

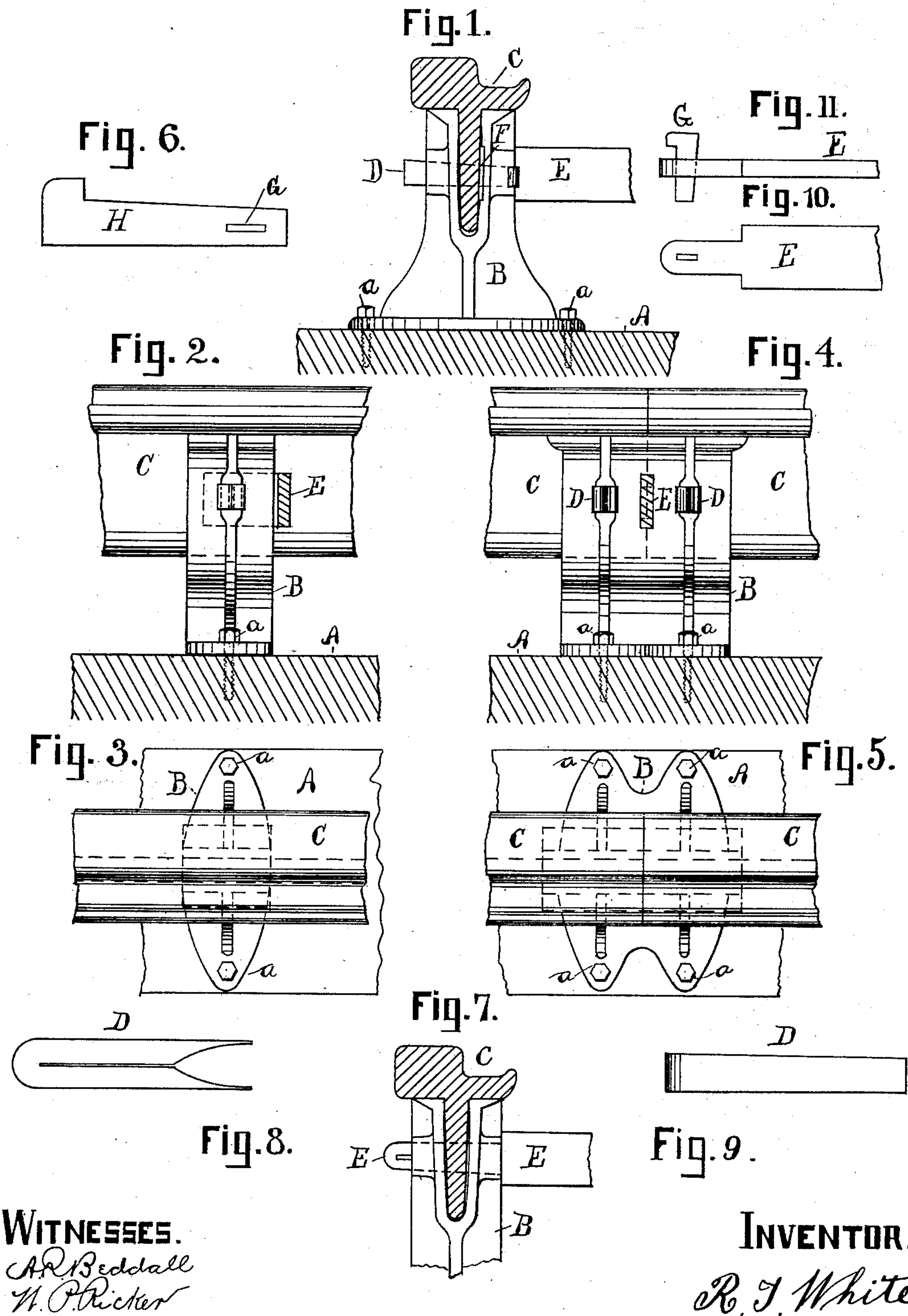
(No Model.)

R. T. WHITE.

TRACK FOR STREET RAILWAYS.

No. 375,849.

Patented Jan. 3, 1888.



WITNESSES.
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TRACK FOR STREET-RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 375,849, dated January 3, 1888.

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To all whom it may concern:

Be it known that I, REYNOLDS T. WHITE, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Tracks for Street-Railways; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 and figures of reference marked thereon, which form a part of this specification.

