

No. 644,900.

Patented Mar. 6, 1900.

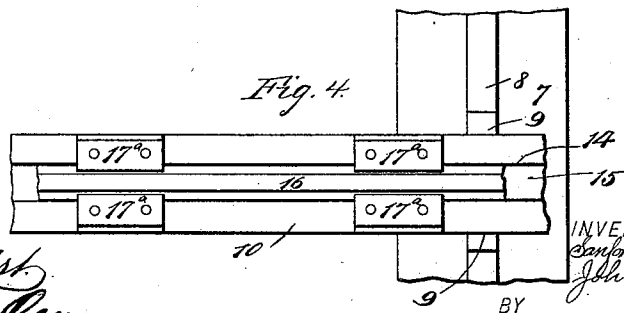
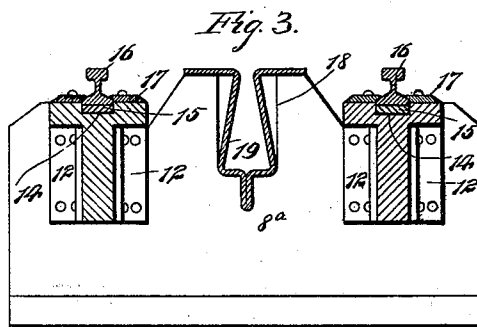
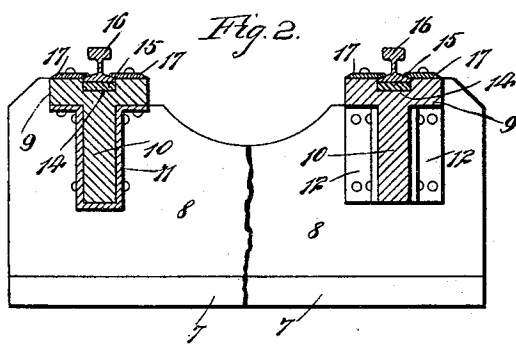
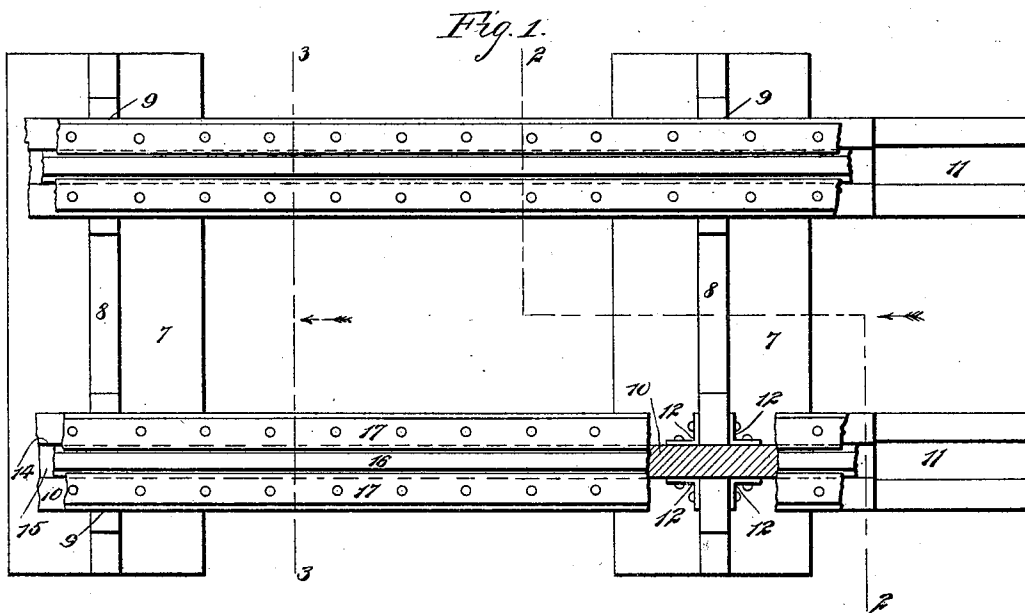
S. B. DICKINSON & J. A. ROGERS.

RAILWAY.

(Application filed Mar. 16, 1899.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 5.

