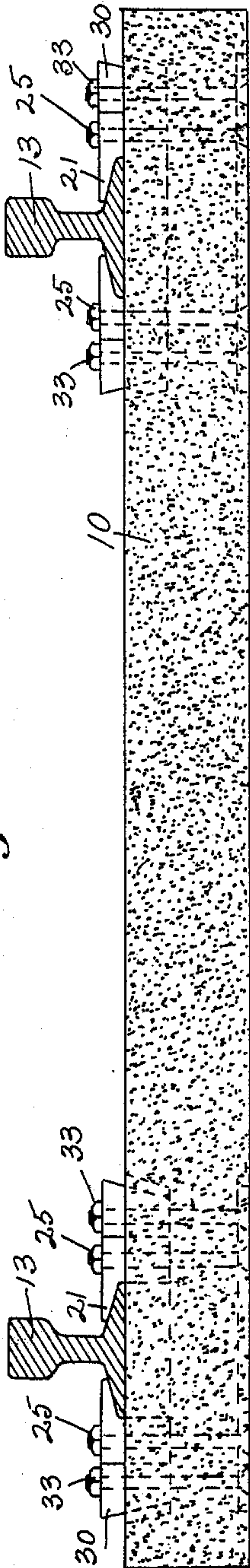


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RAILWAY RAIL TIE AND FASTENER.
APPLICATION FILED OCT. 28, 1910.

990,615.

Patented Apr. 25, 1911.

Fig. 1 -



WITNESSES:

