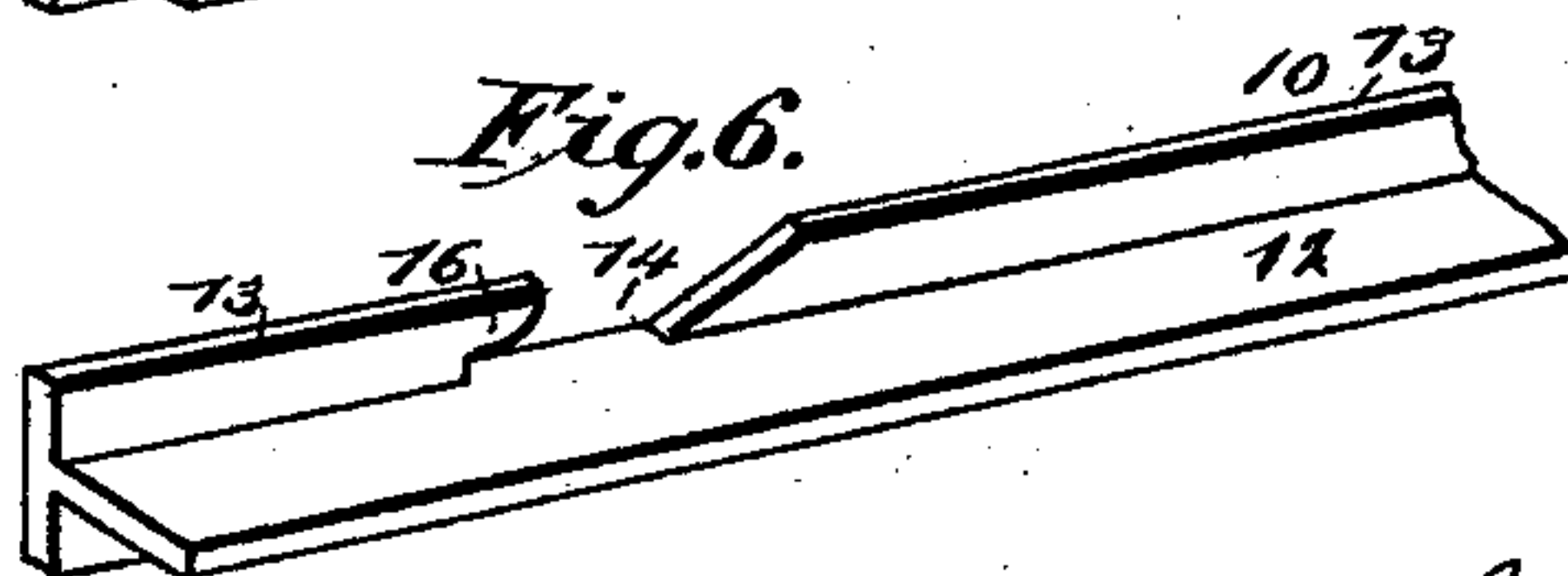
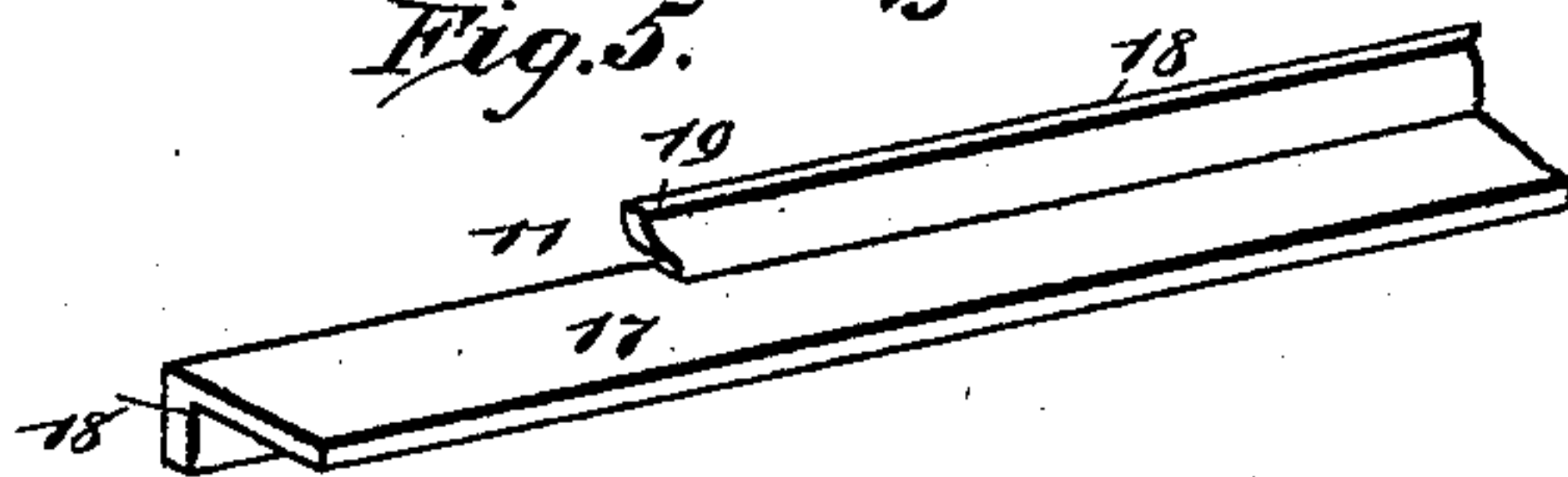
