O. P. MEGAHAN.

RAILROAD TIE STRUCTURE.

APPLICATION FILED SEPT. 3, 1912.

1,067,828. Patented July 22, 1913.

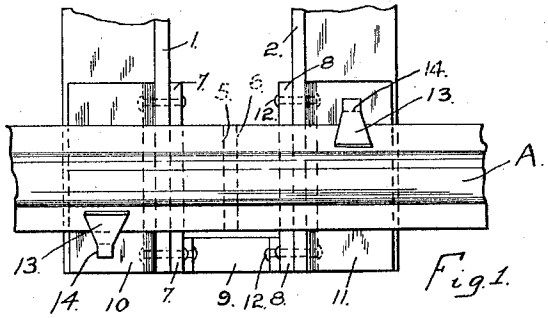


Fig. 1.

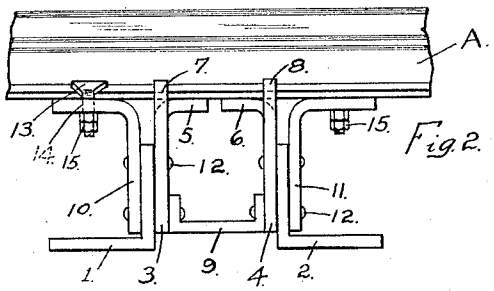


Fig. 2.

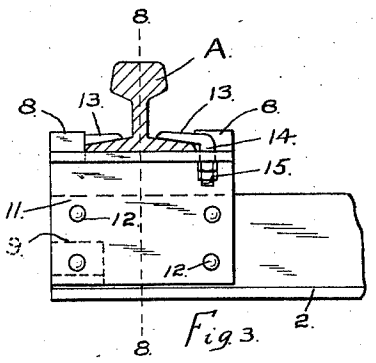


Fig. 3.

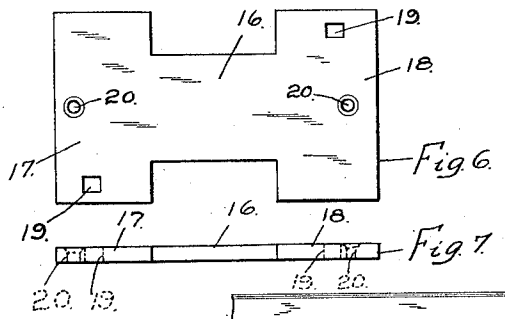


Fig. 6.

Fig. 7.

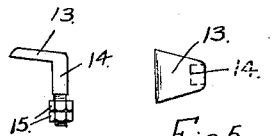


Fig. 4.

Fig. 5.

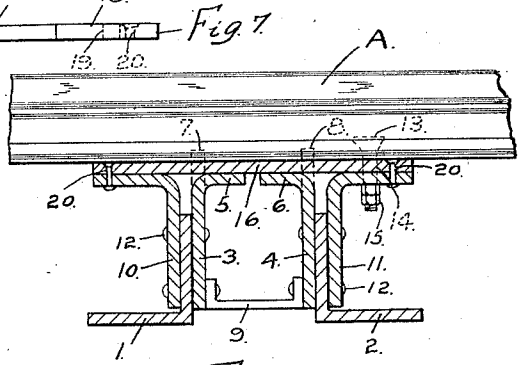


Fig. 8.

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RAILROAD-TIE STRUCTURE.

1,067,828. Specification of Letters Patent. Patented July 22, 1913.

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To all whom it may concern:

Be it known that I, OLIVER P. MEGAHAN, a citizen of the United States, residing at Westerville, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Railroad-Tie Structures, of which the following is a specification.

My invention relates to railroad tie structure and aims to provide an improved form of metallic tie which has all of the advantages of length of wear and stability and which is nevertheless sufficiently resilient to render it practical by affording a compensating yielding action in response to the various strains and jars to which it must inevitably be subjected in actual practice. My invention aims to accomplish this result by the utilization of a minimum number of parts, which parts are of such form as to insure a minimum cost of production.

