

(No Model.)

J. LANE.

TUNNEL FRAME FOR THE CONSTRUCTION OF CABLE WAYS.

No. 265,329.

Patented Oct. 3, 1882.

Fig 1.

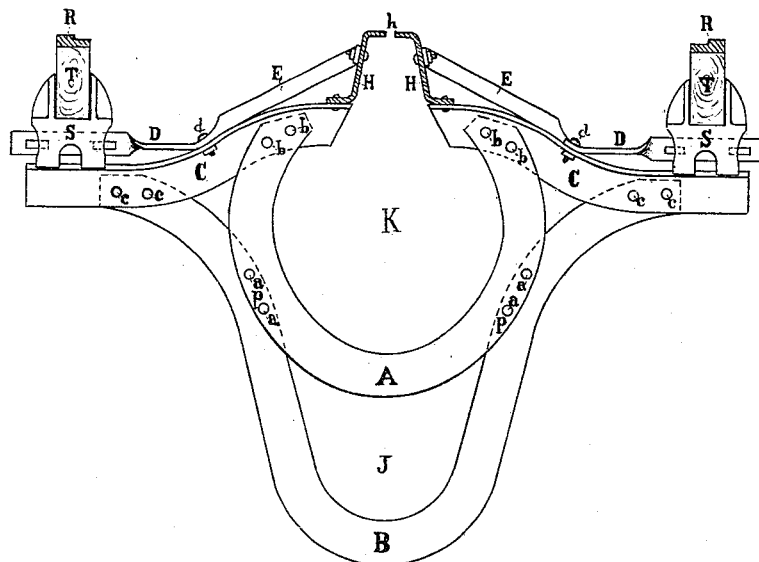


Fig 2.



Fig 3.

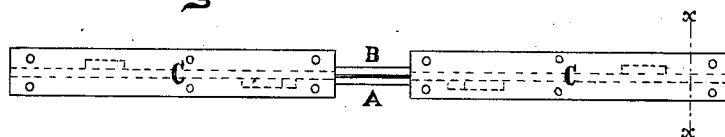


Fig 4.



Fig 5.

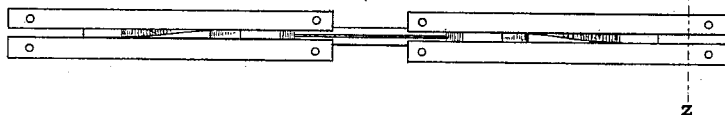


Fig 6.



Fig 7.

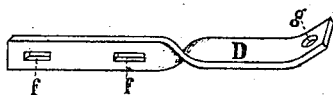
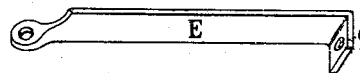


Fig 8.



WITNESSES.

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JOHN LANE, OF HYDE PARK, ILLINOIS, ASSIGNOR OF ONE-HALF TO N. S. BOUTON, OF SAME PLACE.

TUNNEL-FRAME FOR THE CONSTRUCTION OF CABLE-WAYS.

SPECIFICATION forming part of Letters Patent No. 265,329, dated October 3, 1882.

Application filed April 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN LANE, of Hyde Park, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Yokes or Tunnel-Frames for the Construction of Cable-Ways, which improvement is fully set forth in the following specification and accompanying drawings.

This invention is intended to simplify and cheapen the construction of the yoke for street-car cable-ways, making the yoke of lighter weight and greater strength than has heretofore been accomplished.

The invention consists in certain constructions, combinations, and arrangements of parts, as hereinafter fully described and specially claimed.

Figure 1 is a side elevation view of the yoke, showing its construction, and showing how the U-shaped bar A, the V-shaped bar B, and the tie-bars C C are arranged and united together. Fig. 2 is an end elevation view of the yoke, showing the said bars A B C. Fig. 3 is a plan or top view of the yoke; and Fig. 4 is a cross-section view of the tie-bar C, taken on the dotted line *x x* in Fig. 3, showing the tie-bar C as made of T-iron. Figs. 5 and 6 are views showing how L or single angle iron may be used, instead of T-iron, for the tie-bar C without departing from the feature of my invention and claims. Fig. 7 is a perspective view, enlarged, of the saddle-brace D; and Fig. 8 is a perspective view, enlarged, of the slot-iron brace E.

Like letters of reference refer to like parts in all the drawings.

