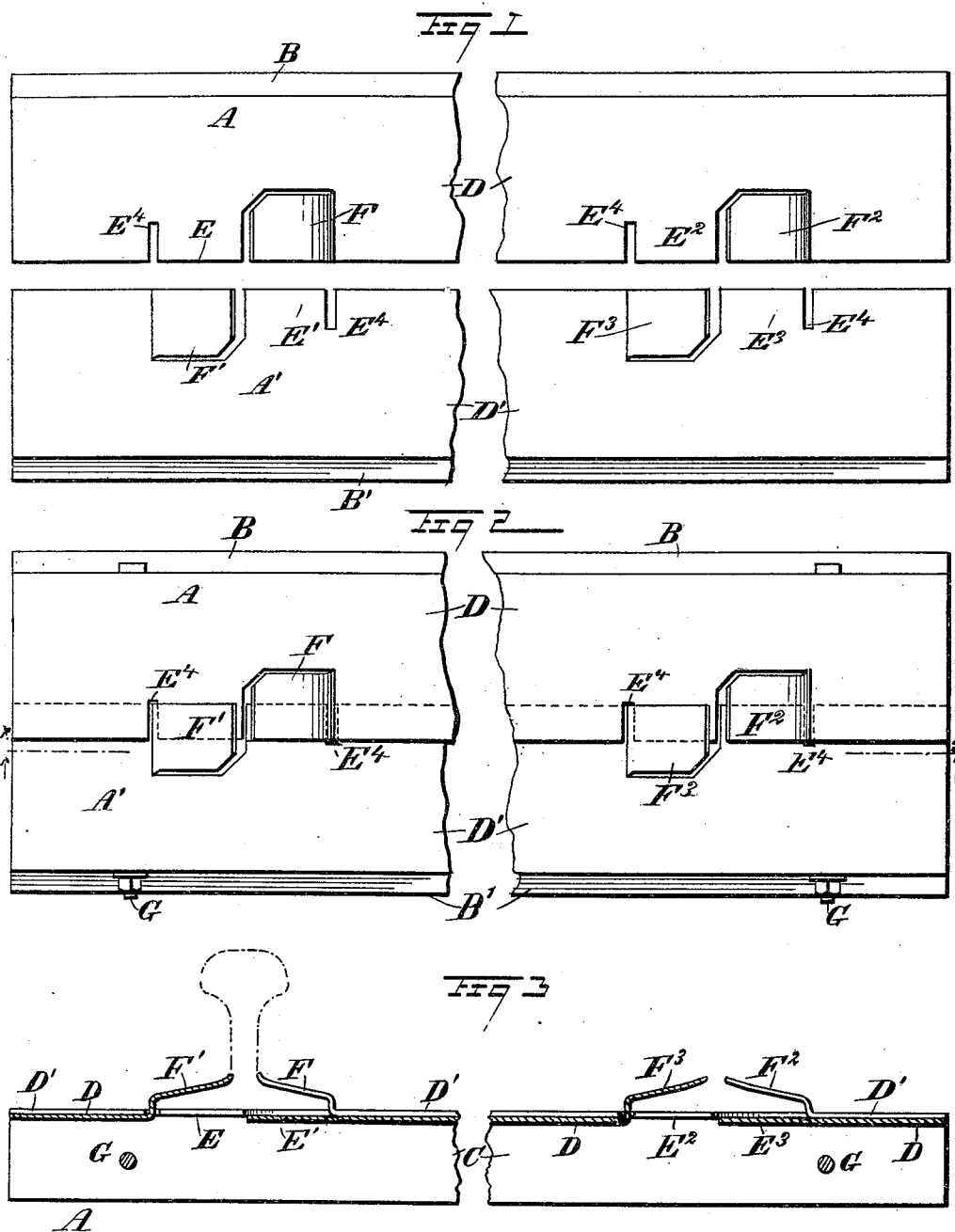


(No Model.)

F. H. HICKS.
METALLIC RAILROAD TIE.

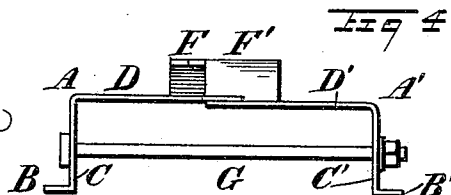
No. 466,168.

Patented Dec. 29, 1891.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

FRANCIS H. HICKS, OF LITTLE ROCK, ARKANSAS.

METALLIC RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 466,168, dated December 29, 1891.

