

961,078.

Patented June 7, 1910.

Fig. 1.

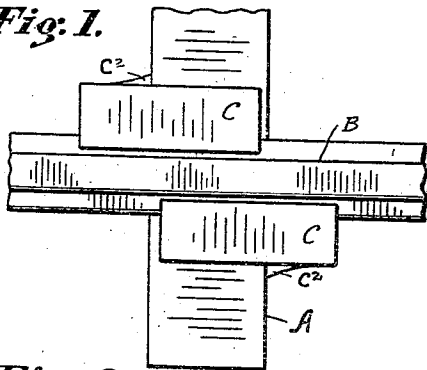


Fig. 4.

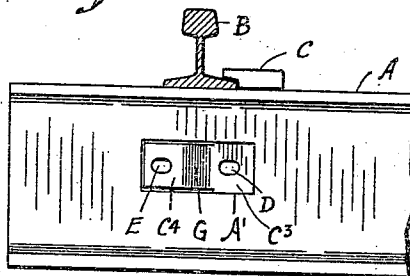


Fig. 2.

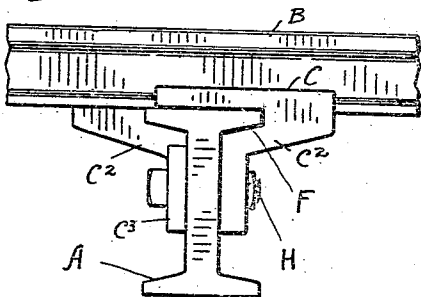


Fig. 3.

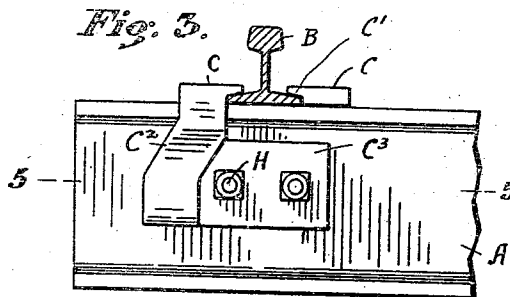


Fig. 5.

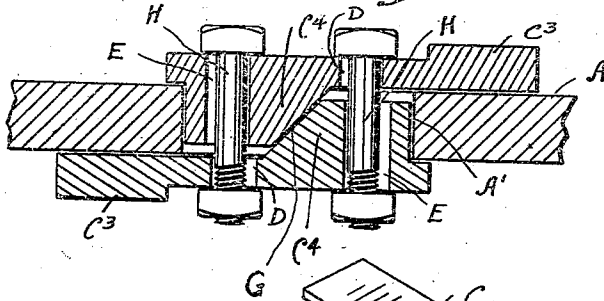


Fig. 8.

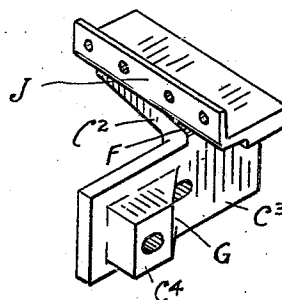


Fig. 6.

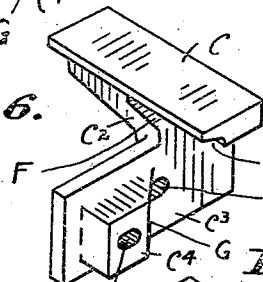
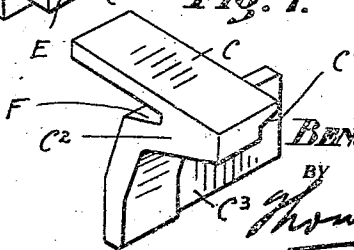


Fig. 7.



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BENJAMAN W. SMITH, OF MONTPELIER, INDIANA, ASSIGNOR OF ONE-HALF TO THOMAS C. NEAL, OF MONTPELIER, INDIANA.

RAIL-TIE FASTENING.

961,078.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed March 9, 1910. Serial No. 548,124.

To all whom it may concern:

Be it known that I, BENJAMAN W. SMITH, a citizen of the United States, residing at Montpelier, in the county of Blackford and State of Indiana, have invented certain new and useful Improvements in Rail-Tie Fastenings, of which the following is a specification.

This invention relates to improvements in devices for the securing of metallic beams or flanged members or structural forms such as I-beams and track rails, to supporting beams or members arranged at an angle to or transversely of the member that is to be secured.

