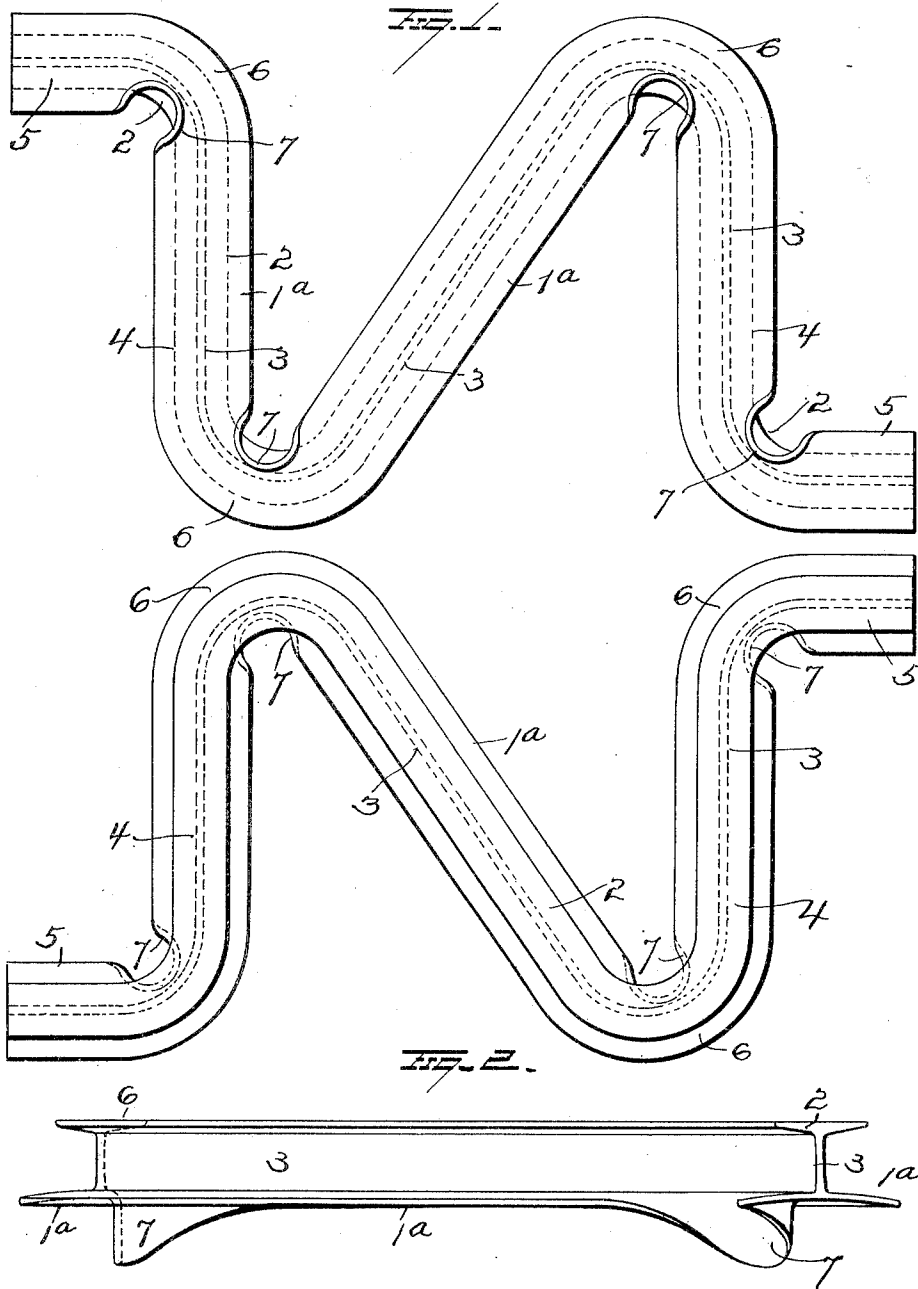


W. H. MORGAN.
METAL TIE FOR RAILROADS.
APPLICATION FILED MAR. 18, 1911.

1,009,776.

Patented Nov. 28, 1911.



WITNESSES
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WILLIAM H. MORGAN, OF ALLIANCE, OHIO.

METAL TIE FOR RAILROADS.

1,009,776.

Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed March 18, 1911. Serial No. 615,424.

To all whom it may concern:

Be it known that I, WILLIAM H. MORGAN, a citizen of the United States, and a resident of Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Metal Ties for Railroads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in metal ties for rail roads, and particularly to an improvement on the construction disclosed in my pending application No. 606,246 filed February 2nd, 1911.

In several forms of bent ties shown in said application, the base flange is made wider throughout its entire length, than the top flange. Experiments have demonstrated that it is extremely difficult to bend a very wide flange around a short radius, and the object of this invention is to so dispose of the base flange at the inner or concave sides of the bends, as to permit the tie to be readily and economically bent into shape.

A further object is to provide a tie of the type shown with members projecting below the bottom surface of the tie for anchoring the tie to the road bed.

With these and other objects in view, my invention consists in the details of construction as will be more fully explained and pointed out in the claims.

In the accompanying drawings, Figure 1 is a bottom plan view of two ties in proper position to receive the rails and Fig. 2 is an end view of the same.

My improved tie is of substantially I-shape in cross section, the base flange 1^a being wider than the top flange 2. The metal section from which the tie is made, is bent at its ends to form two parallel rail supporting sections 4, and the extreme ends 5 are bent at right angles outwardly beyond the rail supporting sections, to prevent the ties from tipping endwise.

It has been found difficult in practice to bend the wide base flange 1^a around a short radius, hence in order to obviate this objec-

tion, and at the same time provide the tie with projections for anchoring the same to the road bed, I bend the base flange 1^a downwardly at the concave or inner side of each bend 6. The downward bend of this flange starts well in toward the web 3 of the tie, as shown in Fig. 1, thus causing the displaced metal 7 to project some distance below the tie and form anchors, which, when sunk into the ballast or road bed, will prevent any lateral creeping of the tie. This bending of the flange may be done before the tie is bent, or it may be done simultaneously with the longitudinal bending, and in either case the displacement of metal at concave sides of the bends, permits the tie to be readily and economically bent into shape.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts shown and described, but

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. A metal tie having upper and lower flanges and an intermediate web, its opposite ends being bent to form parallel supports for the rails, the base flanges of said tie at the concave sides of the bends being bent downwardly.

2. A metal tie having upper and lower flanges and an intermediate web, the opposite end portions of said tie being bent to form parallel supports for the rails, and the extreme ends bent outwardly approximately at right angles to said rail supports, the base flange of said rail at the concave sides of the several bends, being bent downwardly.

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

WILLIAM H. MORGAN.

Witnesses:

J. H. LLOYD,
N. C. FETTERS.