O. M. McLaughlin
H. J. Wells

Fig. 3 -

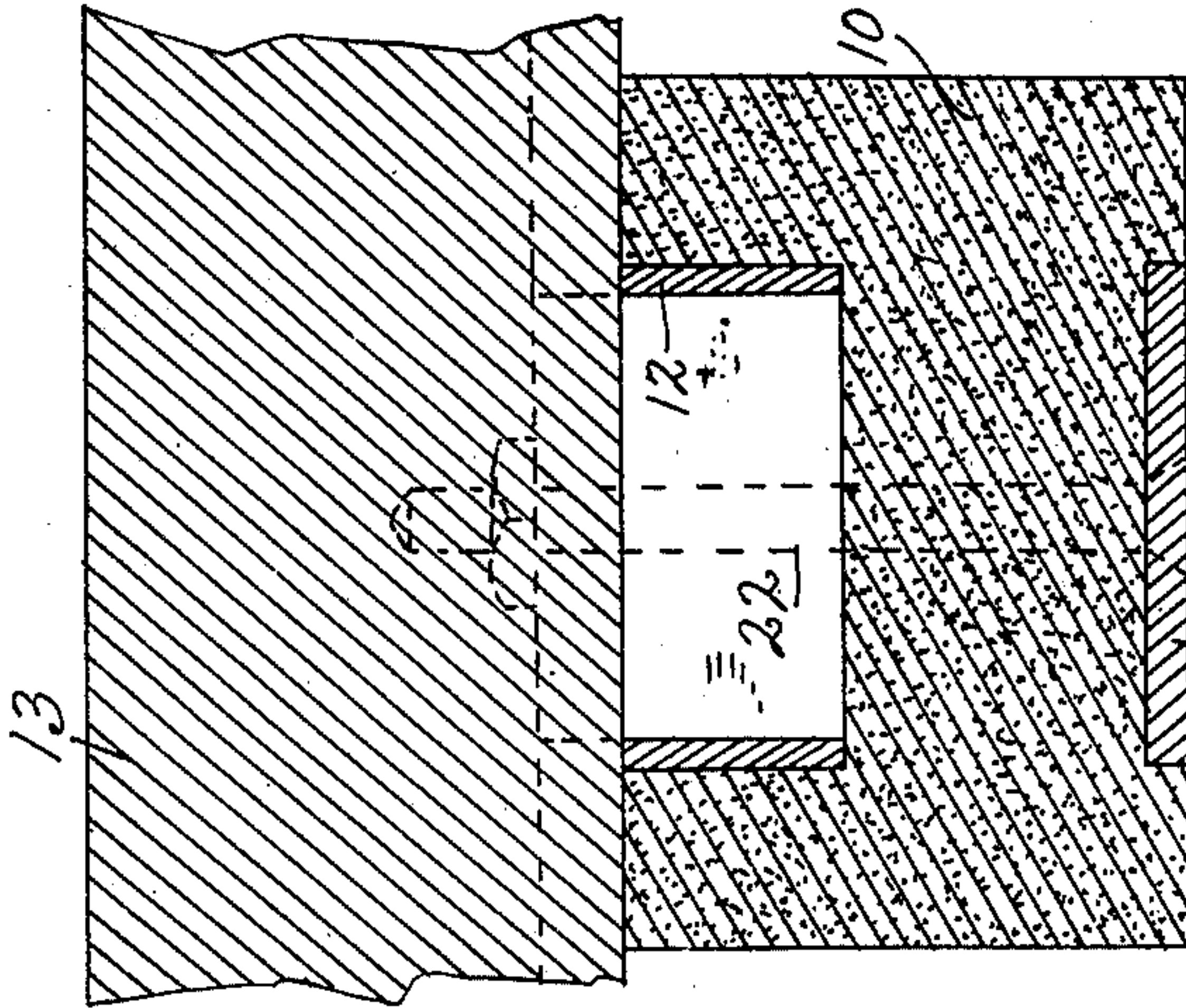


Fig. 5 -

