(No Model.)

E. O. McGLAUFLIN.

CABLE ROAD.

No. 421,507. Patented Feb. 18, 1890.

Fig. 1.

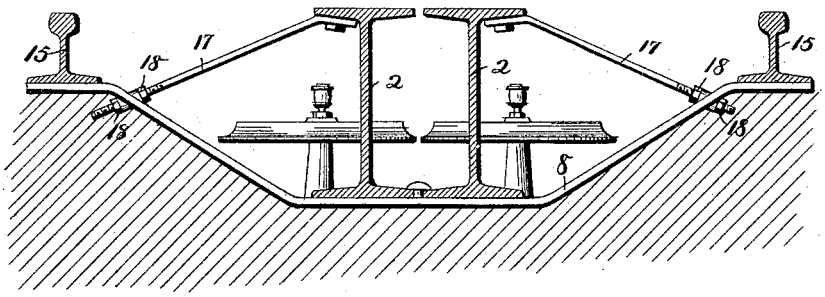
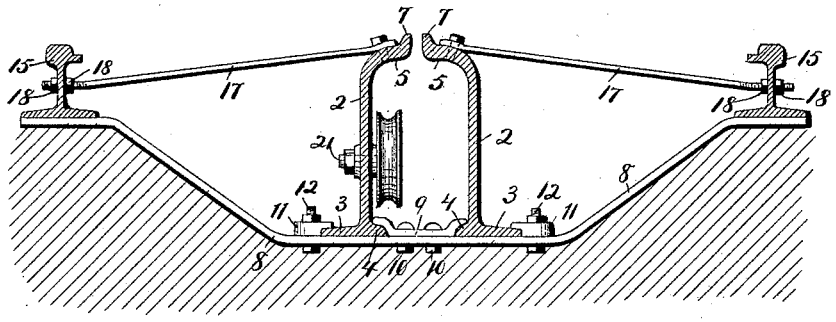


Fig. 2.



Witnesses.
J. Jessen.
A. M. Gaskill.

Inventor.
Eugene O. McGlauflin
By Paul & Merwin attys

UNITED STATES PATENT OFFICE.

EUGENE O. McGLAUFLIN, OF ANOKA, ASSIGNOR OF ONE-HALF TO WILLIAM McCRORY, OF MINNEAPOLIS, MINNESOTA.

CABLE ROAD.

SPECIFICATION forming part of Letters Patent No. 421,507, dated February 18, 1890.

Application filed May 17, 1889. Serial No. 311,136. (No model.)

To all whom it may concern:

Be it known that I, EUGENE O. McGLAUFLIN, of Anoka, in the county of Anoka and State of Minnesota, have invented certain new and useful Improvements in Cable Roads, of which the following is a specification.

This invention relates to improvements in cable roads for which Letters Patents were granted to me August 17, 1886, No. 347,624, and March 22, 1887, No. 359,802.

The object of my present invention is to provide an improved conduit and also an improved means for supporting the rails of the track and the beams which form the conduit and connecting the rails and conduit into a single structure.

In the accompanying drawings, forming a part of this specification, Figure 1 is a transverse vertical section of a cable road constructed in accordance with my invention and employing the conduit and cable-supporting sheaves described in my former patents. Fig. 2 is a similar view showing a different conduit.

In the drawings, 2 2 represent independent beams which form the conduit. These beams may be of the form or ordinary I-beams, as shown in Fig. 1, or they may be provided at their lower edges with the outwardly and inwardly projecting flanges 3 and 4, and at their upper edges be provided with the inturned flanges 5, which are preferably of the curved form shown and having at their inner edges the upwardly-projecting lips 7. Yoke-shaped irons 8 extend beneath the beams forming the conduit and have a depressed central horizontal portion and outward-extending arms elevated on an incline to the horizontal portion, and then extended horizontally to receive the track-rails. Spacing-strips 9 are arranged between the bottoms of the conduit-beams and project over the flanges 4. The spacing-strips 9 are secured to the irons 8 by means of suitable bolts 10. Clips 11 are arranged outside of the conduit and project over the flanges 3, and are secured to the irons 8 by means of the bolts 12. The track-rails 15 are preferably supported upon the outer horizontal portions of the yoke-shaped irons 8, the tops of the rail being substantially on a line with the tops of the conduit-beams. Adjustable brace-rods 17 are secured to the upper portions of the conduit-beams, and their outer ends are secured either to the yoke-shaped irons 8, inside of the track-rails, as shown in Fig. 1, or they are secured directly to the track-rails, as shown in Fig. 2. The ends of the rods are threaded, and adjusting-nuts 18 are provided thereon, by which means the tops of the conduit-beams may be moved toward or from each other, thus increasing or diminishing the width of the slot in the conduit. In some instances I prefer to arrange a cable-supporting sheave in an upright position within the conduit and to support it upon a stud 21. This is secured directly to the upright portion of one of the beams forming the conduit. The advantage of this arrangement is that the sheave is provided with a firm support directly upon the wall of the conduit at less cost than standards arranged in the conduit can be provided. By forming the conduit of independent beams supported upon transverse yokes which also support the track-rails, I am enabled to combine the conduit and the track-rails in a single light, compact, and strong structure. The conduit-beams are held in position by means of the yokes and diagonal braces, and the diagonal braces facilitate the adjustment of the beams for regulating the size of the slot between them.

I claim as my invention—

1. In a cable road, a conduit formed of independent beams provided at their lower edges with outwardly and inwardly projecting horizontal flanges, and at their upper edges with inwardly-projecting flanges and arranged with a narrow space or slot between said flanges at the tops of the beams, a transverse yoke 8, having a horizontal central portion and outwardly-extending arms elevated on an incline to the central horizontal portion, spacing-strips arranged between the flanges at the bottoms of the beams, and laterally-extending brace-rods connected at one end to said beams and at the other end to a support by screw-nuts to adjust the width of the slot between the beams at their upper ends, substantially as described.

2. The combination, with the transverse

yokes 8, having a central horizontal portion and outwardly-extending arms elevated on an incline to the horizontal portion, of the upright beams provided at their upper edges with the inturned flanges 5 and at their lower edges with the outwardly and inwardly projecting flanges 3 and 4, and means securing said beams to said yokes, with a narrow slot or space between the flanges at the upper edges of the beams, substantially as described.

3. The combination, with the transverse yokes 8, having a central horizontal portion and outwardly-extending arms elevated on an incline to the horizontal portion, and the track-rails 15, supported upon the outer ends of said yokes, of the upright beams provided with the inwardly-projecting flanges at their upper edges and secured to said yokes, with a narrow slot or space between said flanges, substantially as described.

4. The combination, with the transverse yokes 8, having a central horizontal portion and outwardly-extending arms elevated on an incline to the horizontal portion, and the track-rails supported upon the outer ends of said yokes, of the upright beams provided at their upper edges with the inwardly-projecting flanges and secured upon said beams, with a narrow slot or space between said flanges, and the adjustable brace-rods secured to the upper portions of said beams.

5. The combination of the cable-conduits formed of independent beams arranged side by side and provided at their upper edges with inwardly-projecting flanges, the yoke 8, having a central depressed horizontal portion and outwardly-extending arms elevated on an incline of the horizontal portion, lateral brace-rods connected at one end to said rails, and a cable-supporting sheave mounted on a stud secured to the upright portion of one of said beams, substantially as described.

In testimony whereof I hereunto set my hand this 20th day of April, 1889.

EUGENE O. McGLAUFLIN.

Witnesses:
A. C. PAUL,
A. M. GASKILL.