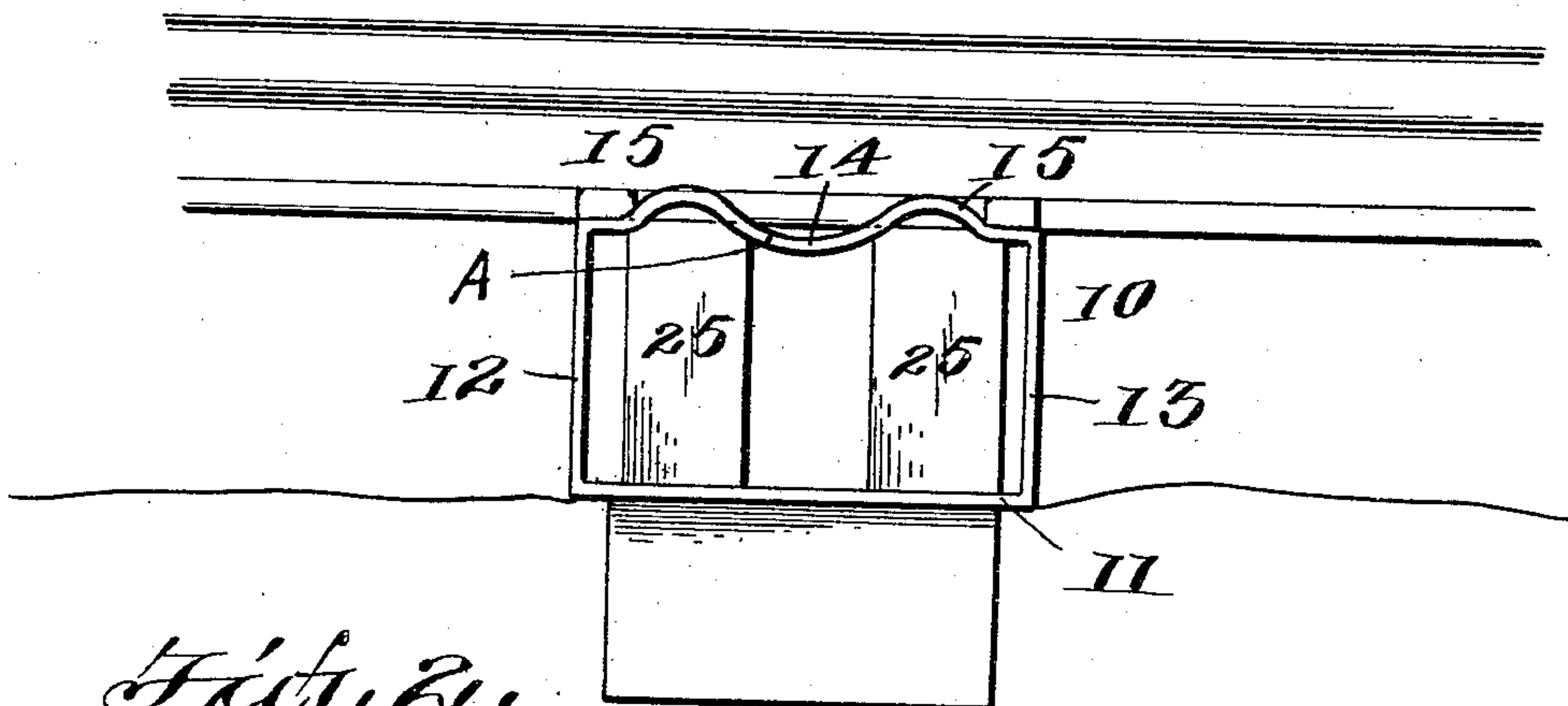


APPLICATION FILED OCT. 25, 1907.

Patented Aug. 3, 1909.  
2 SHEETS—SHEET 1.



