

(No Model.)

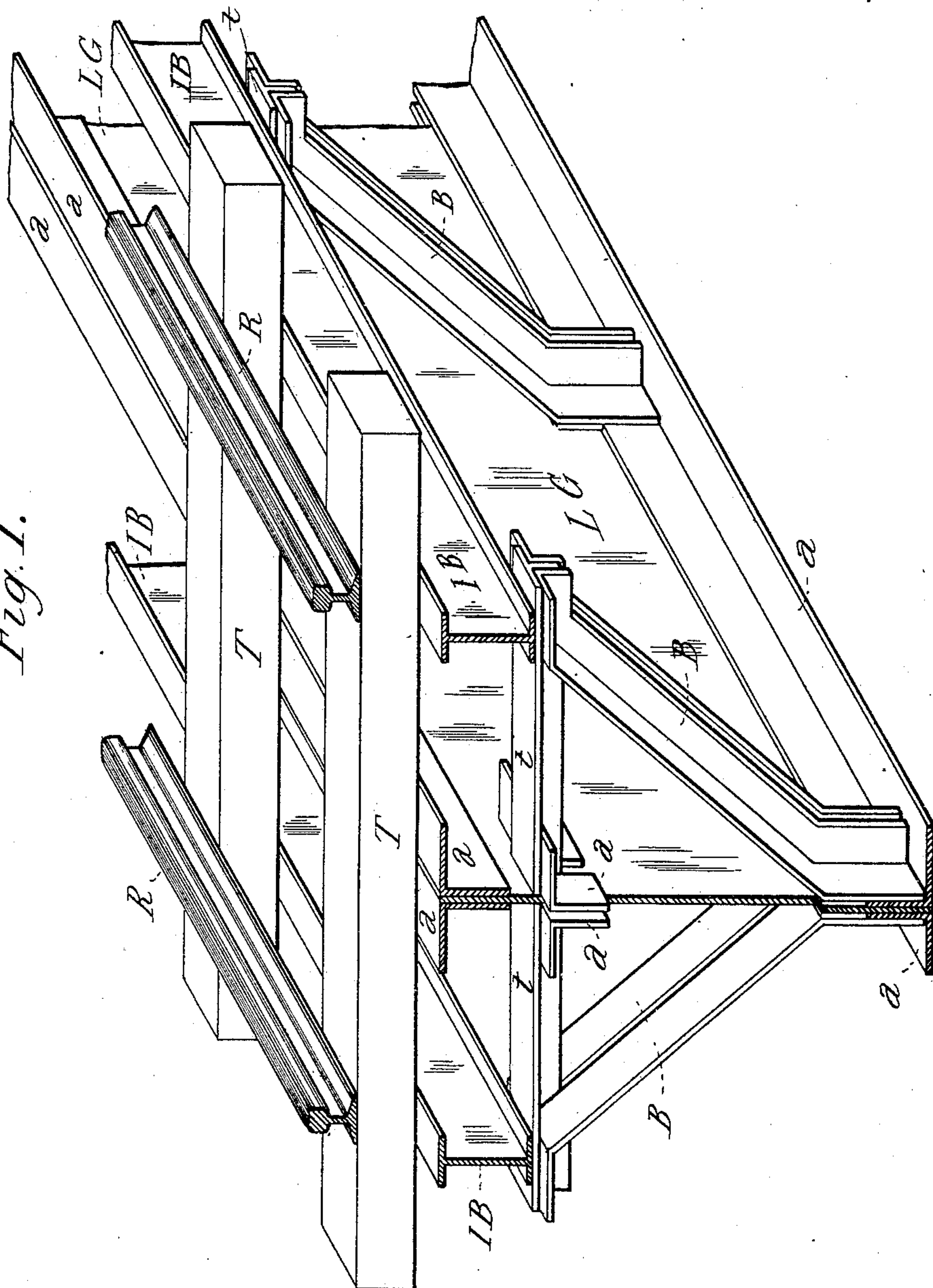
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H. I. LATIMER.
ELEVATED RAILWAY.

No. 354,558.

Patented Dec. 21, 1886.

Fig. 1.



