

No. 792,134.

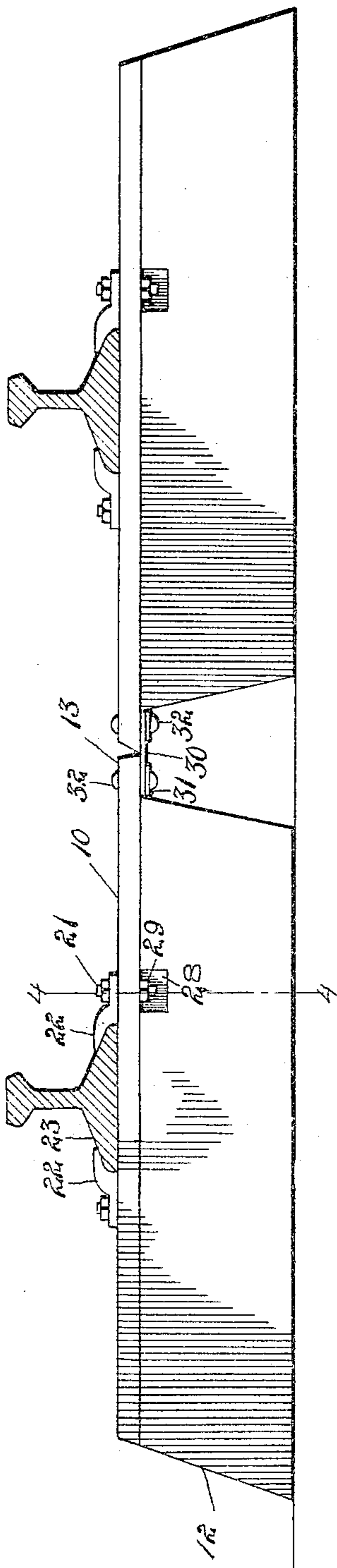
PATENTED JUNE 13, 1905.

C. W. ISRAEL.
RAILWAY TIE.

APPLICATION FILED DEC. 21, 1904.

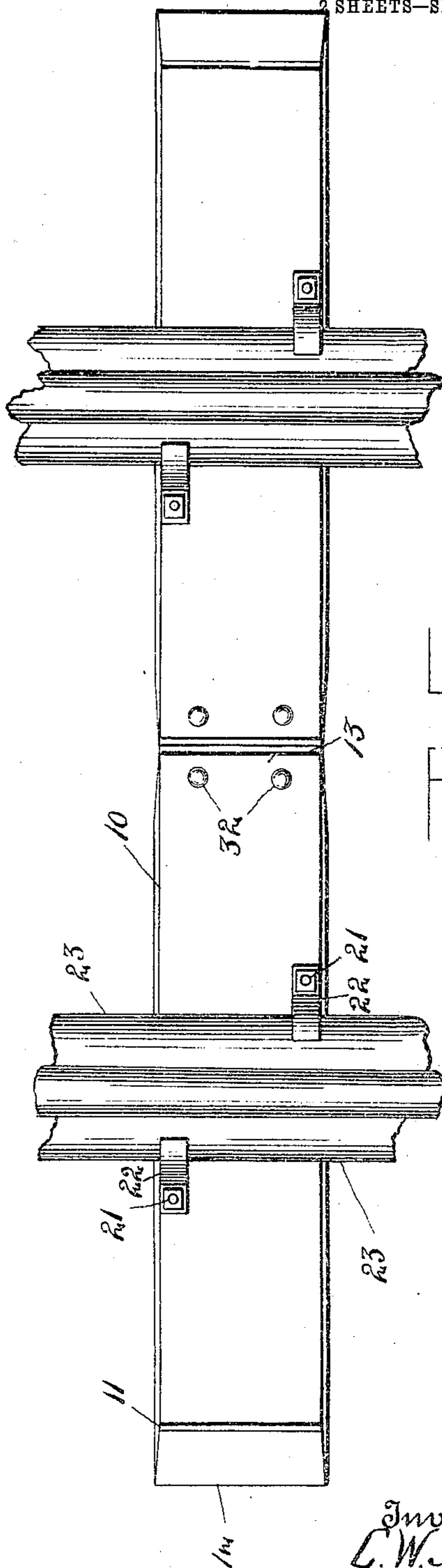
2 SHEETS—SHEET 1.

Fig. 1.



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Fig. 5.



