

No. 845,507.

PATENTED FEB. 26, 1907.

M. M. BATTERTON.
RAILROAD TIE.
APPLICATION FILED JUNE 27, 1906.

Fig. 1.

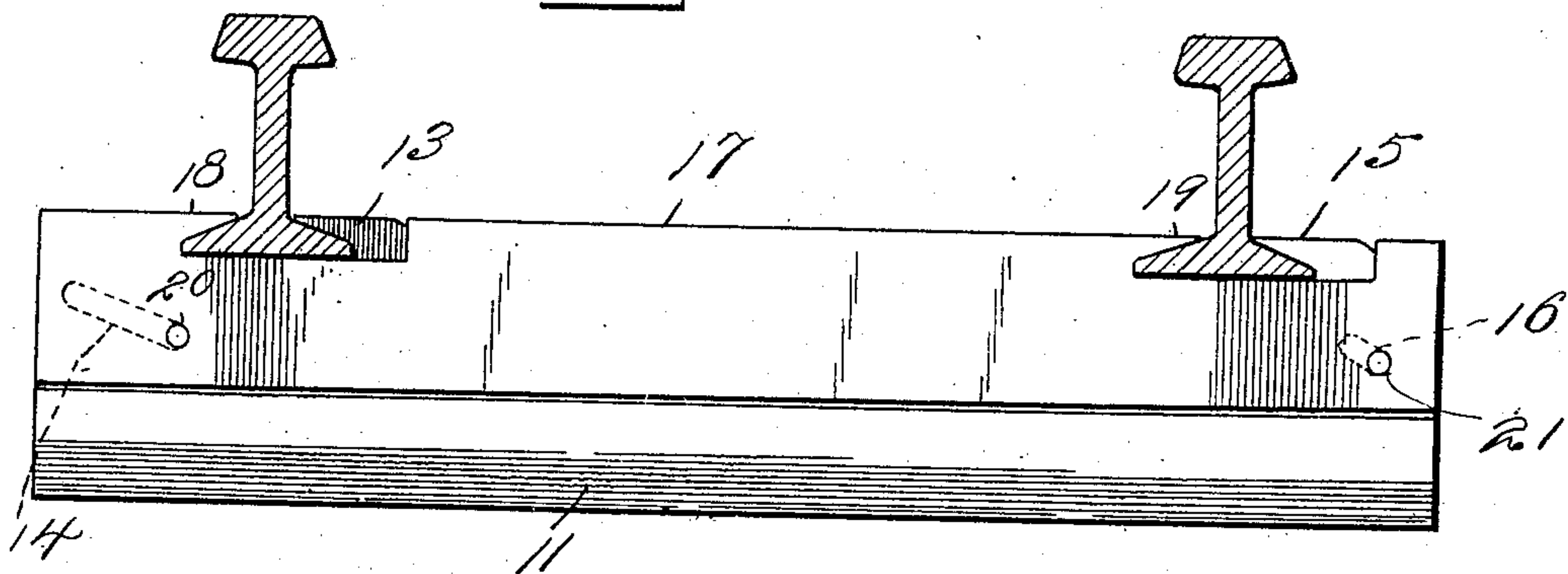


Fig. 2.