This invention is intended to be of especial utility for securing track rails to the ties therefor and I have shown herein the form of embodiment deemed preferable for that purpose.

The more specific objects of my invention are to provide a fastening means which will be economical of manufacture, easy of manipulation, strong and durable, and which will be not liable to get out of repair or adjustment.

The objects of my invention are accomplished by and my invention consists of the new structure, combination and arrangement of parts, and of the details and features of construction illustrated in the accompanying drawings, defined in the appended claims, and described in this specification.

In the drawings similar characters of reference identify corresponding parts throughout the several views.

Figure 1 shows a plan view, and Fig. 2 is an end view of my invention complete, the track rail being in the secured position. Fig. 3 is a side view of Fig. 2. Fig. 4 is a view similar to Fig. 3, the bolts, and one of the clamp-blocks having been removed from the tie. Fig. 5 is a horizontal enlarged transverse sectional view taken on the line 5—5 in Fig. 3. Fig. 6 and Fig. 7 are perspective views of the clamp blocks. Fig. 8 is a modified form of clamp block shown in perspective.

A known form of flanged metal railway tie A is shown in the drawings. The distance, center to center, between the rectangular apertures A¹ is the distance between centers of the track rails B. To hold the track rail in position on the tie is the func-

tion of the clamp-blocks which have been developed and perfected into the new and peculiar form as shown plainly in Fig. 6 and in Fig. 7. These clamp-blocks are complementary; each consists of the top-portion C provided with the rabbet C¹ to engage the edge of the flange of the track rail. Connected to the top-portion by the neck C² of ample strength is the leg C³ which stands at an angle to the top-portion. Where the tie A and the track rail B are to be connected at right angles to each other, as in this case, the leg C³ of course stands at a right angle to the said top-portion C. On the rear side of this leg C³ is formed the lug C⁴. Through the legs of the clamp blocks are oblong holes D and E, and the neck C² is so formed that there is the groove or opening F of form to embrace the flange of the tie. The lug C⁴ has the beveled face G and the form of the lug is such that when these clamp blocks are drawn toward each other by the bolts H into the position where the inner surfaces of the legs C³ almost meet the sides of the web of the tie, and the ends of the lugs almost meet the ends of the aperture A¹, the edges of the flange of the track rail are engaged by the rabbet F of the top portions of the clamp blocks. With the tightening then of the bolts the lugs are tightened against the ends of said aperture, the legs C³ are drawn into tight contact with the web of the tie, and the flanges of the track rail are tightly gripped. Lock nuts or locking means of any form common to standard railway equipment may be used to secure the bolts H in their finally tightened position.

It is contemplated that these clamp blocks may be made in the form as shown in Fig. 8. In this modification wherein the fish-plate feature J is provided, facility is afforded for increasing the rigidity of the holding of the rail. This modified form of clamp-block is preferable where the heavier type of track rail is used and it is desired to overcome the tendency of the rail to creep or move transversely of the tie. A fastening-device of this character besides being capable of application to the use as above described will be found of utility in the erection of structural work generally. Track rails, T shapes, I-beams and other flanged structural shapes may be secured in position with rapidity, and the punching or drilling

of holes for connecting means in the flanges is rendered unnecessary.

By a modification in the shape of the neck of the clamp blocks and the angle of the leg C^s with reference to the main portion C, my invention may afford connection to a form of cross member not flanged, and for a rail member passing the cross member at any angle.

10 What I claim as my invention and desire to secure by Letters Patent, is—

1. The combination with a beam provided with a rectangular aperture, of a pair of complementary clamp blocks the meeting
15 faces of the body-portions of which are recessed to engage the edges of the flange of a track rail, the legs of the clamp blocks being turned at an angle to the body-portion of the block and having lugs on their rear
20 sides to occupy the said rectangular aperture and provided with complementary faces so beveled that when the lugs are drawn toward each other the body portions will also

approach each other, means to draw the legs toward each other transversely of the beam 25 and to hold the same in locked position.

2. The combination of a beam provided with a rectangular aperture, a pair of complementary clamp blocks the meeting faces of the body portions of which are recessed to
30 engage the edges of the flange of a track rail, the legs of the clamp block being turned at an angle to the body-portion of the block and having lugs on their rear sides to occupy the said rectangular aperture and pro- 35 vided with complementary faces so beveled that when the lugs are drawn toward each other the body portions will also approach each other, bolts to draw together the said clamp blocks, substantially as described. 40

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

BENJAMAN W. SMITH.

Witnesses:

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