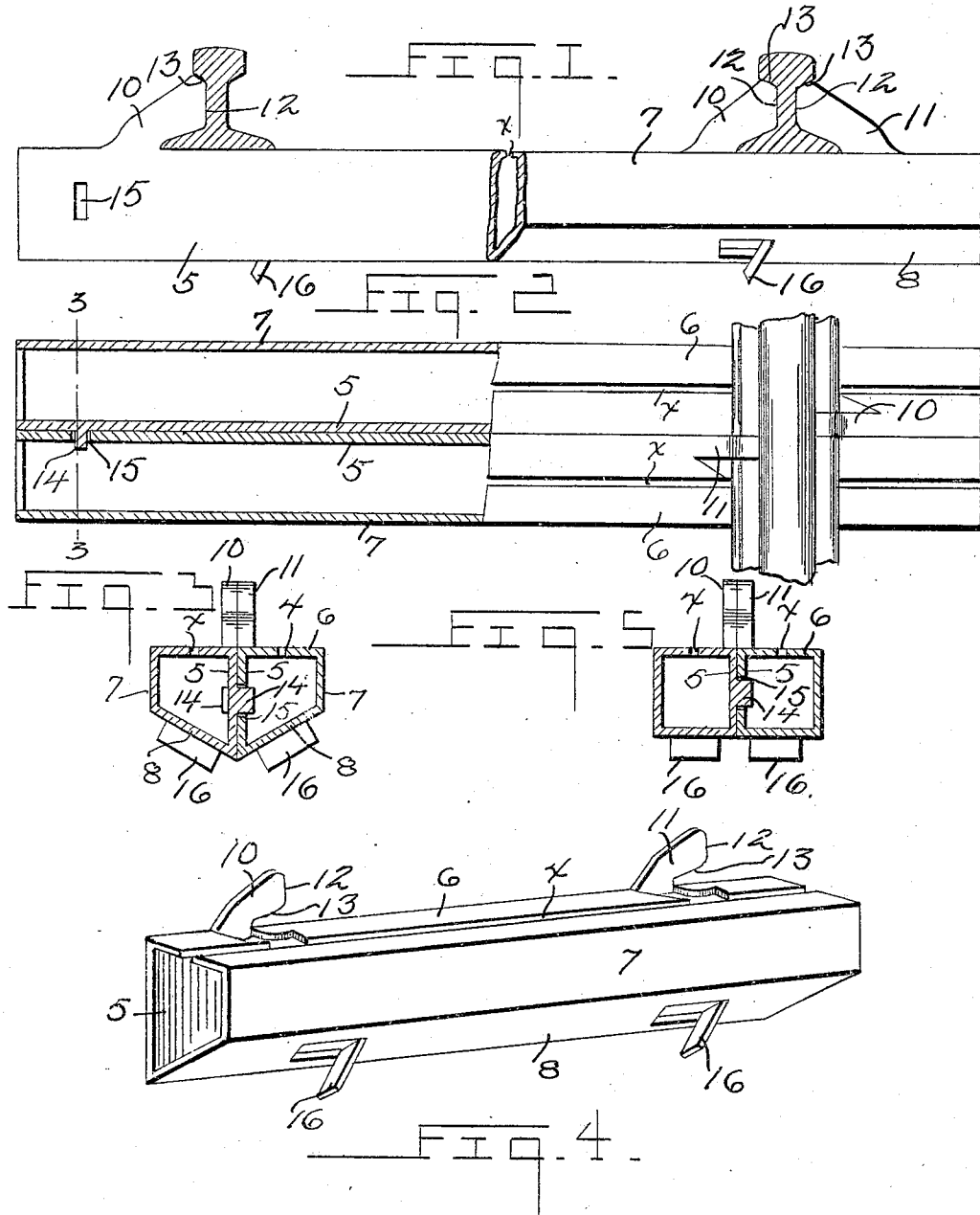


L. WYLDER.
RAILROAD TIE.
APPLICATION FILED JULY 7, 1909.

938,539.

Patented Nov. 2, 1909.



Witnesses
E. E. Johnson
M. L. Lorr.

Inventor
Lewis Wylder.

By *Howard & Chandler*
Attorneys

UNITED STATES PATENT OFFICE.

LEWIS WYLDER, OF CATHAY, NORTH DAKOTA.

RAILROAD-TIE.

938,539.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed July 7, 1909. Serial No. 506,311.

To all whom it may concern:

Be it known that I, LEWIS WYLDER, a citizen of the United States, residing at Cathay, in the county of Wells and State of North Dakota, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to certain new and useful improvements in railroad ties.

The object of my invention is to provide a sheet metal railroad tie, made of two similar half sections, which are secured to one another and in their connected condition immovably clamp the rail between the upstanding securing flanges.