WITNESSES:

Lincoln Cross
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INVENTOR

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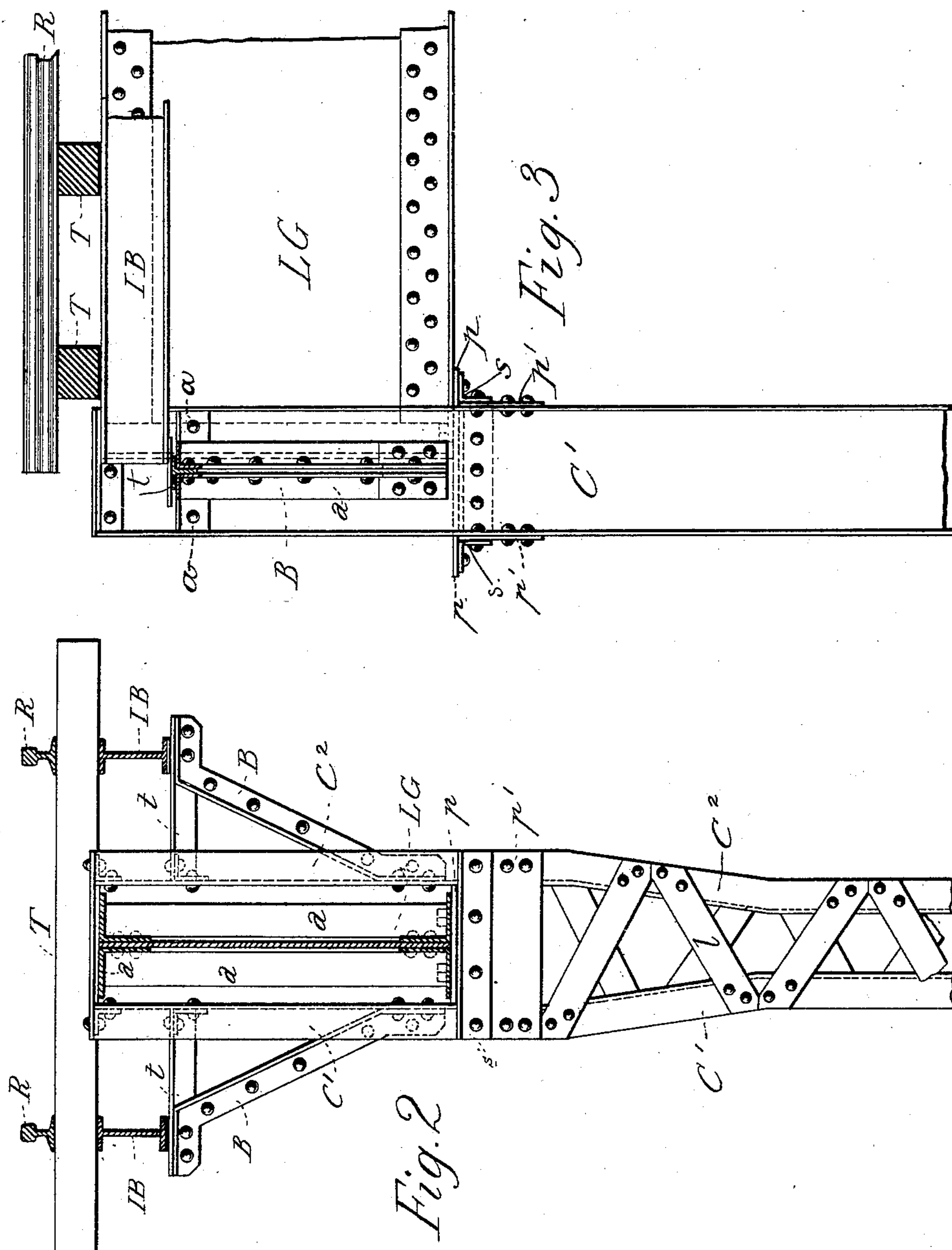
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WITNESSES:

Lincoln Moss
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UNITED STATES PATENT OFFICE.

HARRY I. LATIMER, OF CRANFORD, ASSIGNOR OF ONE-HALF TO ROBERT I. SLOAN, OF ASBURY PARK, NEW JERSEY.

ELEVATED RAILWAY.

SPECIFICATION forming part of Letters Patent No. 354,558, dated December 21, 1886.

Application filed June 26, 1886. Serial No. 206,380. (No model.)

To all whom it may concern:

Be it known that I, HARRY I. LATIMER, a citizen of the United States, residing at Cranford, in Union county, and State of New Jersey, have invented a certain new and useful Improvement in Elevated Railways, of which the following is a specification.

My invention relates to a new, useful, and economical way of supporting these and other analogous structures.

The object of my invention is to support such structures by fewer parts, dispensing with nearly one-half of the supporting members now in use, and thus securing an elevated railway which is more economical than any now in use.

The invention consists of an elevated railway having but a single longitudinal girder for supporting the two rails of a track, which is adapted to sustain all the weight of a passing vehicle, with brackets from the girder extending to near the top thereof, for an additional support to the tracks, the whole suitably supported at intervals by columns in the usual manner. At the columns, however, the brackets for affording additional support to the tracks are secured to the column itself.

