(No Model.)

3 Sheets—Sheet 1.

A. V. DU PONT.

PORTABLE CONNECTING TRACK.

No. 381,874. Patented Apr. 24, 1888.

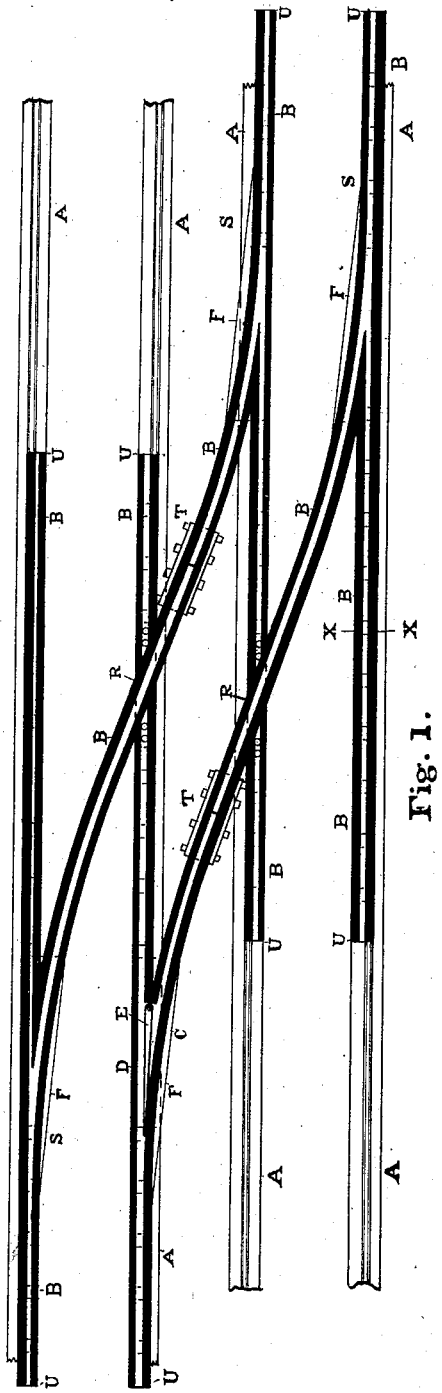

Fig. 1.

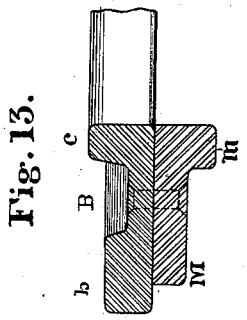

Fig. 13.

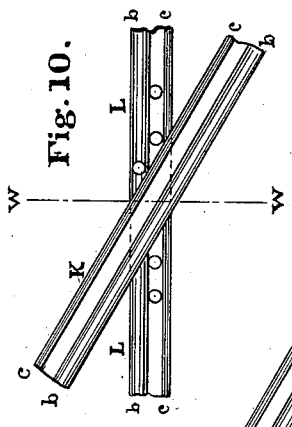

Fig. 10.

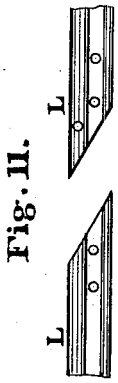

Fig. 11.

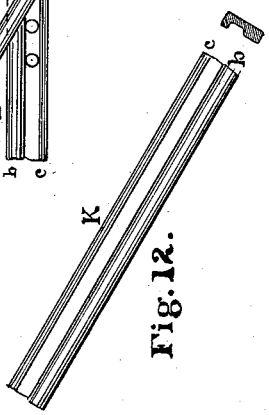

Fig. 12.

Witnesses:
Francis P. Reilly
Stephen Garretson

INVENTOR:
A. V. du Pont
by R. R. Voorhees
Atty.

(No Model.) 3 Sheets—Sheet 2.

A. V. DU PONT.

PORTABLE CONNECTING TRACK.

No. 381,874. Patented Apr. 24, 1888.