For Hall.  
E. L. Chandler

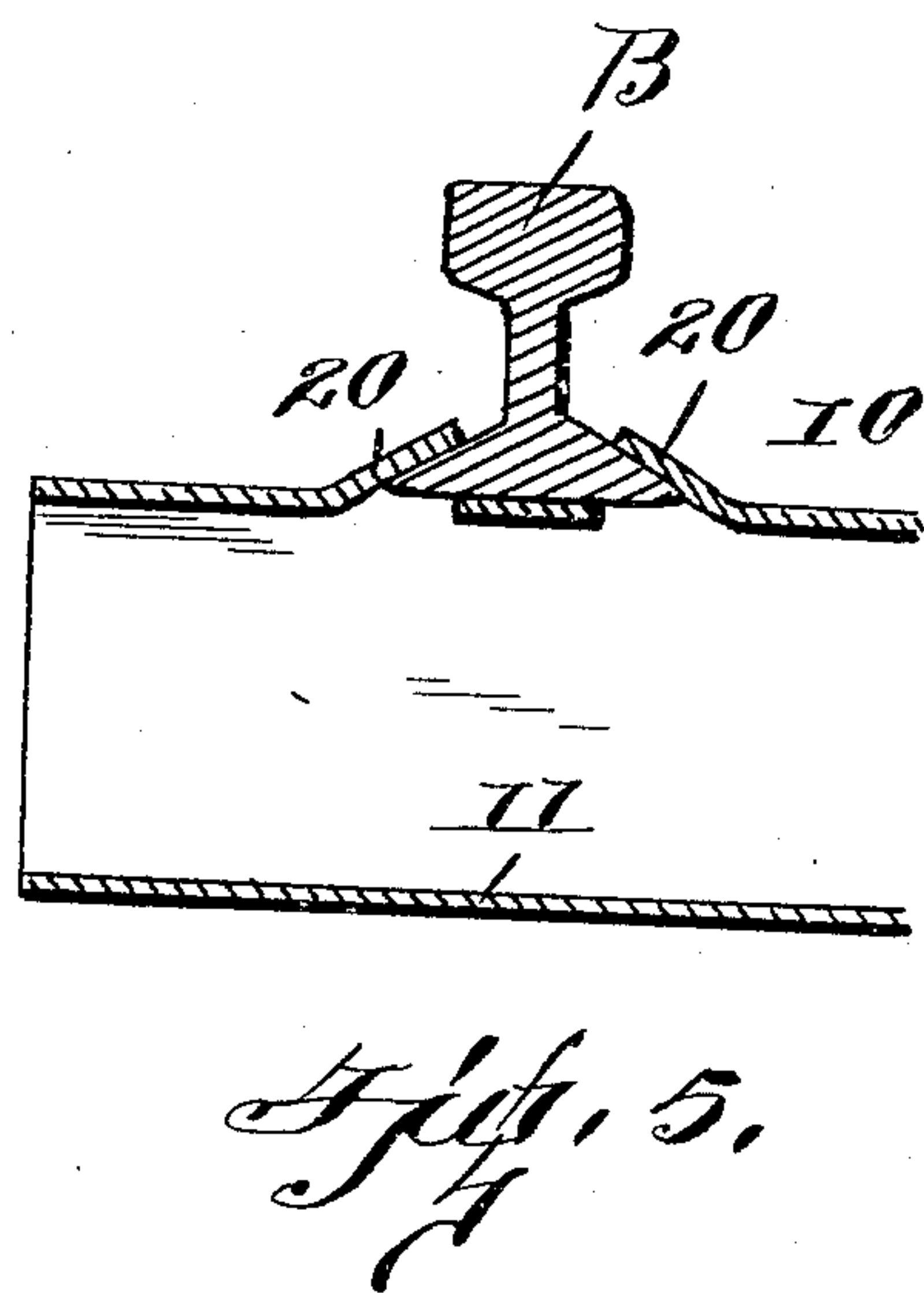
