

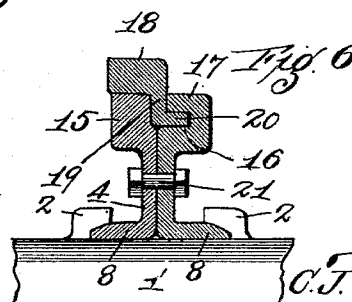
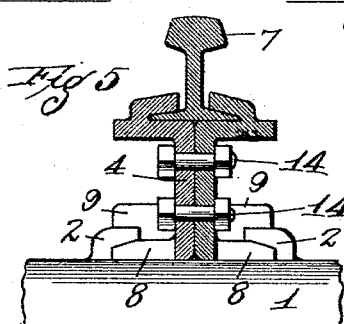
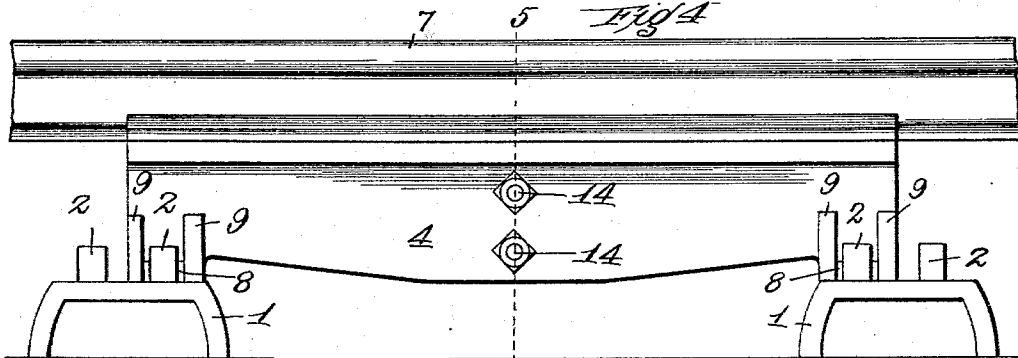
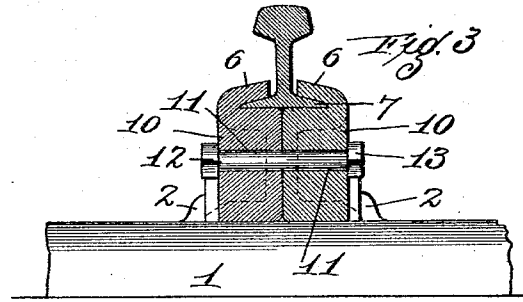
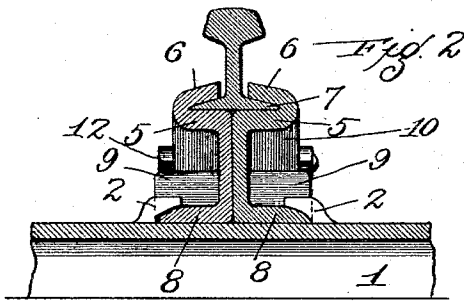
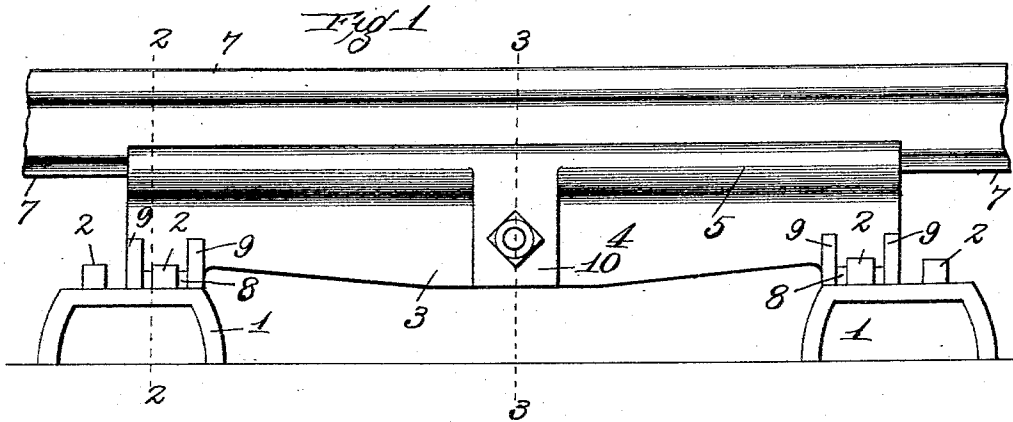
(No Model.)

C. J. GRIFFITH.

METALLIC ROAD BED CONSTRUCTION FOR RAILWAYS.

No. 548,439.

Patented Oct. 22, 1895.



Attest
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UNITED STATES PATENT OFFICE.

CHARLES J. GRIFFITH, OF ST. LOUIS, MISSOURI.

