(No Model.)

N. GUNDERSON.

RAILROAD TRACK.

No. 512,877. Patented Jan. 16, 1894.

Fig. 1.

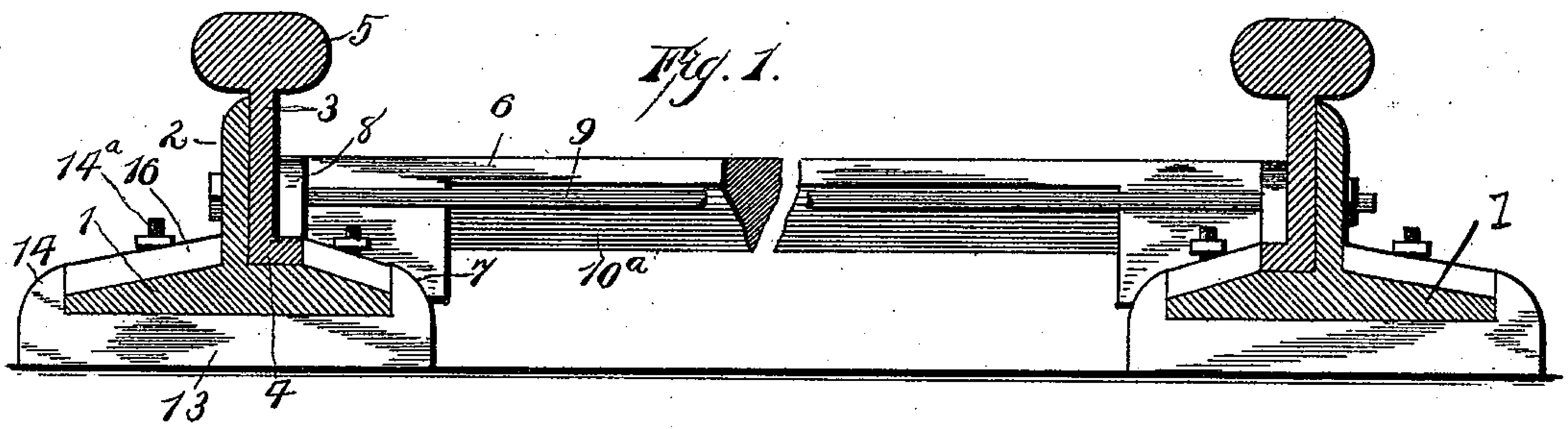
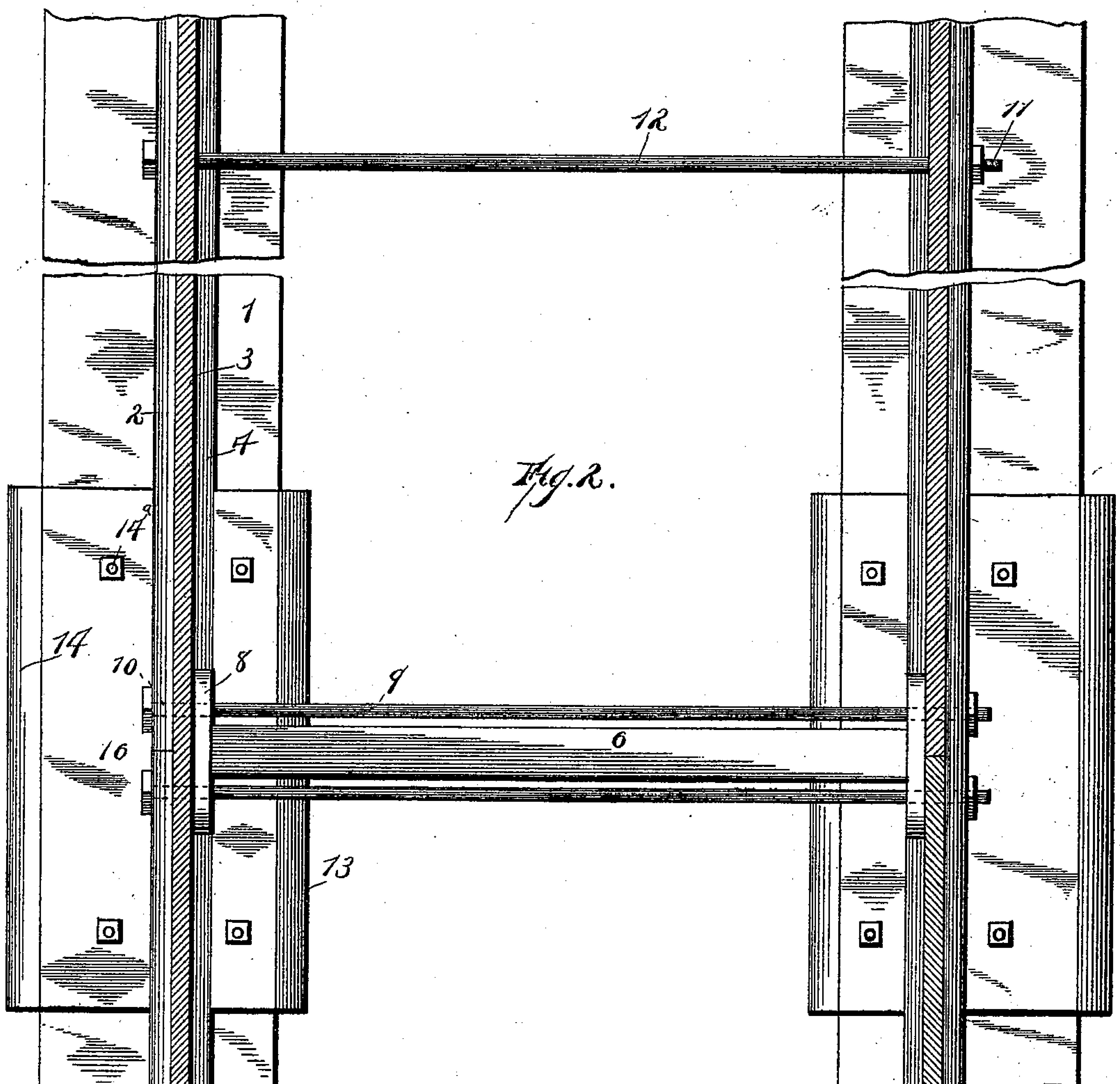


