

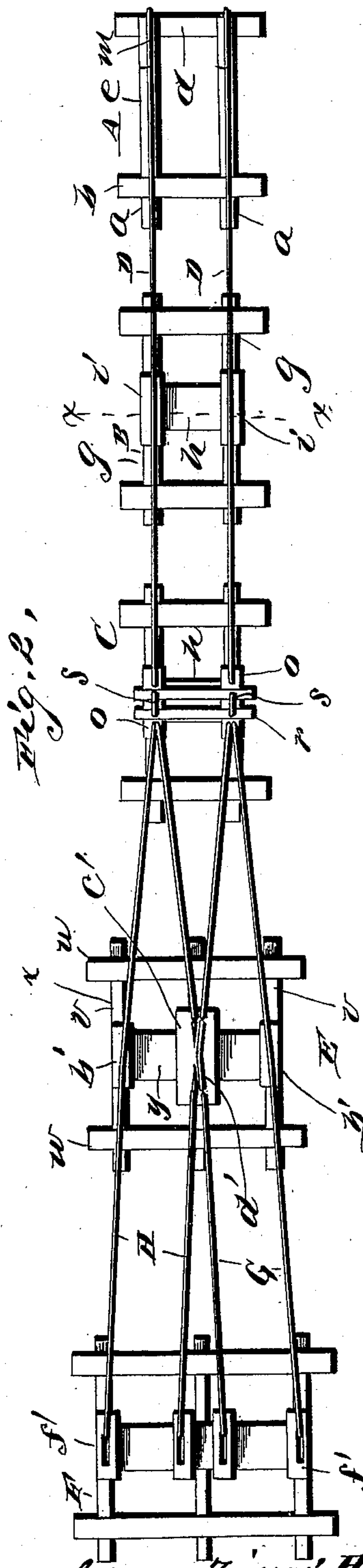
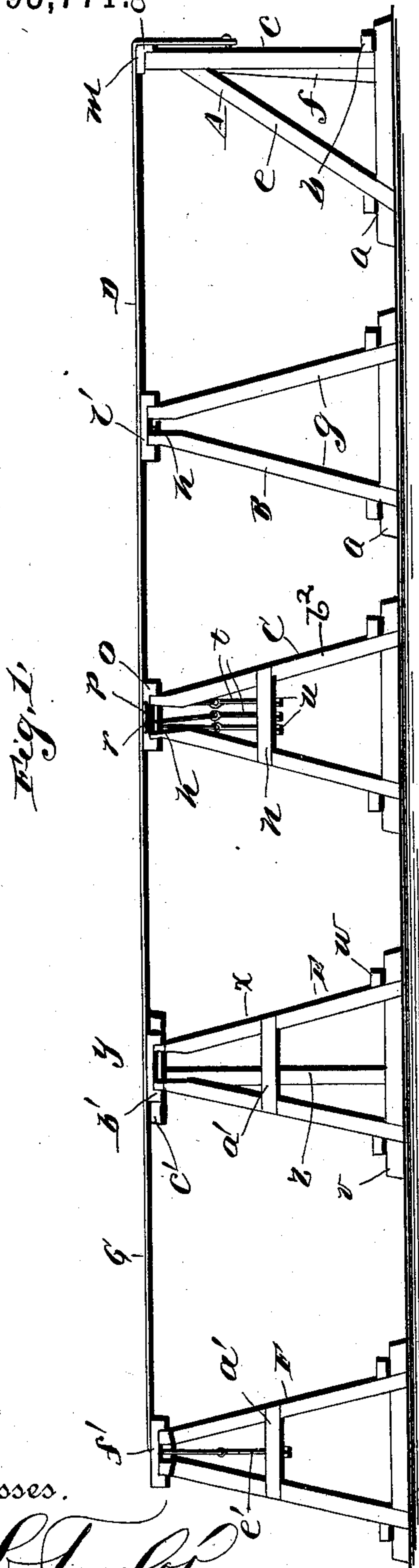
(No Model.)

2 Sheets—Sheet 1.

Z. H. LOWDERMILK.
ELEVATED RAILROAD.

No. 393,771

Patented Dec. 4, 1888.



Witnesses.

C. B. Taylor,
R. J. Marshall Jr.

By

Z. H. Lowdermilk
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Inventor.

(No Model.)