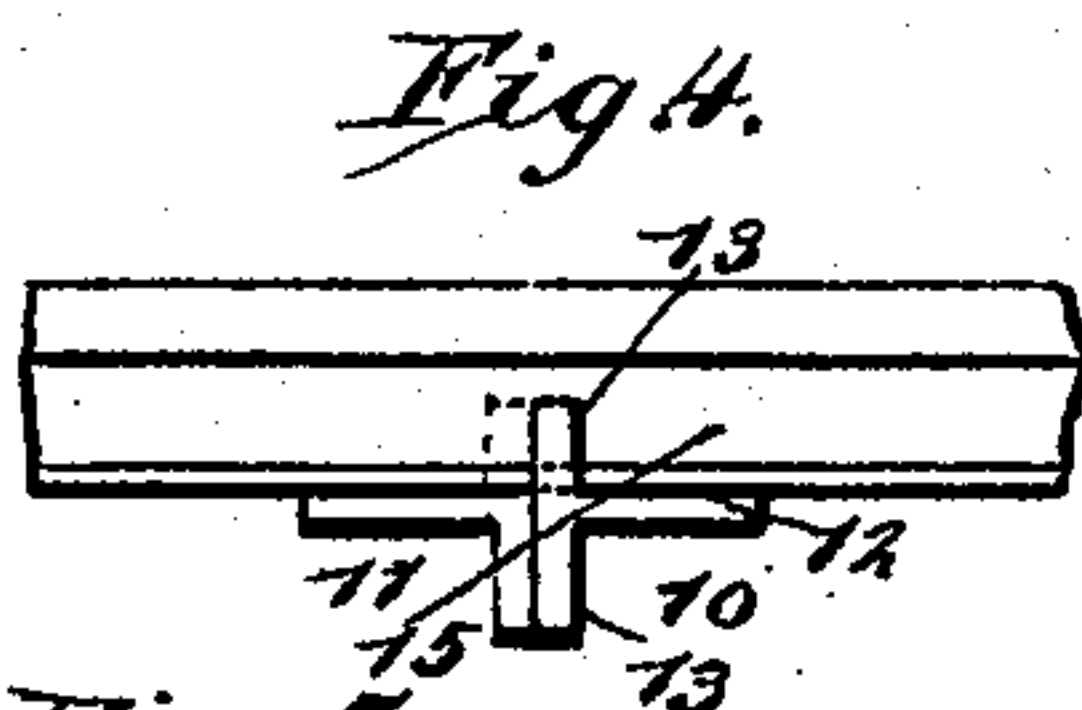
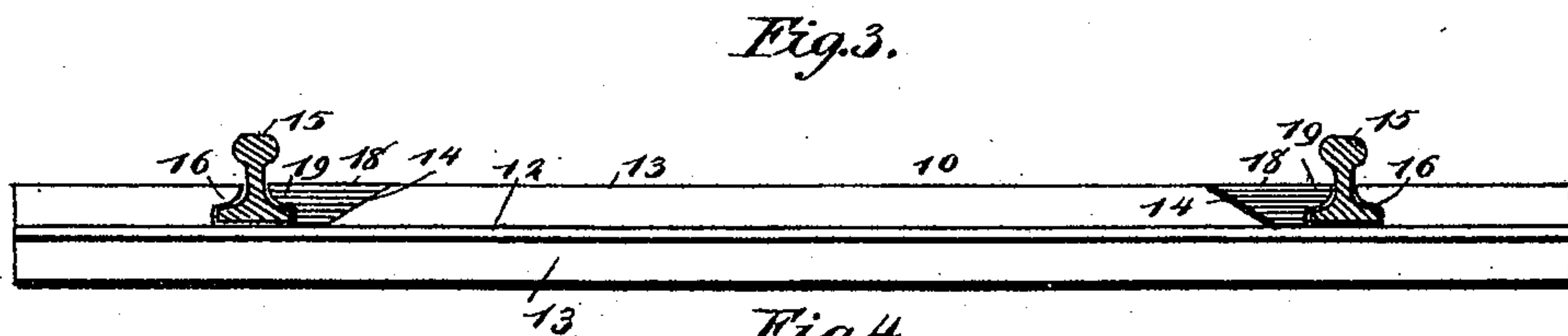
