

966,793.

Patented Aug. 9, 1910.

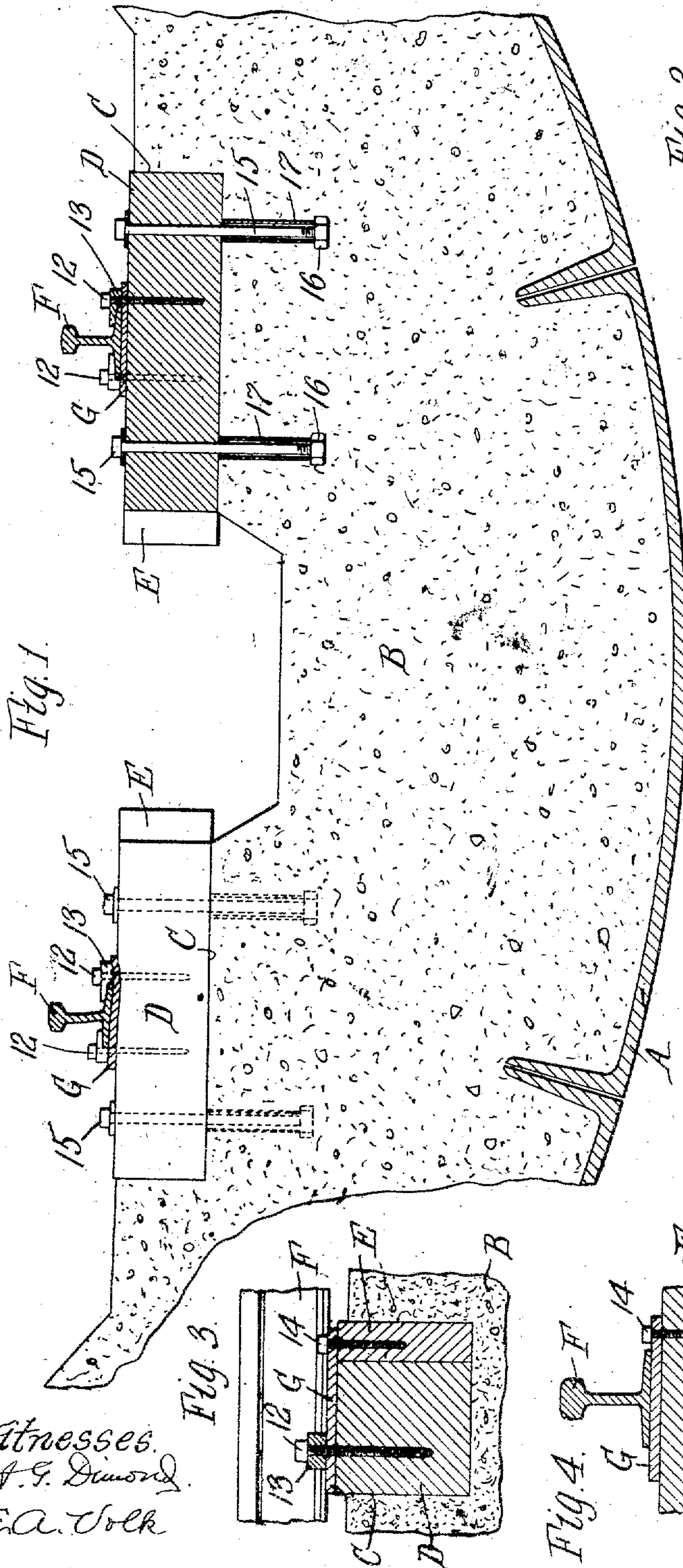


Fig. 1.

