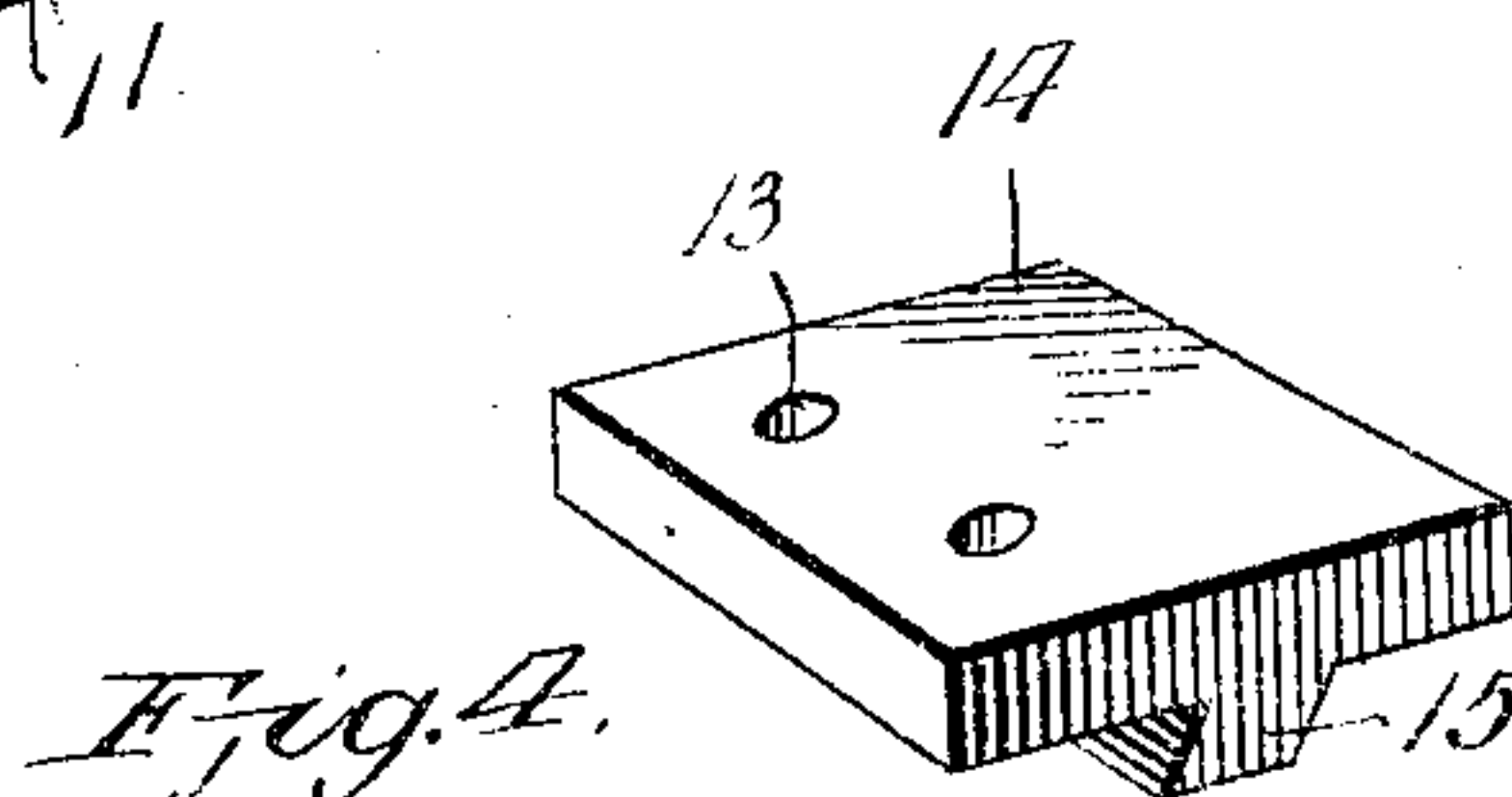
