(No Model.) 2 Sheets—Sheet 1.

M. D. PRATT.

CABLE RAILWAY CROSSING.

No. 423,081. Patented Mar. 11, 1890.

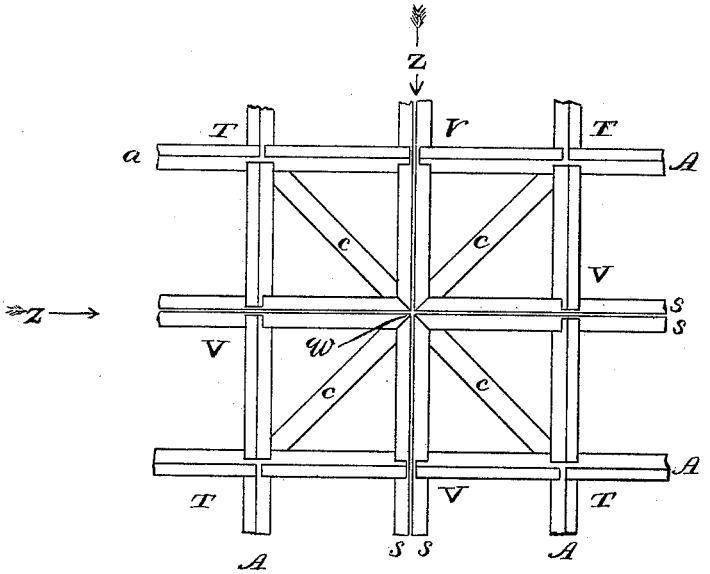

Fig. 1.

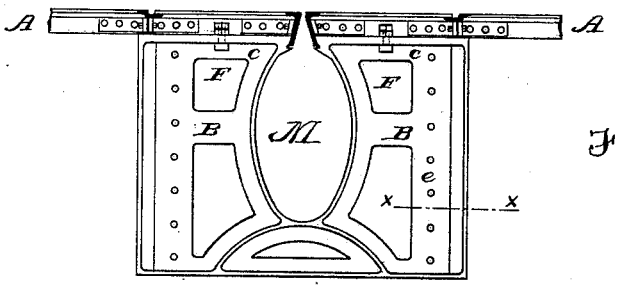

Fig. 2.

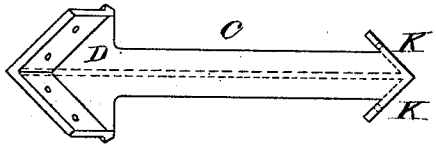

Fig. 3.

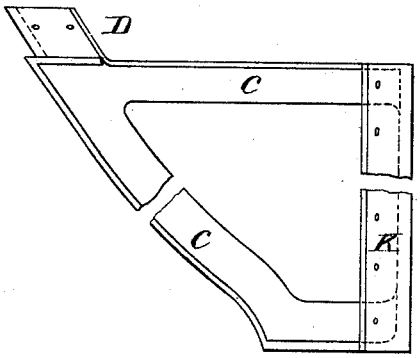

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

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CABLE RAILWAY CROSSING.

No. 423,081. Patented Mar. 11, 1890.

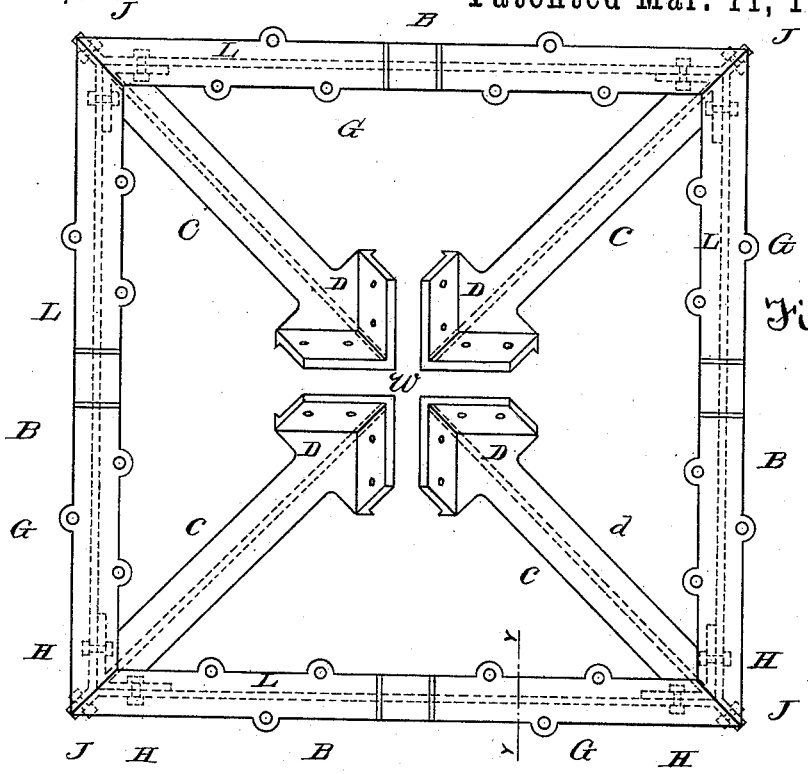

Fig. 5.

