E. J. PETTEGREW.

METAL RAILWAY TIE.

APPLICATION FILED JULY 15, 1912.

1,066,943. Patented July 8, 1913.

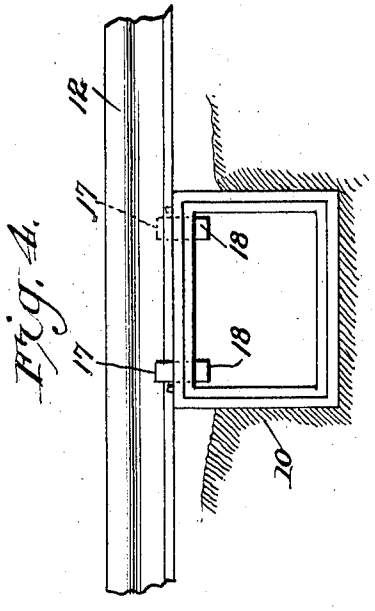


Fig. 4.

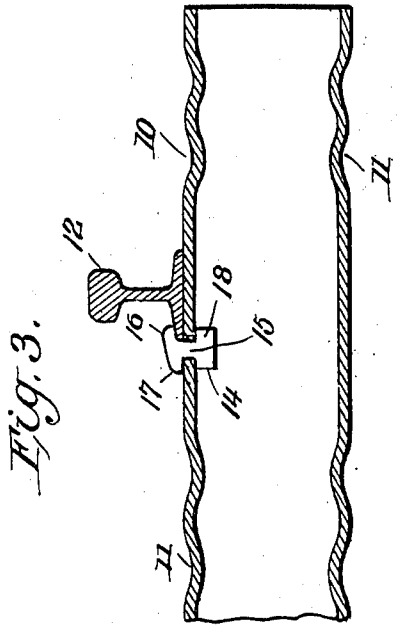


Fig. 3.

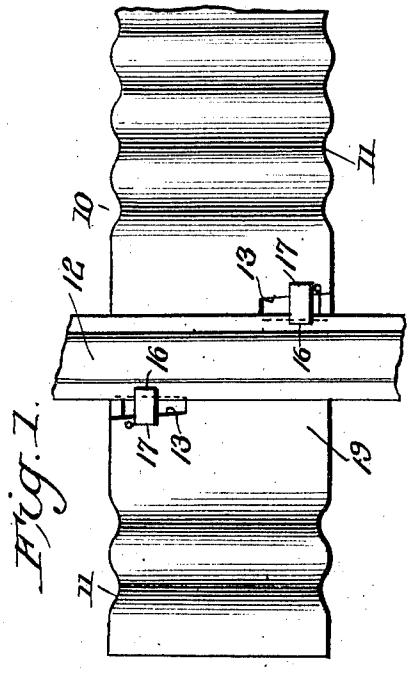


Fig. 7.

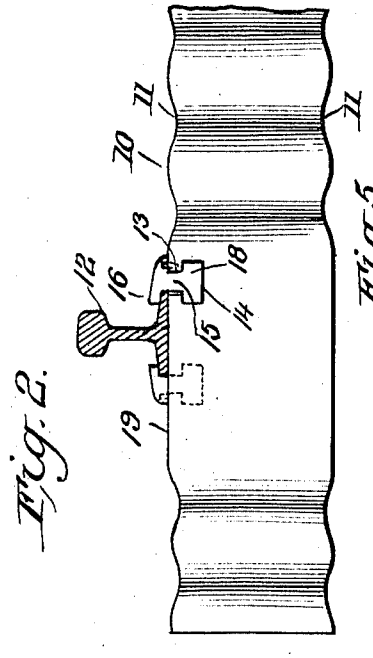


Fig. 2.

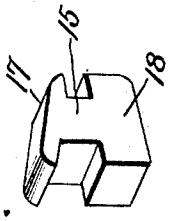


Fig. 5.

Witnesses

Inventor

E. J. Pettegrew

By Attorneys.

UNITED STATES PATENT OFFICE.

ERNEST J. PETTEGREW, OF WAYSIDE, NEBRASKA.

METAL RAILWAY-TIE.

1,066,943. Specification of Letters Patent. Patented July 8, 1913.

Application filed July 15, 1912. Serial No. 709,601.

To all whom it may concern:

Be it known that I, ERNEST J. PETTEGREW, a citizen of the United States, residing at Wayside, in the county of Dawes and State of Nebraska, have invented certain new and useful Improvements in Metal Railway-Ties, of which the following is a specification.

This invention relates to improvements in metal railway ties, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to produce an improved construction of tie formed with irregular faces to receive portions of the tamping material to assist in holding the tie from "creeping" movement under the severe strains to which devices of this character are subjected.

Another object of the invention is to provide a simply constructed tie with fastening means for the rails so constructed that any slack which may be produced between the tie and the rail may be "taken up" without detaching the parts.

Another object of the invention is to provide a simply constructed tie having means for draining the same.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention: Figure 1 is a plan view of a portion of one of the improved ties; Fig. 2 is a side elevation of the part shown in Fig. 1; Fig. 3 is a longitudinal section of the improved tie at one end; Fig. 4 is an end elevation; Fig. 5 is an enlarged perspective view of one of the rail-holding devices.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved tie is constructed of metal in tubular form and preferably oblong transversely and is represented as a whole at 10. The tie will be constructed of the usual length of an ordinary railway tie, about eight feet, and may be of any required size transversely, but being of metal may be constructed of less area transversely than the ordinary wood tie as its strength is greater. The ties may however, be constructed of any suitable length and of any suitable size transversely, and it is not desired to limit the invention in this respect.

The improved tie is formed of a tube continuous throughout or without seams longitudinally or transversely and with the top and bottom and side walls corrugated or formed with alternate depressions and ribs indicated at 11 with the body preferably left without the corrugations where the rails are located as indicated at 19. The corrugations will be arranged both externally and internally of the tie body as indicated in Fig. 3, so that the metal of the walls is of substantially uniform thickness throughout. By thus forming the side walls with the corrugations or irregular faces recesses are provided for the reception of the tamping material which thus materially assists in holding the tie from creeping movement under the severe strains to which devices of this character are subjected. The corrugations likewise provide means for the expansion and contraction of the tie longitudinally under changes of temperature, without danger of fracturing the material.

The improved tie will be constructed preferably of steel cast in the form shown and described, and may be of any thickness or weight. Formed in the upper face of the tie and extending downwardly into the side walls of the same are slots 13—14, the slots being located at the points where the rails are to engage the tie, the slots are designed to receive fastening devices comprising shanks 15, lower T-shaped terminals 18 and an upper head 16—17, but as this fastening device constitutes the subject-matter of a separate application, filed Dec. 2, 1912, Serial No. 734,563, it is not deemed necessary to further describe the same.

By this means a simply constructed tie is produced which combines all of the advantages of the ordinary railway tie together with the means to effectually resist the creeping action of the tie.

Having thus described the invention, what is claimed as new is:

1. A metallic railway tie formed of a tube continuous throughout and with corrugations extending entirely around the same and with the walls between the end and terminal corrugations without the corrugations to receive the rails.

2. A metallic railway tie formed of a tube continuous throughout with the intermediate portion and the end portions of its walls formed with corrugations extending entirely around the same externally and internally, the walls between the end and terminal corrugations being left without corrugations to provide uncorrugated supports for rails and whereby the walls are uniform in thickness throughout.

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

ERNEST J. PETTEGREW. [L. S.]

Witnesses:
JOHN R. FOLEY,
C. F. LONG.

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