

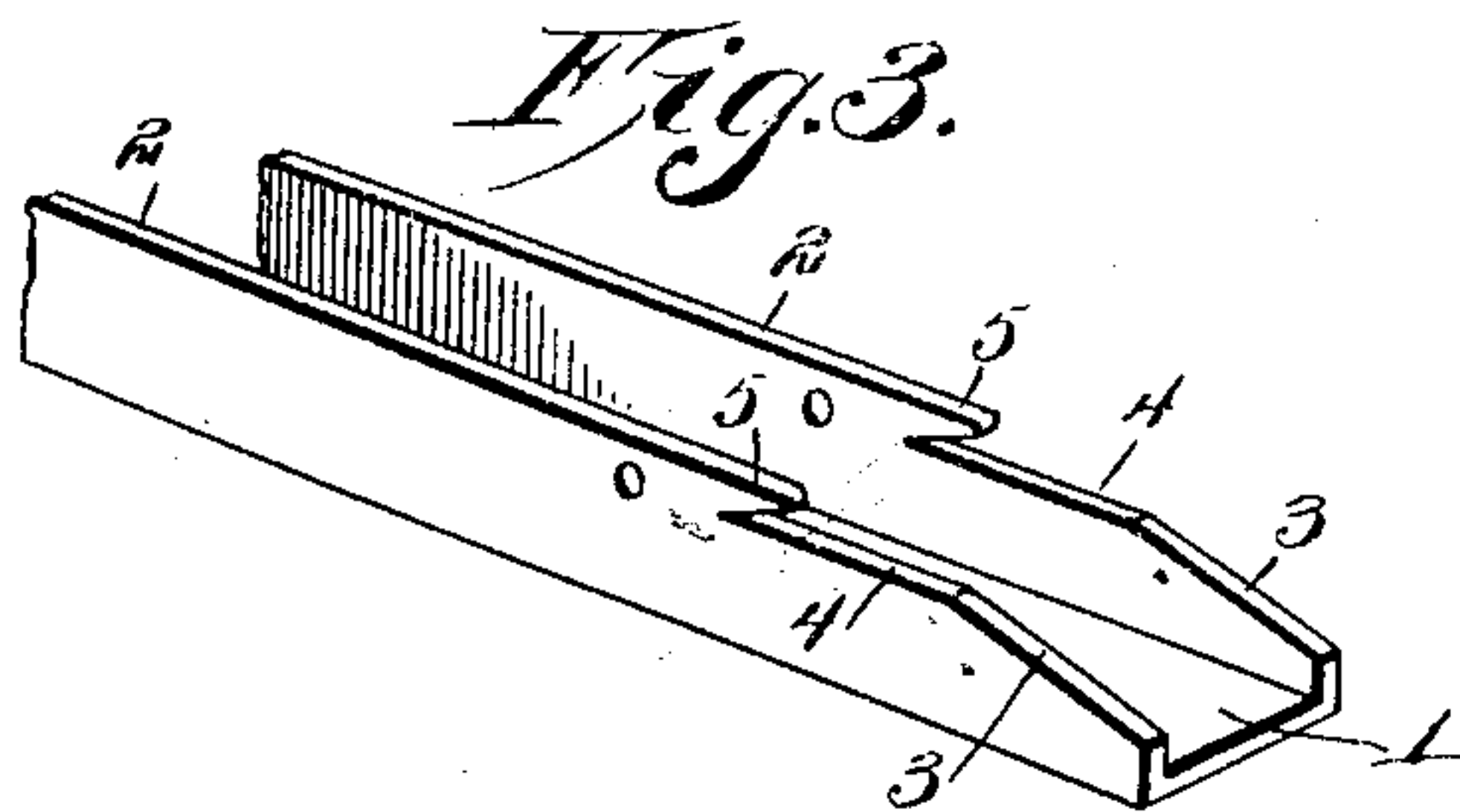
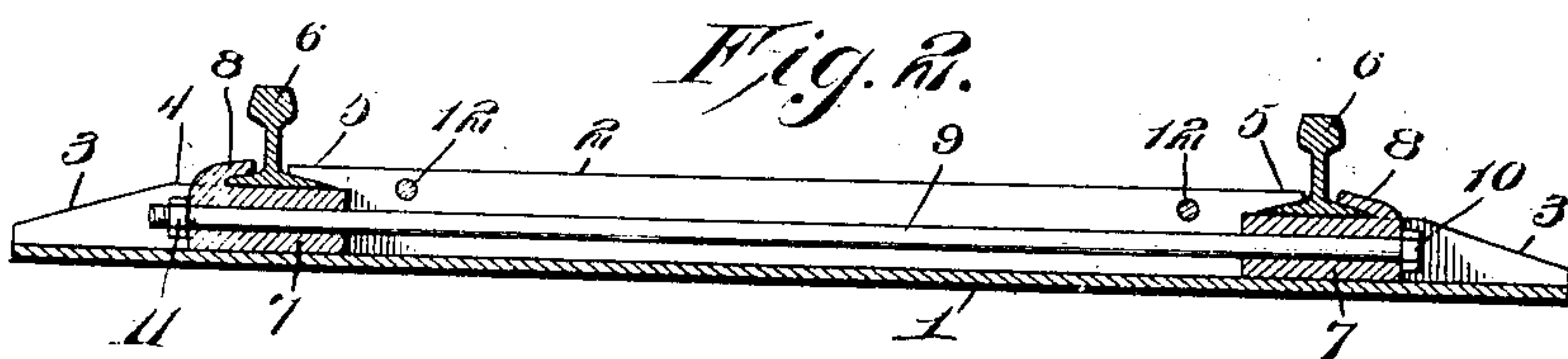
