G. W. COTTINGHAM.

Railway-Track.

No. 206,297. Patented July 23, 1878.

Fig. 1.

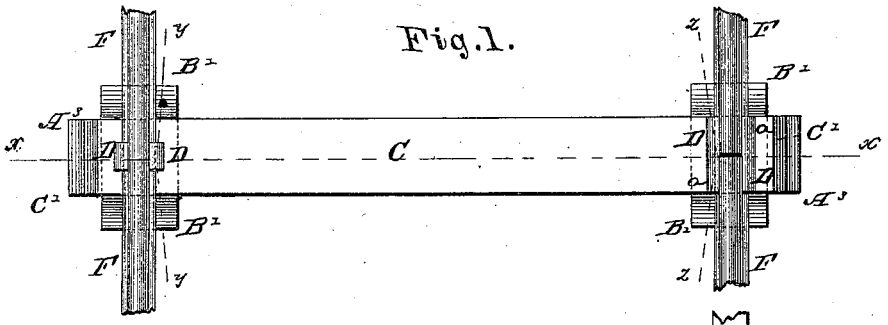


Fig. 2.

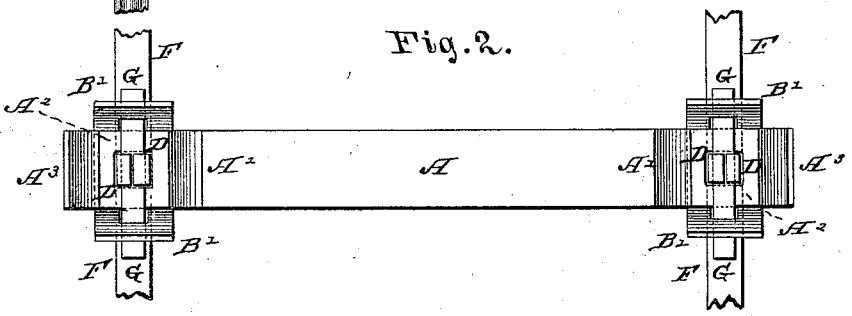


Fig. 3.

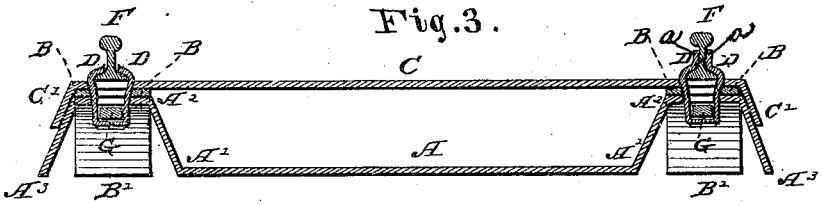


Fig. 4.

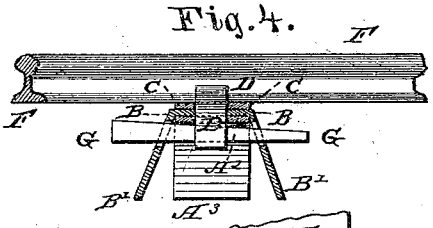


Fig. 5.

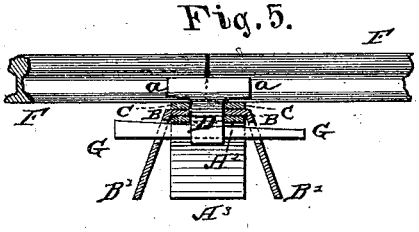


Fig. 6.

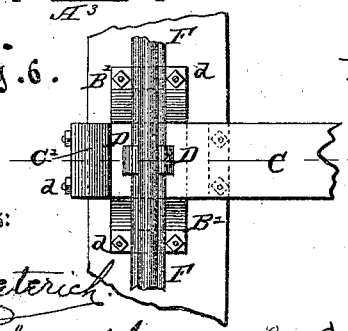
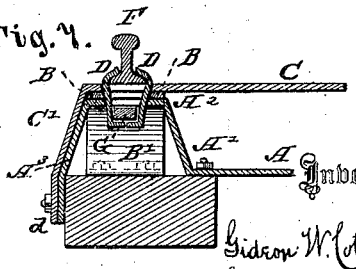


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

GIDEON W. COTTINGHAM, OF DENISON, TEXAS.