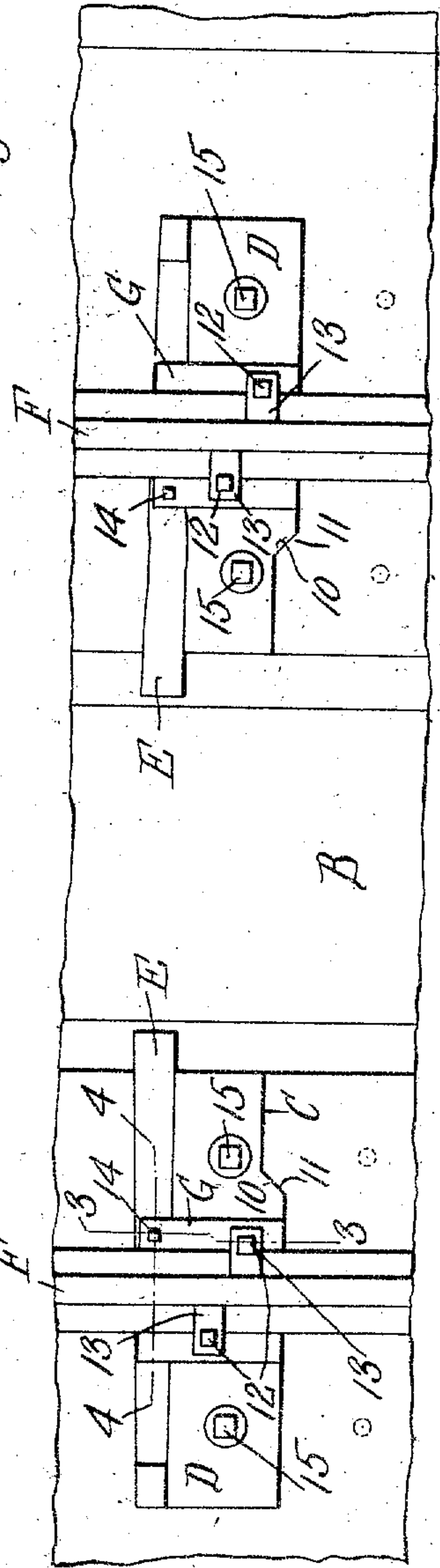


Fig. 2.

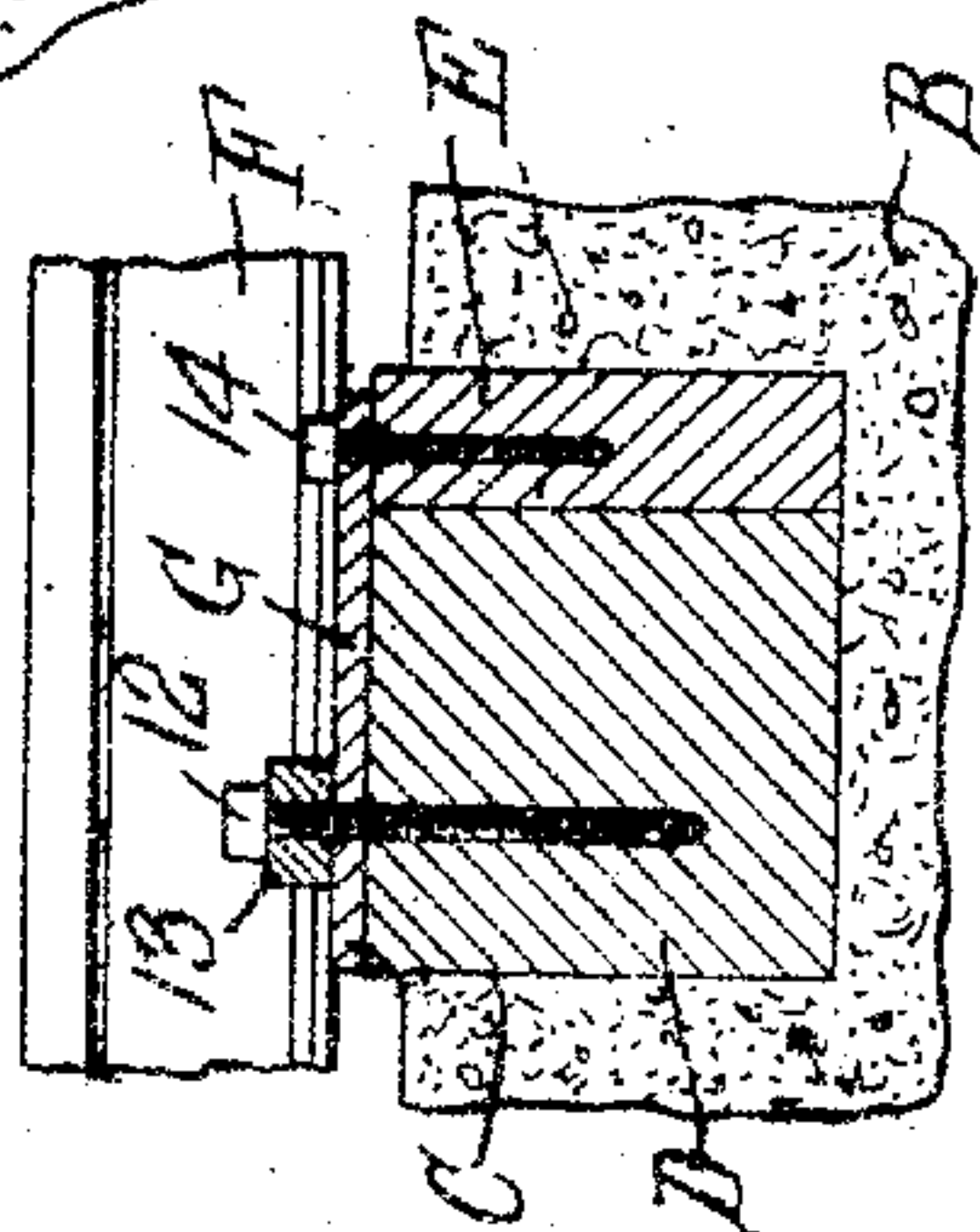


Fig. 3.

