

No. 835,716.

PATENTED NOV. 13, 1906

V. D. SUMNER.  
RAILWAY TIE.  
APPLICATION FILED JULY 13, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

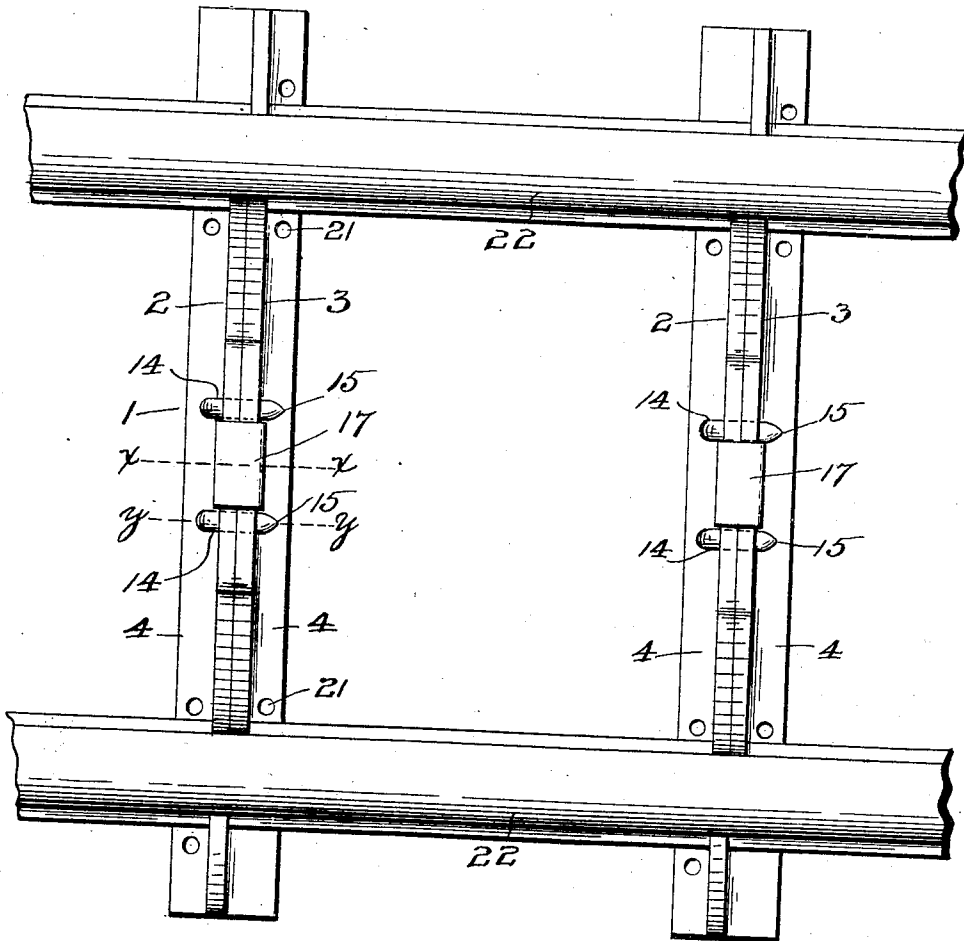


Fig. 2.

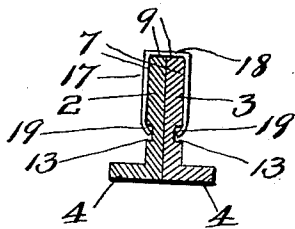
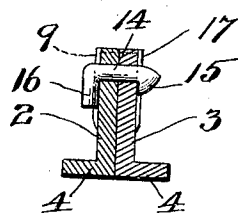


Fig. 4.



Witnesses

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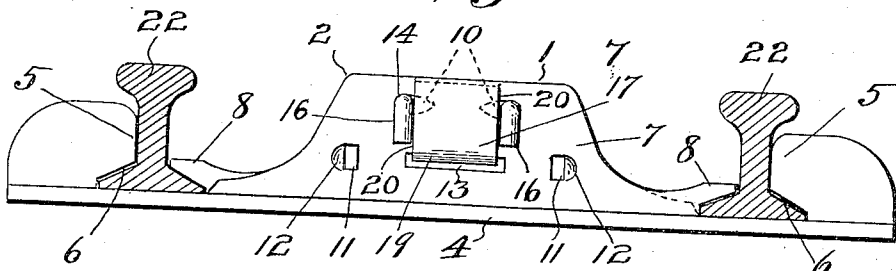
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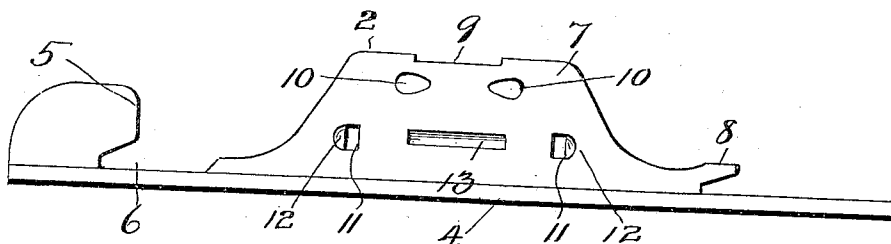
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2 SHEETS—SHEET 2.