Application filed March 18, 1891. Serial No. 385,440. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS HENRY HICKS, of Little Rock, in the county of Pulaski and State of Arkansas, have invented a new and Improved Metallic Railroad-Tie, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved metallic railroad-tie which is simple and durable in construction and securely holds the rails in place without the use of spikes or bolts.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken plan view of the two parts previous to joining. Fig. 2 is a broken plan view of the improvement with the two parts joined. Fig. 3 is a broken sectional side elevation of the same on the line *x x* of Fig. 2, and Fig. 4 is an end elevation of the same.

The improved metallic railroad-tie is made of two like parts A and A', preferably made of sheet-steel; but other suitable material may be employed. Each of the parts A or A' is preferably made Z-shaped; but an L shape may be employed, if desired.

Each of the parts A and A' is provided with a horizontal base-flange B or B', respectively, the vertical parts C and C', respectively, and the horizontally-extending top flanges D and D', respectively. The top flanges D and D' are adapted to interlock each other, as is plainly shown in Fig. 2, and for this purpose the top flange D is provided with the two tongues E and E² and the lugs F and F², while the other part D' is provided with two tongues E' and E³ and the lugs F' and F³. The tongue E of the top flange D is arranged opposite the lug F' of the flange D', and the said tongue is bent downwardly, while the lug F' is bent upwardly to conform to the shape of the top of the base of the rail. (See Fig. 3.) The lug F of the top flange D is arranged opposite the tongue E' and adjoins the tongue E. The lug F is bent upward similar to the lug F', only in an opposite direction, so that when the two parts A and A' are joined the said two lugs

are arranged opposite each other to engage the opposite sides of the base of the rail. The tongue E² of the top flange D is arranged opposite the lug F³, and the tongue E³ is similarly arranged opposite the lug F². The two lugs F² and F³ are bent upwardly in opposite directions—that is, toward each other—so as to engage the top of the base of the second rail. The tongues E, E', E², and E³ are slightly bent downward, as is plainly illustrated in Fig. 3, while the lugs F, F' and F² and F³ are cut or stamped out of the top flanges D and D', respectively, so that the opposite tongues pass into the space formed by cutting the lugs. Thus the tongues have one side formed by the cut-out part of the respective lug, while the other side is formed by a slot E⁴, cut or otherwise made into the respective top flange D or D'. When the two parts A and A' are joined, the outer part of the lug F' passes into the slot E⁴ of the tongue E, while the slot E⁴ of the tongue E' straddles the lower end of the lug F. In a similar manner the slot E⁴ of the tongue E² passes or straddles the lower or connecting end of the lug F³, while the slot E⁴ of the tongue E³ engages the lower end of the lug F². When the two parts are joined, as is plainly shown in Fig. 2, the inner end of the top flange D passes over the corresponding opposite part of the flange D', with the tongues E, E', E², and E³ passing into the corresponding recesses under the lugs F, F' F² F³, respectively. When the two parts are thus joined, they securely interlock each other, at the same time bringing the corresponding lugs F and F' and F² F³ opposite each other for the purpose of engaging the base of the rail.

In order to securely hold the two parts A and A' together, bolts G are employed, passing transversely through the vertical parts C and C', as is plainly shown in Fig. 4.

In order to place the tie in proper position, the two separate parts are preferably introduced from opposite sides, so that the lugs F, F' catch or engage the base of one rail, while the other two lugs F² F³ engage the base of the other rail. When this is accomplished, the two parts are locked in position by the bolts G. In case the two parts can only be inserted from one side of the track, then one part is first put in place, then the other, and

finally the two are bolted together. In case the tie parts A and A' are joined and locked together by the bolts G, then the rail can readily be passed over the top flanges D and D', so as to pass with its base between the corresponding lugs F F' or F² F³. The under side of the base rests on the top flanges D and D' and the corresponding tongues E E' or E² E³, while the top of the base of the rail is engaged by the corresponding oppositely-arranged lugs F F' or F² F³. A railroad-tie constructed in this manner is very simple and durable in construction and can be cheaply manufactured and applied without employment of skilled labor.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A metallic railroad-tie comprising two angular parts forming interlocking top flanges, oppositely-arranged lugs formed integral with the said top flanges and adapted to engage

the base of the rail at opposite sides of the web, and tongues cut in each of the said top flanges alongside the corresponding lug, the said tongue on one top flange being opposite a lug on the other top flange, substantially as shown and described.

2. A metallic railroad-tie comprising two angular parts forming interlocking top flanges, oppositely-arranged lugs formed integral with the said top flanges and adapted to engage the base of the rail at opposite sides of the web, tongues cut in each of the said top flanges alongside the corresponding lug, the said tongue on one top flange being opposite a lug on the other top flange, and bolts for securing or holding the angular parts in an interlocked position, as set forth.

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Witnesses:

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