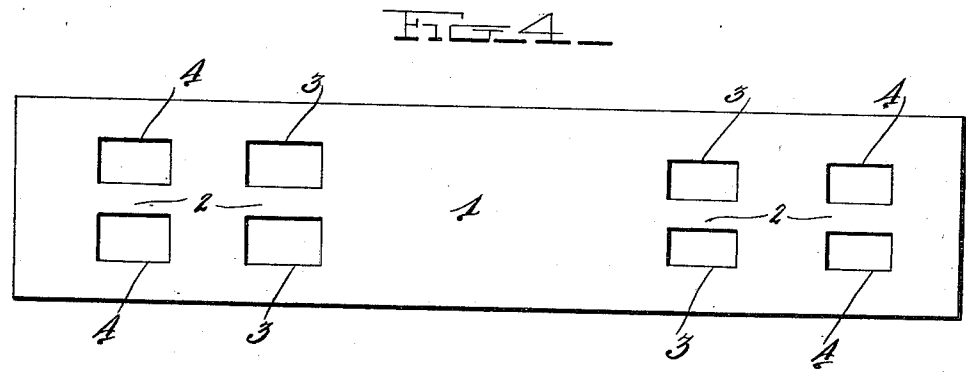
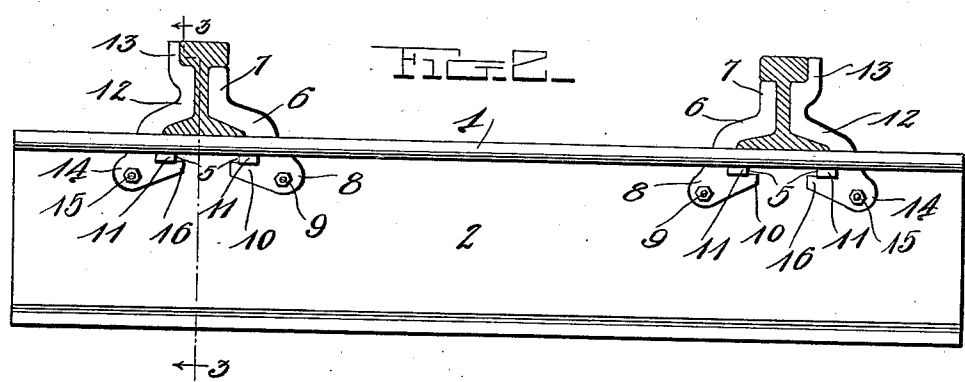
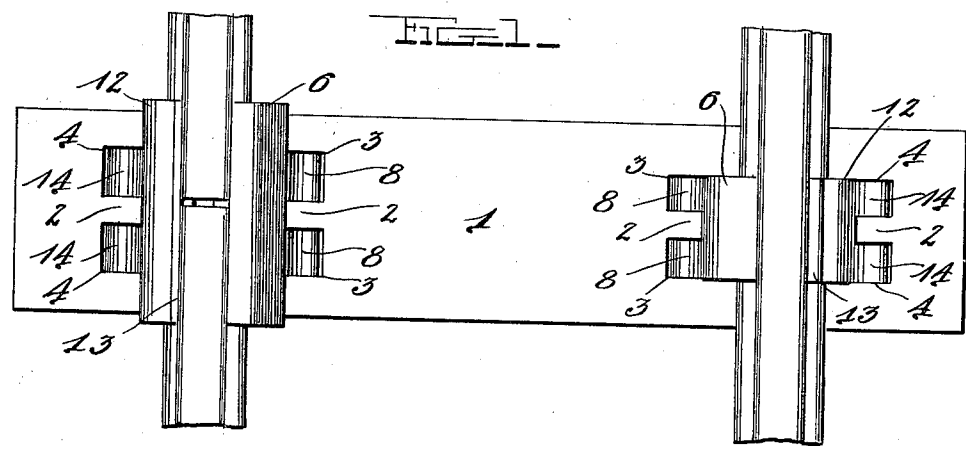


J. J. STAWARTZ.
RAILWAY TIE AND RAIL FASTENING.
APPLICATION FILED MAR. 30, 1911.

1,009,199.

Patented Nov. 21, 1911.
2 SHEETS—SHEET 1.



