H. A. BERQUIST.

COMBINED RAILWAY TIE AND RAIL FASTENER.

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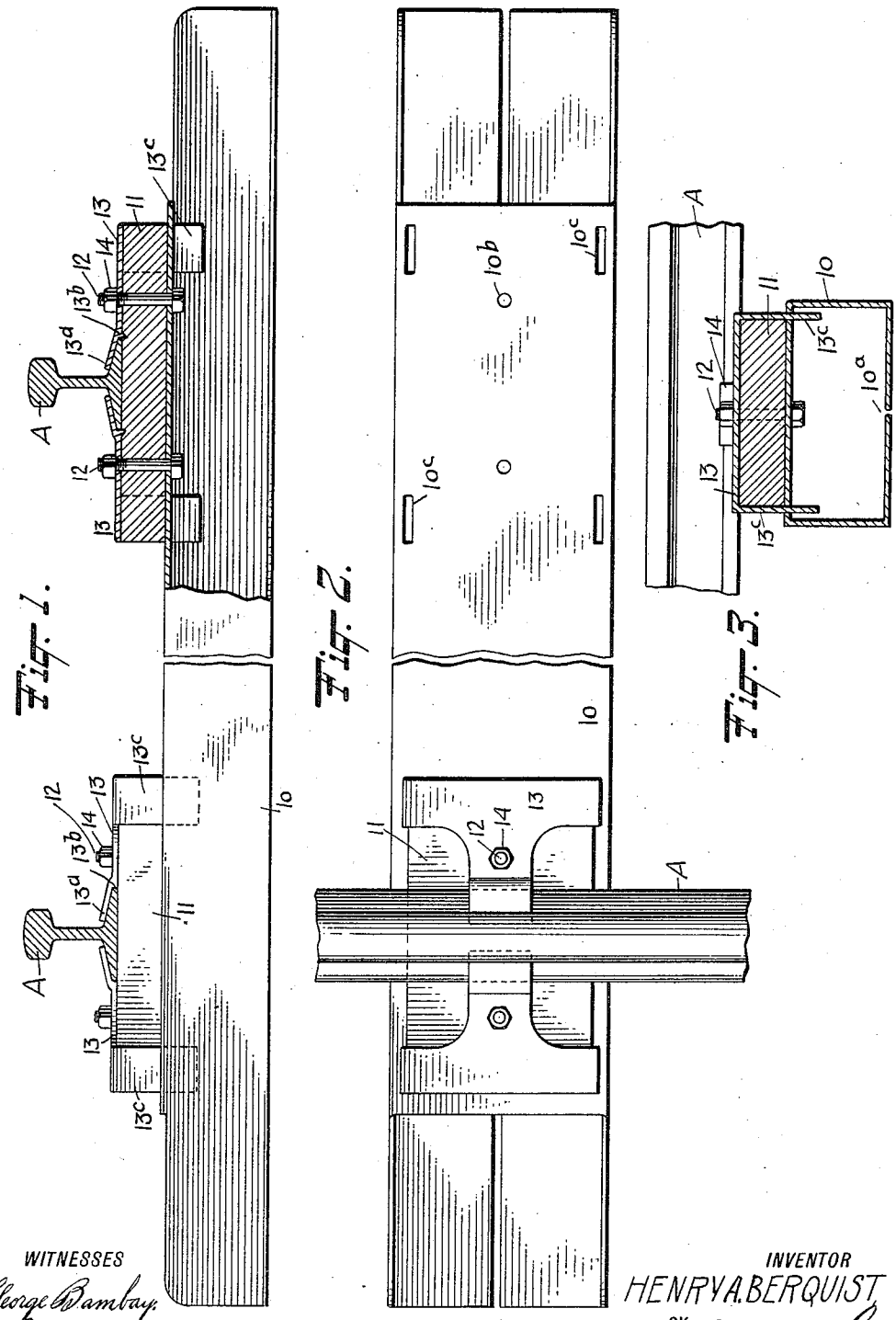

Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES

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COMBINED RAILWAY-TIE AND RAIL-FASTENER.

1,052,307. Specification of Letters Patent. Patented Feb. 4, 1913.

Application filed November 4, 1912. Serial No. 729,461.

To all whom it may concern:

Be it known that I, HENRY A. BERQUIST, a citizen of the United States, and a resident of St. Croix Falls, in the county of Polk and State of Wisconsin, have invented a new and Improved Combined Railway-Tie and Rail-Fastener, of which the following is a full, clear, and exact description.

My invention relates to a combination steel and wood tie, and an improved form of rail clamps, the wood members of the tie seating on the hollow steel tie body and in turn forming seats for the rails.

It is a design of my invention to improve in various particulars devices of the general character indicated, to the end that strength and efficiency be promoted, as well as economy of manufacture and simplicity of construction and adjustment.

The invention will be more particularly explained in the specific description hereinafter to be given.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation, partly in section, of a combination railway tie and rail fastening means embodying my invention; Fig. 2 is a plan view; and Fig. 3 is a cross section.

In constructing the illustrated embodiment of the invention, the tie body 10 is formed of sheet steel bent into rectangular form, the meeting ends in the instance shown being disposed at the bottom along a median line, as at 10^a, Fig. 3. On the top of the tie body 10 are seated, near the ends, wood blocks 11 on which rails A are seated. Bolts 12 or other equivalent fastening means extend through the top of the tie, through the wood blocks 11 and through rail clamps 13, the bolts being provided with nuts 14. The clamp plates 13 are preferably of sheet steel, and are disposed on the upper sides of the wood blocks 11, at each side of a rail. The inner ends have rising members 13^a that overlie the flanges of the rail, and at the under side of each clamp is formed an elongated rib 13^b, which is sharpened as shown in Fig. 1, at the right, to dig into the upper surface of the wood block. The inner side of the rib 13^b presents a shoulder adjacent to the rising member 13^a, which shoulder abuts against the outer edge of the adjacent rail flange to thus resist the spreading of the rails. At the sides of each clamp 13 are formed depending parallel arms 13^c, that extend at the sides of the blocks 11 and down through slots 10^c in the top of the rail tie body 10, to assist in retaining the clamps in place by thus affording an interengagement with the tie body. In Fig. 2, 10^b indicates the holes for bolts 12.

While I have described my invention and a practical means for carrying out the same in simple form, I wish to state in conclusion, that I do not limit myself strictly to the mechanical details herein illustrated, since manifestly the same can be considerably varied without departing from the spirit of the invention.

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

1. The herein described combined steel and wood tie, comprising a hollow steel tie body having seats at the top thereof, and wood blocks seated thereon and in turn forming rail seats; in combination with metallic rail clamps seated on the said blocks, each having a member rising at the inner end to overlie the rail flange, an elongated rib on the under side of the clamp, transverse to the tie and sharpened to enter the upper surface of the wood block, said rib presenting an inwardly facing shoulder adjacent to the mentioned rising member to abut against the outer edge of the adjacent rail flange, and arms depending from each rail clamp at the sides thereof, the top of the tie having pairs of slots therein adjacent to and outside of the mentioned wood blocks, through which slots said arms project to the interior of the tie plate.

2. The combination, with the hollow metallic tie body, blocks seated thereon to constitute rail seats, and means for fastening said blocks, of rail clamps on said blocks hav-

ing members to engage a rail and provided with depending arms extending downward at the sides of the blocks and through the top of the tie body, said tie body being provided in the top thereof, near each side, with slots to receive the side arms of the rail clamps at the interior of the tie body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY A. BERQUIST.

Witnesses:
J. C. HOGLUND,
J. H. TOWERS.