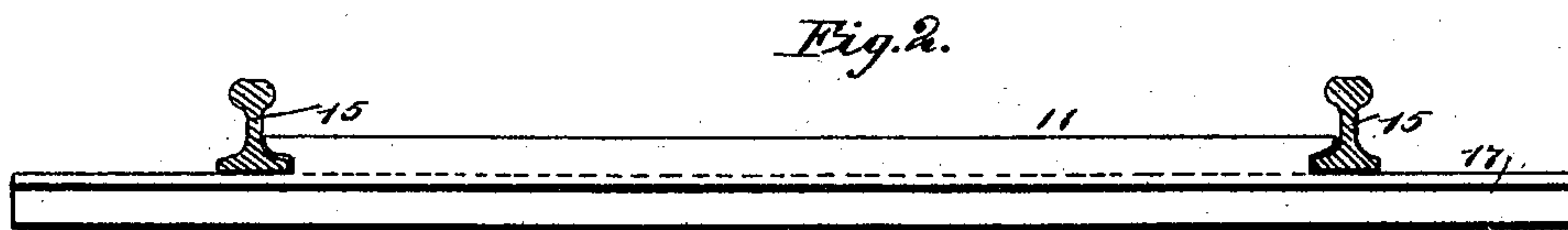
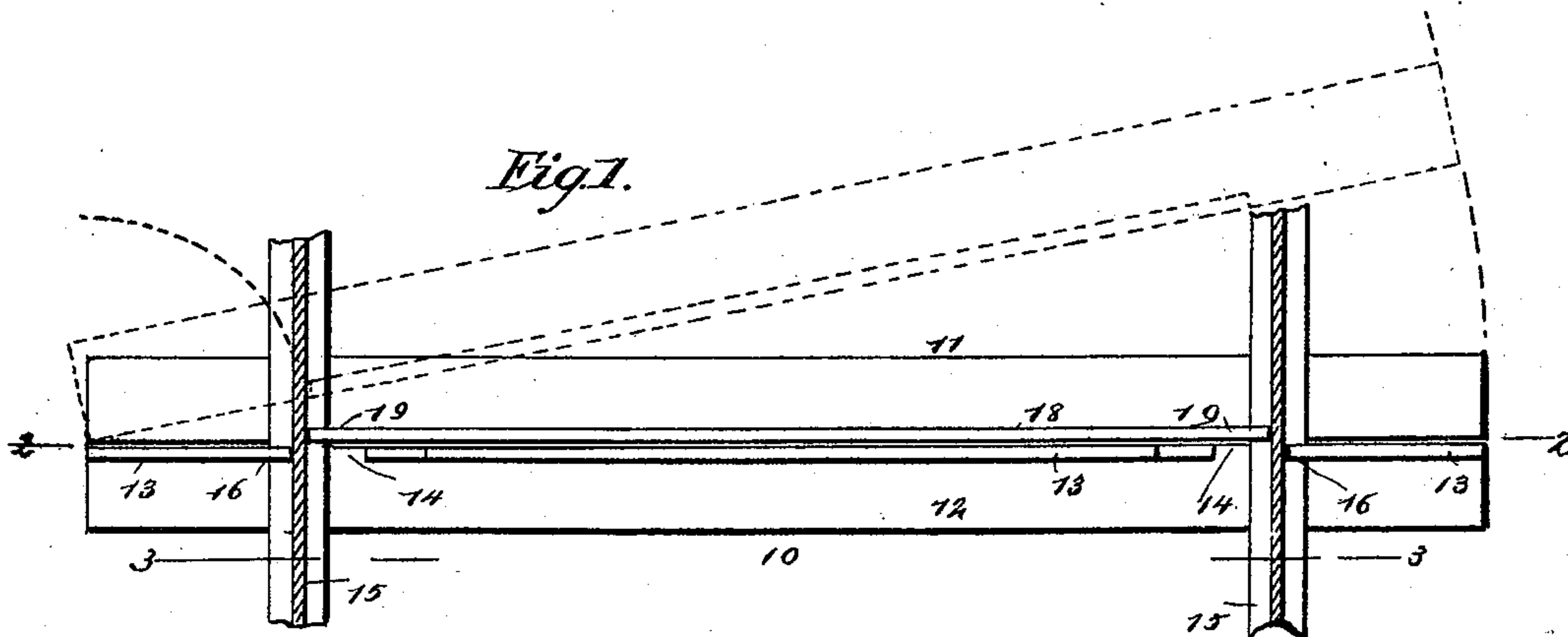


