

(No Model.)

A. L. STARKE.
RAIL TIE PLATE AND BRACE.

No. 520,276.

Patented May 22, 1894.

Fig. 1.

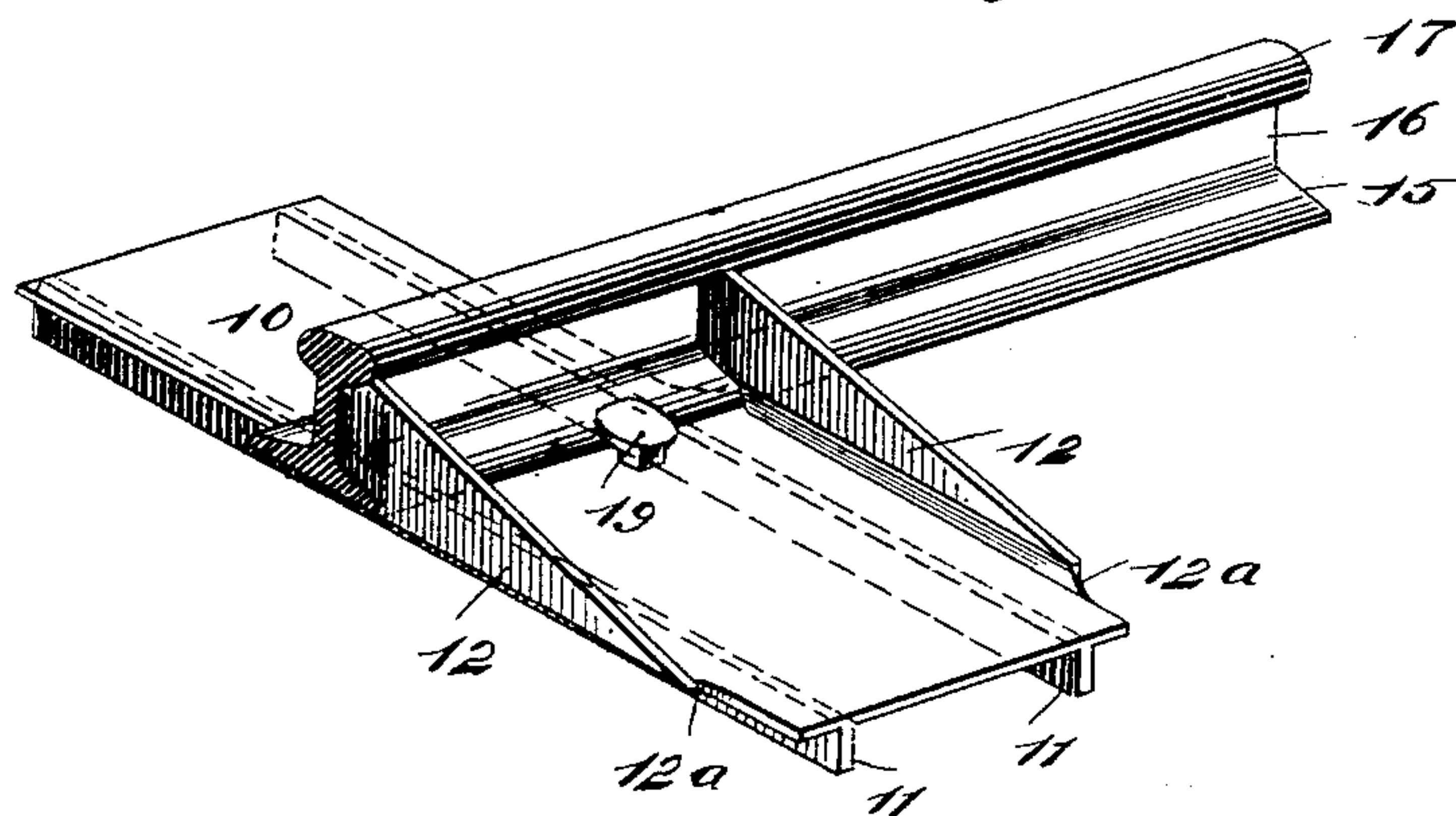


Fig. 2.