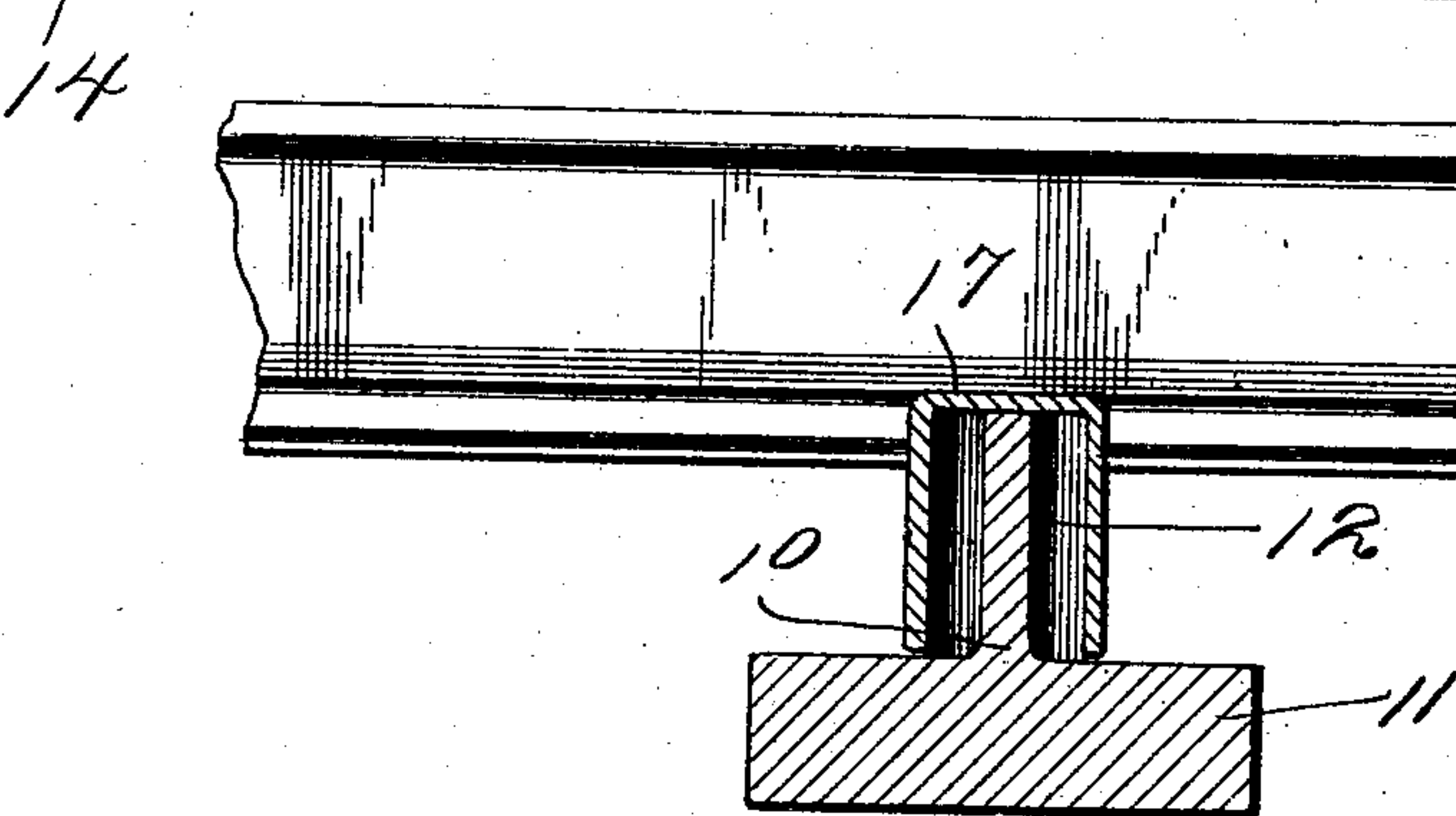
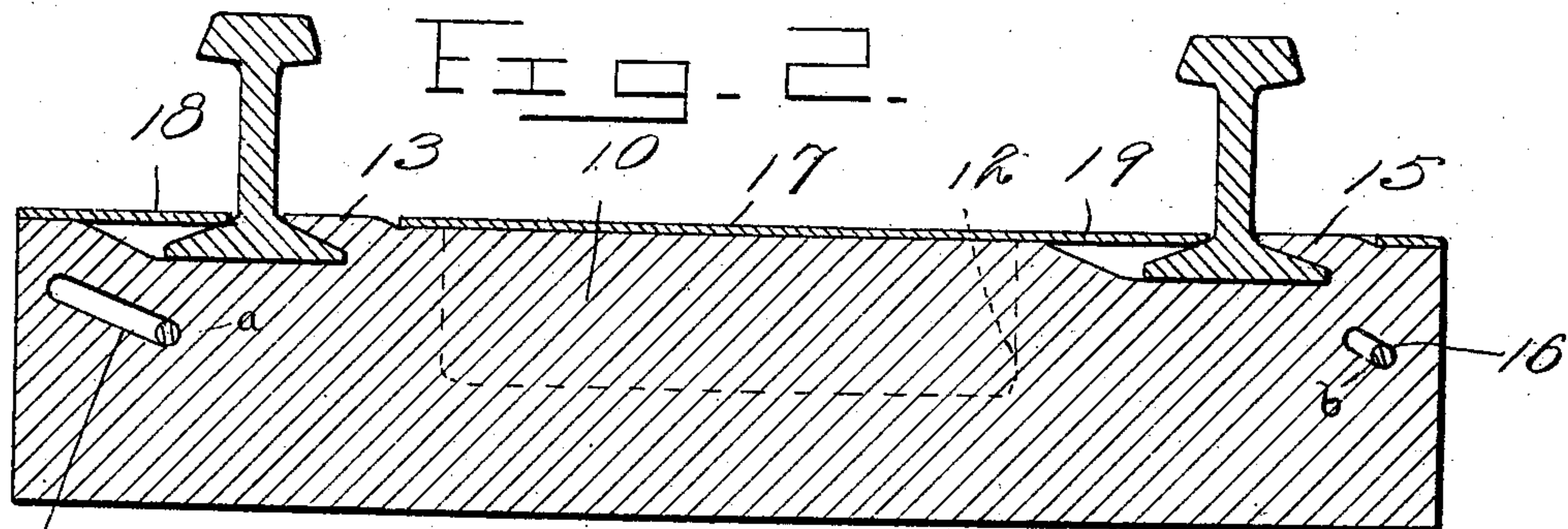


Fig. 3.

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RAILROAD-TIE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MORRIS M. BATTERTON, a citizen of the United States, residing at Kingfisher, in the county of Kingfisher, Territory of Oklahoma, have invented certain new and useful Improvements in Railroad-Ties; 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.

This invention has reference to railway-rail ties of the class or kind that is composed entirely of metal.