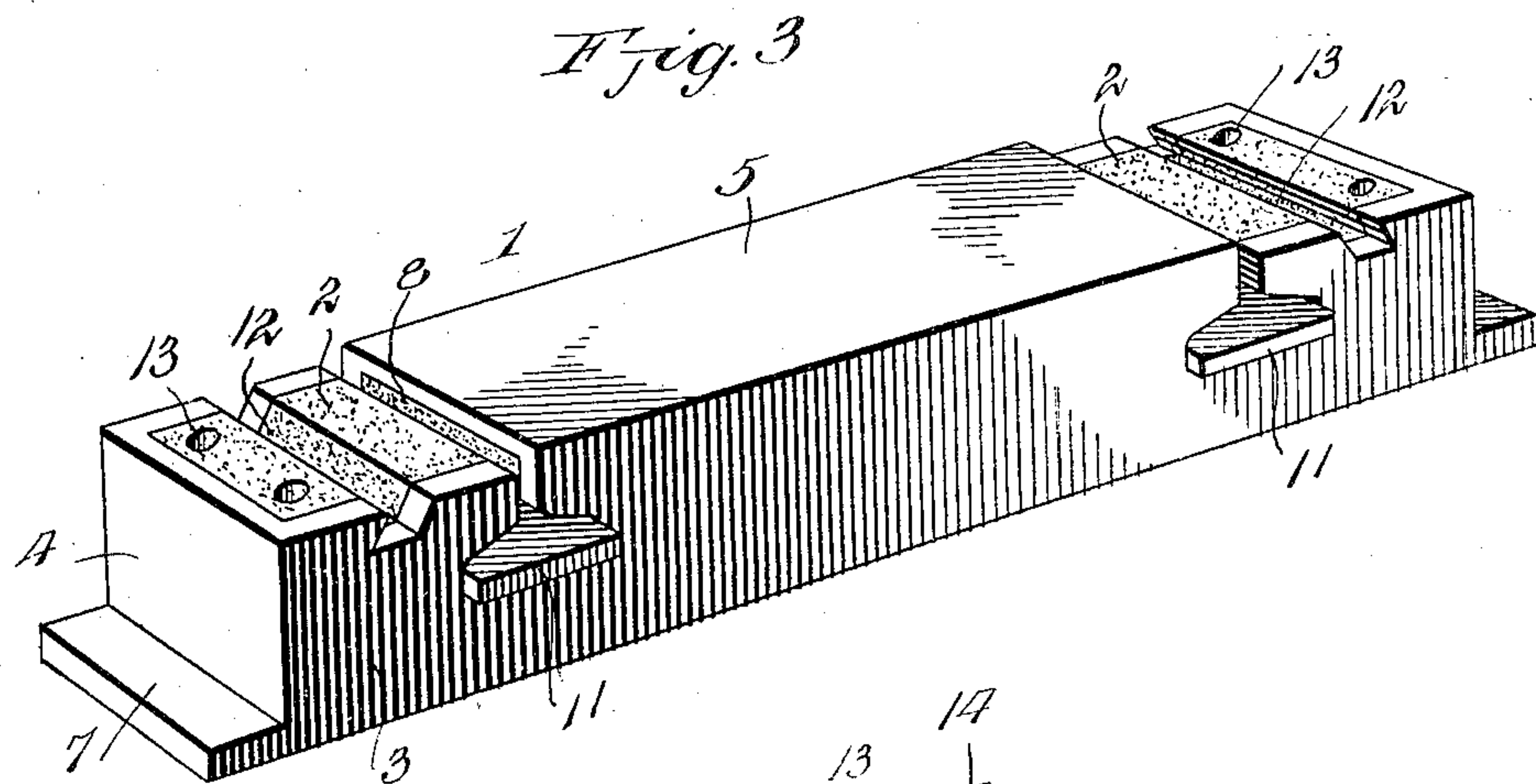
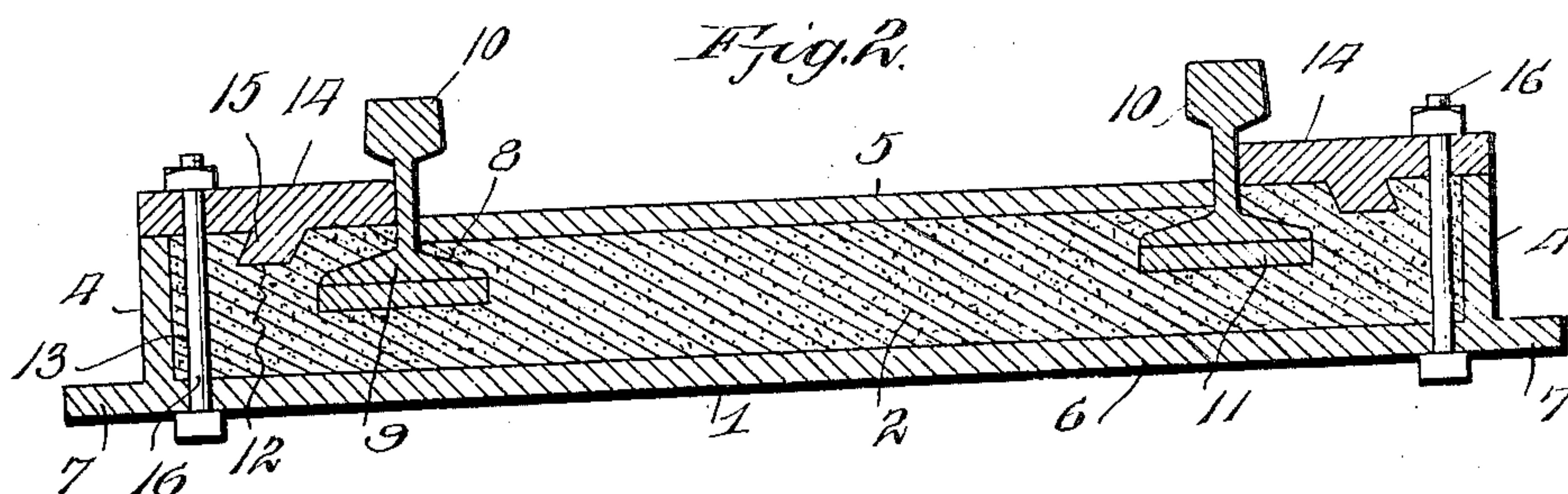