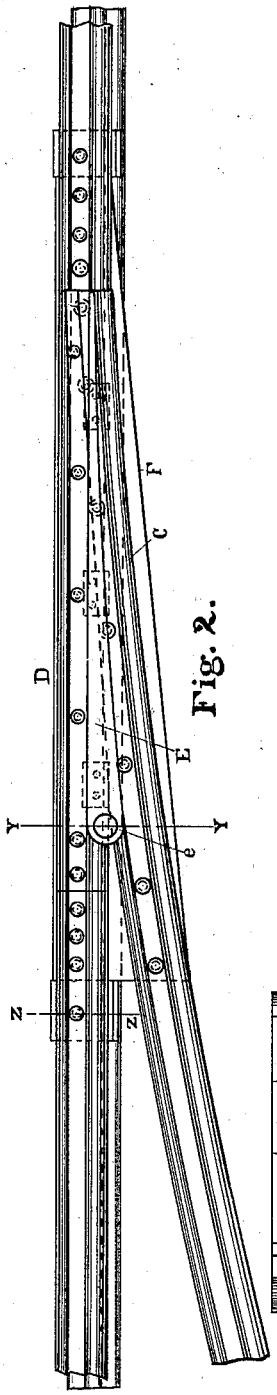

Fig. 2.

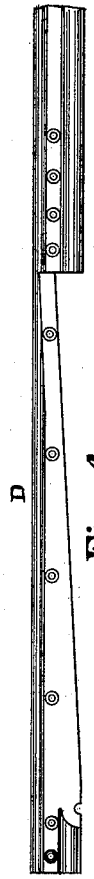

Fig. 4.

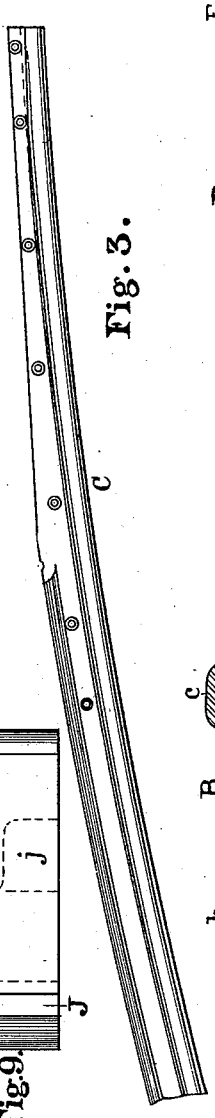

Fig. 3.

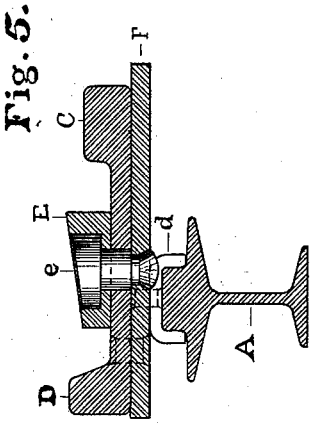

Fig. 5.

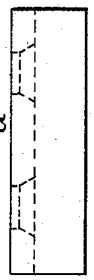

Fig. 7.

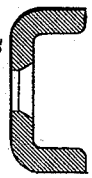

Fig. 6.

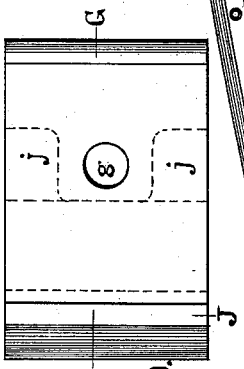

Fig. 9.

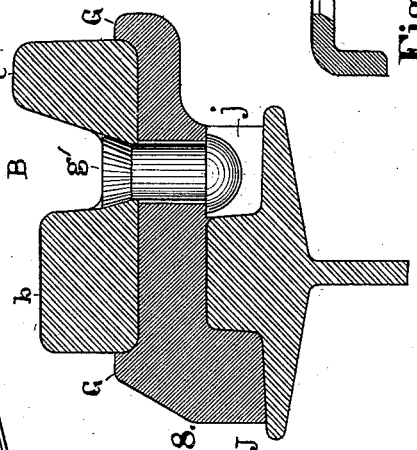

Fig. 8.

WITNESSES:
Francis P. Reilly
Stephen Garritson.

Inventor:
A. V. du Pont.
by R. H. Woodbridge.
Atty.

(No Model.) 3 Sheets—Sheet 3.

A. V. DU PONT.

PORTABLE CONNECTING TRACK.

No. 381,874. Patented Apr. 24, 1888.