There are many difficulties and objections encountered in efforts to supplant wooden ties on railways with those composed of metal. As the metallic tie is in many respects a relatively permanent structure, those difficulties encountered that stand in the way of making it a thing of substantially complete durability or a thing needing no renewal or readjustment after having once been properly created, constructed, or installed are among those most anxiously sought to be obviated. Of the said difficulties those relating to keeping the rails in place on the ties when once properly laid, keeping them from spreading or being moved or becoming loose in their seats or bearings under ordinary conditions, are of the most important.

My improvements have as their object the complete obviation or removal of the specific difficulties or objections, and in carrying out these objects I provide a metallic tie composed of two major and two minor parts which may be said to consist, as to the first part, of a base or bearing tie and its rail-retaining means and the cap or compensating tie and its means for compensating for all wear or other tendencies to the loosening of parts and, as to the second part, of a rivet and bolt combined with certain necessary structural characteristics through the invention of which the major elements are brought and kept in proper relationship to enable them to sustain their offices.

With this statement as to the nature and objects of my improvements a brief description only is needed of a form of means in which the invention may be embodied to enable those skilled in the art to understand the invention and carry it into effect.

I will proceed at once to give the specified description in connection with the accompanying drawings, forming a part of this

specification, and then point out the same with particularity and distinctness in the claims at the conclusion hereof.

Of the said drawings, Figure 1 is a side elevation of the tie. Fig 2 is a longitudinal section. Fig 3 is a cross-section.

Similar numerals of reference designate similar parts or features, as the case may be, wherever they occur.

In the drawings, 10 designates the base or bearing part of the tie, which I prefer shall be provided with a broad ample base 11. The central portion may be reduced, as at 12 or otherwise, to avoid the cost of metal where it is not needed. The upper surface of one end portion is provided with an undercut locking-flange 13, that projects toward the end, and laterally through this end portion an inclined slot 14 is formed for the reception of a rivet, as will be presently explained. The inclination of the slot 14 is in a direction opposite to that of the flange 13. The opposite end of the base member is provided on its upper surface with a seat or bearing for a rail, and outside of the same is a locking-flange 15 similar to the undercut flange 13 and extending inclinedly in the same direction. Extending laterally through the last-mentioned end is an inclined slot 16, shorter than the slot 14, but inclined in the same direction.

17 designates the compensating or locking member of the tie constructed as a cap to the bar or base member in the sense that it is made to fit over the latter member. The compensating member is cut away in its upper part over the bearings for the rails on the base member and to the side of the rail-bearing surface opposite to that having the inclined locking-flange on the base member. The edges 18 and 19 of said cut-away parts are undercut to provide locking-flanges to engage the edges of the base-flange of the rail opposite to that of the locking-flanges of the base member. Of course the flanges 18 and 19 incline in an opposite direction to the inclination of the flanges 13 and 15 and engage the opposite sides of the rails, as stated.

Opposite the slots formed in the end parts of the base member there are holes 20 and 21, formed through the member 17 for the reception, respectively, of bolts *a* and *b*, the former extending also through the long inclined slot 14 in the base member and the other through the shorter inclined slot in the other end.

It is now apparent that in use the rails are

placed on the rail-bearing surfaces on the upper side of the member 10 with the edge of the rail-flange engaged by the locking-flanges 13 and 15, and the cap or compensating member 17 is put in place with its undercut flanges 18 and 19 engaging the flange of the rail opposite to the flanges 13 and 15, and the parts are secured in place by the rivet passed through the hole 21 and long inclined slot 14 of the two members and by the bolt passed through the hole 20 and short inclined slot at the other ends of the members, whereby the edges of the rail will be firmly gripped and held in place against lateral movement, and they can be thus left. Any wear that may take place or play that may be occasioned from any cause will be taken up by the compensating member moving longitudinally on the base member in a direction that will cause its locking-flanges to grip the edge of the flange of the rail tighter or more closely, and thus hold it as securely as at first.

The base member 10 is of such weight as to enable it to keep its place in the road-bed without staying it by outside means. The action of the compensating member in taking up wear is perpetual, and no readjustment of parts is likely to be necessitated after first installation. The use of spikes to hold the rail in place is not required. Consequently no provision has been made therefor.

The use of the invention is unlimited as to place, since it can be employed substantially anywhere that ties of common form can be used.

What is claimed as the invention is—

1. A railroad-tie, comprising a base, provided at its upper portion with rail-engaging flanges turned in a common direction, a cap member engaged over the base and having rail-receiving openings therein, said cap member having locking-flanges for coöperation with the flanges of the base, said base having diagonal slots therein and bolts engaged in the cap member in the slots for movement of the cap member to bring its flanges into coöperative relation with those of the base.

2. A metallic railway-rail tie consisting of a base or bearing part provided on its upper surface with bearings for the rails and having inclined locking-flanges for engaging one edge of the rails and locking them against movement laterally in one direction, a compensating part constructed as a cap to fit over the base member and notched, as explained, and provided with inclined locking-flanges extending in a direction opposite to that of the locking-flanges first mentioned and engaging the rail-flanges on the opposite sides, the two members being united at the ends, and the union being such that in use, as the parts wear or become loose, they will move to close their locking-flanges on the rails.

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

MORRIS M. BATTERTON.

Witnesses:

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