Witnesses
D. R. Pierce
O. B. Hopkins

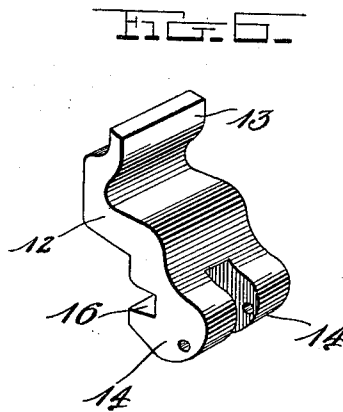
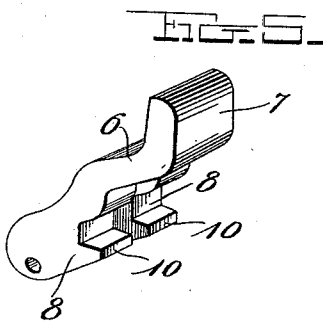
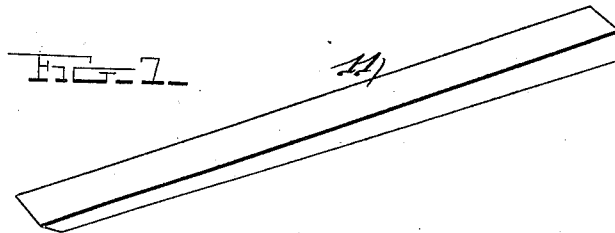
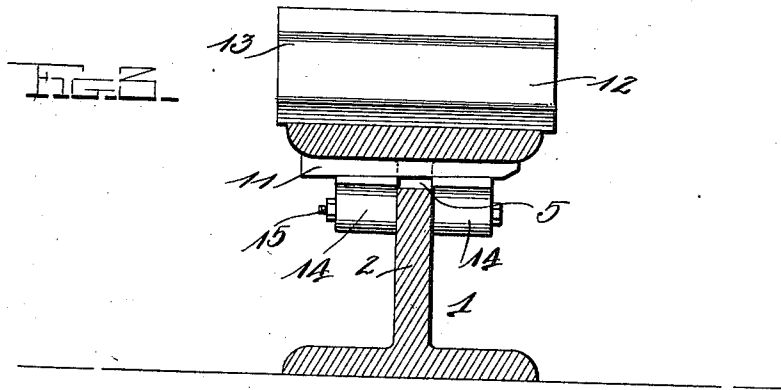
Inventor
J. J. Stawartz.
by *H. B. Wilson & Co.*
Attorneys

J. J. STAWARTZ.
RAILWAY TIE AND RAIL FASTENING.
APPLICATION FILED MAR. 30, 1911.

1,009,199.

Patented Nov. 21, 1911.

2 SHEETS—SHEET 2.



Witnesses
J. R. Pierce
O. B. Hopkins

Inventor
J. J. Stawartz.
by *A. B. Wilson & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

JOHN J. STAWARTZ, OF HOMESTEAD, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
JOHN UHRIN, OF HOMESTEAD, PENNSYLVANIA.

RAILWAY-TIE AND RAIL-FASTENING.

1,009,199.

Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed March 30, 1911. Serial No. 617,941.

To all whom it may concern:

Be it known that I, JOHN J. STAWARTZ, a citizen of the United States, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Ties and Rail-Fastenings; 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 railway ties and rail fastening devices.

One object of the invention is to improve and simplify the tie and rail fastening devices shown in my allowed application, Serial #592,267 filed December 18, 1910, whereby a stronger, more durable, and less expensive construction is provided.

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

In the accompanying drawings: Figure 1 is a plan view of my improved tie showing the rails applied and fastened thereto in accordance with my invention. Fig. 2 is a side view of the tie. Fig. 3 is a vertical cross sectional view on the line 3—3 of Fig. 2. Fig. 4 is a plan view of the tie with the fastening devices and rails removed. Fig. 5 is a detail perspective view of one of the inner rail fastening devices. Fig. 6 is a similar view of one of the outside rail fastening devices, and Fig. 7 is a perspective view of one of the keys for holding the rail fastening devices in operative position.