My invention further aims to provide a rail tie structure which is resilient to a certain degree, but which is so formed as to permit of the ready adaptation of a means for increasing the rigidity of the tie structure, should it be found necessary in certain classes of work. My invention, therefore, is described herein as a preferred form and a modification, the former being more resilient than the latter, but the former constituting a basic element of the latter.

My invention is shown in the accompanying drawings, in which similar characters of reference designate corresponding parts and in which:

Figure 1 is a plan view of my preferred type of supporting tie section; Fig. 2 is an end elevation of the structure shown in Fig. 1, Fig. 3 is a side elevation of the structure shown in Fig. 2, Fig. 4 is a detail view of a form of clamping bolt desirably used by me, Fig. 5 is a plan of the structure shown in Fig. 4, Fig. 6 is a plan view of a reinforcing plate which is adapted for application to the preferred form of my invention just described, to increase the rigidity and to produce the modified structure previously mentioned, Fig. 7 is an edge elevation of the plate shown in Fig. 6, and, Fig. 8 is a section taken on line 8—8 of Fig. 3, but showing the reinforcing plate applied thereto to produce the modified construction described as affording an increased rigidity.

In the drawings, the preferred form of my invention takes the shape of a pair of L-members 1 and 2 spaced apart for carrying at either end a rail supporting structure. This rail supporting structure is preferably formed of plates 3 and 4 disposed upon the inner surfaces of the vertical legs of the L-beams and having the central portions of their upper edges cut out and bent downwardly and inwardly as at 5 and 6 to form supporting shelves and guard pieces 7 and 8 for preventing lateral movement. These L-beams with the said plates 3 and 4 carried upon the inner surfaces of the vertical legs, are maintained against spreading by spanning strips 9 of U-form. In addition, the outer surfaces of the vertical legs of the L-beams carry inverted L-beams whose upper legs form shelves and are disposed in the same plane with the upper surfaces of the members 5 and 6. The upper surfaces of the members 5 and 6 and the upper surfaces of the horizontal legs of the members 10 and 11, together form a table-like surface for the reception of the rail A. This entire structure is desirably secured together by rivets 12 or in any other suitable manner. The rail is preferably maintained against lateral movement and against any shifting by the L-shaped bolts 13 preferably having square shanks 14 and extending through the horizontal legs of the members 10 and 11 which are provided with rectangular sockets and wherein the said bolts are held by lock nut 15.

In the modified form of my invention, there is utilized the plate shown in Figs. 6 and 7, as having a substantially rectangular center piece 16 and rectangular wing members, designated respectively 17 and 18 and provided with apertures 19, for the passage therethrough of the square shanks of the bolts described. This plate is adapted to be mounted upon the table-like surface of the tie structure with its central portion 16 disposed between the formations 7 and 8 and with its wings located upon and in superimposed relation to the horizontal legs of the members 10 and 11. The plate is preferably provided with countersunk rivet holes 20 for the reception of rivets to secure the said plate to the horizontal legs of the members 10 and 11. The provision of these countersunk rivet holes renders possible the mounting of the reinforcing plate upon the basic structure in such a manner as to suitably receive the rail and it will be apparent that there will result an increased rigidity, which

will nevertheless not entirely destroy the resiliency resulting from the unsupported horizontal legs of the members 10 and 11 and from the shelves 5 and 6.

It will be seen that I have provided an improved type of rail tie which affords a maximum resiliency and which is composed of a plurality of elements of simple formation and capable of being readily assembled.

What I claim is:

A railroad tie structure comprising a plurality of base members, spanning members for holding said base members in spaced relation, a plurality of individual angular members carried by each end of each base member having their horizontal legs disposed above the level of said base members to form shelves for the rails, and upwardly extending lugs on the vertical legs of said angular members forming guards for the prevention of lateral movement of the rails.

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

OLIVER P. MEGAHAN.

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