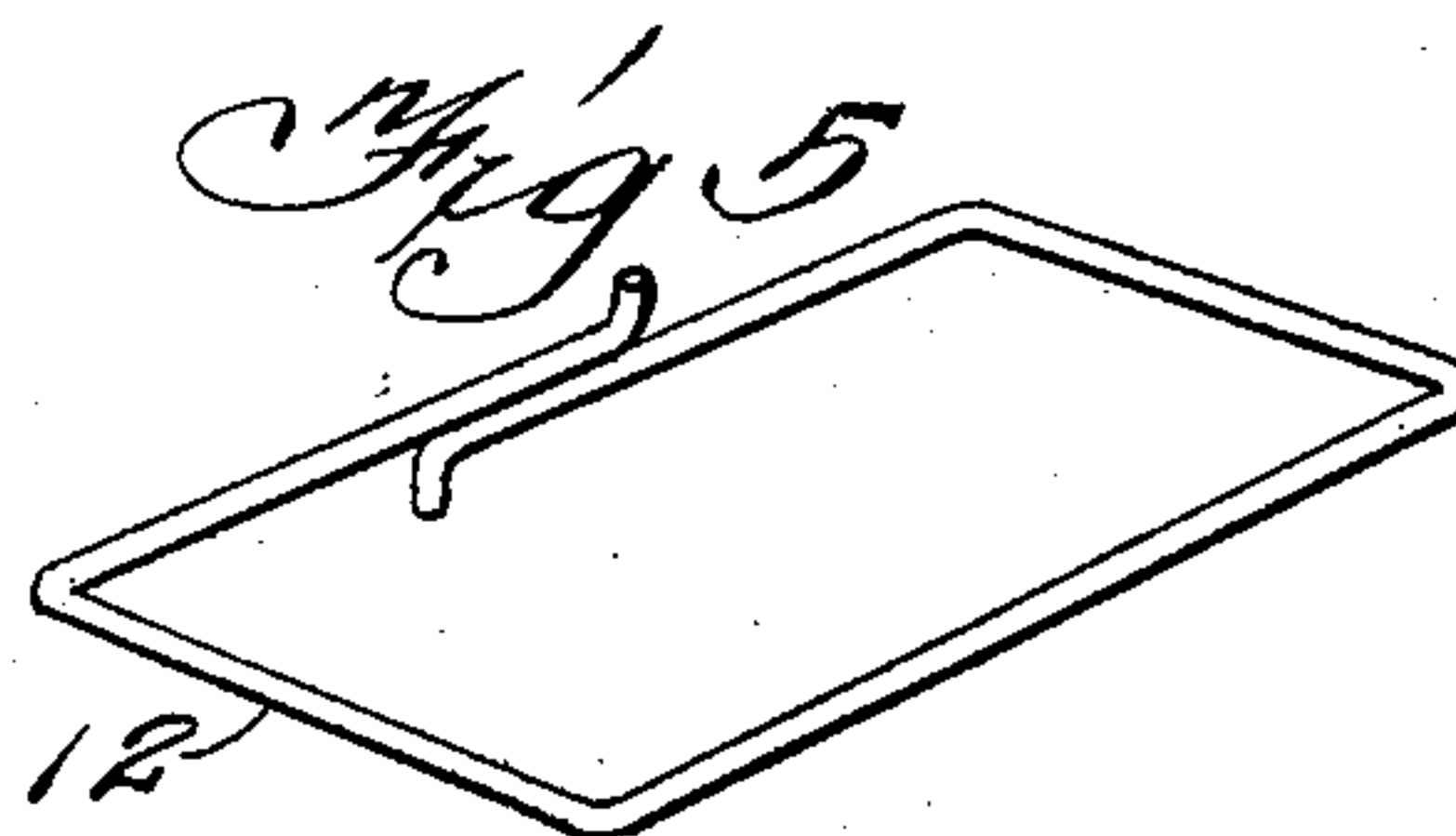