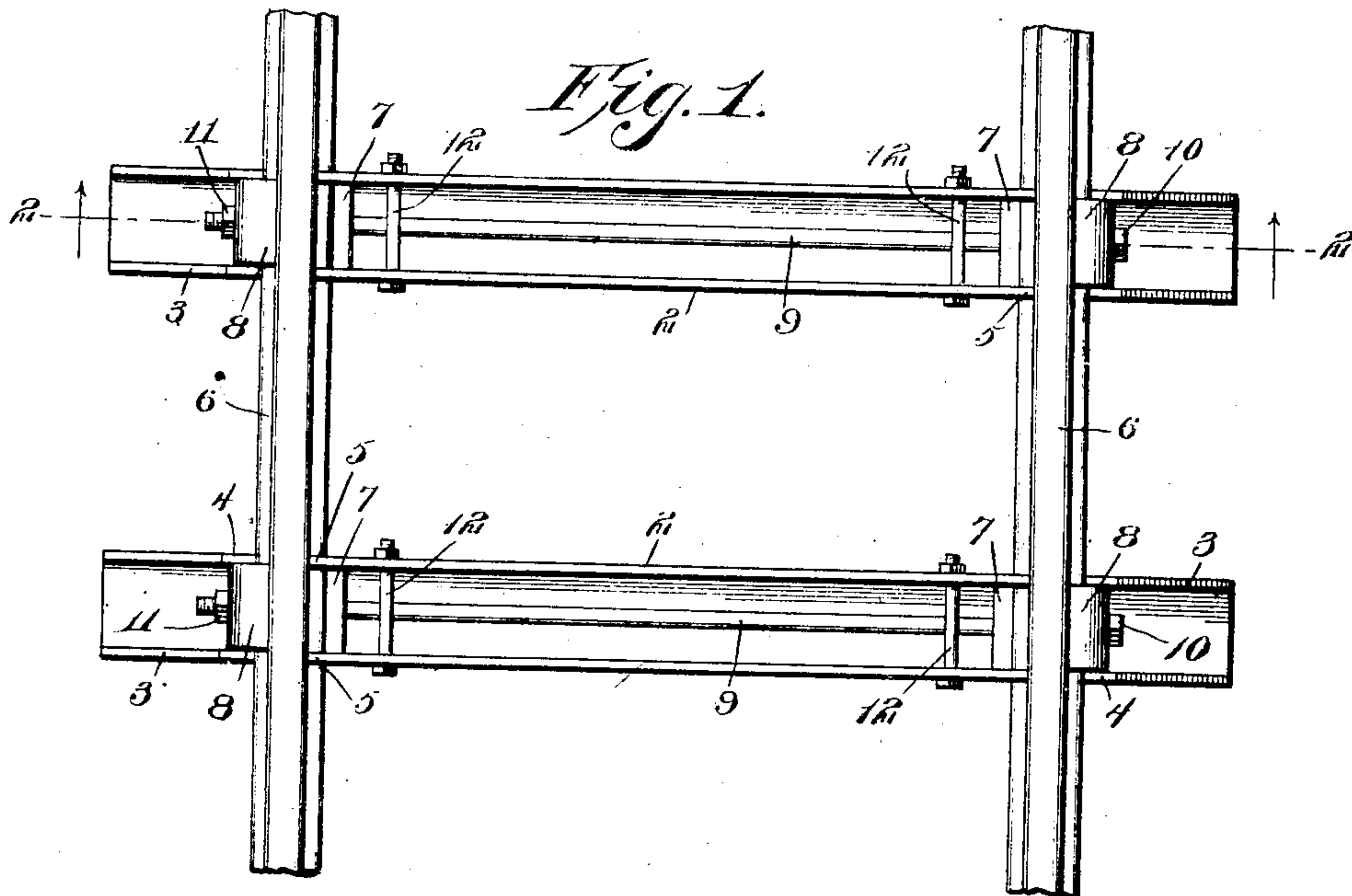
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PATENTED JAN. 23, 1906.