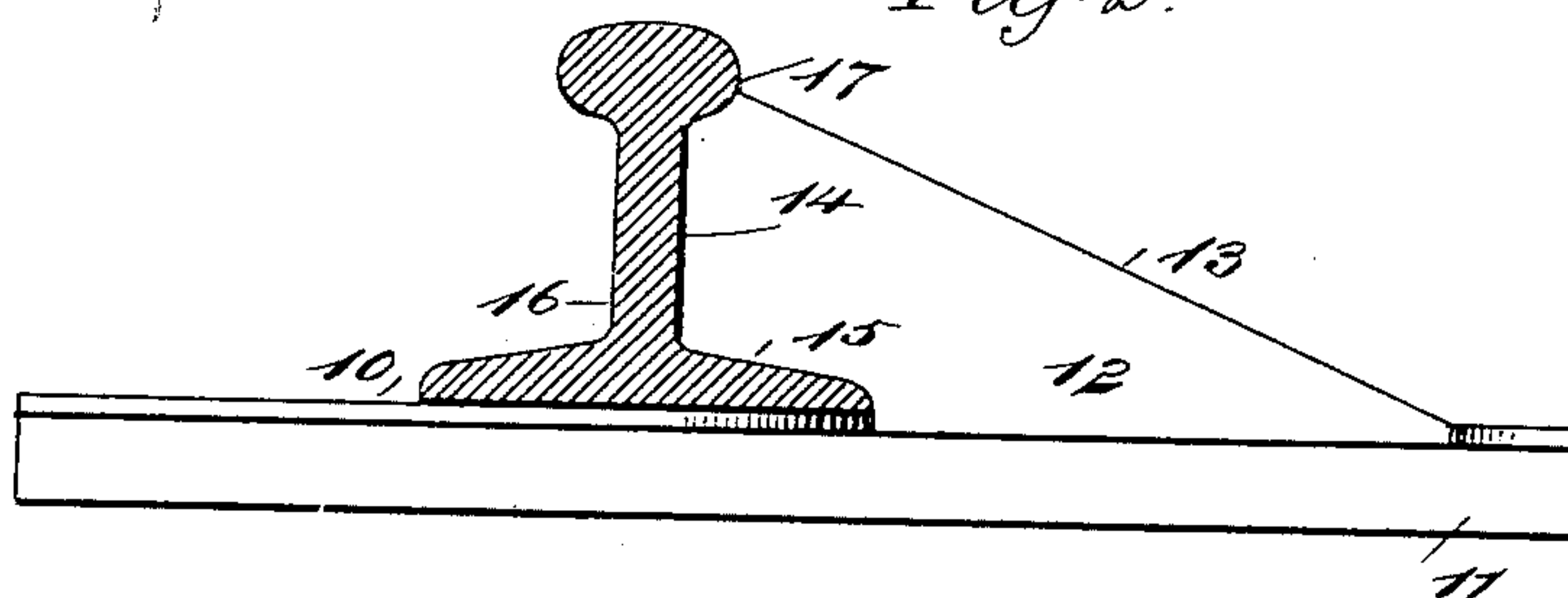
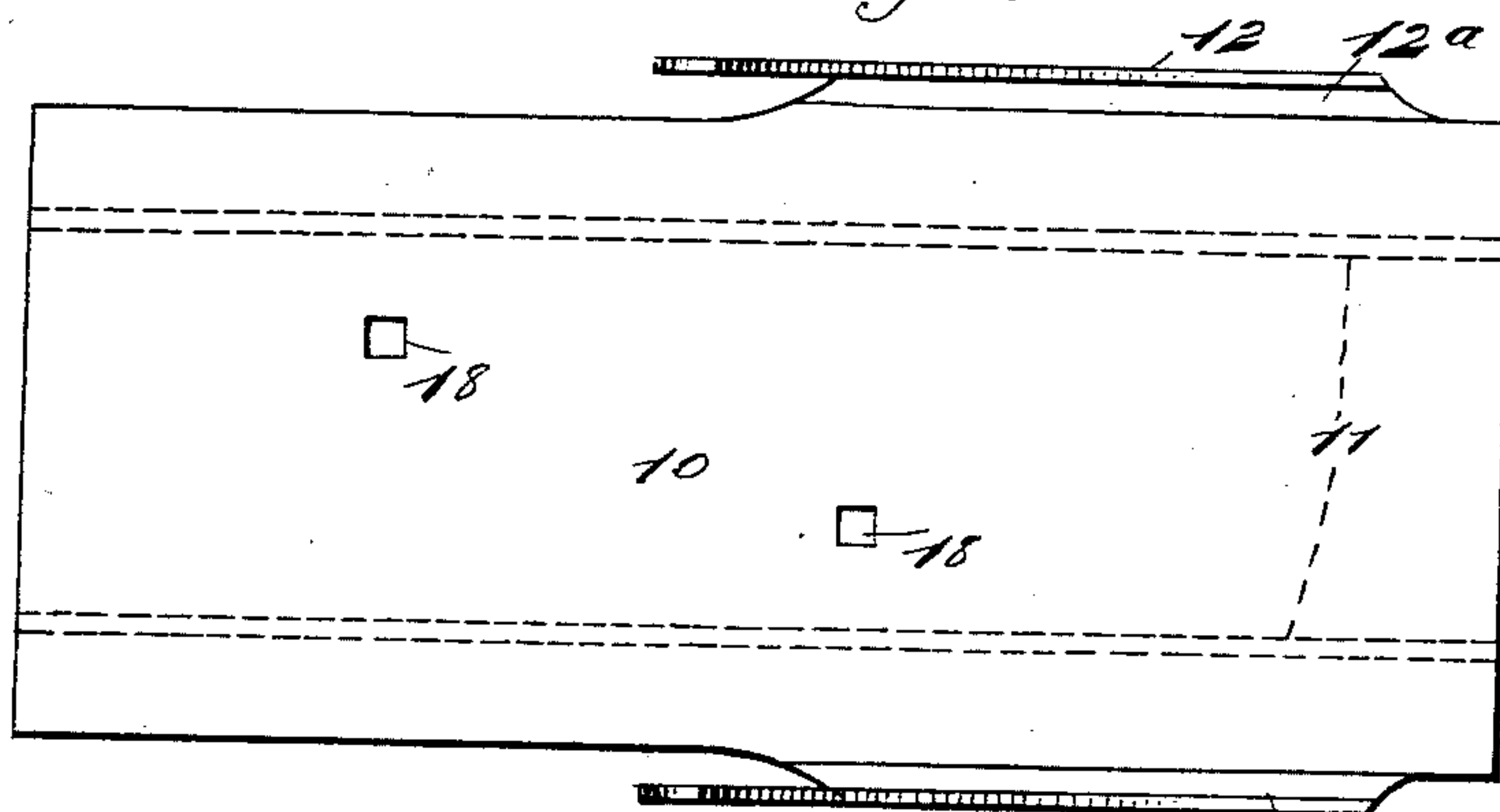