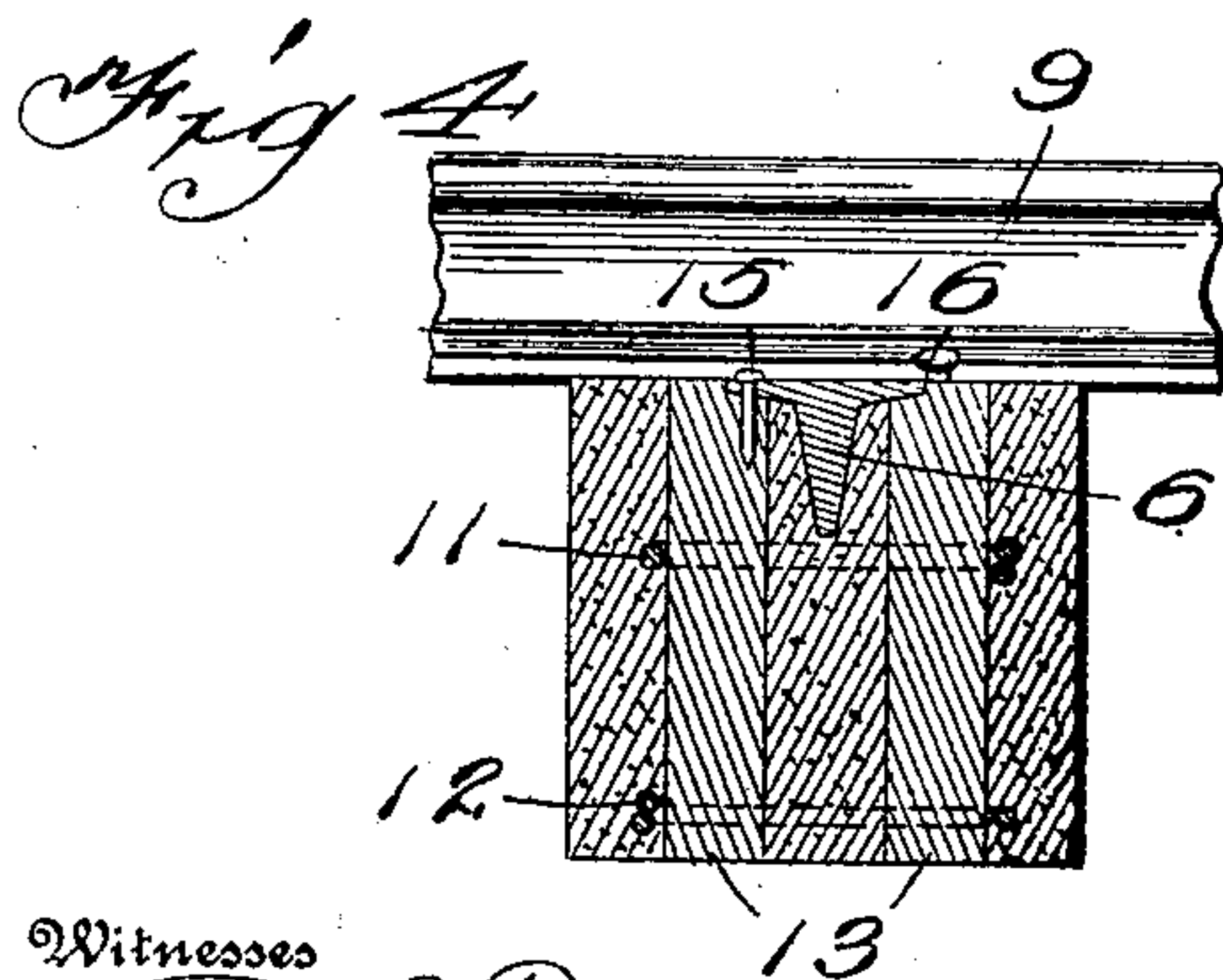
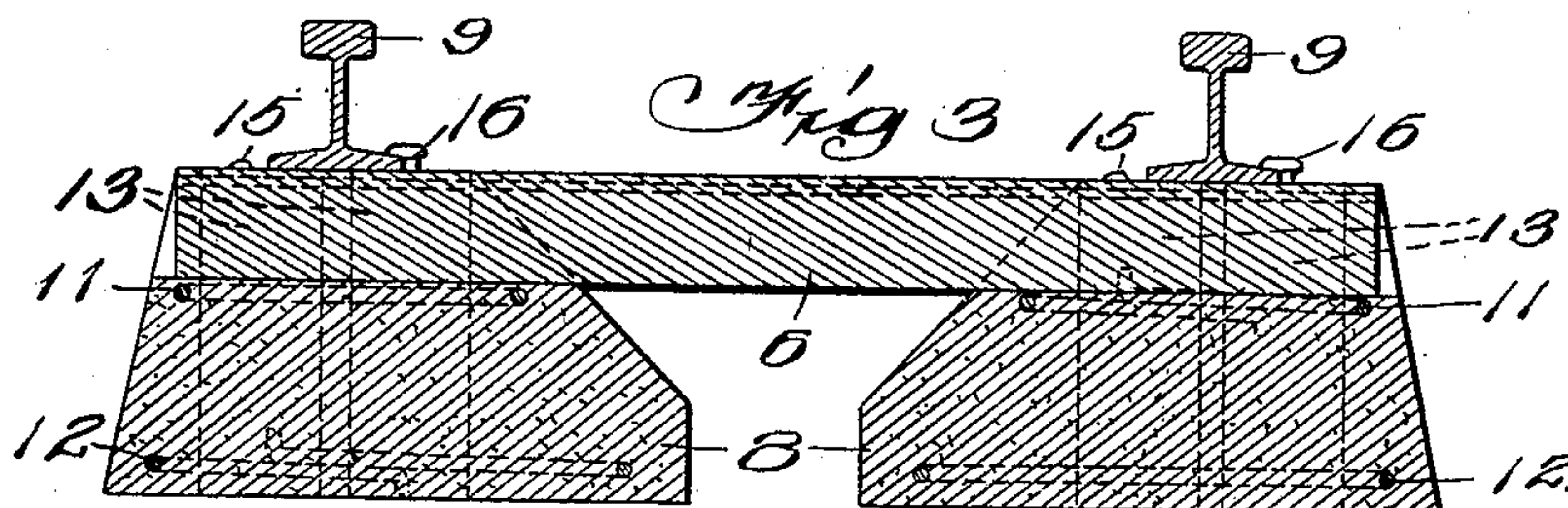