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Fig. 3.

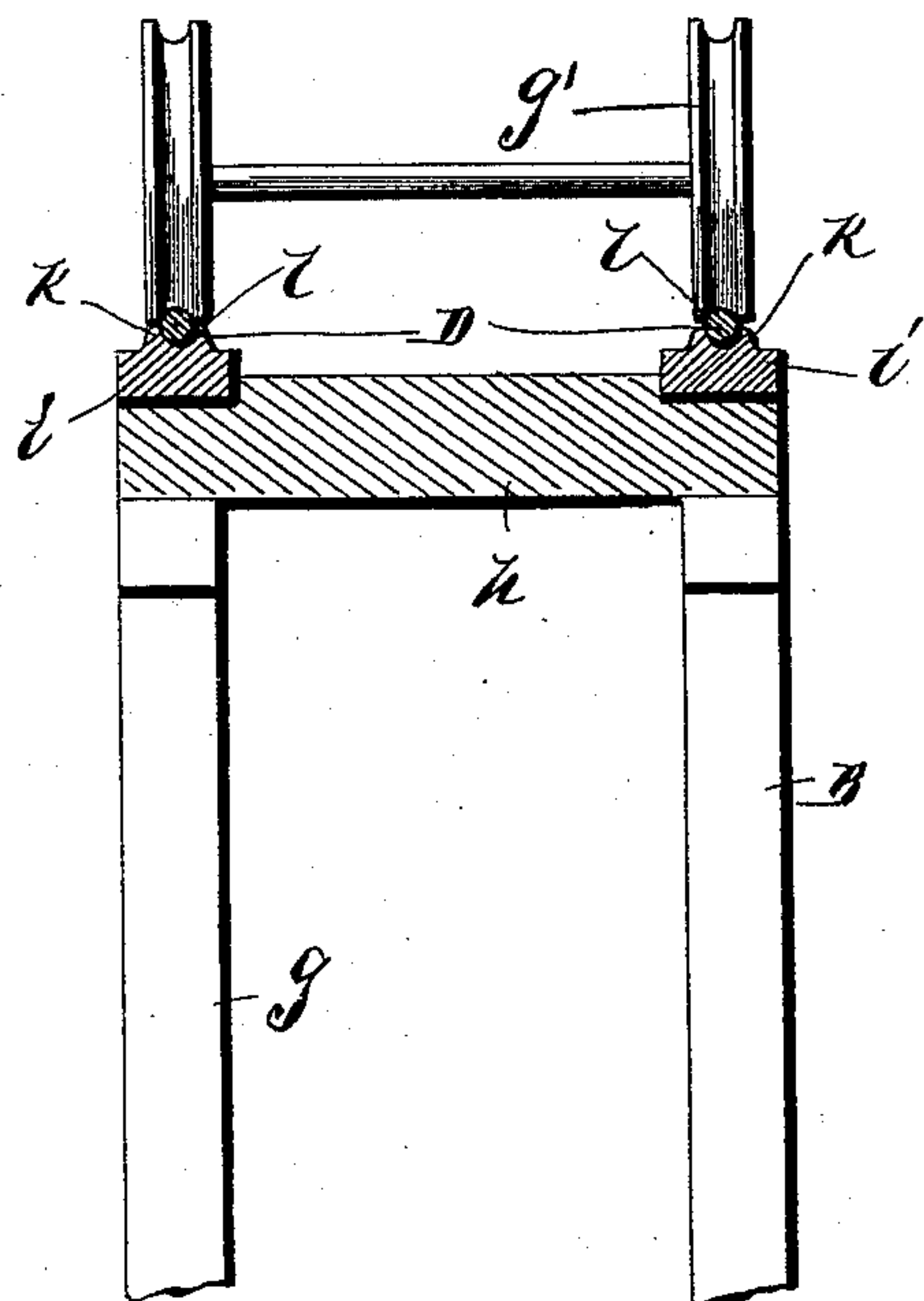
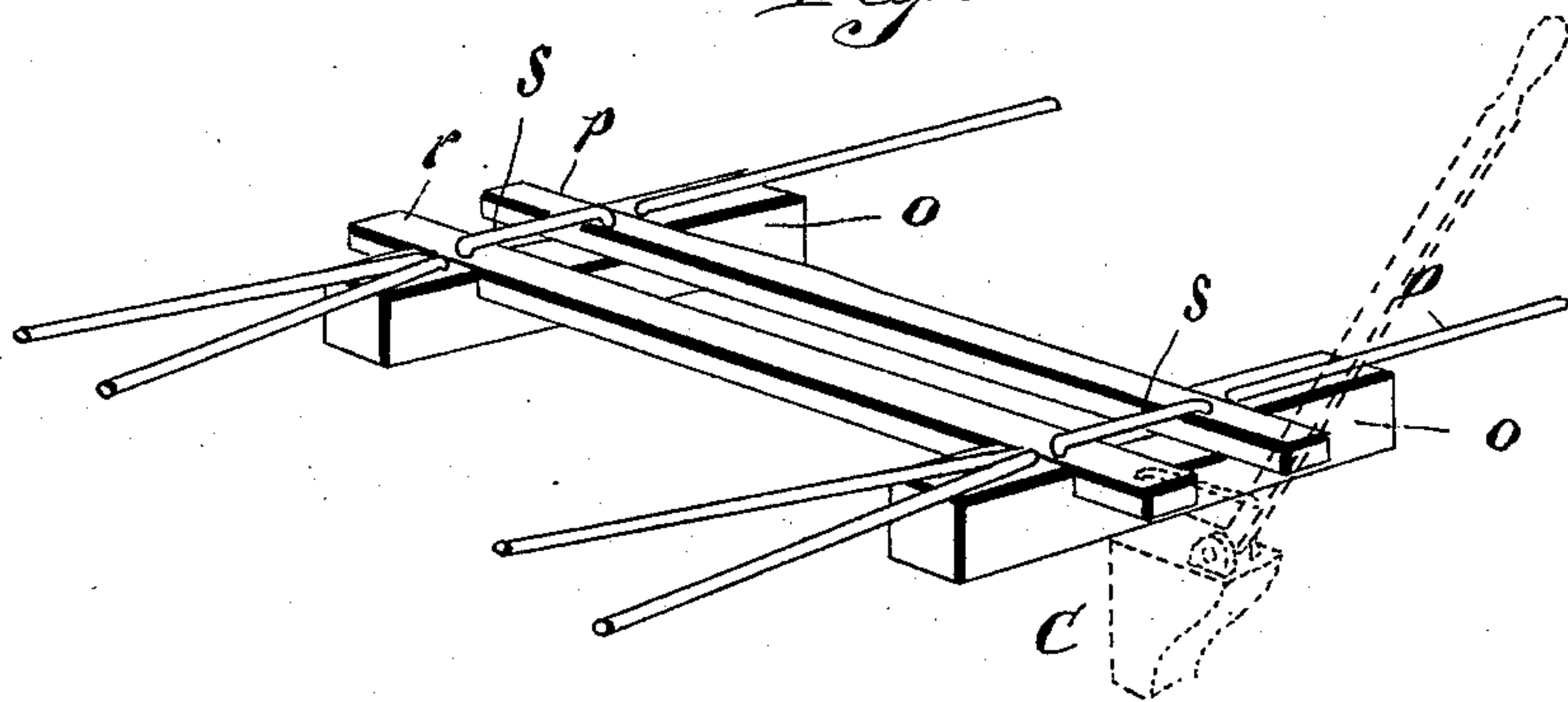