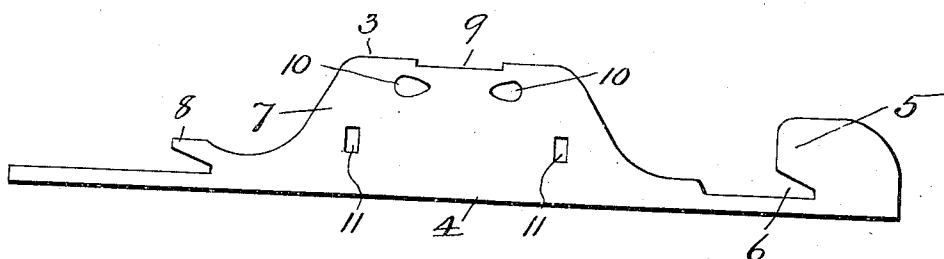
*Fig. 3.*



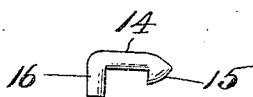
*Fig. 5.*



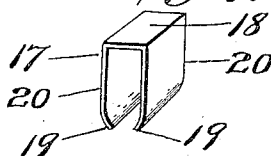
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



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# UNITED STATES PATENT OFFICE.

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## RAILWAY-TIE.

No. 835,716.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed July 13, 1906. Serial No. 326,067.

*To all whom it may concern:*

Be it known that I, VIRGIL D. SUMNER, a citizen of the United States, residing at Sumner, in the county of Tallahatchie, State of Mississippi, have invented certain new and useful Improvements in Railway-Ties; and I do 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 pertains to make and use the same.

My invention relates to improvements in railway-ties, and more particularly to a two-part tie made of metal.

The object of the invention is to provide a metallic railway-tie made, preferably, of steel, but which may be made of any suitable material, which will rigidly secure the rails in place without the use of spikes or other fastening devices, and which is simple, inexpensive and durable in construction, exceedingly easy to assemble or take apart, and when the parts are assembled and secured together it is as solid as a one-piece tie and will retain its normal position under all conditions.

The invention consists in the several features and combinations of features, as more fully hereinafter described and claimed.

Referring to the drawings, Figure 1 is a top plan view of my invention as it appears when applied to the rails; Fig. 2, a cross-sectional view on the line *x x* of Fig. 1; Fig. 3, a side elevation; Fig. 4, a cross-section of the tie on line *y y* of Fig. 1; Fig. 5, a side elevation of one part of the tie; Fig. 6, a side elevation of the opposite part; Fig. 7, a detail view of one of the locking-bolts; Fig. 8, a detail view of one of the spring-clips for locking the tie-securing bolts.

In the drawings, in which like numerals of reference denote like parts throughout the several views, 1 represents a railway-tie constructed in accordance with my invention, which comprises two parts 2 and 3, one of said parts being the exact counterpart of the other. Each of said parts is provided with a flat base 4, provided at one end with an inwardly-extending lug 5, a recess 6, and at approximately the center with an upwardly-extending vertical flange 7, having a lug 8 at one end and a recess 9 in its upper edge, said vertical flanges also having two keyhole-shaped slots 10 and vertically-elongated holes 11, having inclined grooves 12 leading thereto, designed for the purpose of receiv-

ing the end of a crowbar or other instrument when it is desired to handle the ties, and longitudinal grooves 13, designed to receive the end of a suitable tool when it is desired to remove the spring-clip. The two parts of the railway-tie are clamped together by means of two bolts 14, each provided with hooks 15 at one end and a lug 16 at the opposite end. A spring-clip 17 is passed over the flanges of the two parts of the tie, and its upper portion 18 is seated in the recesses 9, and the lower ends are bent inwardly, as at 19, and engage the longitudinal grooves 13, and the side edges 20 abut against the lugs 16 of the bolts 14 and lock said bolts and prevent them from turning. Holes 21 are provided in the base-flanges of the tie for the purpose of receiving spikes to fasten the ties to bridges or timbers on inclines by means of bolts or other similar devices when found necessary.