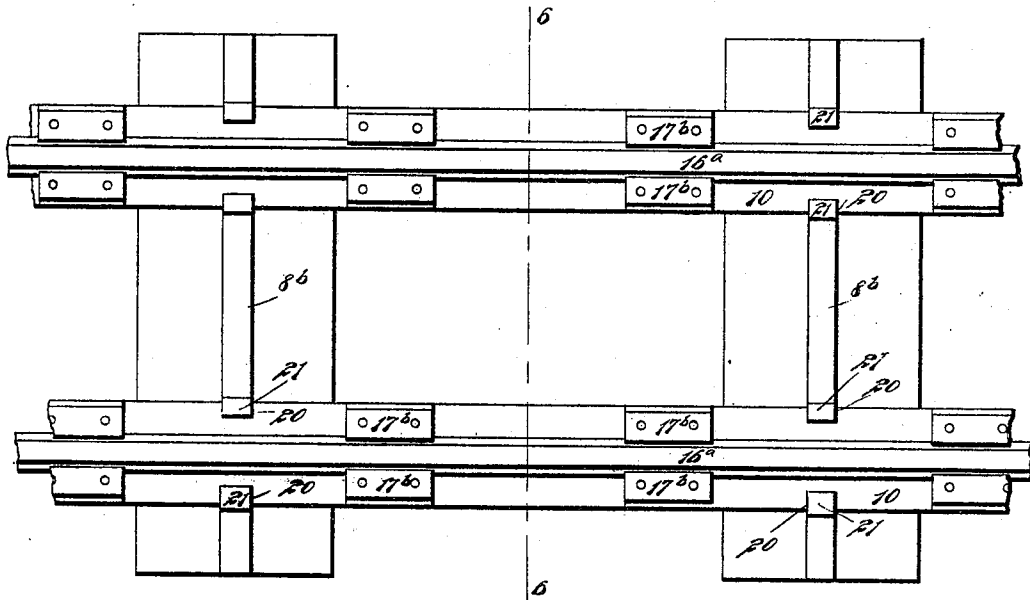
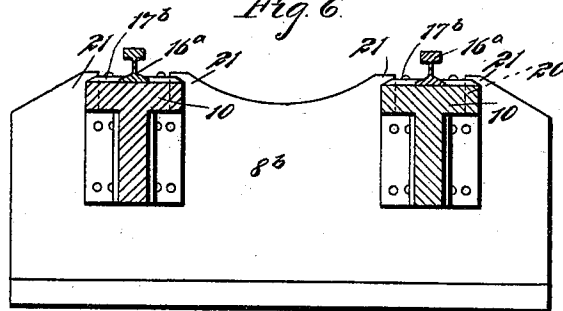


Fig. 6.



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UNITED STATES PATENT OFFICE.

SANFORD B. DICKINSON AND JOHN A. ROGERS, OF CORNING, NEW YORK.

RAILWAY.

SPECIFICATION forming part of Letters Patent No. 644,900, dated March 6, 1900.

Application filed March 16, 1899. Serial No. 709,281. (No model.)

To all whom it may concern:

Be it known that we, SANFORD B. DICKINSON and JOHN A. ROGERS, of Corning, in the county of Steuben and State of New York, have invented a new and Improved Railway, of which the following is a full, clear, and exact description.

This invention relates to a railway-track in which the rails are mounted on continuous trusses, in turn supported by cross-ties formed with webs and base-flanges, the cross-ties and trusses having certain peculiar features of construction by which the rails are more effectively mounted and secured than in the constructions heretofore in use.

This specification is the disclosure of several forms of our invention, while the claims define the actual scope thereof.

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

Figure 1 is a plan view of the invention, with parts broken away. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a similar view on the line 3 3 of Fig. 1 and illustrating a slight modification in the form of the tie, which permits the adaptation of a conduit thereto. Fig. 4 is a plan view of the invention, illustrating a slight modification. Fig. 5 is a plan view illustrating a further modification, and Fig. 6 is a sectional view on the line 6 6 of Fig. 5.

Referring to Figs. 1 and 2, the cross-ties are each constructed with a base-flange 7 and a vertical standing web 8. The webs 8 are each provided at each end with downwardly-extending recesses 9, receiving the rail trusses or stringers 10, which are preferably constructed with the cross-sectional form of a T, as illustrated in Fig. 2. These trusses 10 are joined rigidly to each other by means of channel-irons 11, which embrace the ribs or lower portions of the trusses and are bolted firmly thereto. The trusses 10 are secured to the webs 8 of the ties by means of angle-braces 12, as shown in Figs. 1 and 2. The braces 12 are bolted to the trusses and to the webs 8, so that the whole structure is immovably secured together.

The top faces of the trusses are formed with longitudinally-extending grooves 14 therein,

in which grooves are seated the continuous concussion-plates 15, formed of any suitable material. Upon the concussion-plates 15 the rails 16 are mounted. These rails are held in place by tie-plates 17, which extend continuously along the tops of the trusses at each side of the rails and which are bolted or otherwise secured to the trusses. By these means the rails are mounted with a certain yield and at the same time are effectively held in proper position. It will be impossible for the rails to spread, since the flanges of the rails bear slightly against the walls of the grooves 14 and also since the tie-plates 17, engaging firmly on the flanges, hold the rail incapable of lateral movement.