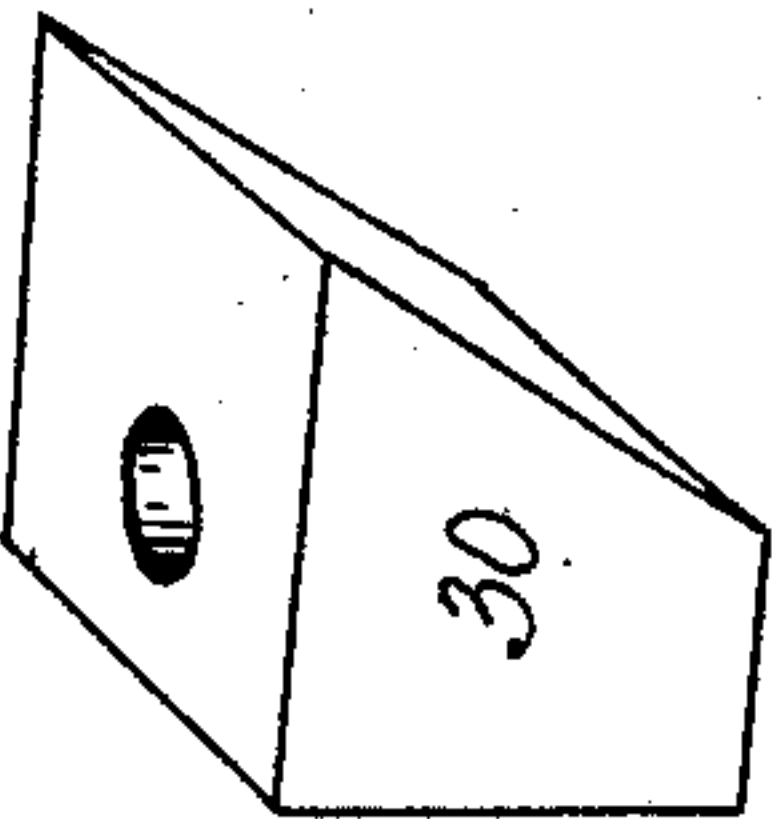


Fig. 2 -

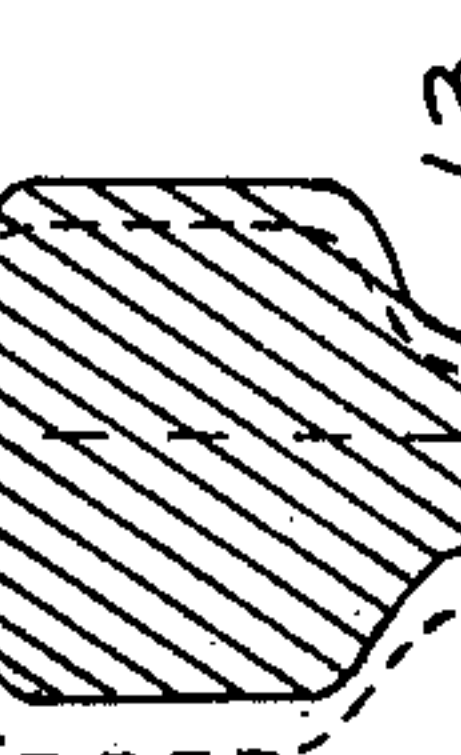