22 designates sections of rails. When the two parts, which, as before stated, are exactly alike, are brought together with the vertical flanges 7 against each other and the base portions 4 in the same horizontal plane side by side, the lugs 5 on one part will stand opposite the lugs 8 of the other part and embrace the flanges of the rails. Then in order to secure the two parts of the tie together and upon the rails the bolts 14 are inserted in the keyhole-shaped slots 10, which are in alinement and then turned so that the hooked ends 15 and the lugs 16 project downward. The clip 17 is then inserted over the flanges 7 of both parts of the tie and pushed down until the upper portion 18 seats in the recesses 9, the lower bent ends 19 seat in the longitudinal grooves 13, and the side edges 20 abut against the lugs 16 of the bolts 14 and prevent them from turning. It will be seen that in case a rail or a tie is broken the two parts of the tie can be readily detached by removing the bolts and the broken part replaced.

I do not desire to be understood as limiting myself to the specific details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement on the adaptation of the device to the various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right

to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims:

What I claim is—

1. A railway-tie comprising two parts each provided with rail-retaining means, and flanges, bolts for securing said parts together, and means for locking said bolts in place which engages said flanges, substantially as described. 5
2. A railway-tie comprising two parts each provided with rail-retaining lugs and flanges, bolts for securing said parts together, grooves in said flanges and means designed to engage said grooves and lock said bolts in place, substantially as described. 10
3. A railway-tie comprising two parts each provided with rail-retaining lugs, bolts for securing said parts together and means designed to be inserted over the upper portion of said tie to lock said bolts in place, substantially as described. 15
4. A railway-tie comprising two parts each part provided with rail-retaining lugs, bolts for securing said parts together and a clip for locking said bolts in place, substantially as described. 20
5. A railway-tie comprising two parts each part provided with rail-retaining lugs, bolts for securing said parts together and a spring-clip designed to be inserted over the top of said tie to lock said bolts in place, substantially as described. 25
6. A railway-tie comprising two parts each provided with rail-retaining lugs, flanges, provided with keyhole-shaped slots, bolts designed to be inserted in said slots and means designed to abut against said bolts and lock them in place, substantially as described. 30
7. A railway-tie comprising two parts each provided with rail-retaining lugs, flanges provided with recesses and slots, bolts designed to be inserted in said slots and having lugs and a clip designed to be seated in the recesses of the flanges, and lock said bolts in place, substantially as described. 35
8. A railway-tie comprising two parts each provided with rail-retaining lugs, vertical flanges having grooves, bolts for securing said parts together and a clip for locking said bolts in place, designed to be inserted over said flanges and have its lower ends seated in the grooves of the flanges, substantially as described. 40
9. A railway-tie comprising two parts each provided with rail-retaining lugs, a vertical flange provided with a recess in the upper edge and also provided with keyhole-slots and a groove, bolts designed to be inserted in said slots and a clip for locking said bolts in place, designed to be seated in the recesses in the vertical flange and to engage the grooves, substantially as described. 45
10. A railway-tie comprising two parts each provided with rail-retaining means and flanges, bolts for securing said parts together, and means for locking said bolts in place simultaneously substantially as described. 50
11. A railway-tie comprising two parts each provided with rail-retaining means and flanges, bolts for securing said parts together and means for locking said bolts designed to be inserted between them, substantially as described. 55
12. A railway-tie comprising two parts each provided with rail-retaining means and flanges having slots, and bolts designed to be inserted into said slots each having a hook at one end and a lug at the opposite end, and means for locking said bolts in place, substantially as described. 60
13. A railway-tie comprising two parts each provided with rail-retaining means and flanges, having slots and bolts designed to be inserted into said slots, each having a hook at one end and a lug at the opposite end and a clip for locking said bolts in place simultaneously substantially as described. 65
14. A railway-tie comprising two parts each provided with rail-retaining means and vertical flanges having slots and bolts designed to be inserted into said slots each having a hook at one end and a lug at the opposite end, and a spring-clip for locking said bolts in place, substantially as described. 70
15. A railway-tie comprising two parts each provided with rail-retaining means and flanges, having grooves, bolts for securing said flanges together and a clip for locking said bolts, having inwardly-curved lower ends designed to be seated in said grooves, substantially as described. 75

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

VIRGIL D. SUMNER.

Witnesses:

R. L. WARD,  
C. BUFORD.