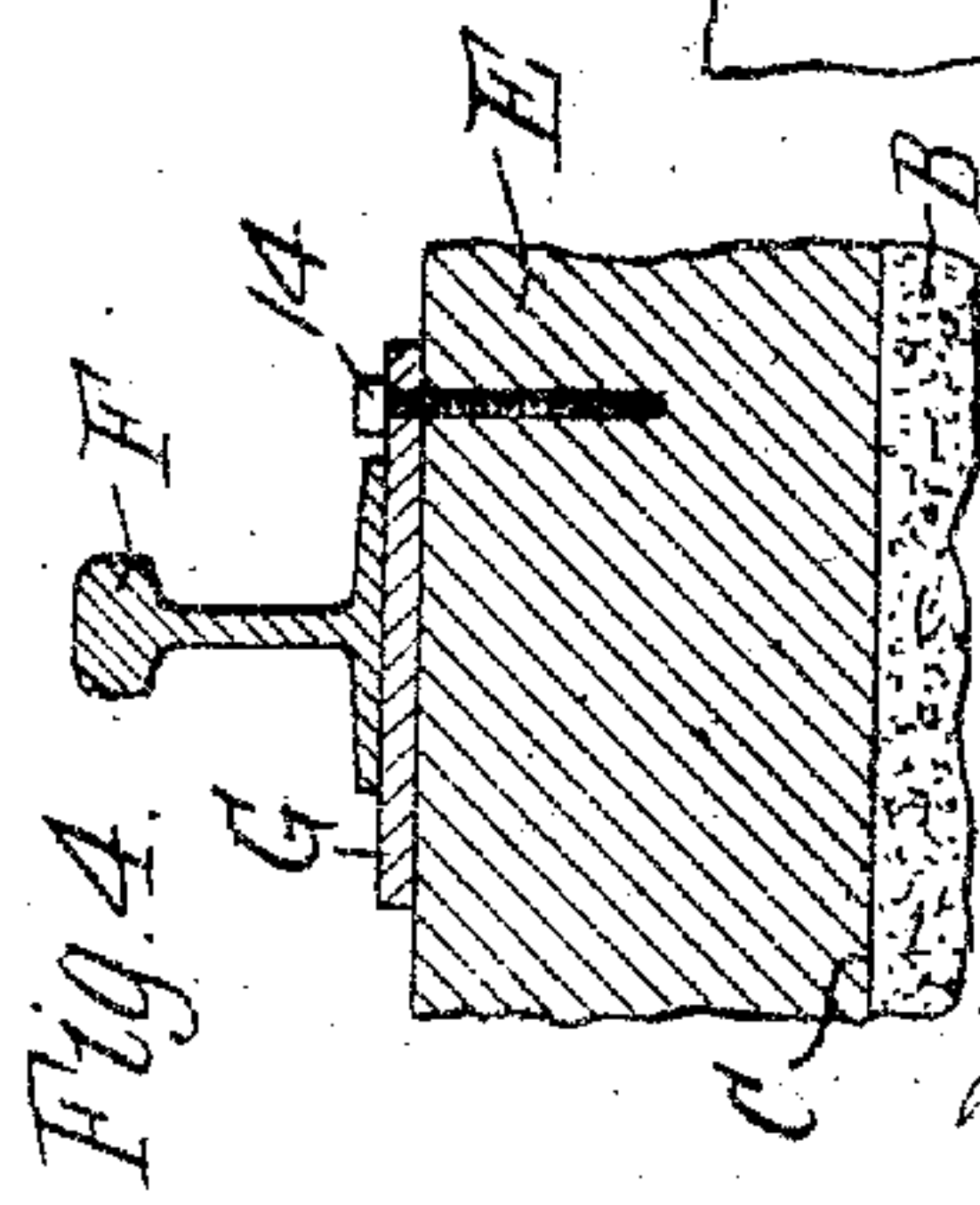


Fig. 4.

Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## RAILWAY-TRACK CONSTRUCTION.

966,793.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed March 29, 1909. Serial No. 486,494.

*To all whom it may concern:*

Be it known that I, ABRAHAM L. BUSH, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Railway-Track Constructions, of which the following is a specification.

This invention relates to that class of railway track constructions in which the track rails are supported on short wooden blocks which rest upon a bed or foundation of concrete, and particularly to a construction of this general character in which the supporting block is secured in a recess in the concrete bed by means of a removable filling piece or wedge which is inserted between one side of the block and the adjacent wall of the recess, as represented in Patent No. 905,645, granted to me December 1, 1908.

