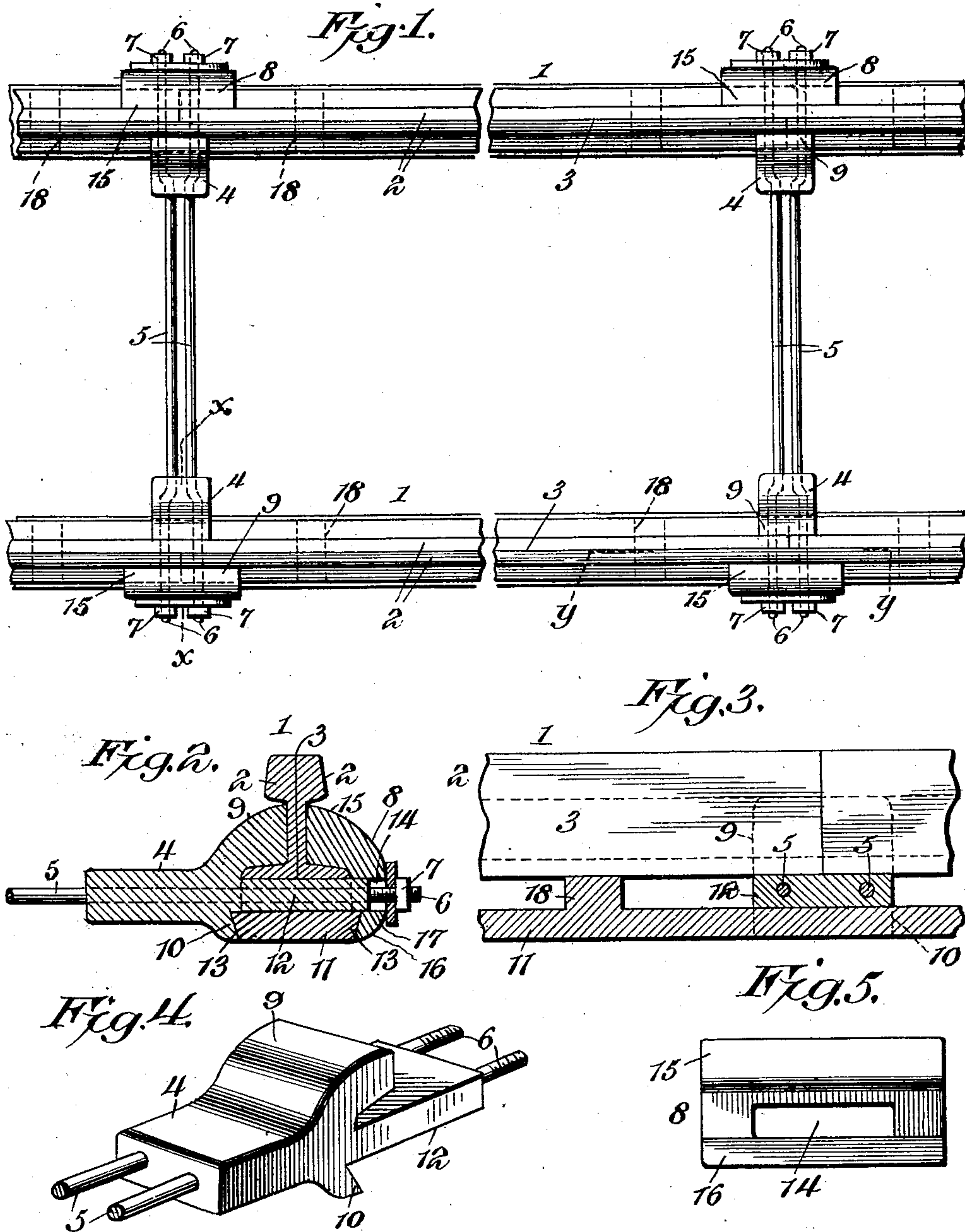


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RAILROAD TRACK FASTENING.
APPLICATION FILED OCT. 19, 1907.

916,277.

Patented Mar. 23, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

MATTHEW J. DAWKINS, OF RIVERSIDE, CALIFORNIA.

RAILROAD-TRACK FASTENING.

No. 916,277.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed October 19, 1907. Serial No. 398,194.

To all whom it may concern:

Be it known that I, MATTHEW J. DAWKINS, a citizen of the United States, residing at Riverside, in the county of Riverside and State of California, have invented a new and useful Railroad-Track Fastening, of which the following is a specification.

The invention relates to improvements in track fastenings.

10 The object of the present invention is to improve the construction of track fastenings, and to provide a simple and comparatively inexpensive construction of great strength and durability, adapted to dispense with the
15 ordinary fish plates and bolts and also the spikes commonly employed for securing rails to the cross ties.

With these and other objects in view, the invention consists in the construction and
20 novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and
25 minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a plan view
30 of a portion of a track provided with track fastenings, constructed in accordance with this invention. Fig. 2 is a detail sectional view, taken substantially on the line $x-x$ of Fig. 1. Fig. 3 is a detail sectional view,
35 taken substantially on the line $y-y$ of Fig. 1. Fig. 4 is a detail perspective view of one end of a cross tie. Fig. 5 is a detail view of one of the clamping members for engaging the
40 outer faces of the rails.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1—1 designate rails divided longitudinally to form two similar sections 2, which have
45 inner vertical faces 3, as clearly illustrated in Fig. 2 of the drawing. The sections of the rails are arranged to form lap joints, the ends of one section being located at the center of the adjacent rail sections, whereby practically a continuous rail is formed to eliminate
50 the jars and vibrations incident to the passage of the wheels of a train over rail joints in which the ends of the rails are spaced apart.