Fig. 4 -

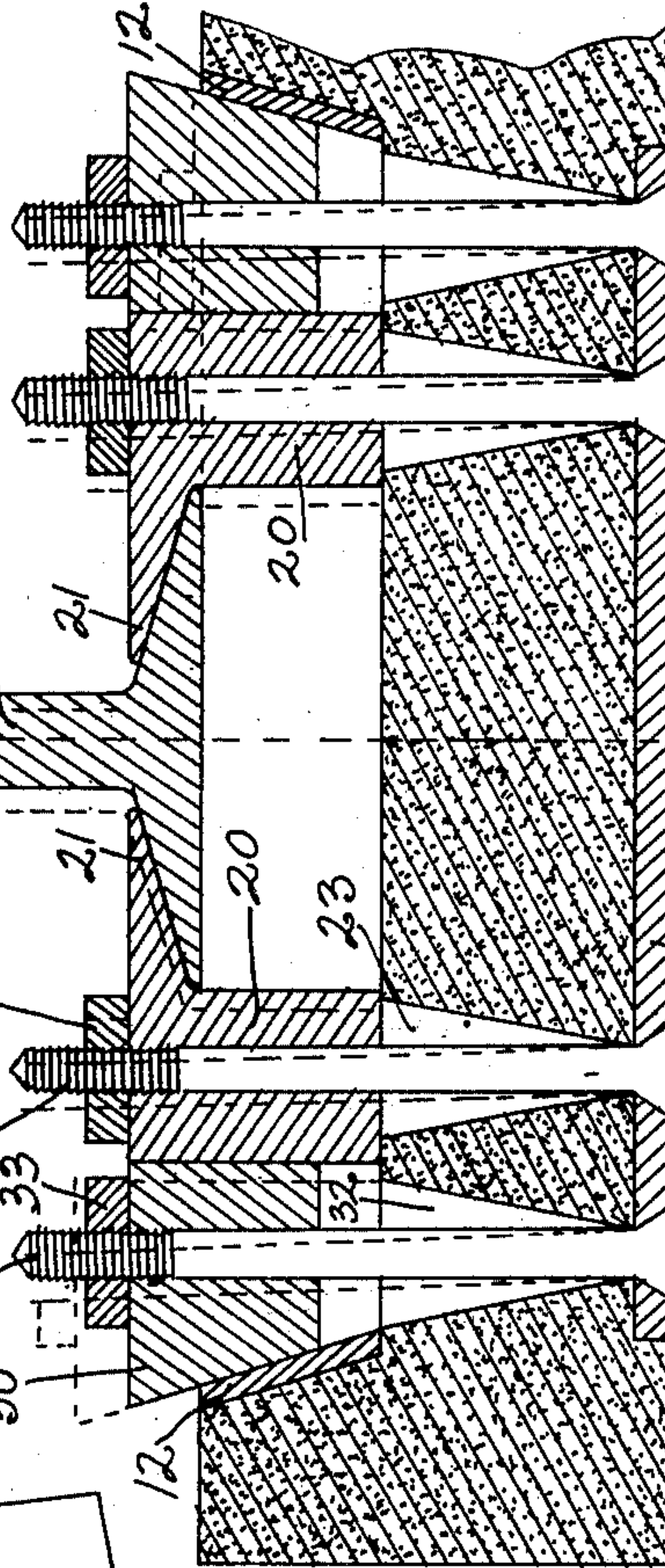
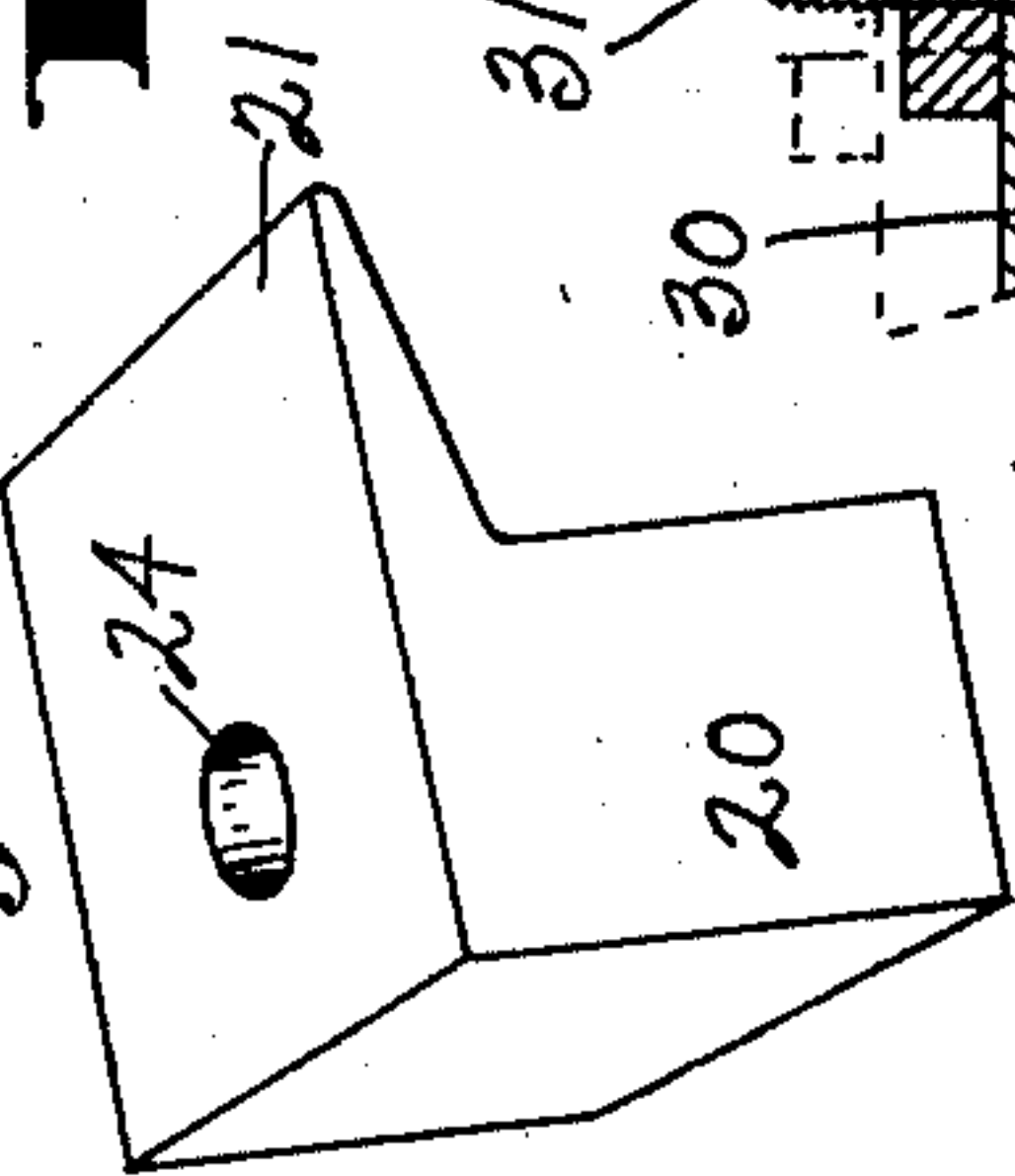