METALLIC ROAD-BED CONSTRUCTION FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 548,439, dated October 22, 1895.

Application filed September 9, 1895. Serial No. 561,915. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. GRIFFITH, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Metallic Road-Bed Construction for Railways, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved metallic road-bed construction for railways; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of my improved metallic road-bed construction. Fig. 2 is a vertical cross-sectional view taken approximately on the indicated line 2 2 of Fig. 1. Fig. 3 is a vertical cross-sectional view taken approximately on the indicated line 3 3 of Fig. 1. Fig. 4 is a side elevation of a modified form of my improved construction. Fig. 5 is a vertical cross-sectional view taken approximately on the indicated line 5 5 of Fig. 4. Fig. 6 is a vertical cross-sectional view showing my improved construction adapted to hold an ordinary flat track-rail.

Referring by numerals to the accompanying drawings, 1 1 indicate the ties of my improved construction, the same being of inverted-U shape and provided on their tops adjacent their ends with pairs of retaining-lugs 2.

The girders 3 of my improved construction are constructed in pairs and are composed of webs 4, on the tops of which are formed integral seats 5 and flanges 6, that are adapted to engage and retain the flanges of the track-rails, the same being indicated by the numeral 7. Formed integral with the ends of the webs 4 and occupying a horizontal plane are flanges 8, the same being engaged beneath the retaining-lugs 2 of the ties. Formed integral with said flanges 8 and with the webs 4 are strengthening-ribs 9. Lugs or raised portions 10 are formed integral with the outside faces of the webs 4 at the centers thereof, and passing through said lugs 10 are aligned apertures 11, through which is passed a bolt 12, having an ordinary nut 13 located upon its protruding end. This single bolt, together with the retaining-lugs 2, very effectually and

rigidly retains and locks the mating portions of the girders together, the upper ends of said girders in turn holding the track-rails in proper position.

In the modified form of the construction shown in Fig. 4 the lugs 10 are dispensed with and a pair of bolts 14 are passed through the webs of the girders at the longitudinal centers thereof.

In the form of the construction shown in Fig. 6 the upper end of one of the mating portions of the girders is widened, as indicated by 15, and the upper end of the opposite portion of said girder is constructed with a seat 16 and integral retaining-flange 17. Upon the widened portion or head 15 is located a rectangular track-rail 18, with which is formed integral a depending web 19, and formed integral with the lower end of said web 19 is a horizontally-arranged flange 20, that is located upon the seat 16 and held beneath the retaining-flange 17. Bolts 21 pass through the webs of the mating portions, forming the girder in this construction, and securely hold the same together.

In positioning my improved construction the ties 1 are first located upon the surface of the ground in the usual manner and the girders are arranged upon said ties, the flanges 8 of said girders passing beneath the retaining-lugs 2, that are formed integral with said ties. The flanges of the track-rails 7 are located upon the seats 5 beneath the retaining-flanges 6, and the bolts 12 are now passed through the apertures 11 in the webs 4, the nuts 13 being tightened upon the bolts 12. The girders having the track-rails clamped between their upper ends are rigidly and effectually held in proper position and all lateral or longitudinal movement of the track-rails is entirely prevented.

A metallic road-bed of my improved construction possesses superior advantages in point of simplicity, durability, and general efficiency, is put together without the use of a gage, as all the parts are constructed in exact sizes, and much time and labor are saved in putting down said road-bed.

I claim—

1. In a metallic road-bed for railways, metallic ties of inverted U-shape in cross-section

tion, the same constructed with flat top-faces, retaining lugs arranged in pairs and cast integral with the tops of said ties adjacent the ends thereof, girders constructed in mating portions, base-flanges formed integral with the ends of said mating portions that engage beneath the retaining-lugs, strengthening-ribs formed integral with said base flanges and the ends of the girders, retaining flanges formed integral with the top ends of the girders, and lugs or raised portions formed integral with the sides of the mating portions of the girders, and bolts passing through said lugs to lock the mating portions of the girders together.

2. In an improved metallic road-bed for railways, girders constructed in mating portions and formed to engage the flanges of the track-rails, flanges formed integral with and extending horizontally from the ends of said mating portions, strengthening-ribs formed integral with said flanges and the ends of said

mating portions, and a bolt for locking the mating portions of each girder together.

3. In an improved metallic road-bed, ties of inverted U-shape in cross-section, retaining-lugs cast integral with and arranged in pairs on the tops of said ties adjacent the ends thereof, girders composed of mating portions, base-flanges for said girders that engage beneath the retaining-lugs on the ties, the upper end of one of the mating portions being widened, a retaining-flange formed integral with the upper end of the opposite mating portion, and a track-rail having a depending portion that is engaged between the upper ends of the mating portions of the girder.

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

CHARLES J. GRIFFITH.

Witnesses:

MAUD GRIFFIN,

JOHN C. HIGDON.