IMPROVEMENT IN RAILWAY-TRACKS.

Specification forming part of Letters Patent No. **206,297**, dated July 23, 1878; application filed June 28, 1878.

To all whom it may concern:

Be it known that I, GIDEON W. COTTINGHAM, of Denison, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Railroad-Ties, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a metallic railroad-tie, a clamp for holding the rail on the tie, and in the combination of parts, as will be hereinafter more fully set forth, and pointed out in the claims.

In the annexed drawing, to which reference is made, and which fully illustrates my invention, Figure 1 is a plan view of my invention. Fig. 2 is a bottom view of the same. Fig. 3 is a longitudinal vertical section on the line *x x*, Fig. 1. Figs. 4 and 5 are transverse sections on the lines *y y* and *z z*, respectively, of Fig. 1. Figs. 6 and 7 show a modification of my invention as adapted to bridges and trestle-work.

The entire metallic railroad-tie is constructed of wrought-iron bars or straps of suitable dimensions.

A represents the bottom bar of the tie, which has its ends turned upward at an angle, as shown at A^1. Each end of this bar is then turned outward, forming a horizontal part, A^2, and the extreme end is turned downward at an angle, forming the foot A^3.

Over each part A^2 is laid a bar, B, the ends of which are turned downward at an angle, forming the feet B′ B′, as shown.

C is the top bar of the tie, which extends over and lies across the bars B B, and the ends of the bars C are turned downward at an angle to coincide with the feet A^3, as shown at C′.

The parts A, B B, and C, which form the tie, are united and held together by means of a clamp and wedge-key at each end, which also fastens the rail to the tie.

F F represent the rails, made in the usual form. Each clamp is made in two parts, D D, which fit over the foot of the rail, one on each side, and the lower portion of each part of the clamp projects downward through slots in the three parts of the railroad-tie, as shown. The lower ends of the two parts of the clamp are turned inward, and a wedge-shaped key, G, is inserted underneath, which locks the three parts of the tie together and the rail to the tie, as shown.

At the points where two rails join together the two parts of the clamp are extended at their upper ends to form the elongated bars *a a*, which project up along the web of the rail and take the place of the usual fish-bars.

It will thus be seen that the different parts of the tie are united together by the same clamps which hold the rails to the tie, and at the joints the clamps form the fish-plates.

There are no bolts and nuts in any part to work loose and cause accidents.

For bridges and trestle-work the feet A^3 and B′ B′ are formed at their lower ends with flanges *d d*, as shown, to be bolted to the wood-work, and the turned-down ends of the bar C are extended downward the entire length of the feet A^3, and bolted with the same bolts as said feet to the wood-work.

My railroad-tie is very strong and durable, and forms, as it were, a pillar or four inclined feet at each end for supporting the rail, thus bracing the same in every direction.

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

1. A railroad-tie formed of the metal bars A, B B, and C, constructed and arranged, as described, to form a support at each end for supporting the rails, as set forth.

2. The combination of the railroad-tie A B B C, constructed as described, the rails F F, and clamps D, for securing the rails to the tie and the different parts of the tie together, and a device for tightening up said parts, substantially as set forth.

3. A bisected clamp, with wedge-key for securing the rail to a metallic tie made of several parts, and said parts being united together by the same clamp, substantially as herein set forth.

4. The bisected clamp D, having its upper

portion extended to form fish-bars, in combination with the rails F, tie A B B C, and wedge-key G, substantially as and for the purposes herein set forth.

5. The combination of the metallic railroad-tie, made in several parts, the rails, bisected clamps, and wedge-keys, all constructed substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GIDEON W. COTTINGHAM.

Witnesses:
WM. B. UPPERMAN,
W. T. JOHNSON.