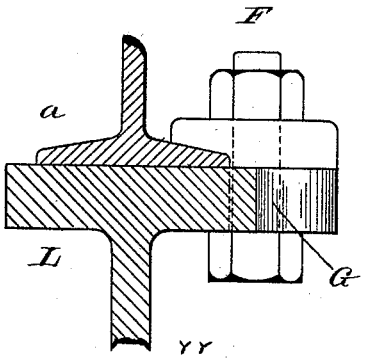

Fig. 6.

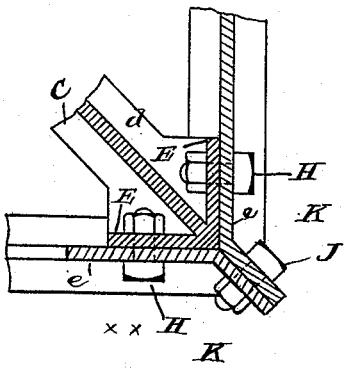

Fig. 7.

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UNITED STATES PATENT OFFICE.

MASON D. PRATT, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE JOHNSON COMPANY, OF KENTUCKY.

CABLE-RAILWAY CROSSING.

SPECIFICATION forming part of Letters Patent No. 423,081, dated March 11, 1890.

Application filed April 2, 1889. Serial No. 305,668. (No model.)

To all whom it may concern:

Be it known that I, MASON D. PRATT, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Cable-Railroad Crossings, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to increase the strength and durability of such crossings without interfering with the lines of cable or gripping mechanism therefor.

The invention will first be described in detail, and then particularly set forth in the claims.

In the accompanying drawings, Figure 1 shows the cable-crossing in plan. Fig. 2 shows a side elevation of one side of the crossing, showing the parts immediately under the main rails of the track, one set of slot-rails and track-rails being shown in cross-section, with a clear end view of the cable way or tunnel. Fig. 3 shows in plan one of the diagonal braces used in the crossing, detached, on an enlarged scale. Fig. 4 is a side elevation of the brace shown in Fig. 3. Fig. 5 shows in plan, on an enlarged scale, the rail-supporting structure with the track and slot rails removed. Fig. 6 shows a cross-section through the line *y y* of Fig. 5, looking either to the right or left, with the lower part of one of the track-rails shown clamped in position. Fig. 7 illustrates a cross-section taken through the line *x x* of Fig. 2, showing the angle where the two cable-yokes meet, with a diagonal brace secured in said angle.

In said figures the several parts are indicated by reference-letters, as follows: The letter A indicates the track-rails, and S the slot-rails, either of which rails may be of any known section or shape, although, for illustration, shown of specific forms. The track-rails, as shown in the drawings, cross each other at four points—namely, marked T, Fig. 1—and said rails are themselves crossed by the slot-rails at four points—namely, marked V, Fig. 1. In addition to these crossing-points, the slot-rails themselves meet from four points at or near one common center, forming where they meet miter-joints, as at *w*, Fig. 1. Considering the latter junction as one point, this point, with the eight crossing-points above mentioned, makes nine weak points to be strengthened or protected in the structure. While, however, strengthening or protecting these points, room must be left for two cables to have free and unobstructed passage through the underground part of the structure in two directions, as indicated by the arrows Z Z, Fig. 1. This necessary construction is accomplished in this invention by means of four yokes B, secured at right angles to each other at meeting angles or corners, as shown in plan in Fig. 5, each of such yokes being of a design to permit free passage through the same of the underground cable-conduits M, Fig. 2, and the springing from the corners toward the center of diagonal supports C, as shown more particularly in Fig. 5, which approach each other toward a common center *w*, where they terminate in flanges, or are at these points of such structural design as will permit of the proper fastening of the slot-rails to said braces or supports C, depending upon the particular shape of the slot-rails used.

The yokes B, which support the track-rails A, are united at their corners by bolts J, Fig. 7, through corner-flanges, and the diagonal supports or braces C rest in and against said corners, and are secured to said yokes by bolts H through flanges E bearing against the webs *e* or other portions of the yokes B. The vertical shape of each of these diagonal supports C is such that in looking through the structure in each direction in the paths traversed by the cables the several cable-conduits are preserved free and unobstructed for the passage of the cables and their gripping mechanism.

The upper or surface portion of each yoke B consists of a flat bearing flange or plate L, Fig. 5, through which flange the holes G are made. Through these holes the rails are secured to each yoke. The track-rails, which of necessity are much cut away at the crossing-points, are thus provided with firm supports or seats, and overhanging supports or braces are provided at the abutting points of the slot-rails, which firmly brace and support the same. The slot-rails are of necessity cut through in both directions at the central point for the passage of the grips and gripping

mechanism in both directions; hence the importance of secure fastenings for the slot-rails at these cut-through portions of the structure.

It will be thus observed that this invention secures the continuous support of a bearing under the track-rails in both directions, and by the diagonal bracing support for the meeting-points of the slot-rails where cut through is secured, while at the same time preserving the cable-conduits free for the traversing of the gripping mechanism in every direction.

Having thus fully described my said improvement in cable-road crossings, as of my invention I claim—

1. A cable-road crossing provided with four yokes for the cable ways or conduits, meeting at four angles or corners and supporting the slot-rails from central points by diagonal braces to said corners.

2. A cable-road crossing provided with four yokes for the cable ways or conduits, meeting at four angles or corners and having top flanges forming supports for the track-rails, in combination with diagonal braces springing from said corners and supporting the slot-rails.

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