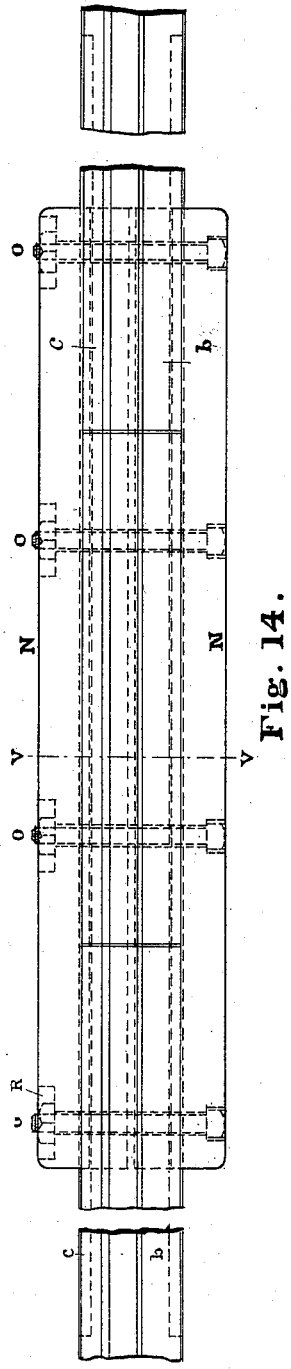

Fig. 14.

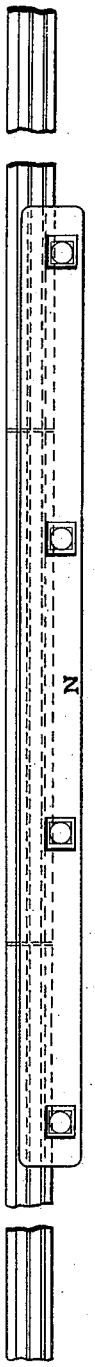

Fig. 15.

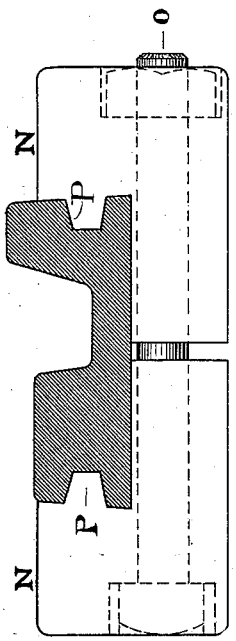

Fig. 16.

Witnesses
Francis P. Reilly
Stephen Garrison

Inventor.
A. V. du Pont.
by R. R. Voorhees.
Atty.

UNITED STATES PATENT OFFICE.

ALFRED V. DU PONT, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO THE JOHNSON STEEL STREET RAIL COMPANY.

PORTABLE CONNECTING-TRACK.

SPECIFICATION forming part of Letters Patent No. 381,874, dated April 24, 1888.

Application filed June 9, 1887. Serial No. 240,703. (No model.)

To all whom it may concern:

Be it known that I, ALFRED V. DU PONT, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Portable Connecting-Track for Street-Railroads, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to provide a portable connecting-track which can be secured in its place, without any fastenings, directly to the road-bed itself.

The invention consists, mainly, first, in the means provided for securing the portable track to the permanent track; second, in certain details of construction in adapting the devices employed to effect the purpose of securing the portable track to the main track, and, third, in providing an expansion-joint piece by means of which varying distances are provided for between the portable track-rails and the main-track rails, as the exigencies of construction may require.

In the accompanying drawings, Figure 1 illustrates in plan a portable connecting-track forming the subject of this invention. Fig. 2 shows in plan the tongue-switch illustrated in Fig. 1; Fig. 3, a detached view in plan of one of the rails forming part of the tongue-switch aforesaid; Fig. 4, a detached view in plan of the other rail forming part of the tongue-switch aforesaid. Fig. 5 shows a cross-section at the line Y Y of Fig. 2, looking to the left. Figs. 6 and 7 show a cross-section and side elevation, respectively, of the keeper indicated by the letter *d* in Fig. 5; Fig. 8, a cross-section at the line Z Z of Fig. 2. Said section also illustrates a section through any one of the keepers, as indicated at the line X X, Fig. 1. Fig. 9 illustrates in plan a keeper indicated in Fig. 8 by the letter J. Fig. 10 illustrates in plan the crossing-rails indicated by the letters R R in Fig. 1. Fig. 11 illustrates in plan the cut ends of the rails indicated by the letters L L in Fig. 10. Fig. 12 shows two views in plan and cross-section, respectively, of the solid rail K illustrated in Fig. 10; Fig. 13, a cross-section taken at the line W W of Fig. 10. Figs. 14 and 15 illustrate in plan and side elevation, respectively, the joint-pieces indicated by the letters T T in Fig. 1. Fig. 16 shows a part cross-section taken at the line V V of Fig. 14.