Fig. 6 -

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UNITED STATES PATENT OFFICE.

WILLIAM T. WHEELER AND CHARLES J. WHEELER, OF NOBLESVILLE, INDIANA, AS-SIGNORS OF ONE-THIRD TO GEORGE W. WHEELER, OF NOBLESVILLE, INDIANA.

RAILWAY-RAIL TIE AND FASTENER.

990,615.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed October 28, 1910. Serial No. 589,552.

To all whom it may concern:

Be it known that we, WILLIAM T. WHEELER and CHARLES J. WHEELER, citizens of the United States, and residents of Noblesville, county of Hamilton, and State of Indiana, have invented a certain useful Railway-Rail Tie and Fastener; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of this invention is to provide an improved construction of cement railway ties and means for removably and adjustably securing the railway rails thereon. It renders both the process of fastening the rail down and of shifting it laterally very simple and easy.

The nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a side elevation of the railway tie with a pair of railway rails shown in cross section and secured thereon. Fig. 2 is a central vertical section through one end of the tie and a rail thereon and the means for securing the rail to the tie. Fig. 3 is a section on the line 3—3 of Fig. 2. Fig. 4 is a perspective view of one of the rail fasteners. Fig. 5 is a perspective view of one of the wedge blocks. Fig. 6 is a side elevation of the metal frame embedded in the upper part of the cement tie.

A railway cross-tie 10 is made of cement or concrete and in the underside a longitudinal metal plate 11 is embedded while in the upper side a hollow metal frame 12 is embedded. This metal frame has two sides spaced apart with ends sloping so that the length of the lower part of the frame is less than that of the upper edge of the frame. The frame is hollow and it is embedded in the cement tie so that its upper edges will be flush with the top of the tie, and, therefore, the railway rail 13 can lie upon said metal frame as well as upon the top of the cement tie. The frame 12 and plate 11, however, are so secured in the tie as to constitute really a part thereof.

The railway rails are held by fasteners 20, which consist of metal blocks with flanges 21 extending from the upper part thereof and adapted to overlap the lower flanges of the railway rail. Hence there is one of these blocks or fasteners on each side of each rail

and they are held in place by screw bolts 22, which extend up through and are counter-sunk in the plate 11 and pass through upwardly flaring openings 23 in the cement tie and through the hole 24 in the fastener 20, which fastener is located within the metal frame 12 and between its sides. A nut 25 screws on the upper end of the bolt 22. The fasteners 20 are preferably of the same width as the interior of the frame 12 so as to fit snugly therein. The fastener block 20 is forced toward the rail by the wedge block 30. All the sides of this block are vertical except the outer side which slopes so as to correspond with the sloping ends of the metal frame 12 and it is held in place by a bolt 31 which is similar to the bolt 23 and extends up through the metal plate 11 and through openings 32 in the cement block and is held down by a nut 33. There is one metal frame 12 near each end of the tie and under each rail. Therefore, when the nuts 33 are tightened down the wedge blocks 30 will force the fasteners 20 toward the rail and cause them to securely hold them in place. If it be desired to shift the rail laterally one of the wedge blocks 30 is loosened and the other tightened. This renders the shifting of the rails very simple and easy. The openings 23 and 32, by flaring upward, permit this lateral movement of the bolts 22 and 31.

We claim as our invention:

1. The combination of a cross tie having inclined recesses on opposite sides of the rail position, fasteners for engaging the rail and holding it down upon the tie which are capable of movement longitudinally of the tie, and wedges insertible in said recess for forcing the fasteners toward the rail position, whereby the rail may be adjustably positioned and held in place.

2. The combination of a cross tie with surfaces on opposite sides of the rail flange thereon which slope downwardly toward each other, a pair of fasteners for holding the rail upon the tie which are movable longitudinally of the tie, a wedge block between each fastener and the sloping surface of said tie, and means for vertically adjusting and tightening each of said blocks whereby the rail may be shifted laterally.

3. The combination of a cross tie the body of which is formed of cement or the like, a metal plate embedded in the underside of

said tie, a hollow metal frame embedded in the upper side of said tie in position to be traversed by the rail and with its ends sloping downwardly toward each other, two
5 bolts on each side of the rail flange extending up through said metal plate and through upwardly flaring openings in the cement portion of the tie and through said metal frame, a fastener on the one of said bolts
10 next to the rail flange which fits loosely in said metal frame and is adapted to overlap the lower flange of the rail, and a wedge

block between said fastener and the sloping end of said metal frame whereby the rail will be securely held and may be readily shifted. 15

In witness whereof, we have hereunto affixed our signatures in the presence of the witnesses herein named.

WILLIAM T. WHEELER.
CHARLES J. WHEELER.

Witnesses:

ERNEST L. SOWERWINE,
ELMER L. STURDEVANT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