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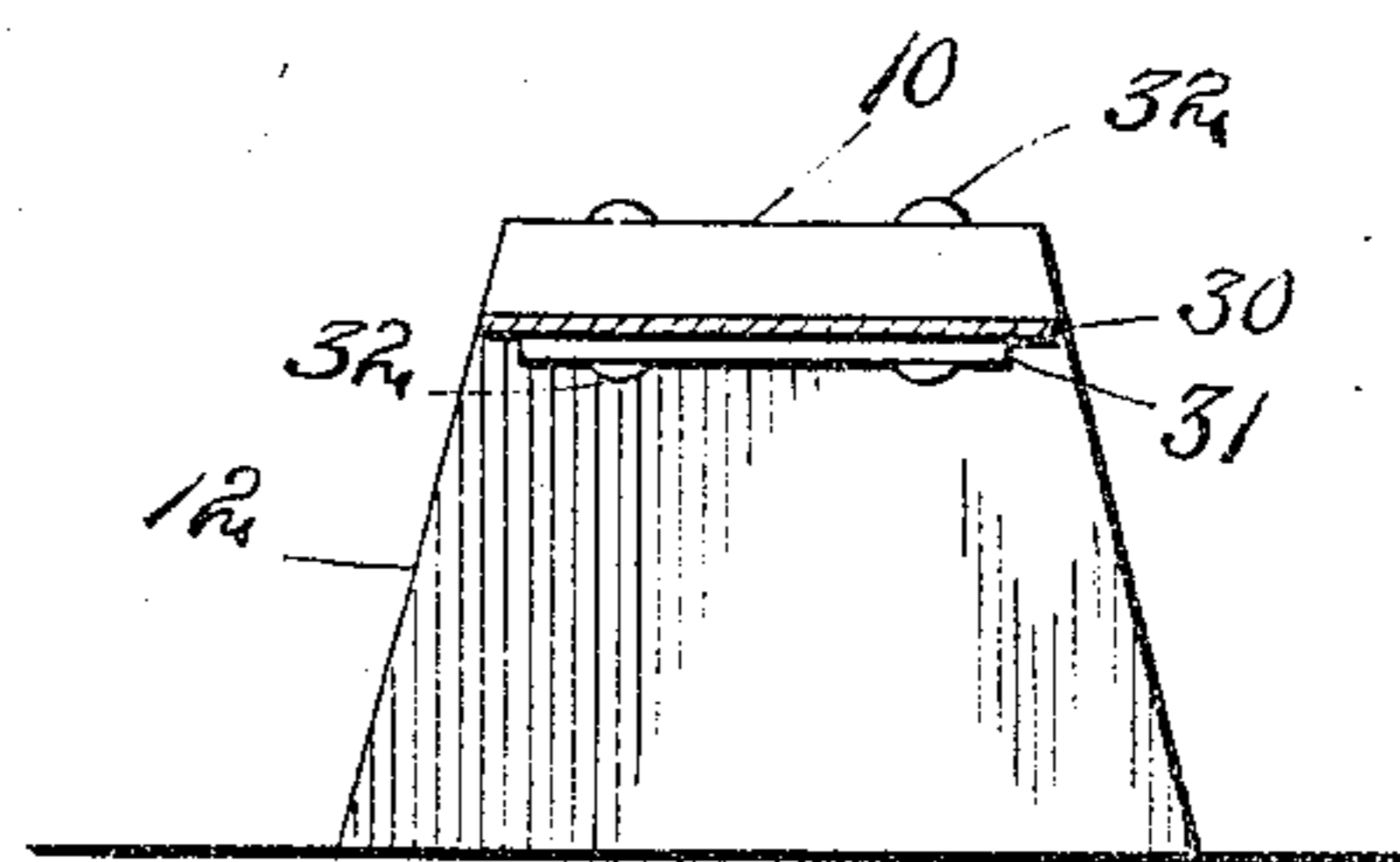