In said figures the several parts are indicated by letters of reference, by means of which they will now be described, as follows: In Fig. 1 the rails A A of the street-car track are shown of the center-bearing form; but they may be of any section of rail desired. The rails B B of the connecting-track are of the flat and shallow guard-rail type, well known to the trade as the "stringer guard-rail."

The construction of this portable connecting-track is such that it can be dropped over the heads of the main rails already laid and locked over said rails. It can also be easily and quickly connected throughout, and by means of the joint-pieces T T be readily adapted to use in connection with tracks of the same gage, but of varying distances between the tracks—a very general occurrence in different parts of the same line of track. If the tracks as shown in Fig. 1 be regarded as showing a minimum distance apart, a greater distance between such tracks can be readily provided for by sliding the portable track-rails apart at the joint-pieces T T and either letting the car jump the opening, if small, or, if large, by inserting straight pieces of rail into the openings for the passage of the car-wheels thereon.

In the tongue-switch shown in Figs. 2, 3, 4, and 5, C indicates the curve-rail, partly cut away, (of stringer-guard shape,) and D the straight rail, also of the same shape and cut away, the two rails being riveted to the plate F. The tongue E is inserted and held by the pin *e*, on which it vibrates. The rail C can either be continued on into one of the curve-rails, as shown in the drawings, or it can be cut off and jointed at the switch-piece. If continued on, the switch-piece forms a permanent part of this rail. The blind-switch pieces S are constructed in the same way, except that the head of the rail is left uncut to a sufficient extent to form the point of the switch-piece, enough of it being planed away to provide a groove for the wheel-flanges, as will be readily understood by those skilled in the art, and as shown in Fig. 1.

In Fig. 10 the rails K and L are so fitted together that the rail L lies about half an inch

above the through-rail K K, so that the flanges of the wheels running on the rail L are lifted over the crossing-rail. The two ends of the rail L L which are cut through are united by a lower plate, M, Fig. 13, one side of which is offset, as at *m*, so that the part M lies on the head and the part *m* on the flange of the underlying track-rail. The head of the stringer guard-rail is indicated by the letter *b* and its side guard by the letter *c*.

The keepers J are riveted at intervals to the under side of the guard-rail, making the connecting-track. The rivets *g'*, passing through the channel of the guard-rail and riveted in the recesses between the lugs *j j* through the holes *g*, as shown in Fig. 9, are thus entirely non-obstructive and not liable to destructive wear, as the car-wheel flanges never reach the bottom of the channel in which said rivets lie. The keepers *d d* under the switch-pieces, Figs. 5, 6, and 7, are shallower than the keeper J, as the plate F takes up the remaining space. The ends U U of the rails, Fig. 1, are beveled down to an inclined plane, so as to lift the wheels of the cars easily.

The joint-piece shown in Figs. 14, 15, and 16 is made in two pieces, with tongues fitting into recesses planed in the rail at P P, Fig. 16, and are held together by tie-bolts O O. It is obvious that said joint-piece is capable of many modifications, and the switch-pieces also, to effect the purposes for which they are intended. Portable connecting-tracks as such are not new. They have been heretofore used, but always depending upon some connection with the street-surface to retain them in place. They have likewise been made in many separate pieces, and the later constructions have been of cast-iron switch-pieces locked on the rails and connected by straight rails provided with spikes driven through the same and into and between the paving blocks or stones of the street or roadway. All of such connections with the road-bed are entirely obviated in this invention, as fully hereinbefore explained; but it will be observed that the under part of this connecting-track, with the exception of the locking-pieces, which lie over the rails of the main track, usually sunk below the level of the street-paving, is flush with and non-obstructive to said paving by reason of said locking-joints.

Having thus fully described my said portable track, as of my invention I claim—

1. A portable connecting-track consisting of rails provided with locking-pieces on their under sides for locking said rails to the rails of the main track, whereby said under sides are adapted to be set flush upon the street surface or pavement when the same is above the level of the heads of the main-track rails, substantially as and for the purposes set forth.

2. A switch-piece connection for connecting main and side tracks, as described, composed of two flat guard-rails cut and fitted together at the required angle and riveted to a flat plate provided with a tongue, substantially as and for the purposes set forth.

3. A crossing for main and side connecting-tracks composed of rails, as K and L, the crossed rail L being cut at the desired angle and its severed ends riveted by a flat under plate, as M, offset as at *m*, substantially as and for the purposes set forth.

ALFRED V. DU PONT.

Witnesses:
T. C. DONIGAN,
JOHN R. TREAT.