

W. A. WILLIAMS.
RAIL FASTENING.
APPLICATION FILED NOV. 11, 1908.

964,726.

Patented July 19, 1910.

Fig. 1

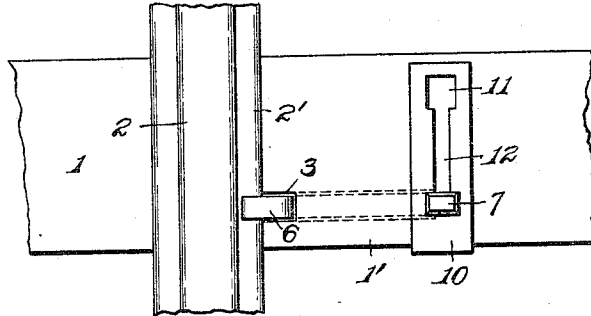


Fig. 2

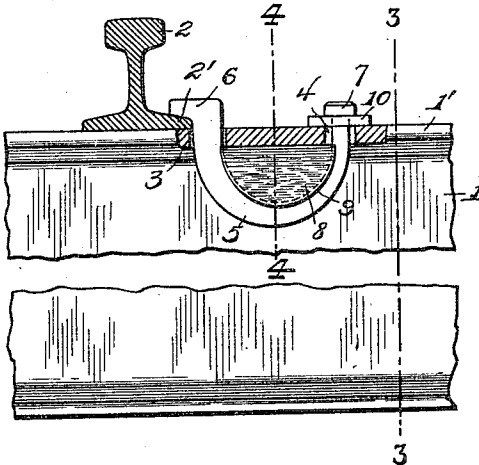


Fig. 3

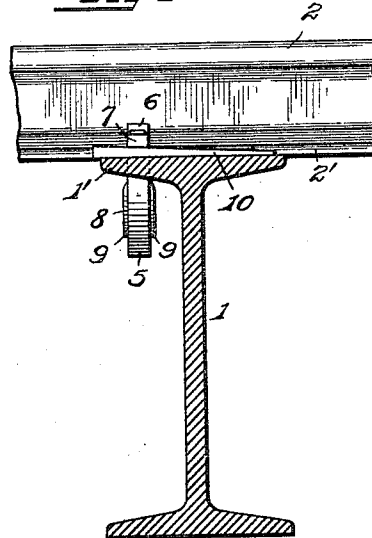


Fig. 4

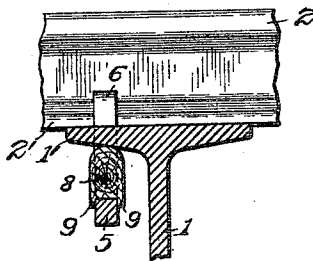
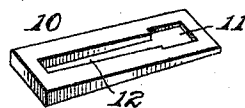


Fig. 5



WITNESSES:

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RAIL-FASTENING.

964,726.

Specification of Letters Patent.

Patented July 19, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM A. WILLIAMS, a citizen of the United States of America, and resident of Barton, county of Belmont, and State of Ohio, have invented certain new and useful Improvements in Rail-Fastenings, of which the following is a specification.

This invention relates to improvements in rail fastenings, and more particularly to a clamp for securing railway-rails upon I-beams and the like.

The primary object of the invention is to provide a simple, efficient, durable and inexpensive clamp whereby railway-rails may be firmly held in place upon metallic cross-ties, I-beams and the like, and which may be readily applied without the use of bolts and nuts.

A further object is to provide a clamp of the character mentioned wherein is employed a self-seating fulcrum-block adapted for reducing the friction when tension is placed upon the device for causing the rail to be firmly gripped.

With these and other objects in view, the invention finally consists in the particular construction, arrangement and combination of parts which will hereinafter be fully described, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a top plan view of a railway-rail mounted upon an I-beam, showing my invention applied thereto; Fig. 2 is a side view of the invention applied, a portion of the I-beam being shown in broken section; Fig. 3 is a section on the line 3—3, Fig. 2; Fig. 4 is a section on the line 4—4, Fig. 2; and—Fig. 5 is a perspective view of the key.

Referring to said drawing, in which like reference numerals designate like parts throughout the several views—1 indicates a cross-tie of I-beam type, and 2 a railway-rail seated thereon. In the upper flange 1' of the I-beam at the extremity of the base flange 2' of the rail is a hole or mortise 3, and at a point beyond the mortise 3 is a second hole or mortise 4, said holes or mortises being located in a line which is in direct parallel alinement with the beam. With its terminals or ends projected upward through said holes or mortises is a clamping-bar 5 having a body curved into semi-circular form. Said clamping-bar is preferably tapered slightly from its claw-like head

6, located on the end adjacent to the rail, to its rectangular head 7, located on the opposite end.

The claw 6 is adapted to fit closely over the edge of the base-flange 2' of the rail, as shown. Movably mounted upon the body of the clamping-bar beneath the upper flange 1' of the beam is a semi-circular fulcrum-block 8, made of wood, metal, or other appropriate material, in the semi-circular edge of which is a groove or channel formed between parallel lips or flanges 9 which straddle the body portion of said bar.

Any appropriate means may be employed for drawing the clamping-bar into position for causing its claw-like head to firmly grip the rail-base and for retaining it in such position. The means herein illustrated consists of a wedge-shaped key 10 adapted for insertion between the head 7 and the top surface of the I-beam. Said key has located therein adjacent to its point a rectangular hole 11, and communicating with said hole is a longitudinally-directed slot 12.

In applying the device, the end of the clamping-bar opposite that on which the claw-like head 6 is located is inserted downward through the mortise 3, and the block 8 is then mounted on said bar, after which said end is brought up through the mortise 4. Then, placing the key 10 over the head 7 so that the latter will project through the hole 11 above said key, the key is driven forward between said head and the top of the beam. With the block 8 serving as a fulcrum, this action causes a powerful tension to be placed upon the clamping-bar which results in the claw-head 6 being drawn down into firm clamping relation with the base-flange of the rail. As is apparent, the fulcrum-block, riding freely upon the top of the semi-circular body portion of the clamping-bar, automatically seats itself when tension is applied to said bar.

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

1. The combination with a railway-rail and an I-beam on which said rail is mounted, the latter having a pair of mortises therein at one side of the rail, of a clamping-bar comprising a body bent into semi-circular form, a claw integral with said body at one end thereof, said body having its ends extended upward through said mortises with the claw in gripping engagement with the

base-flange of the rail, fastening means associated with the end of the bar most remote from the rail, and a self-seating fulcrum-block mounted upon the curved body of the clamping-bar, said block having lateral parallel flanges in engagement with the sides of said bar.

2. The combination with a railway-rail and an I-beam on which said rail is mounted, said I-beam having a pair of mortises in one of its upper flanges at one side of the rail, of a bar having a body curved into approximately semi-circular form, a claw-head on one end of said bar, said head being projected outward through one of said mortises and in gripping engagement with the

base-flange of the rail, a head on the opposite end of said bar, the last-mentioned head being projected outward through the other mortise, a wedge-like key interposed between the last-mentioned head and the top of the beam, and a semi-circular fulcrum-block carried by the body of said bar and adapted to automatically seat itself between said body and the flange of the beam said block having lateral bar-engaging flanges.

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

WILLIAM A. WILLIAMS.

Witnesses:

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