The invention is adapted to all classes of railroads, as will be understood.

If so desired, the railway may be fitted with a conduit for containing electric wires, power-cables, or the like, in which event the parts may be arranged as shown in Fig. 3, in which the web 8^a of the tie is slightly raised and formed with a centrally-disposed recess 18, in which a conduit 19 of any desired construction may be supported.

In Fig. 4 short separate tie-plates 17^a are employed, the plates being spaced equally throughout the length of the rails and bolted down upon the tops of the trusses 10.

It is also possible to dispense with the grooves 14 in the trusses and also with the concussion-plates shown in Figs. 1, 2, 3, and 4. This modified arrangement is shown in Figs. 5 and 6, in which the rails 16^a are mounted directly on the upper faces of the trusses 10. In this construction the trusses 10 are formed in their sides with notches 20, receiving the upward extensions 21 of the webs 8^b of the ties. By this arrangement longitudinal displacement of the trusses is prevented, as well as lateral displacement. The rails 16^a may be secured to the trusses by continuous tie-plates, such as those shown in Figs. 1 and 2, or by the spaced tie-plates 17^b, as shown in Figs. 5 and 6.

Various changes in the form, proportions, and minor details of our invention may be resorted to without departing from the spirit and scope of our invention. Hence we consider ourselves entitled to all such variations as may lie within the scope of the claims.

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

1. A railway, having cross-ties, continuous
5 T-shaped rail trusses or stringers the webs of which are set into and secured to the cross-ties and extending throughout the length of the track, and rails mounted on and secured to the trusses.

10 2. A railway, having cross-ties each comprising a horizontal base-flange and a vertical web, the webs being formed with recesses extending downward into the body thereof, continuous longitudinally-extending rail-trusses
15 mounted in the recesses of the webs and supported by the webs, the rail-trusses having grooves formed longitudinally in the upper faces thereof, and rails, the base-flanges of which are set into the grooves of the rail-
20 trusses, to be held thereby.

3. A railway, having cross-ties comprising vertical webs and horizontal base-flanges, the former being provided with recesses in their upper edges, T-shaped rail-trusses extending
25 throughout the length of the track and secured in the recesses of the webs of the cross-ties, and rails mounted on and secured to the trusses.

4. A railway, having cross-ties, longitudi-
30 nally-extending trusses set into the upper edges of the cross-ties and supported by the same and extending throughout the length of the track, the trusses having grooves formed in their upper faces, rails, having base-flanges
35 set into the grooves, and tie-plates bearing down on the base-flanges of the rails and secured to the trusses to hold the rails in place.

5. A railway, having longitudinally-extending trusses running throughout the length of
40 the track and formed with grooves in their upper faces, rails, having base-flanges set into said grooves, and continuous tie-plates bearing down on the base-flanges of the rails and secured to the trusses to hold the rails in
45 place.

6. A railway, having cross-ties comprising vertically-extended webs and horizontal base-
50 flanges, the former having recesses formed in their upper edges, longitudinally-extending trusses set into the recesses and provided with

grooves in their upper faces, rails, having base-flanges set into the grooves, and tie-plates bearing down on the base-flanges and secured to the trusses.

7. A railway, having ties with vertical webs
55 having recesses formed in their upper edges, longitudinally-extending trusses running continuously throughout the railway and set into said recesses, continuous concussion-plates mounted on the upper faces of the trusses,
60 rails bearing on the concussion-plates, and means for securing the rails in place.

8. A railway, having ties with vertical webs formed with recesses in their upper edges, longi-
65 tudinally-extending trusses running continuously throughout the railway and set into the recesses of the ties, continuous concussion-plates mounted on the upper faces of the trusses, rails bearing on the concussion-plates, and tie-plates engaging the base-flanges of
70 the rails and secured to the upper faces of the trusses.

9. A railway, having ties with vertical webs formed with recesses in their upper edges, longi-
75 tudinally-extending trusses running continuously throughout the railway and set into the recesses in the webs of the ties, the trusses being formed with grooves in their upper faces, continuous concussion-plates laid in
80 said grooves, rails, the base-flanges of which bear on the concussion-plates, and means for holding the plates in position.

10. A railway, having cross-ties comprising horizontal base-flanges and vertically-extending webs, the latter having recesses formed
85 in their upper edges, trusses extending longitudinally with the track and fitted in the recesses of the webs, braces secured to the trusses and to the webs to hold the trusses in place, channel-irons receiving the contiguous
90 ends of the trusses and secured to each to join the trusses with each other, and rails mounted on and secured to the upper faces of the trusses.

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