(No Model.)

S. McELFATRICK.
RAILWAY TIE.

No. 497,678.

Patented May 16, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL McELFATRICK, OF PRINCETON, KENTUCKY.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 497,678, dated May 16, 1893.

Application filed March 3, 1893. Serial No. 464,489. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL McELFATRICK, of Princeton, in the county of Caldwell and State of Kentucky, have invented a new and Improved Railway-Tie, of which the following is a full, clear, and exact description.

My invention relates to improvements in railway ties of the general class shown in my Letters Patent of the United States, No. 490,586, dated January 24, 1893.

The object of my present invention is to improve the construction of metal railway ties, and produce a tie which has but little metal, but has the metal so disposed as to make the tie extremely strong, which may be cheaply rolled, quickly applied to the rails of a railroad without the use of bolts or spikes, and which when once applied will hold the rails securely in place.

To this end, my invention consists in a railway tie, the construction of 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 plan view of my improved tie as applied to opposite rails, the rails being shown in section. Fig. 2 is a cross section on the line 2—2 in Fig. 1, and shows in side elevation one portion of the tie which I call the straining bar. Fig. 3 is a cross section on the line 3—3 in Fig. 1, and shows the tie in side elevation. Fig. 4 is an end view of the tie as applied to a rail. Fig. 5 is a broken perspective view of the straining bar; and Fig. 6 is a broken perspective view of the body portion of the tie.

The tie comprises two substantially similar parts 10 and 11, which are of a general T-shape when viewed in cross section, the flat or top portions of the parts being adapted to fit together, as shown in Fig. 4. The body portion 10 of the tie comprises a flat web 12, adapted to lie upon the ground beneath the rails and a vertical web 13 at right angles to the web 12, this web 13 being adapted to extend above and below the rail flanges, as shown best in Fig. 3. The upper portion of the web 13 is cut away near opposite ends, as shown at 14, the recess thus formed extend-

ing to the plane of the web 12, and the walls of the web 13, at the outer portions of the recesses 14, are shaped as shown at 16 so as to fit snugly over the outer portions of the rail flanges and against the webs of the rails. The straining bar 11 is of the same general shape as the body portion 10 of the tie, having a flat web 17 corresponding to the web 12 and adapted to lie flatwise on the track or roadbed, and a vertical web 18 which has its upper end portions removed above the web 17, as shown in Figs. 2 and 5, and the upper portion of the web 18 is of a length to extend between the track rails 15. The ends of this upper portion of the web 18 are shaped as shown at 19, so as to fit snugly over the inner portions of the rail flanges and against the inner sides of the webs of the rail.

The tie is applied in the following way: The body 10 is placed beneath the rails 15, and the latter are pushed to the sides of the recesses 14, so that their outer flanges will be beneath the web 13 of the body, as shown at 16 in Fig. 3, and the straining bar 11 is then applied, one end being placed against the body 10, and with the upper portion of the web 18 against one of the rails, as shown by dotted lines in Fig. 1, and the opposite end of the straining bar may then be driven inward, as indicated in said figure, until the webs 18 and 13 lie snugly together face to face, and this causes the outer portions of the webs 13 to be clamped tightly against the outer portions of the rails 15, while the ends 19 of the web 18 of the straining bar, fit snugly against the inner portions of the rails, and the rails are thus securely clamped in position. The lower portions of the webs 18 and 13 form a depending rib, as shown in Fig. 4, which is embedded in the roadbed so as to prevent the shifting of the tie and rails, and the two parts of the tie are in this way held so snugly together that no fastening bolts are necessary.

From the foregoing description it will be seen that the tie is composed of but two pieces which are of substantially similar shape, that is, T-shape in cross section, and consequently the tie may be very easily and cheaply rolled, and it will be further observed that the tie may be quickly applied without the use of fastening bolts or spikes of any kind.

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

1. A railway tie, composed of two similar
5 parts T-shaped in cross section, the vertical web of one part being recessed to receive the rails and shaped to fit against the outer portions of the rails, and the vertical web of the other part being cut away at its ends so as to fit
10 against the inner portions of the rails, substantially as specified.

2. A railway tie, comprising two parts T-shaped in cross section, the vertical webs of

the parts being arranged to lie face to face, one part having the upper portion of its web 15 recessed to receive the rails and its outer end portions shaped to fit over the rail flanges, and the other part having the upper end portions of its vertical web cut away to adapt it to fit against the inner portions of the rails 20 and over the rail flanges, substantially as specified.

SAMUEL McELFATRICK.

Witnesses:

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BRUICK TYLER.