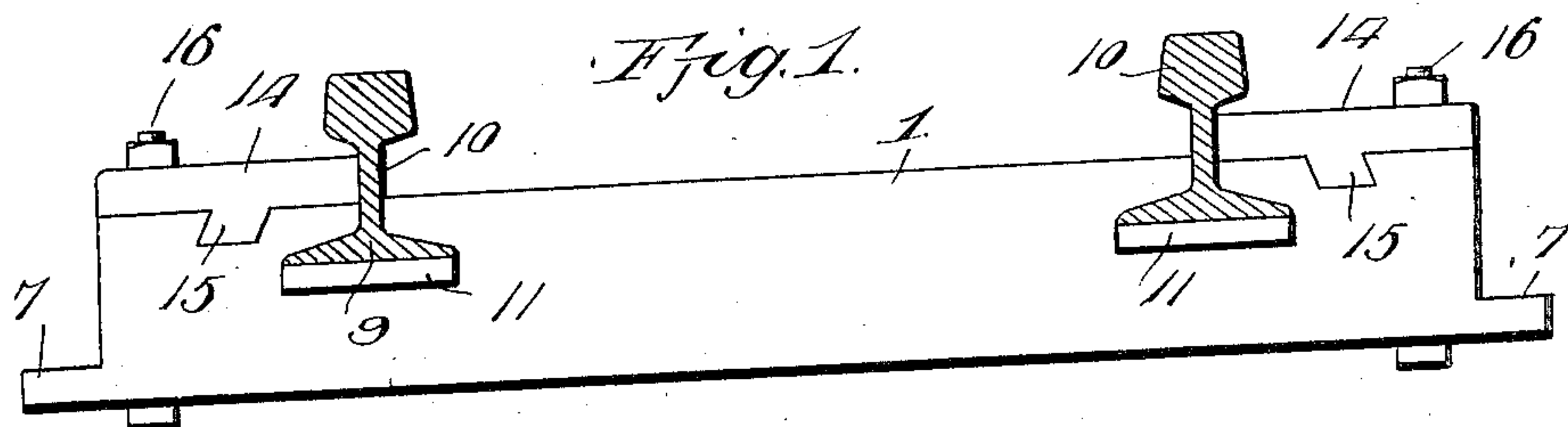