The main object of the present invention is to provide simple and efficient means for holding the supporting block and the filling piece or wedge securely and removably in position in the recess of the concrete foundation whether a guard rail is used in the structure or not, as in subways and tunnels where the cars are generally electrically operated and a lighter equipment is used.

In the accompanying drawings: Figure 1 is a transverse vertical section of this improved track construction. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal section in line 3—3, Fig. 2, on an enlarged scale. Fig. 4 is a vertical transverse section in line 4—4, Fig. 2, on an enlarged scale.

Like reference characters refer to like parts in the several figures.

A represents a tunnel tube or other support for the concrete bed or foundation B.

C represents the horizontal open-ended recesses formed transversely in the concrete bed, D the wooden supporting blocks arranged in the recesses and provided at one side with an inwardly or rearwardly facing shoulder 10 with which an outwardly or forwardly facing shoulder 11 on the adjacent side of the bed engages, E the filling piece or wedge which is inserted between the opposite side of the block and the adjacent side of the recess, and F the track rails. All of these parts may be constructed and arranged as described in said patent or in any other suitable manner.

G represents a tie plate which is arranged

beneath the rail and upon the supporting block and filling piece or wedge and which supports the rail on the block. This plate is secured to the block by any suitable means, preferably, by lag screws 12 which pass through caps or head pieces 13 bearing upon the base of the rail. The tie plate is connected with the wedge or filling piece E by a lag screw 14 or other suitable removable fastening means, whereby the wedge is held securely in position after it has been driven home.

The tie plate forms a seat for the rail and distributes the load applied to the rail over a considerable portion of the wooden supporting block and also over a portion of the filling block or wedge, and these wooden parts are thereby utilized advantageously in supporting the rail.

In driving the filling block or wedge home its tendency is to rise and this tendency also manifests itself under the hammering and jarring caused by the traffic passing over the rail. Rising of the filling block or wedge is prevented by the tie plate which extends over this block and the lag screw connecting the tie plate with the filling block prevents movement of the latter lengthwise of the recess or transversely to the rail under traffic. Upon withdrawing this lag screw and the lag screws securing the plate to the supporting block, the wedge can be withdrawn and the supporting block removed from the recess without raising the rail or disturbing any of the adjacent blocks. Traffic need therefore not be interfered with if a block requires to be renewed.

The supporting blocks are preferably further secured to the concrete bed by removable anchor bolts 15 which pass down through the blocks into screw nuts 16 embedded in the concrete foundation below the recesses in which the blocks are arranged. Upright tubes 17 of tin or other suitable material extend preferably from the bottom of the recess down to the screw nuts to keep the space for the insertion of the anchor bolts open, and prevent the concrete from setting in contact with the anchor bolts. These bolts hold the supporting blocks down against any tendency to move up and down under the varying pressure and wave motion of the rail as the load passes over the latter, while the wedge or filling piece engaging against the side of the block and pressing the opposite shouldered side of the latter



against the shouldered side wall of the recess holds the block against longitudinal and sidewise movement in the recess.

I claim as my invention:

6 1. In a railway track construction, the combination with a concrete bed having a recess which is open at one end, a rail-supporting block arranged in said recess, a filling block inserted between one side of said  
10 supporting block and the adjacent side wall of said recess, and a rail resting upon said supporting block, of a tie plate arranged underneath the rail and upon said supporting  
15 block and extending over said filling block and holding the latter in place, substantially as set forth.

2. In a railway track construction, the combination with a concrete bed having a recess which is open at one end, a rail-supporting block arranged in said recess, a filling block inserted between one side of said  
20 supporting block and the adjacent side wall of said recess, and a rail resting upon said supporting block, of a tie plate arranged underneath the rail and upon said supporting  
25 block and extending over said filling block and holding the latter in place, means for

securing said tie plate to said supporting block, and means for securing said filling block to said tie plate, substantially as set forth. 30

3. In a railway track construction, the combination with a concrete bed having a recess which is open at one end, a rail-supporting block arranged in said recess, contiguous sides of said recess and block being  
35 provided with interlocking shoulders, a filling block arranged between the opposite side of said supporting block and the adjacent side wall of said recess, and a rail resting upon said supporting block, of a tie  
40 plate arranged underneath the rail and upon said supporting block and extending over said filling block and holding the latter in place, means for securing said tie plate to  
45 said supporting block, and means for securing said filling block to said tie plate, substantially as set forth.

Witness my hand in the presence of two subscribing witnesses.

ABRAHAM L. BUSH.

Witnesses:

JOHN McDERMOTT,  
B. A. RYAN.