

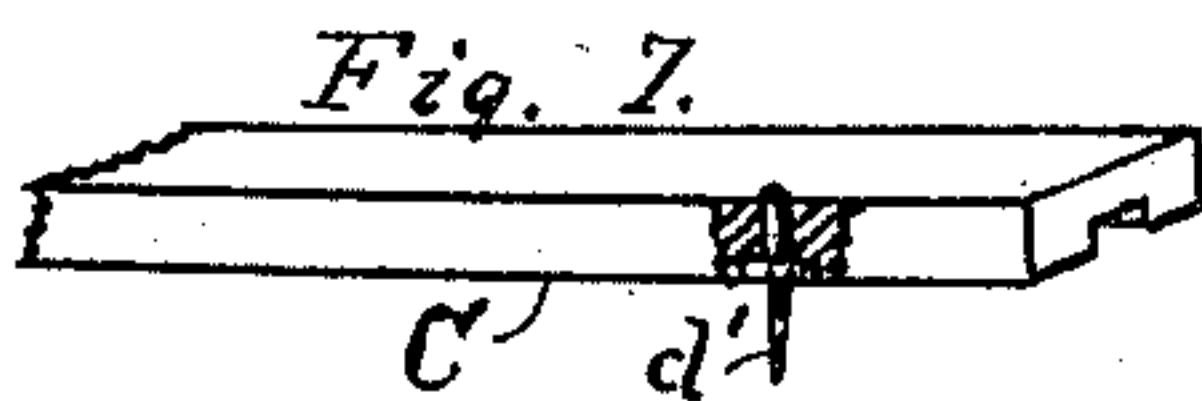
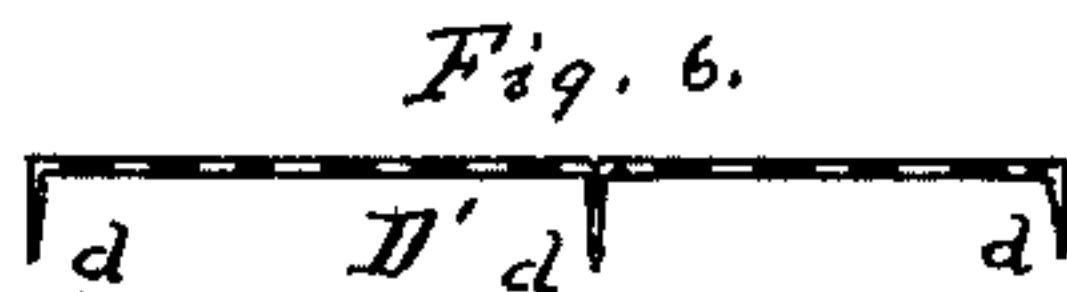