No. 827.769.

PATENTED AUG. 7, 1906.

E. W. WIMBERLY.
RAILWAY TIE.
APPLICATION FILED MAY 2, 1906.



Witnesses
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RAILWAY-TIE.

No. 827,769.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed May 2, 1906. Serial No. 314,799.

To all whom it may concern:

Be it known that I, EDWARD WAYNE WIMBERLY, a citizen of the United States; residing at Marvyn, in the county of Russell and State of Alabama, have invented new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to railway-ties of the type embodying a metal shell or casing containing a filling of cement or the like, and has for its objects to produce a comparatively simple inexpensive device of this character which in practice will present the requisite strength and durability, one which will not be subject to deterioration under the action of the elements, and one which when planted in the road-bed will present a firm foundation for the overlying rails.

A further object of the invention is to provide a device of this character with which the rails may be conveniently and at the same time firmly and securely engaged, one whereby vertical movement of the rails relative to the tie is obviated, and one on which the rails will be securely fixed against spreading.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a tie embodying the invention and showing the rails in position thereon, the rails being in section. Fig. 2 is a sectional view taken longitudinally through the tie on a line with the clamping-bolts. Fig. 3 is a perspective view of the tie with the rails and brace-blocks removed. Fig. 4 is a perspective view of one of the brace-blocks.

Referring to the drawings, it will be seen that the tie comprises a shell or casing 1, containing a filling 2, of cement, concrete, or the like, the casing 1, which is cast or otherwise formed in a single piece, being of rectangular form, as shown, and presenting side walls 3, end walls 4, a top wall 5, and a bottom wall 6, which latter is projected or extended beyond the end walls 4 in the form of engaging portions or flanges 7.

The tie is provided adjacent its ends with transverse openings or seats 8, adapted to receive and of a cross-sectional form corresponding to the base portions 9 of the rails 10, beneath which there are disposed within the openings 8 metal base members or plates 11, on which the rails rest, there being formed in the tie, the upper wall 5 of which termi-

nates at the inner face of the rails, downwardly and outwardly inclined grooves or recesses 12, extended transversely across the tie at points outside of and suitably remote from the openings 8, while formed vertically through the tie at points adjacent its end and outside the grooves 12 are bolt-holes 13, disposed in pairs, as shown.

Seated on the upper face of the tie outside of the rails 10 and to bear at their inner end against the outer faces of the rails are bearing members or blocks 14, each having upon its lower face a transversely-disposed downwardly and outwardly inclined rib or flange 15, formed to fit in the adjacent groove 12, the blocks 14 being secured in place on the tie by means of vertical fastening members or bolts 16, extended through the openings 13.

In practice the tie which is produced by casting or otherwise forming the shell or casing 1 and filling the same with concrete or other plastic material is embedded in the road-bed, as usual, and is effectively held in place by means of the flanges 7, which become buried in the bed. After properly planting the tie the rails are engaged therewith by passing them longitudinally through the openings 8 and introducing the bearing-plates 11 beneath the base portions 9, the blocks 14 being finally positioned on the tie and secured by the bolts 16. It will be observed that the base-plates 11 serve to obviate injury of the cement filling 2 by the weight of the rails thereon and that the brace-blocks 14, aside from preventing spreading of the rails, subserve the further function of protecting that portion of the concrete filling which they cover.

Having thus described my invention, what I claim is—

1. A rail-tie provided with transverse openings designed to receive the base portions of the rails, said tie having grooves outside of and remote from said openings, bearing-plates seated on the upper face of the tie and having ribs to enter said grooves, and fastening members for securing the bearing members in place.

2. A rail-tie having a transverse opening adapted to receive the base portion of the rail, said tie being provided outside of said opening with a transverse groove, a bearing-plate seated on the upper face of the tie and having a flange entered into said groove and fastening-bolts extended through the tie for holding the bearing member in place.

3. A rail-tie comprising a hollow metal casing and a filling of plastic material in said casing, said tie being provided with a transverse rail-receiving opening and the top wall
5 of the casing being terminated at the inner side of said opening, a transverse groove formed in the tie between its end and the opening, a bearing-plate adapted to seat upon the tie and having a flange to fit in the
10 groove, said bearing-plate serving as a clo-

sure for the adjacent portion of the tie and a fastening-bolt extended through the tie and engaged with the bearing-plate.

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

EDWARD WAYNE WINBERLY.

Witnesses:

H. A. BEDELL,
W. S. HARRIS.