Fig. 2.



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RAILROAD-TRACK.

SPECIFICATION forming part of Letters Patent No. 512,877, dated January 16, 1894.

Application filed December 22, 1892. Serial No. 456,022. (No model.)

To all whom it may concern:

Be it known that I, NEILS GUNDERSON, of Ogdensburg, county of Sussex, and State of New Jersey, have invented certain new and useful Improvements in Railroad-Tracks, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a stringer with couplings and supporters by which the durability of a track may be greatly increased and its rigidity and evenness improved.

In the accompanying drawings, Figure 1 is an end view of a section of track put together with my stringers and couplings; and Fig. 2 a top plan view of the same with the top of the surface rail removed.

Referring to the figures on the drawings, 1 indicates a stringer which is preferably made of steel of suitable weight and width, and provided preferably with an integral flange 2 running lengthwise along the top of the stringer and located in practice nearer the inside than the outside thereof.

3 indicates a surface rail of peculiar construction, which is made a little higher than the flange of the stringer, and is provided on one side with an upturned bed flange 4, and with the ordinary T-flange 5 on top.

6 indicates a coupling piece, preferably made of steel, and provided on one side with beveled edges 7 adapted to conform to the shape of the stringer and rail attached so as to make a close firmly fitting joint, and provided with heads 8 at opposite ends. These heads are preferably made integral with the body of the coupling.

9 indicates connecting rods or bolts adapted to pass across the track through suitable holes 10 provided in the webs of the rail and the heads of the coupling so as to unite the parts firmly together. That part of the coupling which is in practice in contact with the earth between the rails is drawn to a sharp edge, as indicated at 10^a. The object of this construction is to prevent the bearing of the couplings upon the earth, and to throw the load entirely upon the stringers; otherwise a warping and twisting of the rails would result, and an uneven settling at their joints, as is occasioned by the use of the ordinary wood cross ties. In practice I prefer to use about three couplings to every thirty feet of track, and a single rod 11 with a tubular cover 12 at short intervals—say every five feet. In curves the couplings must be closer together, and it is desirable to have them made specially to suit the degree of the curve so as to make a perfect fitting, even piece of work. At the joints, instead of fish plates, I prefer to use a supporter or shoe 13, provided on opposite sides with flanges 14 to receive the stringer.

16 indicates plates that fit on top of the shoe between its flanges and the rail and stringer flange, respectively, and are securely fastened in place by bolts 14^a, thereby securing a firm, even joint. The joints of the stringer and the rails are preferably broken in different places, so that a practically continuous rigid track is secured and uneven joints entirely avoided.

Provision should be made, of course, for expansion and contraction, as for instance by suitable space between the joints, and by oblong bolt-holes. The stringer is made widest on its outer side, because the earth is looser on the outside of an embankment, and therefore more subject to compression, which might produce an unevenness in the track.

What I claim is—

1. In a railroad track, the combination of stringers and rails secured thereto, of a coupling piece having beveled edges adapted to conform to the shape of the rail, and heads to form a close joint between the two, and means for joining the parts together, substantially as described.

2. In a railroad track, the combination with stringers and rails secured thereto, of a coupling-piece provided with beveled edges at opposite ends conformed to the parts to which they are united, and a sharp edge on the under side between the rails, substantially as and for the purpose specified.

3. A coupling-piece adapted to fasten opposite rails together, provided with a sharp intermediate lower edge, substantially as and for the purpose specified.

4. A railroad track composed of stringers provided with suitable longitudinal flanges, rails, and coupling-pieces, provided with flanged ends, and means for fastening the parts together, whereby a continuous rigid track may be made without the use of supporting cross ties, substantially as and for the purpose specified.

5. A supporter for the stringer of a railroad track, consisting of a plate provided with flanges on opposite sides plates to be secured between the outside flanges the rail, and supporting parts, and bolts for securing the plates in position, substantially as and for the purpose specified.

In testimony of all which I have hereunto subscribed my name.

NEILS GUNDERSON.

Witnesses:
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