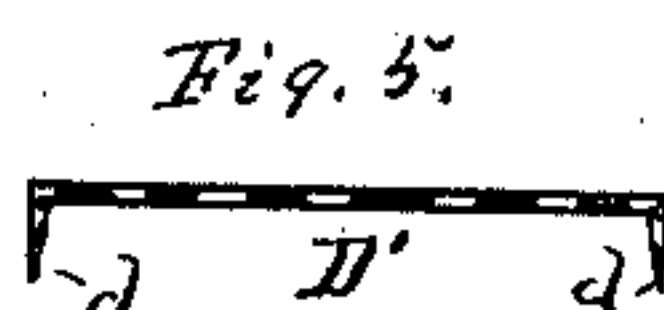
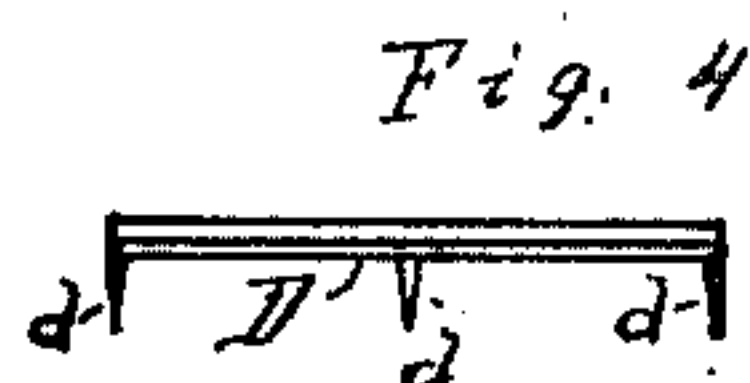
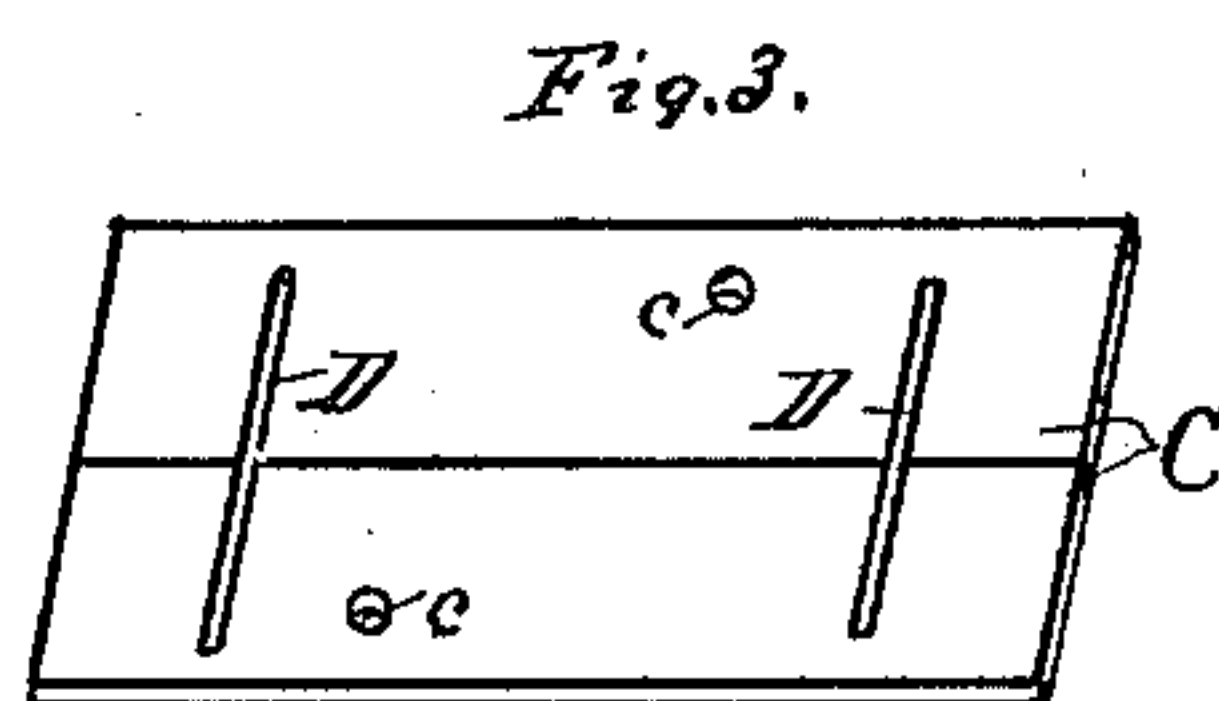