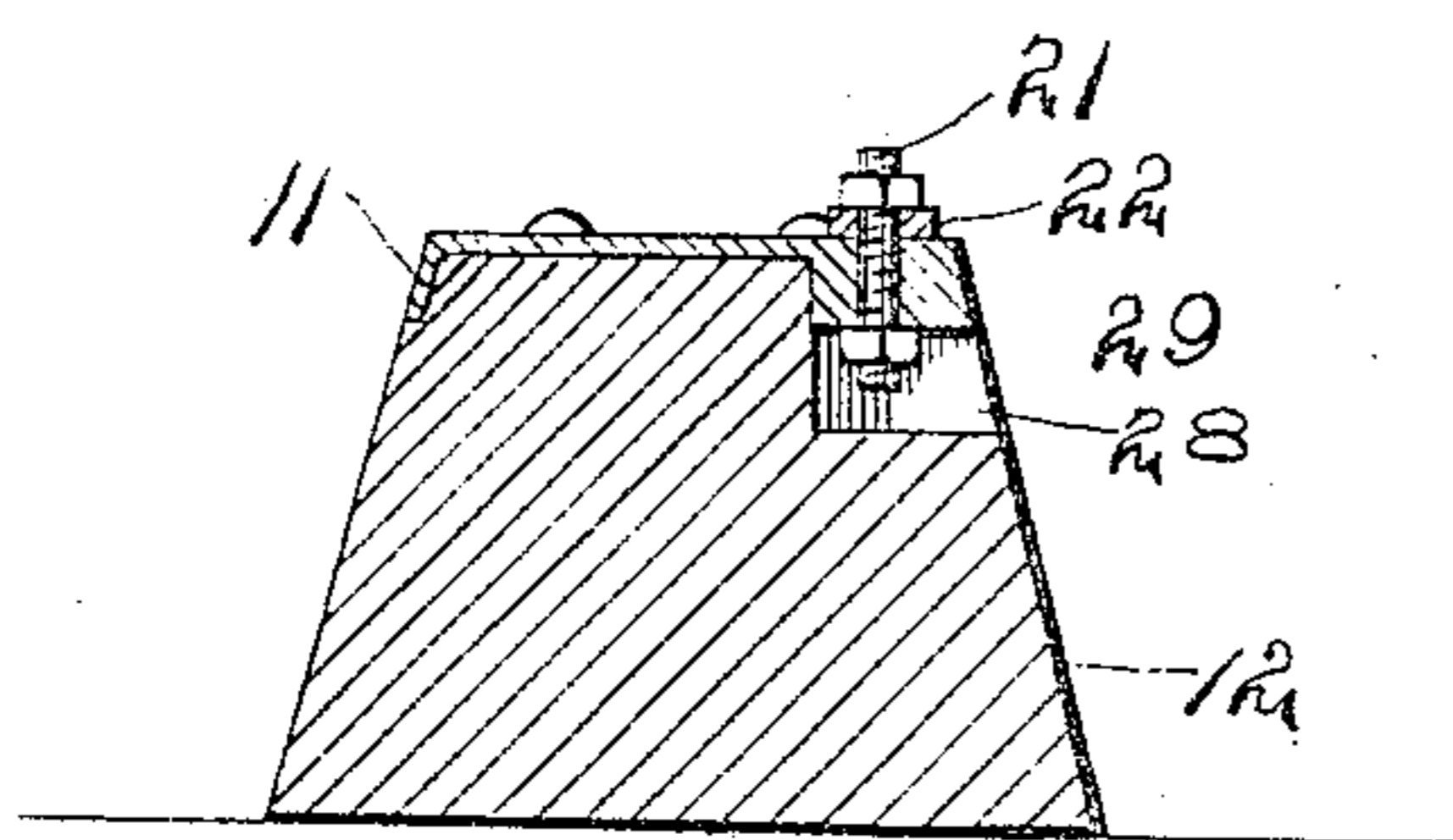
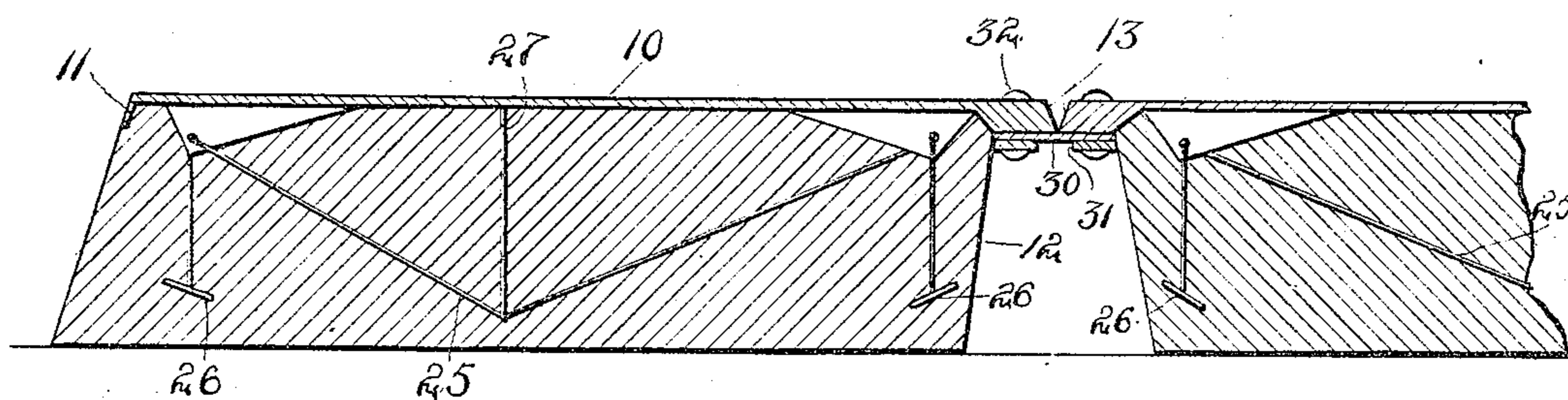
