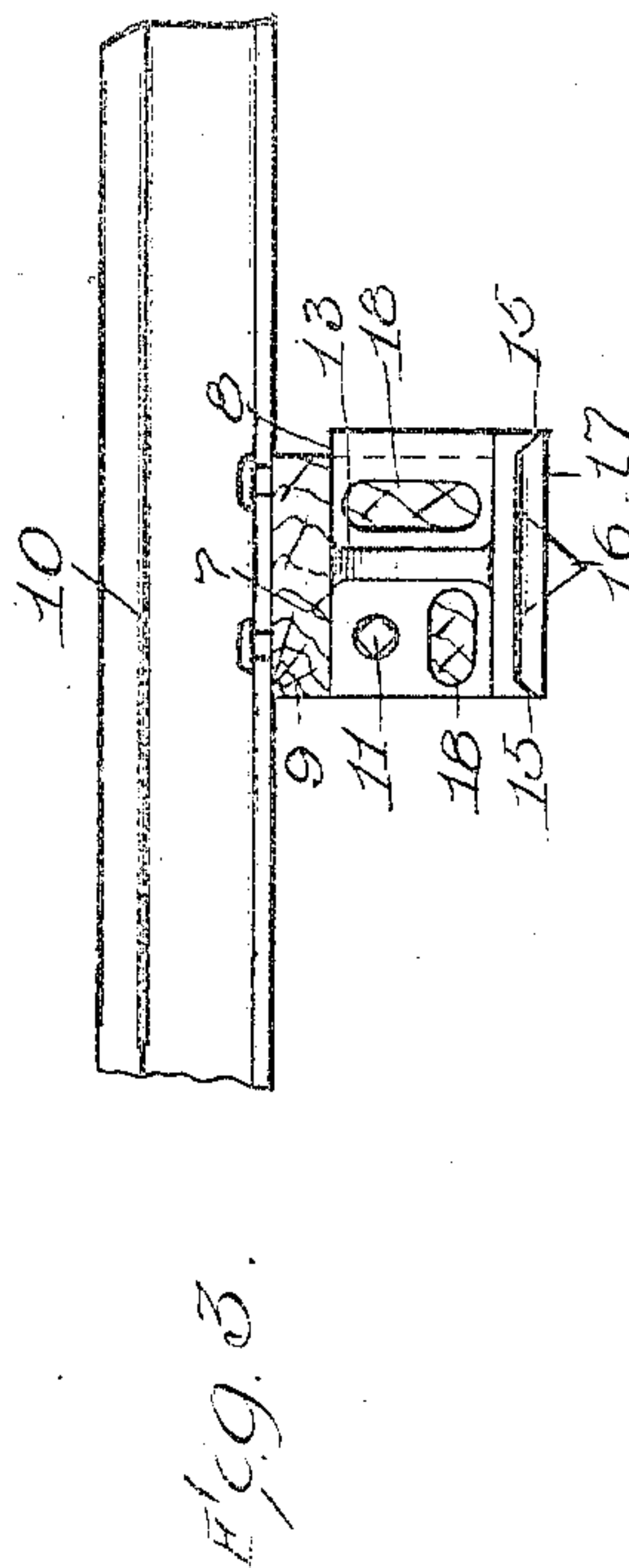
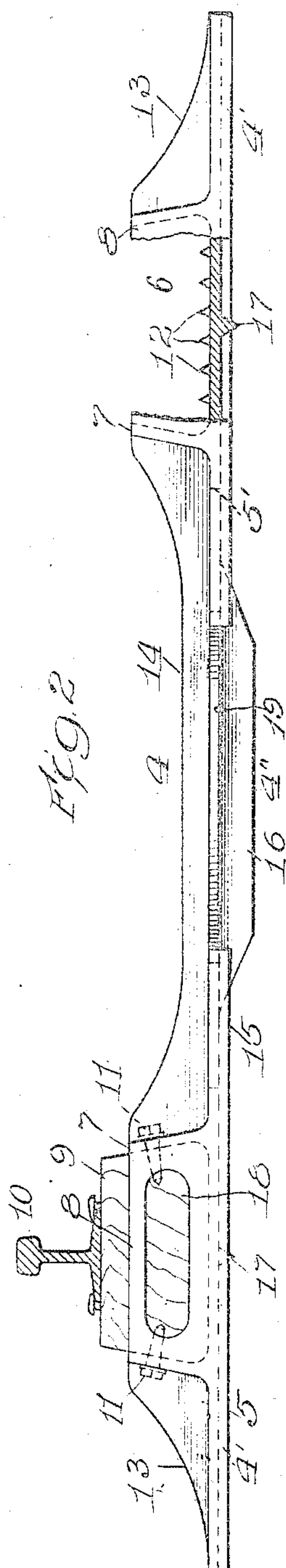
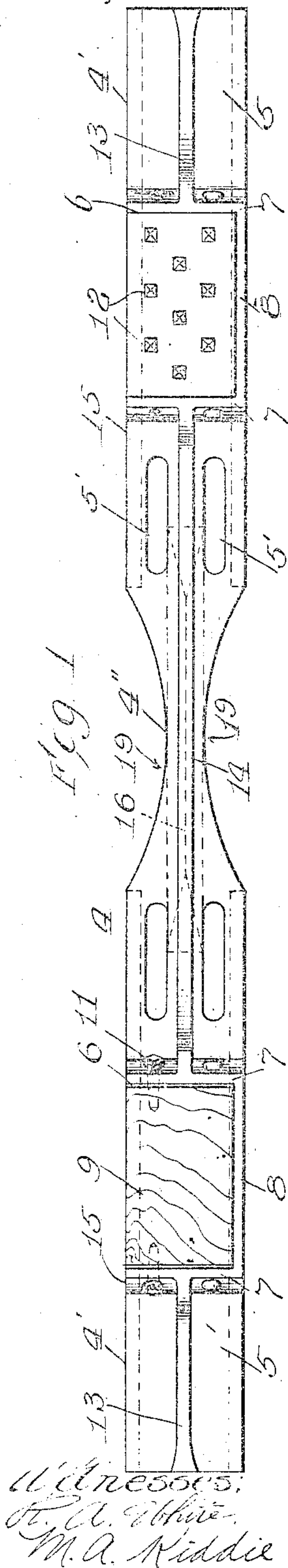