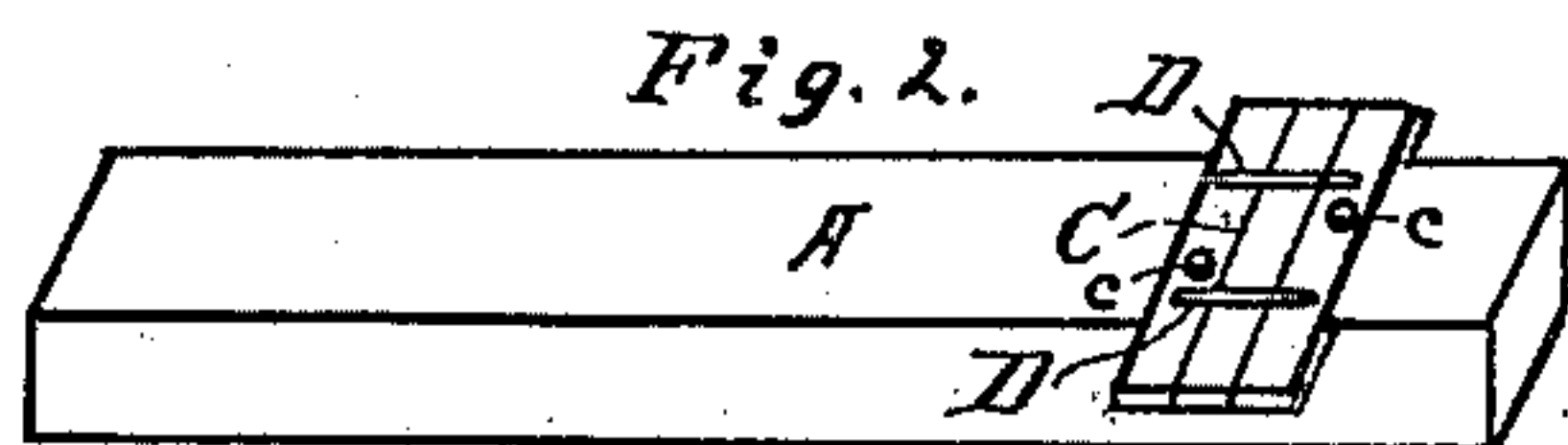
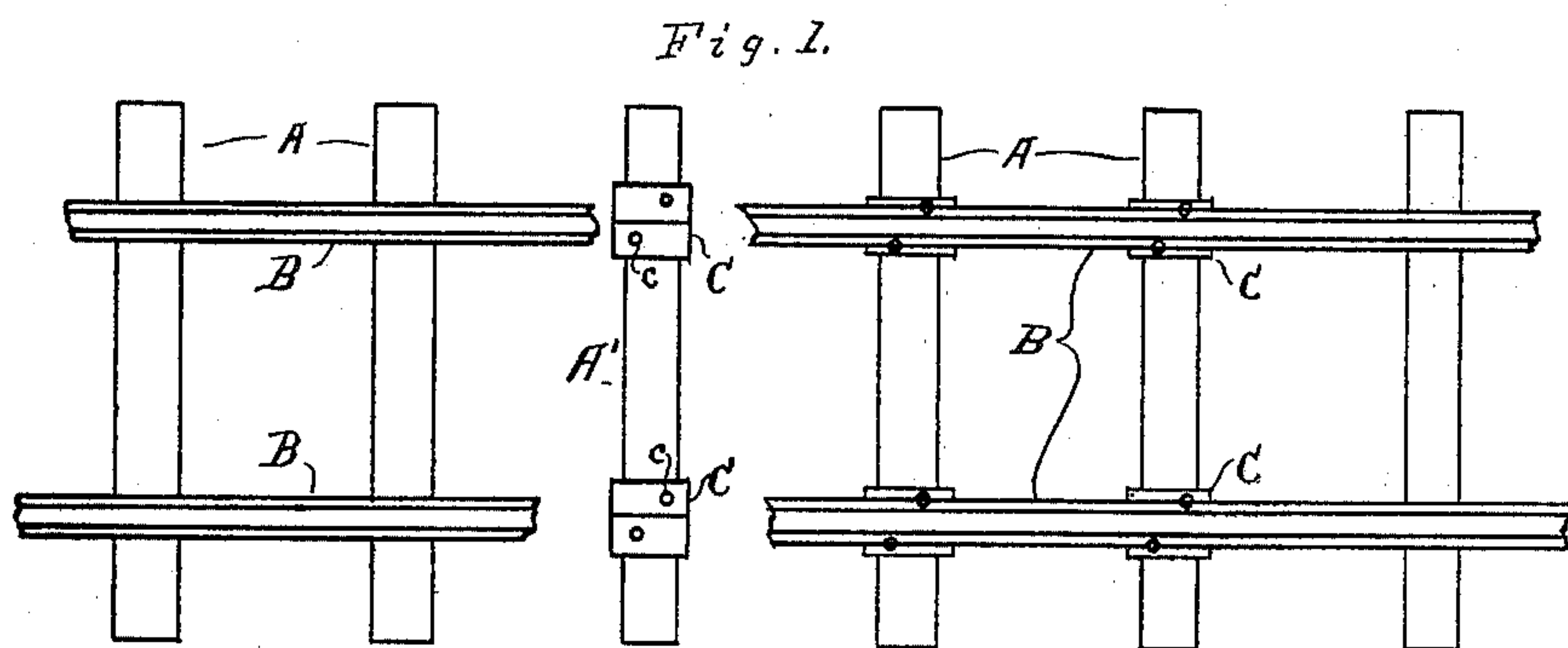
No. 652,415.