With this and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims 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 shows a side elevation partly in section of a tie constructed according to my invention, Fig. 2 is a top view thereof partly in section, Fig. 3 is a section view on the line 3—3 of Fig. 2, Fig. 4 shows a perspective view of my tie, Fig. 5 shows a modification in which the tie-forming faces are held at right angles to one another.

In my present invention, I aim to provide a sheet metal tie, made of a square section of sheet metal, which is formed in one operation to provide a tie integrally carrying a rail-fastening means, the construction being such that when the two similar tie sections are united, the rail is firmly clamped between the same.

In the accompanying drawings, 5 represents the inner face, 6 the top, 7 the outer face and 8 the obliquely held bottom of my sheet metal tie. As shown, my tie is in the form of an open seam housing, the top or deck portion 6 being in the form of two equal members which are separated by the lengthwise positioned slot *a*. One of these top sections 6 is incised so as to provide the two similar upstanding rail-securing flanges 10 and 11 as clearly disclosed in Fig. 1. Each flange is provided with a forward stop

edge 12 from which continues the curved under face 13 arranged to lie upon the web and base of the rail, the upper edge of the flange being held below the head of the rail while the stop edge 12 is arranged to abut squarely against the web of the rail.

As shown in Fig. 3, the inner face 5 extends at right angles to the top 6 as does the outer face 7, this outer face however being of a width less than the inner face, so that the obliquely held bottom 8 slants upward from the inner face, so that the two united tie sections present a wedge-shaped under surface as shown.

Near one end the inner face 5 of the tie is provided with a slot 15, while at the opposite end I provide the vertically positioned outstanding stop ear 14, these ears and slots being so arranged that the ear of one tie section will snugly fit within the slot of the opposite section. Transversely extending from the oblique bottom of each tie section, is an anchor-forming flange 16, these flanges preventing any endwise displacement of the tie after the same has been embedded within the road bed. As shown, the tie forms a hollow housing which is filled with ballasting or other material after the ties have been properly placed.

As shown the flanges 10 and 11 of each tie section extend in like direction, so that the two flanges of one tie section are held opposite to the two flanges of the opposite tie section.

The operation of laying the tracks upon these metallic ties is very simple. A series of the half tie sections are first placed within properly spaced shallow ditches within the road bed. The rails are then placed upon these half sections when the remaining tie sections are introduced into the ditches and properly united and connected. The rails are then firmly clamped between the webs of the several tie sections and the ties are then raised in properly tamping the road bed about them. As the united tie sections present wedge faced under surfaces, the action of a loaded train passing over the rails has a tendency to more firmly unite the two tie sections. The stop ears prevent any lateral displacement of the several connected tie members, while the anchor flanges 16 prevent any lateral displacement of the connected ties relative to the road bed.

In Fig. 5 I disclose a modification wherein

the rail-securing flanges are shown as extending upward from the surface of a square tie.

These tie sections being made of sheet metal of a proper thickness are more yielding and elastic than where the ties are made of solid iron and so more nearly approximate the action of a wooden tie, which in part takes up the shock of the wheels passing over the rails. The tie members are securely held together, by virtue of their obliquely positioned under faces, which as they, when united present a wedge surface are firmly pressed toward one another on the passing of a car or train over the rails.

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

1. A complete tie section consisting of a single piece of sheet metal which is bent in the form of an open seam housing, the top of which comprises two similar sections, the bottom of the tie section being obliquely held to said top, one of said top sections being incised to provide a stop flange at each end bent upward and forming a rail-securing member, as and for the purpose set forth.

2. A complete tie section consisting of a single piece of sheet metal which is bent in the form of an open seam housing, the top of which comprises two similar sections, the bottom of the tie section being obliquely held to said top, one of said top sections being incised to provide a stop flange near each end extending at right angles to said top,

the longest vertical face of said tie section having a slot at one end and an ear complementary to said slot at the other.

3. A complete tie section consisting of a single piece of sheet metal, bent to form an open seam housing the top of which comprises two similar sections, the bottom of the tie section being obliquely held to said top, said bottom section being provided with a plurality of outwardly directed flanges, one of said top sections being incised to provide a stop flange at each end, the longest vertical face of said tie section having a slot at one end and an ear at the other.

4. A tie comprising two similar members, each member consisting of a single piece of sheet metal bent to form an open seam housing, the top of which comprises two similar sections, the bottom of each tie member being obliquely held to its top, one of said top sections being incised to provide a stop flange at each end bent upwardly, said tie members being secured along their longest vertical faces, each tie member having a slot at one end and a stop ear at the other, the stop ear of one tie member being held within the slot of the member opposite, and means to connect said two similar tie members.

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

LEWIS WYLDER.

Witnesses:

C. V. BROWN,
L. D. MENICK.