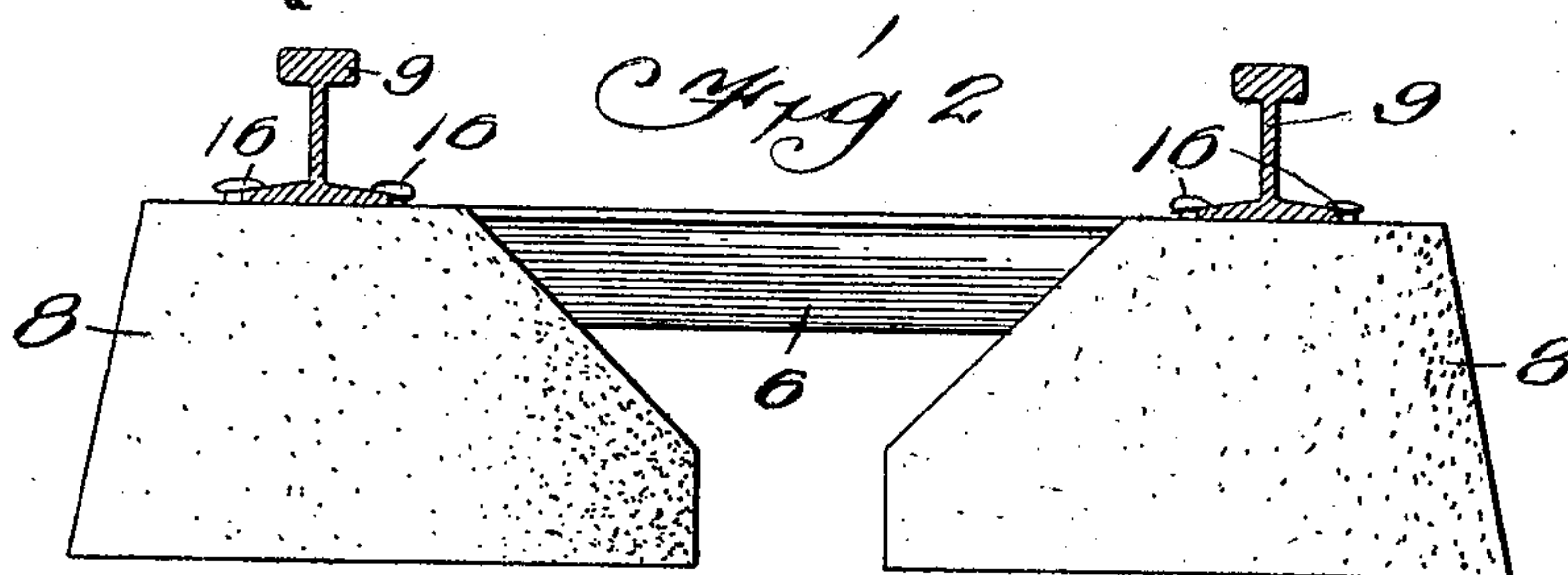