Patented June 26, 1900.

C. F. YOUNG.
REPAIRING RAILROAD TIES.

(Application filed Apr. 4, 1900.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES F. YOUNG, OF GRAND RAPIDS, MICHIGAN.

REPAIRING RAILROAD-TIES.

SPECIFICATION forming part of Letters Patent No. 652,415, dated June 26, 1900.

Application filed April 4, 1900. Serial No. 11,516. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. YOUNG, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Repairing Railroad-Ties, of which the following is a specification.

My invention relates to improvements in the manner of repairing worn and bruised railroad-ties immediately under the rails; and its objects are, first, to provide for repairing the tie without removing it from its bed, and, second, to avert the necessity of replacing old ties with new ones for the simple reason that by constant wear the rails have marred and cut into the tie and destroyed the bearing for the rail. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan of a section of railroad-track, showing my device in position in several places. Fig. 2 is a perspective of a tie with my device in place. Fig. 3 is a perspective of the plates with tie-rods in place. Figs. 4, 5, and 6 show the various forms of tie-rods; and Fig. 7 is a perspective of one section of the plates, showing a spur for holding them to place in lieu of the tie-rods and a groove in the under surface for the free passage of air.

Similar letters refer to similar parts throughout the several views.

In the accompanying drawings, A represents the ties.

B represents the rails.

C represents my device, which consists of thin narrow strips of wood jointed at the edges and placed crosswise of the ties in suitable dados, as indicated in Fig. 2, so that they will lie under and longitudinal of the rail, as in Fig. 1, and they may be bound together by a tie-rod, as D or D', arranged with a spike or spur *d* for each strip of wood C that is used for each bearing, or this may be replaced by a spike or spur, as *d'*, without the rod; but I

prefer the use of the rods, as with them the plates are held more securely to place by reason of the rail resting upon them, so that it is impossible for them to change their position in the least.

In Fig. 4, D represents a tie-rod made out of sheet metal or of malleable iron, and D' in the following views represents it made from wire, and Fig. 6 represents it with three spurs for use where three strips are necessary to form a complete plate, it being preferable to have a spur for each strip used.

I prefer that these plates be laid in coal-tar or other suitable substance that will avert decay, and when not laid in such substance I prefer that they be grooved, as in Fig. 7, so that a free current of air can pass beneath them.

At A', I have shown a tie with the rails cut away to show the manner of placing the plates thereon, and at *c* I have shown apertures for the reception of the spikes that hold the rails to place.

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

1. In combination, a railroad-tie, having a dado cut across its upper surface, strips of wood fitted to fill said dado, and tie-rods to secure said strips together and to the tie, substantially as and for the purpose set forth.

2. In combination, a railroad-rail, a tie beneath said rail and having a dado across beneath the rail, a plate composed of strips of wood fitted to fill said dado and having apertures for the reception of spikes, tie-rods on said plates beneath the rails, substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, March 26, 1900.

CHARLES F. YOUNG.

In presence of—

LOUIE CILLEY,
I. J. CILLEY.