Fig. 4.



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UNITED STATES PATENT OFFICE.

ZIMRI HADLEY LOWDERMILK, OF COVINGTON, NORTH CAROLINA.

ELEVATED RAILROAD.

SPECIFICATION forming part of Letters Patent No. 393,771, dated December 4, 1888.

Application filed July 31, 1888. Serial No. 281,486. (No model.)

To all whom it may concern:

Be it known that I, ZIMRI HADLEY LOWDERMILK, a citizen of the United States, residing at Covington, in the county of Richmond and State of North Carolina, have invented a new and useful Improvement in Elevated Railroads, of which the following is a specification.

My invention relates to an improvement in elevated railroads; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of an elevated railroad embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical transverse sectional view taken on the line $x x$ of Fig. 2. Fig. 4 is a detail view.

In constructing my railroad, I make the same in sections, each of which has a suitable number of supporting-trestles, A B. The trestle A comprises a pair of longitudinal sills or beams, a , cross-beams b , which connect the same near their ends, a pair of vertical standards, c , which rise from the outer ends of the beams a , a cross-beam, d , which connects the upper ends of the standards, a pair of inclined brace-bars, e , which serve to maintain the standards c in the vertical position, and a transversely-inclined brace-bar, f , which maintains the standards c against lateral strain.

The trestle B has two pairs of inclined standards, g , the upper ends of which are connected by a cross-beam, h . On the ends of the cross-bar h are saddles i , which are provided with raised longitudinal flanges k , having longitudinal grooves l in their upper sides. On the ends of the cross-bar d of the trestle A are saddles m .

The trestle C is similar in construction to the trestle B, with the exception that the same has horizontal bars n , which connect the two pairs of inclined standards b^2 at a suitable distance from their upper ends. The saddles o at the upper side of the trestles C have recesses on their upper sides at their centers, and in the said recesses are arranged a pair of parallel rods, p and r , the former being rigid and the latter being movable in a lon-

gitudinal direction. The said pair of parallel bars are connected by means of pivoted links s , which form switch-rails.

D represents cable-rails, made of steel wire or other suitable material, which have their outer ends secured to supports on the outer sides of the standards c of trestle A, and from thence the said cable-rails are stretched over the saddles of the trestles and fitted in the grooves of said saddles, and the inner ends of the cable-rails are secured to eyebolts t . Said eyebolts extend downward through the bars n , and are provided at their lower ends with nuts u , by means of which the eyebolts may be moved in a vertical direction, so as to tighten and stretch the cable-rails over the trestles and render the same so tense that they are adapted to support the weight of a train of cars of suitable construction.

E represents a trestle, which comprises a base-frame having three parallel longitudinal sills, v , a pair of cross-bars, w , which connect the ends of the said sills, three pairs of inclined standards, x , which rise from the sills, a cross-beam, y , which connects the upper ends of the said standards, a pair of braces, z , which support the standards against lateral vibration, and horizontal bars a' , which connect the pairs of inclined standards at a suitable distance from the upper ends thereof.

On the ends of the cross-bar y are secured saddles b' , which are similar to those on the trestles hereinbefore described, and arranged transversely on the center of said cross-bar is a plate, c' , which is provided on its upper side with a pair of raised decussating flanges, d' . The said plate constitutes the frog-plate of the railway-crossing.

F represents a trestle, which is similar to the trestle E and has its bars a' provided with eyebolts e' , which are similar to the eyebolt t . The cross-bar at the upper side of the trestle F is provided with four saddles, f' , which are arranged in pairs at the correct distances apart. Cable-rails G H, one pair of which align with the main track D and the other pair of which constitute a side track, are stretched from the trestle C over the trestle E to the trestle F and have their ends secured to the adjustable eyebolts of the said trestles,

and the inner ends of the proximate side and main cable-rails are secured in eyes at the ends of the plate *c'*.

By reference to Fig. 2 and from the foregoing description it will be understood that the rail *r* may be moved so as to cause the switch-links *s* to align either with the main or with the side tracks, and thereby enable the cars to be switched from the main track to the side track, or vice versa.

The cars have their wheels *g'* provided with peripheral grooves, which adapt them to receive the cable-rails, and thereby prevent the same from slipping therefrom. These cars may be drawn by a locomotive or provided with electric engines, or they may be moved by traveling cables, as may be preferred.

It will be understood, of course, that my elevated railroad is composed of a number of sections, such as hereinbefore described, and may be made of any desired length.

Having thus described my invention, I claim—

1. The combination, in an elevated railroad,

of the cables forming the track, the trestles supporting the same and on which the said cables are stretched, the parallel bars *p r*, arranged at the junction of the main and side tracks, one of said bars being longitudinally movable, and the links *s*, connecting the said bars and adapted to be thrown into alignment either with the main or side track, substantially as described.

2. The combination of the supporting-trestles, the cables stretched thereon and forming the main and side tracks, and the plate *c'*, secured on one of the trestles and having the decussating flanges *d'* on its upper side in line with the main and side track cables, and to which the same are secured, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ZIMRI HADLEY LOWDERMILK.

Witnesses:

A. M. LONG,

D. M. MORRISON.