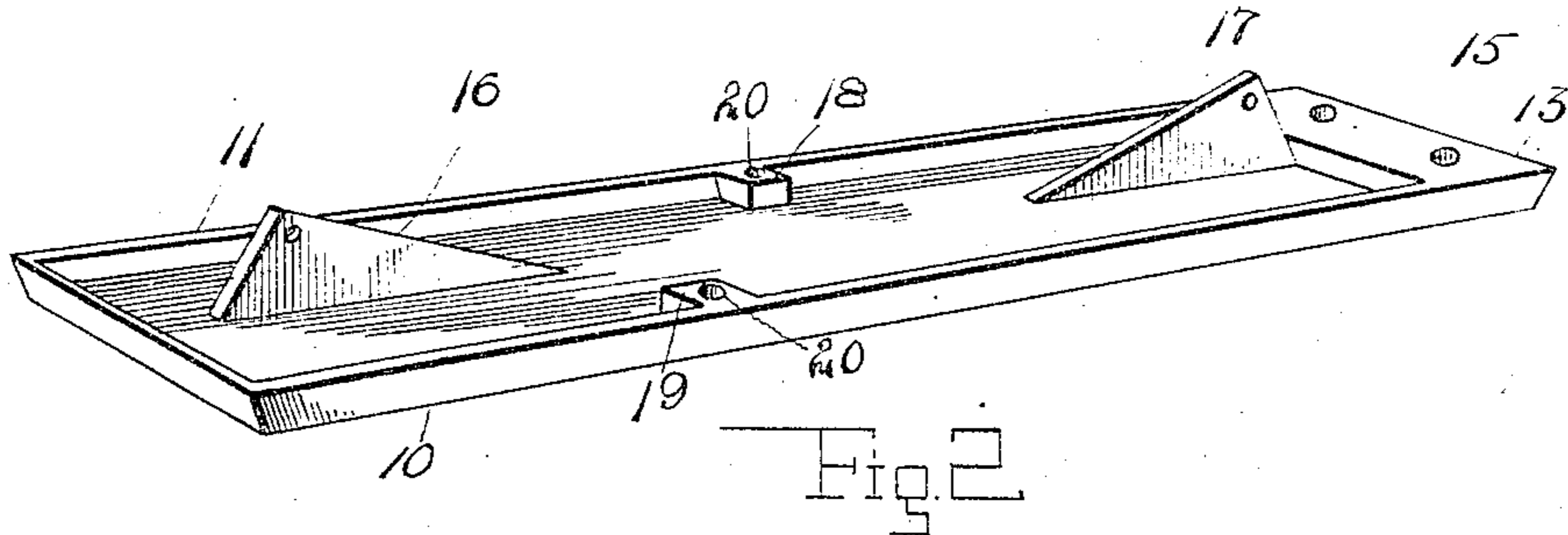
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2 SHEETS—SHEET 2.