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RAILWAY TIE.
APPLICATION FILED MAY 2, 1908.

Patented Nov. 16, 1909.

940,640.



Inventor:
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UNITED STATES PATENT OFFICE.

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OF SAID JAMES W. LEAHY, DECEASED.

RAILWAY-TIE.

940,640.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed May 2, 1908. Serial No. 430,434.

To all whom it may concern:

Be it known that I, JAMES W. LEAHY, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Railway-Ties, of which the following is a specification.

The object of this invention is to provide a metal railway tie which can be cast in one piece and constructed to hold the rail blocks securely in place therein and to anchor the tie securely in the ballast or other material in which it is embedded and prevent it from creeping endwise or lengthwise of the track.

In the accompanying drawings illustrating the preferred embodiment of the invention Figure 1 is a plan view of a railway tie. Fig. 2 is an elevation of the tie, partly broken away and in section. Fig. 3 is an end view also showing the rail.

Referring to the drawings, the tie 4 is preferably made in one piece of cast steel and it has two end sections 4' preferably made alike and connected by a contracted central section 4''. Each end section comprises a base 5 on which a side entrance pocket or shoe 6 is formed by the inclined walls 7 and the straight wall 8. This pocket is adapted to receive a bearing block 9 for the rail 10. The bearing block may be made of wood and shaped to fit the pocket in which it is secured by lag screws 11 or other suitable fastening devices. I also prefer to provide teeth 12 at the bottom of the pocket on which the block is embedded to more securely hold the block in fixed position in the pocket. The tie is strengthened longitudinally by the end webs 13 and the central web 14, the latter extending from one pocket to the other.

In order that the tie may be seated firmly and rigidly to prevent it from creeping lengthwise of the track I provide sharpened edge flanges 15 beneath each end section (Fig. 3) and a sharpened rib 16 beneath the central section (Fig. 2). The rib 16 is preferably made V-shaped, as shown in Fig. 3, and it is also preferably deeper than the edge flanges 15. Transverse ribs 17 are provided on the underside of the tie, preferably beneath the pockets, as shown in Fig. 2, to prevent the tie from creeping endwise or transversely of the track. These ribs 17 are preferably made V-shaped like the longitudinal rib 16. I also prefer to provide the

walls of each pocket with openings, such as 18, and the base of the tie with openings, such as 5'. These openings serve the purpose of reducing the weight of the tie and they also admit the ballast to assist in anchoring the tie in place. These openings may be variously formed and I do not restrict myself to the particular arrangement illustrated.

My improved tie can be made of cast steel in a strong and substantial manner and it is constructed and arranged to be securely and firmly seated and anchored in the ballast so that it will not creep endwise or longitudinally of the track. The contracted central section of the tie provides recesses 19 on each side thereof to receive the ballast and this forms an additional means for anchoring the tie. I prefer to make this central section comparatively short and the recesses deep so that the tie at its middle will be provided with deep and curved side recesses extending from the side flanges 15 on one end section to the corresponding side flanges on the other end section so that the embedment and anchoring of the tie in the ballast at the middle of the tie will be firm and secure. The rib 14 preferably extends at its ends to the top of the walls 7 and is reduced in height between its ends. The bearing blocks are made substantially wedge-shaped in form to fit in the pocket between the inclined walls thereof and the side entrance to both pockets of the tie may be provided on the same side of the tie or on opposite sides thereof, as desired. After the block has been inserted in the pocket it is set by pressure upon the teeth and locked with the lag screws or other fastening means.

What I claim and desire to secure by Letters Patent is:

1. A cast steel railway tie comprising a single casting having two end sections and a central section, said central section being recessed at each side edge thereof, depending flanges at the side edges of the end sections extending from the ends of the tie to the ends of said recesses, and a longitudinal rib beneath the tie between said recesses and overlapping the inner ends of the flanges.

2. A cast steel railway tie comprising a single casting having two end sections and a central section, said end sections having pockets thereon and said central section being recessed at its side edges, depending

flanges at the side edges of the end sections, a longitudinal rib beneath the central section between its side edges, said rib being deeper than the flanges, and transverse ribs on the end sections beneath the pockets.

3. A cast steel railway tie comprising a single casting having two end sections and a central section, depending flanges at the side edges of the end sections, a longitudinal rib beneath the central section between its side

edges and deeper than the flanges, transverse ribs beneath the end sections, walls on the end sections to provide pockets for rail bearing blocks, webs extending outward from the outer pocket walls, and a web connecting the inner pocket walls.

JAMES W. LEAHY.

Witnesses:

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M. W. FLYNN.