55 The rail sections may be of any preferred length, and the rails are connected by cross

ties, arranged at each of the semi-joints, as clearly illustrated in Fig. 1 of the drawing. Each cross tie is composed of a pair of clamping heads 4 and connecting rods 5, having
60 parallel portions extending across the space between the clamping heads. The clamping heads, which are rigid with the rods, may be cast, welded, brazed, or otherwise connected with the same, and the terminals 6
65 of the rods project beyond the clamping heads, and are threaded for the reception of nuts 7 for securing clamping members 8 on the ends of the cross ties. Each clamping head is provided with upper and lower jaws
70 9 and 10, arranged to engage the rail and a stringer 11, which is located beneath and spaced from the rails. The stringer 11, as clearly illustrated in Fig. 2 of the drawing, is of slightly greater width than the bottom of
75 the rail, and it projects laterally beyond each side of the same. The clamping head 4 is also provided at an intermediate point between the jaws with an outwardly extending rail-supporting portion or plate 12, having
80 flat horizontal upper and lower faces and presenting a flat supporting surface to the bottom flanges of the rails. The upper jaw 9, which is arranged at an inclination, conforms to the configuration of the bottom
85 flange and web of the rail and it extends upward to and engages the head of the rail. The lower depending jaw 10 is provided with an inclined engaging face and the string
90 11 is downwardly tapered to provide downwardly and inwardly extending inclined side faces 13.

The horizontal rail-supporting portion 12 of the cross tie extends a short distance beyond the rails, and the clamping member 8
95 is provided with an oblong horizontal opening 14 to receive the outer end of the rail-supporting portion 12. The clamping member 8 is provided with upper and lower jaws 15 and 16; the upper jaw 15 conforms to
100 the configuration of the bottom flange and web of the rail and extends to and engages the head of the rail, and the lower jaw 16 has an inclined engaging face to fit against the inclined face of the stringer 11. The outer
105 face of the clamping member is rounded at 17 to enable the clamping member to adjust itself to the rail and the stringer when the nuts 7 are screwed home. A washer plate is preferably interposed between the nuts
110 and the clamping member, but it may be omitted if desired. When the parts are

assembled, the cross tie is firmly interlocked with both the rails and the stringer, which receives the rail-supporting portion of the cross tie.

5 The rails are preferably supported between the cross ties by means of blocks 18, which may be mounted on the stringers in any preferred manner. When the track sags, it may be raised to the proper level
10 and gravel or other material may be tamped beneath it from the outside of the rails without digging out the gravel or ballast between the rails.

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

1. In a device of the class described, the combination with stringers, and rails, of a cross tie provided at its ends with heads
20 having upper and lower jaws, and clamping members also provided with upper and lower jaws, said heads and clamping members coöperating to clamp both the rails and the stringers.

25 2. In a device of the class described, the combination with a rail, and a stringer, of a cross tie provided with a head having upper and lower jaws for engaging the rail and the stringer at the inner side thereof, and a
30 clamping member secured to the end of the cross tie and having upper and lower jaws for engaging the rail and the stringer at the outer side thereof.

3. In a device of the class described, the
35 combination with a rail, and a stringer, of a cross tie provided with a head having upper and lower jaws for engaging the rail and the stringer at the inner side thereof, said head being also provided with an outwardly pro-
40 jecting rail supporting portion interposed between the rail and the stringer and spacing the former above the latter, and a clamping member secured to the end of the cross tie
45 and having upper and lower jaws for engaging the rail and the stringer at the outer side thereof.

4. In a device of the class described, the combination with a rail, and a stringer hav-
50 ing inclined side faces, of a cross tie provided with a head having upper and lower jaws for engaging the rail and the stringer, the lower jaw being provided with an inclined face to fit the said stringer, and an outer clamping

member adjustably secured to the cross tie and provided with upper and lower jaws for
55 engaging the rail and the stringer, the lower jaw being also provided with an inclined engaging face to fit the stringer.

5. In a device of the class described, the combination of a cross tie composed of rods
60 having threaded terminals, and a head rigid with the rods and provided with upper and lower jaws, an outer clamping member arranged on the outer end of the cross tie and coöperating with the head and having upper
65 and lower jaws, and nuts mounted on the threaded ends of the rods for adjusting the outer clamping member.

6. In a device of the class described, the combination of a cross tie composed of
70 spaced rods, and a head rigid with the rods and having upper and lower jaws, said head being also provided with an outwardly extending rail supporting portion located at an intermediate point between the jaws, an
75 outer clamping member having upper and lower jaws and provided with an intermediate opening to receive the rail-supporting portion and the terminals of the rods, and means mounted on the rods for securing the
80 outer clamping member to the cross tie.

7. In a device of the class described, the combination of a cross tie composed of
85 spaced rods having threaded terminals, and clamping heads rigid with the rods and terminating short of the ends thereof and provided with upper and lower jaws, outer
clamping members having upper and lower jaws to coöperate with the heads, and nuts
90 mounted on the ends of the rods for securing the outer clamping members to the cross tie.

8. In a device of the class described, a cross tie including spaced rods of a length to
95 extend across a track, and rail clamps composed of inner clamping members rigid with said spaced rods near the ends thereof, and outer clamping members adjustably mounted on the ends of the rods beyond the inner clamping members.

In testimony, that I claim the foregoing as
100 my own, I have hereto affixed my signature in the presence of two witnesses.

MATTHEW J. DAWKINS.

Witnesses:

L. B. SCRANTON,
A. D. NICHOL.