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CHARLES W. ISRAEL, OF PARIS, ILLINOIS.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 792,134, dated June 13, 1905.

Application filed December 21, 1904. Serial No. 237,815.

To all whom it may concern:

Be it known that I, CHARLES W. ISRAEL, a citizen of the United States, residing at Paris, in the county of Edgar, State of Illinois, have
 5 invented certain new and useful Improvements in Railway-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
 10 appertains to make and use the same.

This invention relates to railway-ties, and more particularly to composite ties, the object of the invention being to provide a sectional tie which will have a degree of elasticity and which, while being strong and durable,
 15 may be made at a minimum cost.

Other objects and advantages of the invention will be understood from the following description.

20 In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation showing a complete tie embodying the present
 25 invention. Fig. 2 is a bottom perspective view of the top plate of one tie-section. Fig. 3 is a longitudinal section through one tie-section and the adjacent end of the next section, the parts being in elevation. Fig. 4 is
 30 a transverse vertical section on line 4 4 of Fig. 1. Fig. 5 is a top plan view of the complete tie. Fig. 6 is an inner end view of one of the tie-sections with the spring-metal connecting-plate attached thereto.

35 Referring now to the drawings, the present tie comprises two sections, which are similar in every part, so that a general description of one will suffice for both. Each tie-section includes a metallic top plate 10, having a
 40 continuous depending flange 11, which at the inner end of the tie-section, which is the end next to the cooperating section, is broadened, as illustrated in Fig. 2. This broadened portion projects in part beyond the inner end of
 45 the base 12 of the tie, as shown at 13. The projecting portion 13 is provided with perforations 15 therethrough.

From the end face of the plate 10, at the

ends thereof, and spaced from the side portions of the flange 11 are depending webs 16
 50 and 17; which lie longitudinally of the plate, and at opposite sides of the plate 10 and slightly nearer to the outer end thereof than to the inner end are formed the thickened
 55 portions 18 and 19, in which are perforations 20 to receive bolts 21, that serve to secure rail-clips 22 to the tie. These rail-clips are
 60 each of a shape to engage over the base-flange of a rail 23, which is disposed upon the top plate 10, transversely thereof. The webs 16
 65 and 17 are perforated, as illustrated, and through the perforations is engaged a wire 25, the end portion of the wire depending from the webs and having anchors 26 at their
 70 extremities, the wire between the webs running over a brace 27, the upper end of which is disposed against the under face of the plate
 75 10 in such position as to be directly beneath the rail 23.

The plate 10 is provided with a plastic
 70 base 12, which is molded in position, and in the sides of the base are recesses 28, with which communicate the perforations 20. The recesses 28 give access to the nuts 29 of
 75 the bolts 21 for manipulation of the nuts. The truss-wire 25, the brace 27, and the anchors 26 are embedded in the plastic base 12,
 80 the truss and brace serving to prevent the depression of the plate 10 between its ends, so that the plastic base will not break under the
 85 weight to which it is subjected.

Disposed against the under face of the portions 13 of the top plates of the two rail-sections is a spring-plate 30, and against the end
 85 portions of this spring-plate are disposed transverse plates 31. Rivets 32 are engaged through the perforations 15 and through
 90 alining perforations formed in the plate 30 and the plates 31, respectively. The end faces of the portions 13 are beveled, as illustrated, to permit of depression of the inner
 95 ends of the ties, so that they may have the desired movement when sustaining a weight.

It will be understood that in practice modifications of the specific construction
 95 shown may be made and any suitable ma-

terials and proportions may be used for the various parts without departing from the spirit of the invention.

The plate 30 is galvanized or otherwise treated to prevent rusting thereof.

What is claimed is—

1. A railway-tie comprising end sections mutually connected, each section comprising a plastic base, a metallic top plate, a brace for the top plate, and a truss-wire connected with the said plate and passed under the brace and having anchors at its ends, said wire brace and anchors being embedded in the base.

2. A railway-tie comprising a plastic base, a top plate secured upon the base and having perforations therethrough, rail-clips, bolts engaged with the rail-clips and with said perforations, nuts engaged with the lower ends of the bolts, the plastic base having recesses in its sides in which the nuts are received, and a supporting-truss for the top plate embedded in the base.

3. A railway-tie comprising end sections mutually connected, each section comprising a plastic base, a metallic top plate, depending webs at the ends of the top plate, a brace for the top plate, and a truss-wire engaged through the webs and passed under the brace and having anchors at its ends, said wire, brace, and anchors being embedded in the base.

4. A railway-tie comprising a plastic base, a top plate secured upon the base and having perforations therethrough, rail-clips, bolts engaged with the rail-clips and with said perforations, and nuts engaged with the lower ends of the bolts, the plastic base having recesses in its sides in which the nuts are received.

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

CHARLES W. ISRAEL.

Witnesses:

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A. F. LANG.