Referring more particularly to the drawings, 1 denotes my improved tie which is in the form of a metal eye beam of sufficient size and strength to support and hold the rails. In the upper flange of the beam or tie 1 on opposite sides of the web 2 or vertical portion thereof are formed parallel longitudinally extending slots 3 and 4 with which are adapted to be engaged the rail fastening devices hereinafter described. In the upper portion of the web 2 of the tie adjacent to the inner ends of the slots 3 are formed transverse passages 5, the purpose of which will be hereinafter described.

Adapted to be engaged with the slots 3 are inner rail fastening devices 6, said de-

vices comprising rail engaging plates 7 which are shaped to fit over the flanges of the rails and against the inner sides of the webs and under sides of the head or tread portions of the rail as shown. On the lower edges of the rail engaging plates 7 are formed pairs of attaching lugs 8 which are adapted to project through the slots 3 and engage the opposite sides of the web 2 of the tie to which said lugs are pivotally connected by a pivot bolt 9. On the inner sides of the lugs are formed locking flanges 10 which, when the fastening devices are in operative engagement with the rails are disposed below and spaced a suitable distance from the lower surface of the upper flanges of the tie in line with the passages 5 formed through the web of the tie. When the fastening devices 6 are in this position a locking wedge or key 11 is driven in between the flanges 10 and the adjacent under surface of the upper flange of the tie and through the passages 5 thereby locking the fastening devices in operative position.

Arranged in the slots 4 at the outer sides of the rails are combined fastening and bracing devices 12, said devices comprising rail engaging plates 13 which are shaped to fit over the outer flanges of the rails and against the outer sides of the web and under side and outer edge of the head or tread of the rails as shown. On the lower edge of the plates 13 are formed pairs of parallel attaching lugs 14 which are adapted to be inserted through the slots 4 and which engage the opposite sides of the web 2 of the tie to which said lugs are pivotally connected by a pivot bolt 15.

On the inner sides of the lugs 14 are formed locking flanges 16 which are spaced a suitable distance below the lower surface of the upper flanges of the tie in line with the adjacent passage 5 in the web 2 of the tie. When thus arranged, one of the locking wedges or keys 11 is driven through the spaces between the flanges 16 and the adjacent under surface of the upper tie flanges and through the passage 5 in the web of the tie, thereby locking the outer fastening devices 12 in engagement with the outer sides of the rails, whereby the latter are securely fastened to the tie and braced against spreading or upsetting.

It will be noted by reference to Fig. 1 of the drawings that the fastening devices at

one end of the tie are of considerably greater length than the fastening devices at the opposite end of the tie and that the longer fastening devices are employed at the joint or meeting ends of two of the rail sections. By thus forming the joint fastening devices of greater length than the devices used on the ties between the joints of the rails, the meeting ends of the rails are more firmly secured. By providing the fastening devices with pairs of attaching lugs which engage the opposite sides of the web of the tie, it will be seen that said fastening devices are firmly braced against longitudinal movement and when locked by the wedge shaped keys in the manner described will be rigidly secured to hold the rails in firm engagement with the ties.

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 as defined in the appended claims.

Having thus described my invention, what I claim is:

1. A railway tie comprising an I beam having formed in its upper flanges pairs of slots, said slots being arranged on the opposite sides of the web of the tie rail, fasten-

ing devices adapted to be engaged with the opposite sides of the rails, attaching lugs formed on said fastening devices and adapted to project through said slots and into engagement with the opposite sides of the web of the tie, means to pivotally connect said lugs with said web, and means to lock the fastening devices in operative engagement with the rails.

2. A railway tie comprising an I beam having formed in its upper flange adjacent to its ends pairs of slots, said slots being arranged on opposite sides of the web of the beam, said web having formed therethrough transverse passages, rail fastening devices comprising rail engaging plates shaped to fit the sides of the rail, pairs of attaching lugs formed on said plates and adapted to be engaged with the passages in the flange of the tie, pivot bolts arranged through said lugs and the web of the tie, locking flanges formed on said lugs, and wedge shaped locking keys adapted to be driven through the passages in the web of the tie and between said locking flanges and the adjacent under surface of the beam or tie flanges, whereby said fastening devices are locked in operative engagement with the rails.

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

JOHN J. STAWARTZ.

Witnesses:

ANTON KUBANCSEK,
STEVE GOVZSIK.