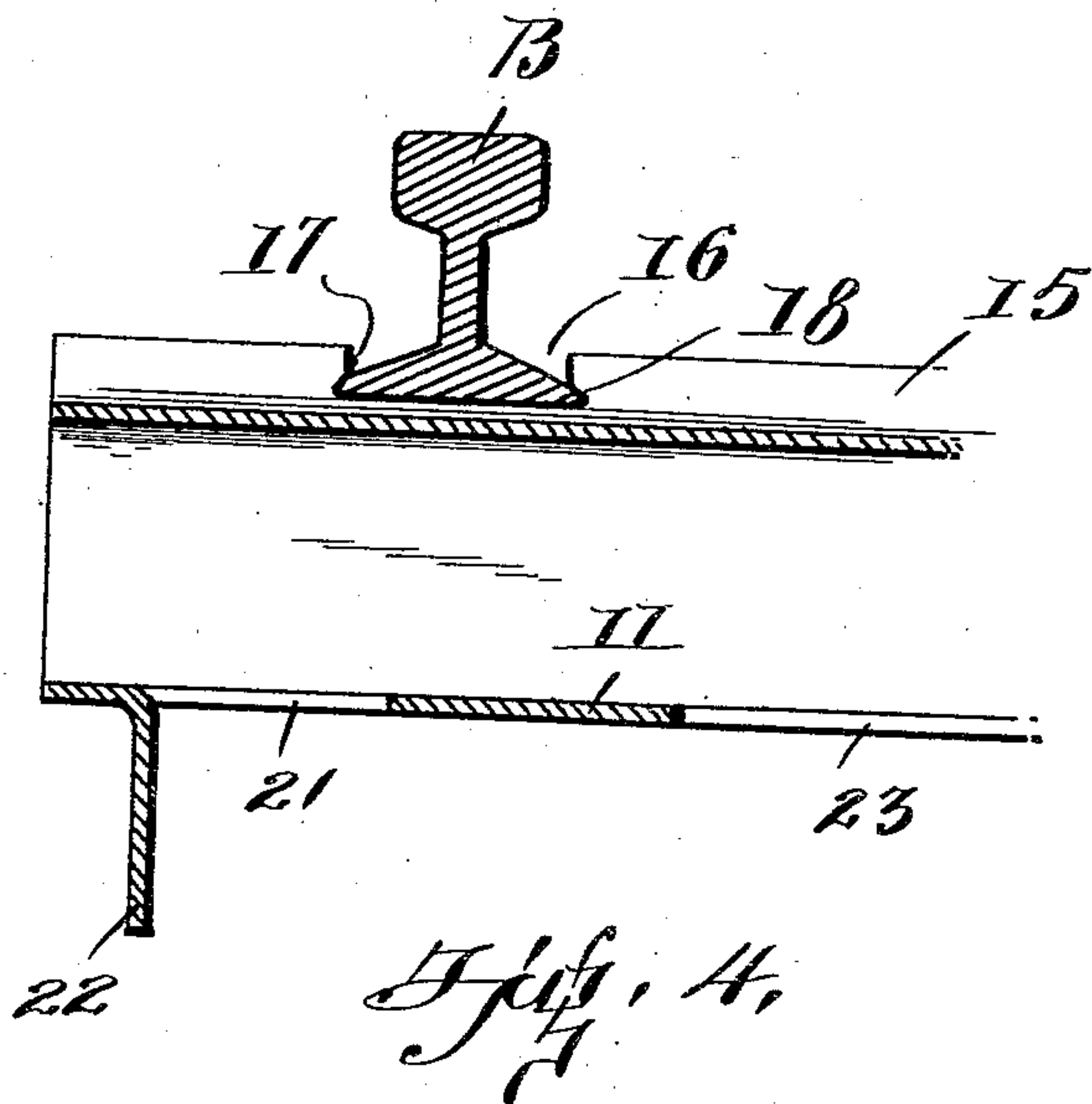
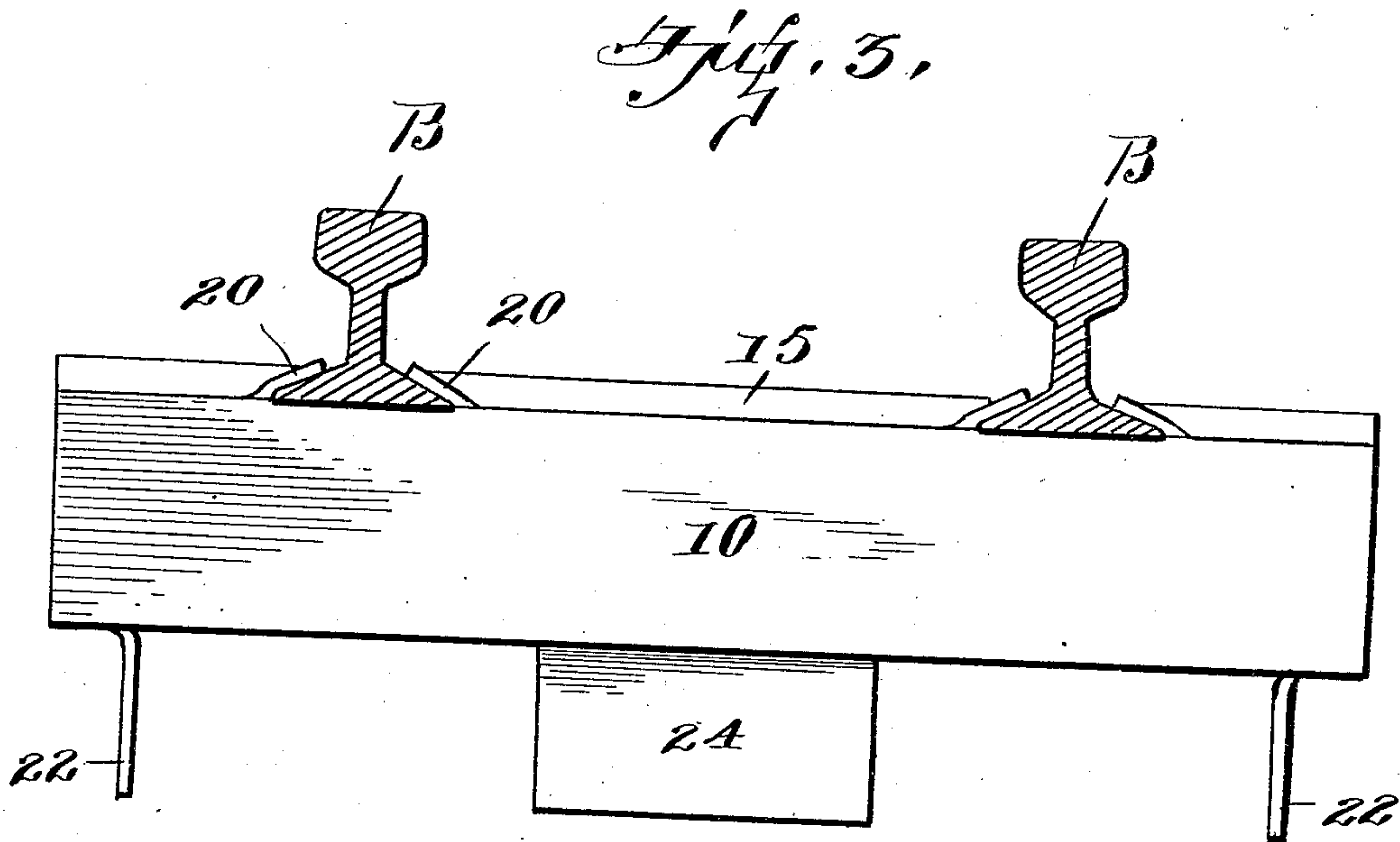
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930,214.