Fig 3.



WITNESSES:

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RAIL-TIE PLATE AND BRACE.

SPECIFICATION forming part of Letters Patent No. 520,276, dated May 22, 1894.

Application filed January 31, 1894. Serial No. 498,608. (No model.)

To all whom it may concern:

Be it known that I, AUGUST L. STARKE, of the city, county, and State of New York, have invented a new and Improved Rail-Tie Plate and Brace, of which the following is a full, clear, and exact description.

My invention relates to improvements in the class of rail tie plates and braces which are used in connection with ordinary sleepers and rails; and the object of my invention is to produce a combined metallic tie plate and brace of the greatest simplicity and cheapness, which is composed of a single piece, which is adapted to be placed on an ordinary sleeper, and is also adapted to rigidly support a rail and at the same time brace the sides of the rail so as to prevent the rail from either turning or spreading.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken perspective view of my improved rail tie plate and brace, as applied to a railroad rail. Fig. 2 is a broken side elevation of the tie plate and brace, as applied to the rail, the latter being shown in cross section; and Fig. 3 is a broken plan view of the rail tie plate and brace.

The tie plate has its body portion composed of a flat plate 10 which may be either of cast or wrought iron or steel, or in fact may be of any suitable metal, and the plate is adapted to be placed upon a sleeper beneath the rail so as to support it and, as illustrated, the plate is short but it will be understood that it may be made long enough to lie beneath two rails instead of beneath one. The plate 10 is flat and has on its under side two or more longitudinal parallel ribs 11, which are adapted to be embedded in the sleeper and, as these tie plates are usually arranged to have the ribs abut at their inner ends with the wood of the sleepers, the ribs serve to prevent the tie plate and rail from shifting in

any direction. The tie plate is widened slightly, as shown at 12^a, and turned up on its opposite edges to form braces 12 which are at right angles to the plate 10 and which have their outer portions preferably inclined, as shown at 13 in Fig. 2, and their inner edges 14 shaped to fit snugly over the flange 15, against the web 16, and beneath the shoulder of the tread 17 of the rail. The braces 12 are made integral with the plate 10, so that the whole tie plate and its braces are composed of a single piece, and may be very cheaply constructed. It will be observed that the braces, as arranged, fit against the whole outer side of the rail, so as to support it rigidly and prevent it from turning or spreading. These braces moreover are beyond the vertical planes of the ribs 11 so as not to be struck when the ribs are being driven into the tie. The plate 10 is punched, at points coincident with opposite edges of the rail, as shown at 18 in Fig. 3, the holes thus made being adapted to receive spikes or bolts 19 which overlap the rail flange and thus bind the rail to the tie plate, while the spikes also pass downward into the sleepers and bind both rail and tie plate to them.

From the above description it will be seen that the tie plate is very cheap, simple, and strong, that it may be easily applied to a rail and sleeper, and that, when applied, it braces the rail as thoroughly as is necessary.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

As an improved article of manufacture a rail tie plate and brace consisting in the plate 10, formed on its upper side with internal inclined rail braces shaped at their inner ends to fit the side of the rail, and parallel longitudinal ribs 11 integral with the under side of the plate and beyond the planes of the ribs; spike apertures 18 being formed in the plate, substantially as set forth.

AUGUST L. STARKE.

Witnesses:

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