The yoke consists of four bars, A B C C, constructed and united together as shown. The tie-bar C is constructed of T or double-flanged iron, as shown in cross-section in Fig. 4. The middle part of the tie-bar C is bent so that the inner end of the bar has an elevation above its outer end, as is clearly shown in Fig. 1, and the flanged part of the said bar is uppermost. The outer end part of the tie-bar C supports the saddle S, in which is seated the rail-beam T, on the top of which is the rail R, as shown in Fig. 1. The inner end part of the tie-bar C supports the slot-iron H, as shown. The bar A consists of a wide, thin, flat bar-iron, bent edgewise U shape, (or horseshoe shape,) as shown

in the drawings. The open end of the U-shaped bar A has the ends of the bar preferably curved inwardly for strength, and the ends of the said bar may be riveted or bolted at *b b b b* to the inner end part of the tie-bar C, as shown in the drawings. The bar B also consists of a wide, thin, flat bar-iron, bent edgewise, as V shape, with the ends of the bar bent curved outwardly, and may be riveted or bolted at *c c c c* to the outer end part of the tie-bar C, and the V-shaped bar B is bent to such a shape and form as to overlap the U-shaped bar A at P, as shown, and the two bars A and B may be united together with rivets or bolts at *a a a a*, as shown in the drawings. The V-shaped bar B extends below the bar A, as shown in Fig. 1, forming an opening or sub-tunnel, J, in which a sewer may be constructed, and the opening or tunnel K, formed by the bent U-shaped bar A, may be used for the cable. I have shown that I preferably use two bolts or rivets at each place of uniting the said four bars together. More or less bolts or rivets may be used, as desired. The ends of the said bars A and B may be riveted or bolted to opposite sides of the bar C, as is clearly shown in the drawings.

E is a brace, having one end bolted to the tie-bar C at *d*, and the other end bolted to the slot-iron H, as shown in the drawings. The brace E may be made of flat bar-iron, with a perforated lip or flange, *e*, formed on one end, and the other end flattened and perforated, as shown in Fig. 8. The purpose of the brace E is to hold the slot-iron H in its position, whereby the slit *h*, formed between the two said slot-irons, may be kept open to a uniform size.

D is a brace, made of flat bar-iron twisted and perforated at *f f* and *g*, as shown in Fig. 7. The brace D has one end bolted to the tie-bar C at *d*, and the other end extending through a slot in the saddle S, and keys, as wedges, may be used in the slots *f f* to adjust the saddle, as will be understood by inspecting the drawings in Fig. 1.

The braces D and E may be made separate, as shown in Figs. 7 and 8, or they may be united together in one bar, as is shown in Fig. 1.

The construction, arrangement, and combination of the four bars A B C C form a truss of great strength, and less weight of material

may be used than heretofore, whereby the required strength is secured at less cost.

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

1. In a truss or yoke for street-car cableways, the combination of the U-shaped bar A and the V-shaped bar B, constructed and united together substantially as shown, with the tie-bar C, and with the bolts or rivets *c b* uniting the ends of the said bars A and B to the said tie-bar C, all arranged and operating substantially as and for the purpose set forth.

2. In a truss or yoke for street-car cableways, the U-shaped bar A and the V-shaped bar B, both constructed of flat bar-iron bent edgewise and united together with bolts or rivets *a a*, and the ends of the said bars A and B bent curved in opposite directions, in combination with the tie-bar C, and the tie-bar C united to the ends of the said bars A and B with bolts or rivets *b c*, all arranged to operate substantially as and for the purpose set forth.

3. In a truss or yoke for street-car cableways, the U-shaped bar A and the V-shaped bar B, both constructed of flat bar-iron, and the said V-shaped bar bent to such a shape as to overlap the said bar A, and united thereto with bolts or rivets *a a*, and the ends of the said bars A and B bent in opposite directions, in combination with the tie-bar C, united to the ends of the said bars A and B with bolts or rivets *b c*, all substantially as specified.

4. In a truss or yoke for street-car cableways, the U-shaped bars A, with its ends bent curved inward, the V-shaped bar B, with its ends bent curved outward, and the tie-bar C, with its middle part bent so that the inner end part of the said bar has an elevation above its outer end part, all constructed, combined, and arranged with the bolts or rivets *a a b b c c*, substantially as shown, and for the purpose set forth.

5. The combination of the brace E, having one end flattened and perforated, the other end having a perforated flange or lip, as shown, with the tie-bar C, and with the slot-iron H, arranged to operate substantially as and for the purpose set forth.

6. The combination of the brace D with the slots *f f* and the perforation *g*, with the tie-bar C, and with the saddle S, arranged to operate substantially as and for the purpose set forth.

7. The combination of the U-shaped bar A, the V-shaped bar B, and the tie-bar C, constructed and arranged with the bolts or rivets *a a b b c c*, as shown, and with the slot-iron H, the brace E, the saddle S, and the brace D, all arranged to operate substantially as and for the purpose set forth.

JOHN LANE.

Witnesses:

M. E. LANE,

H. B. HOBART.