M. T. MURPHY.  
RAILROAD TIE.  
APPLICATION FILED OCT. 26, 1907.

Patented Aug. 3, 1909.  
2 SHEETS—SHEET 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

MICHAEL T. MURPHY, OF OIL CITY, PENNSYLVANIA.

## RAILROAD-TIE.

No. 930,214.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed October 25, 1907. Serial No. 399,077.

*To all whom it may concern:*

Be it known that I, MICHAEL T. MURPHY, a citizen of the United States, residing at Oil City, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Railroad - Ties, of which the following is a specification.

This invention relates to railroads, and more particularly to cross ties therefor and has for its object to provide a cross tie which may be stamped from sheet metal, and which metal may then be bent to form a complete tie.

A further object of this invention is to provide a cross tie of this character in which the strengthening means and rail engaging fastenings may be stamped from the same piece of metal from which the tie is made.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts in the several views, Figure 1 is a top plan view of the tie and showing the position of a rail thereon, Fig. 2 is an end elevation, Fig. 3 is a side elevation, Fig. 4 is a section on the line 4—4 in Fig. 1, Fig. 5 is a section on the line 5—5 in Fig. 1.

In carrying out the object of my invention, I employ a sheet metal case which is rectangular in cross section and has a corrugated top portion and held within this casing are two wooden supporting ties, upon which wooden ties the rails rest and are supported. The rails are also supported by means of the side walls of the casing, and upon the tread portion I provide this casing with oppositely positioned securing ears which form an integral portion of the upper top part of the casing. As shown in Fig. 2, the casing comprises a bottom 11, from which extend at right angles the two sides 12 and 13, these sides being connected by means of the corrugated top or tread portion of the tie. The upwardly curved convolute portions of the top are marked 15 while the intermediately positioned downwardly curved portion is marked 14. Near each end this casing has its top portion cut away to provide two access openings, one of these openings being shown in Fig. 1 and marked 16. Near its

opposite ends this opening 16 is slightly reduced so as to provide the two oppositely positioned rail-retaining ears 20, which are bent upwardly as shown at 19. In Fig. 2 the position of these ears is shown. By means of this construction I provide the rail at each end with the securing ears 20 so that at each end of the casing two such securing ears are provided. Near each end I incise the bottom 11 to provide the end plates 22 as shown in Fig. 3, which extend at right angles to the bottom and serve as anchors preventing any endwise displacement of these tie-holding casings. Intermediate of its ends, this casing is further slit so as to provide the rectangular web 24 as disclosed in Fig. 3 which is also bent at right angles to the bottom 11, and serves as a central anchor preventing any tilting of the tie-holding case. Sprung into this casing are two rectangular wooden ties 25, shown in end view in Fig. 2. Owing to the corrugated top, these wooden ties 25 may be forced into the casing and be frictionally held therein so as to prevent any vibration of the top portion of the casing as well as preventing any vibration of the ties 25. As the wooden ties are securely held within the metallic casing, they form a sound deadening means. Owing to the corrugated top, the same may be sprung upward insuring a snug engagement between the ties and the casing. As shown in Fig. 1, each end offers four securing points for the rails secured thereto. There is further no possibility of the rails spreading for the reason that the upwardly curved portions 15 of the casing as shown in Fig. 2 serve as stops, positively determining the position of the rail.

In the formation of the tie the metal is bent, as shown in Fig. 2 of the drawings and the meeting ends thereof as indicated at A are welded or otherwise secured.

Having thus described my said invention, what I claim as new and desire to secure by United States Letters Patent is:

In a device of the character described, an open-ended casing having a corrugated top which has an access opening near each end, four securing ears bent over each of said openings, the upwardly curved corrugated portions of said casing adjacent to said access openings serving as stops limiting the position of a connected rail, the bottom of the casing near each end having an outwardly bent integral transversely extending

portion serving as an anchor, and a length-  
wise positioned outwardly bent portion also  
serving as an anchor, and two wooden ties  
sprung below said curved top and exposed  
5 through said access opening and serving as  
bases for a suitable rail, all arranged sub-  
stantially as and for the purpose set forth.

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

MICHAEL T. MURPHY.

Witnesses:

CHARLES H. WURSTER,  
SAMUEL T. PARKS.