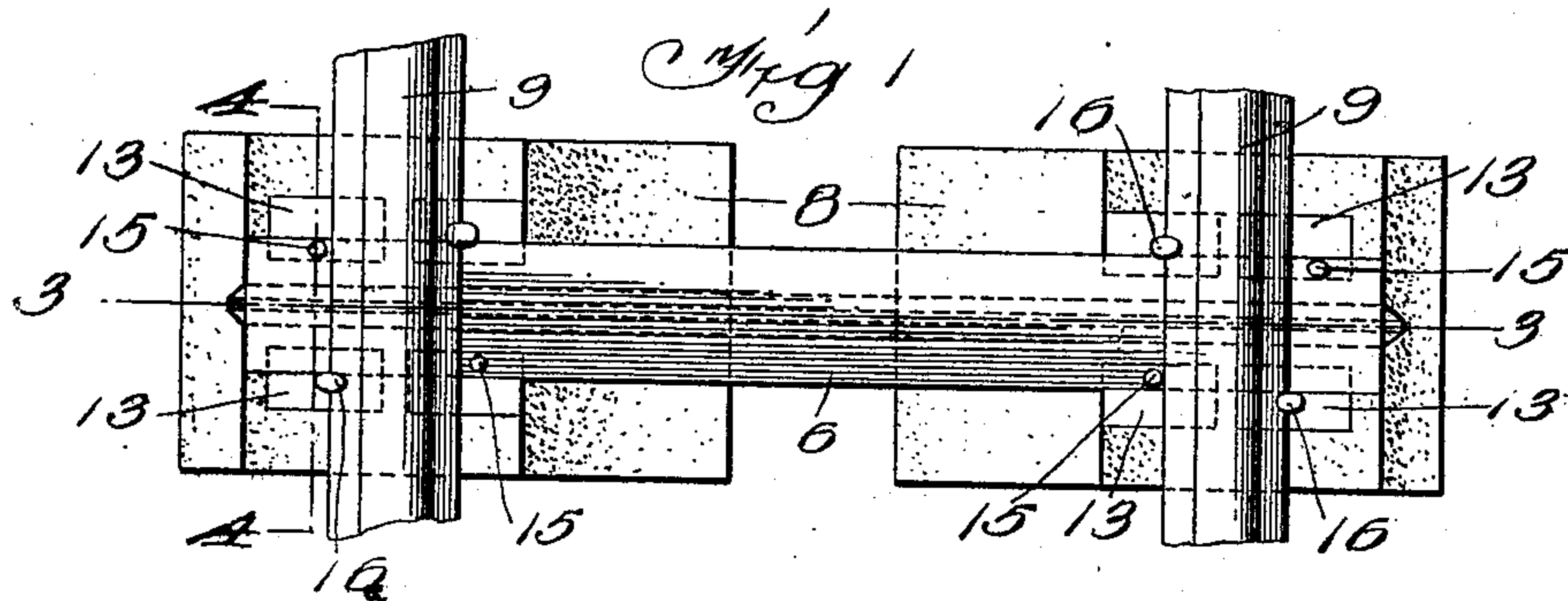