The object of my invention is to produce a substantial and economical street-railway road-bed that can be easily and cheaply laid, and can be repaired, when necessary, by removing a very small portion of the pavement; and my invention consists in the peculiar construction of the rails and chairs to hold the rails, and in keys to hold the rails in the chairs, as hereinafter fully described, and pointed out in the claims.

Referring to the drawings, Figure 1 is an end view of a rail and chair embodying my invention, and also showing a part of tie-rod. Fig. 2 is a side view of same. Fig. 3 is a plan view of same. Fig. 4 is a side view of a double chair and an end view of the keyed tie-rod. Fig. 5 is a plan view of the same. Fig. 6 is a drawbore clamp-key drawn to an enlarged scale. Fig. 7 shows tie-rod passing through chair and rail and taking the place of keys. Fig. 8 shows a plan view, and Fig. 9 a side view, of a split key drawn to an enlarged scale. Figs. 10 and 11 show side and plan views of tie-rod.

A represents a wooden sleeper or timber of suitable size, running parallel with the road and directly under the rails, upon which the cast-iron chair B rests, that carries the rails C, and is secured to sleeper A by lag-screws *a*.

B is a chair of cast metal, of suitable size, and having an opening or slit through its center to receive the lower portion or web of rail C. Suitable holes are formed through the chair B and web of rail C to admit key D, drawing the under side of rail C down onto chair B in a solid manner. The points or ends of key D (see Fig. 8) are then turned outward and clinched, and thus hold rail C in chair B.

E, Figs. 1 and 2, is a tie-rod made of metal, of suitable size and turned at right angles at each end, as shown by dotted lines in Fig. 2. This tie-rod E is of the required length to form the proper gage between the rails C, and is secured to chairs B by keys D, a suitable opening, F, being made in chair B, close to web of rail C, to receive the ends of tie-rod E, and key D passes through chair B, web of rails C, and is turned over the end of tie-rod E and clinched to secure rails C in chairs B and keep rails C to a proper gage.

E, Figs. 10 and 11, shows a tie rod that I prefer to use at joints of rails, made as shown, and of suitable length between shoulders to form the gage of rails C, the key G being driven in tight on outside of chair B, to hold the rails C rigid in place, and also to prevent any vibration of web of rails C in chair B.

Keyed tie-rods E can be used in intermediate chairs instead of key D; or key H, as shown in Fig. 6, may be used instead of key D or keyed tie-rods E, and when key H is used a small key, G, is driven through, as shown in Fig. 11. I prefer to use key tie-rods E, the ends of which pass through openings in the chair B and web of rail C, as shown in Fig. 7.

B, Fig. 4, is a chair made of suitable size, or about double the width of B, Fig. 2, and having a suitable opening for keyed tie-rod E at or near its center, where joints of rails C come together; also having key-holes on each side or end of tie-rod E to receive key H or D.

It will be seen that by my invention I am able to dispense entirely with the screw-bolts now universally in use, the nuts of which, after lying in the ground a short time, become so rusted on the bolts that they can only be removed after cutting off the heads or nuts with a chisel, thus rendering them useless for future use; but in my invention the rail is firmly held in the chair by keys that are cheaper than bolts and easier inserted or removed and can be used over again; and there is also a great saving in labor by using keys instead of screw-bolts, and a double chair instead of fish-plates and screw-bolts, and also in using a keyed tie-rod for the double purpose of securing the rails in chairs and keeping the rails to a proper gage.

Having thus described my invention, what I claim is—

1. In street-railway construction, a tie-rod, E, provided at each end with shoulders to form a gage between the chairs, the ends of said rod acting as keys to draw down the rail 5 firmly upon the chair, and keys G, for retaining said rods in position, substantially as shown and described.

2. The combination of a tie-rod, E, having its ends turned at right angles and a suitable 10 hole near its ends, with a chair, B, having an opening, F, to receive the ends of tie-rod E

and rail C, and a split key, D, passing through chair B, web of rail C, and the rod E, and clinched, substantially as shown and described, and for the purposes set forth.

In testimony whereof I affix my signature in 15 presence of two witnesses.

REYNOLDS T. WHITE.

Witnesses:

F. J. SAWYER,

EDWARD BLAKE.