S. B. FERGUSON & C. CALHOUN.

RAIL TIE.

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Witnesses:

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RAIL-TIE.

No. 810,632

Specification of Letters Patent.

Patented Jan. 23, 1906.

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To all whom it may concern:

Be it known that we, SAMUEL BENJAMIN FERGUSON and CHARLES CALHOUN, citizens of the United States, residing at Rome, in the county of Sunflower and State of Mississippi, have invented certain new and useful Improvements in Rail-Ties; and we do hereby 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.

Our invention relates to rail-ties; and its object is to provide a metallic device of this character having means for securely holding rails in position thereon without the necessity of utilizing spikes or other fastening devices, such as ordinarily employed.

Another object is to provide a combined rail support and holding device adapted to cooperate with the tie for fastening a rail thereto.

With the above and other objects in view the invention consists of a tie formed of channeled metal, the walls of which have oppositely-extending inclined tongues extending from their edges and adapted to overlap the inner base-flanges of rails upon the tie. Blocks are located within the tie and under the rails and serve to assist the tie in supporting them, and each block has an integral tongue for overlapping the outer base-flange of a rail. The blocks within each tie are suitably connected by means adapted to be utilized for drawing them toward each other to clamp upon the rails.

The invention also consists of certain other novel features of construction and combination of parts, which will be more fully described, and pointed out in the claims.

In the accompanying drawings we have shown the preferred form of our invention.

In said drawings, Figure 1 is a plan view showing rails supported by our improved ties. Fig. 2 is a vertical longitudinal section through a tie and the rails thereon, and Fig. 3 is a perspective view of one end of the body of the tie.

Referring to the figures by numerals of reference, 1 is a metallic tie having side walls 2 extending upward from its base, said walls being straight and parallel. The ends of the wall are preferably beveled, as shown at 3, and seats 4 are formed at the upper ends of these beveled portions and are overhung by tongues

5, which are integral with the side walls and are disposed at such an angle to the seats as to overlap and fit snugly upon the inner base-flanges of rails 6. Supporting - blocks 7, formed of metal, are located within the tie, and the thickness of these blocks is equal to the distance from the bottom of the tie to the seat 4. It is therefore obvious that when the blocks are in position adjacent the seats they will assist said seats in supporting the rails mounted thereon. Each block has an inwardly-extending ear 8, adapted to overlap the outer base-flanges of the rails 6, and a rod 9 extends through both blocks and longitudinally of the tie and has a head 10 at one end and a nut 11 at its other end. Bracerods 12 connect the side walls 2 at points between the rails, so as to prevent buckling of the tie when same is subjected to unusual pressure.

In using the tie herein described the same is placed in the road-bed and the blocks 7 are fastened therein, with the rod 9 extending therethrough. The rails are then placed under the tongues 5 and on the seats 4, and by screwing the nut 11 onto the rod 9 the ears 8 will be drawn toward each other and into engagement with the outer base-flanges of the rails 6 and will, moreover, clamp the rails against the tongues 5. The rails will therefore be held firmly secured at proper distances apart and cannot be detached except by releasing the blocks 7 from the rod 9. It will of course be understood that the tie can be filled with stone, cement, or other material after the rails have been secured to it.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a channeled metallic tie having rail-engaging tongues integral therewith; of rail-supporting blocks within the tie, means thereon for engaging the rails, and adjustable means connecting the blocks.

2. The combination with a channeled metallic tie having means thereon for engaging the inner flanges of rails; of rail-supporting blocks within the tie, means thereon for engaging the outer flanges of rails, and an adjusting device connecting the blocks and within the tie.

3. The combination with a channeled metallic tie having integral rail-engaging means;

of rail-supporting blocks within the tie, ears adapted to cooperate with the rail-engaging means on the tie for clamping the rails in position, and an adjustable device connecting the blocks.

4. The combination with a channeled metallic tie having integral rail-engaging tongues upon the sides thereof and braces connecting the sides; of rail-supporting blocks adjustably mounted within the tie, rail-engaging ears upon said blocks adapted

to cooperate with the tongues to clamp the rails in position, and means connecting the blocks to hold them against displacement.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

SAMUEL BENJAMIN FERGUSON.
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Witnesses:

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