A. HANCE.
RAILWAY TIE.
APPLICATION FILED NOV. 5, 1908.

925,698.

Patented June 22, 1909.



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RAILWAY-TIE.

No. 925,698.

Specification of Letters Patent.

Patented June 22, 1909.

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To all whom it may concern:

Be it known that I, AUSTIN HANCE, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to rail-way ties, and has for its object to provide an improved composite tie, having novel means for supporting and holding the rails, and comprising a pair of blocks made of cement or similar material, with a metal bar or shape extending between the same, novel means being used for fastening the bar to the blocks; and said blocks are embedded in the roadway, whereby a firm and solid support for the rails is provided.

The details of the invention will be more fully apparent from the following description and the accompanying drawings.

In the drawings, Figure 1 is a top plan view of the tie. Fig. 2 is a side elevation thereof. Fig. 3 is a longitudinal section on the line 3—3 of Fig. 1. Fig. 4 is a cross section on the line 4—4 of Fig. 1. Fig. 5 is a perspective view of one of the reinforcing wires embedded in the concrete block.

Referring specifically to the drawings, 6 indicates a metallic bar or shape which is preferably a T-bar, having upper horizontal flanges and a lower vertical flange or stem, the latter being preferably tapering or V-shaped in cross section, as shown. This bar is supported at its ends upon two concrete rocks 8, the bases of which are preferably enlarged to give somewhat of a pyramidal form to the blocks, the inner end or side being especially inclined; and in consequence of this form the blocks, when embedded in the road way resist lift, as well as give a broad and firm foundation for supporting the rails which are indicated at 9. The stem or depending flange of the T-bar is molded or inserted in the blocks, with the top of the head of the bar flush with the top surface of the blocks, so that the rails rest partly on the bar and partly on the adjacent portions of the blocks. Each block is reinforced by metal pieces inserted therein, said pieces consisting of wires or rods which lie in horizontal planes in the upper and lower parts of the block, as indicated at 11

and 12 respectively. These rods are bent to angular form with a shape substantially rectangular, and the ends upset to take a firm hold on the concrete.

Vertical wooden blocks or pieces 13, preferably four in number, are also embedded in the concrete blocks, extending through the same from top to bottom, and these pieces receive and hold the attaching devices by which the bars and rails are fastened to the blocks. The wooden pieces 13 are located in proper position to come under the horizontal flanges of the cross bar and under the edges of the base of each rail, and the upper ends of said blocks are rabbeted or depressed to receive the upper flanges of the T-bar, in order that said bar may be flush with the top of the blocks. The stem of the T-bar projects downwardly into the concrete blocks between the upper ends of the wooden pieces. The T-bar is fastened to the blocks by means of spikes 15 driven through holes in the horizontal flanges of the T-bar and into the wooden pieces. The rails are fastened in place by means of the ordinary spikes 16 which are driven into the heads of the wooden pieces on opposite sides of the base of each rail, as shown. In consequence of this construction the rails may be removed at any time, and similarly the T-bar 6 may be removed, without disturbing the cement blocks. Also, the wooden pieces 13 can be replaced when they become rotten. This is done by taking up the concrete blocks or sleepers and knocking out the wooden pieces, and inserting new ones. The four wooden pieces give a separate nailing piece for each spike driven. The steel bar 6 can be readily rolled and cut into proper lengths, and no special work thereon is necessary except punching the holes for the spikes 15.

I claim:

1. A railway tie comprising a pair of concrete blocks, wooden pieces embedded in said and fastened to said wooden pieces.

2. A railway tie comprising a concrete block, and an angular metallic cross bar the ends of which are embedded in the blocks sub-structure, vertical wooden pieces embedded therein and exposed at the upper and lower ends, and a metallic bar fastened at its ends to the top of said wooden pieces.

3. A railway tie comprising a pair of con-

crete blocks, an angular cross bar embedded at its ends in said blocks, wooden pieces embedded in said blocks under the ends of the bar, and fastenings between said bar and
5 the wooden pieces.

4. A railway tie comprising a pair of concrete blocks, an angular cross bar embedded at its ends in said blocks, and having top flanges flush with the top of said blocks, for
10 the rails to rest on, wooden pieces embedded in said blocks under opposite edges of said flanges, and fastenings between said flanges and the wooden pieces.

5. A railway tie comprising a pair of concrete blocks, a T-bar the depending flange of which is embedded at its ends in the top of
15 said blocks, wooden pieces embedded in the blocks under the horizontal flanges of the

T-bar, and fastenings extending through the said horizontal flanges and into the pieces. 20

6. A railway tie comprising a pair of concrete blocks, a T-bar the depending flange of which is embedded at its ends in the top of said blocks, wooden pieces embedded in the
25 blocks under the horizontal flanges of the T-bar, and fastenings extending through the said horizontal flanges and into the pieces, the said pieces projecting beyond the edges of the horizontal flanges to receive spikes to
30 hold rails resting on said flanges.

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

AUSTIN HANCE.

Witnesses:

GRACE FRANK,
H. G. BATCHELOR.