The invention consists, further, in certain details of construction, to be hereinafter described.

In the drawings hereto annexed and forming part of this specification, in which like letters of reference indicate similar parts throughout the various figures, Figure 1 represents a cabinet projection of my invention; Fig. 2, an end view of the invention at the column, and Fig. 3 a side elevation of Fig. 2.

In the drawings, the letters R R represent the rails of the track, which rest upon cross-ties T T at suitable intervals, which cross-ties are in turn supported by I-beams I B at either side of the longitudinal girder L G, which supports the cross-ties bearing the track at their center. Extending from the bottom of the longitudinal girder are brackets B, which are secured at regular intervals to the longitudinal girder, and which serve to sustain the I-beams directly beneath the track. These brackets are provided with ties t t, secured to the longitudinal girder at the point shown.

The structure, as shown, is provided with

angle-irons a at the necessary places. In Fig. 1 I have shown the structure without rivets, in order to illustrate it more clearly. Figs. 2 and 3, as before remarked, are views of the structure at the columns. The brackets B and ties t are secured directly to the channel-irons of the columns, as clearly shown in Fig. 2.

The columns for supporting the structure may be of any suitable type. In Figs. 2 and 3 the columns are shown as composed of channel-irons suitably bound together by lattices l. Fig. 2 shows a side view of the column made up with the channel-irons C' and C², the dotted line showing the body of the channel-iron, the face view of which is shown in Fig. 3. These channel-irons extend up slightly above the bottom of the cross-ties T, and are bound together at the top by an iron plate and angle-irons.

Above the lattice-work l, and riveted to the channel-iron C' and C², is a plate, p', upon which is secured, at each side of the column, shelves s, for receiving a plate, p, which forms a pocket or shelf in the column for the lower portion of the longitudinal girder to rest upon, an end view of which is shown in Fig. 2 and a side view of which is shown in part by dotted lines in Fig. 3.

It will be observed that the cross-ties which sustain the track are supported at three places, in the center by the longitudinal girder and at either side by the brackets sustaining the I-beams beneath the track, the said brackets in their angular part constituting the strut B, being under a state of compression, and at their horizontal part t forming a tie, being under tension. Heretofore it has been customary and is the practice in the elevated roads in New York city supported by longitudinal girders to use two longitudinal girders—one under each rail for supporting the track—and to suitably support these two longitudinal girders upon fan-top columns, or by other means. In my invention I dispense with one of said longitudinal girders, and support the track by a single girder, instead of two, and in this way greatly reduce the cost of building such a structure.

Where there are two tracks—an up and a down track—adjacent to each other, I use, as before, one longitudinal girder beneath each track, and rest these longitudinal girders upon

transverse girders, which are supported by columns. This, however, is an obvious construction, and needs no further explanation.

I have shown my longitudinal girder as a plate-girder; but a lattice-girder may be used instead. So, also, any form of column may be used, instead of the column shown, and the several parts may be varied in many ways without departing from the spirit of my invention, and I reserve the right, in practice, to make such changes in the structure as come within the scope of the invention.

Having now fully set forth my invention, what I desire to claim, and secure by Letters Patent, is—

1. A truss or support for an elevated railway or other analogous structure supported at intervals, consisting of a single longitudinal girder, horizontal cross-ties supported at the center by the top of the girder, two rails of a single track carried by the latter, and brackets secured to and extending substantially at right angles from said girder to near the top thereof for supporting said track directly beneath the rails thereof.

2. A truss or support for an elevated railway or other analogous structure, consisting of a single longitudinal girder, horizontal cross-ties supported at the center by the top of the girder, two rails of a single track carried by the latter, brackets secured to and extending substantially at right angles from said girder to near the top thereof for supporting said track directly beneath the rails thereof, and posts with brackets extending therefrom substantially at right angles to near the top of the girder for sustaining the track directly beneath the rails thereof at the posts.

3. A truss or support for an elevated railway or other structure suitably supported at intervals, consisting of a longitudinal girder, brackets secured to and extending from said girder to substantially the top thereof, I-beams resting upon said brackets, and cross-ties sustained by said I-beams and bearing both rails of the track.

4. A truss or support for an elevated rail-

way or other structure suitably supported at intervals, consisting of a longitudinal girder, brackets secured to and extending from said girder, cross-ties carrying both rails of the track and supported at the center by the longitudinal girder, and I-beams resting upon said brackets for sustaining the cross-ties at or near the rails.

5. A support for an elevated railroad or other structure, consisting of a longitudinal girder, brackets secured to and extending from said girder, cross-ties carrying both rails of the track and supported at the center by the longitudinal girder, I-beams resting upon said brackets for sustaining the cross-ties at or near the rails, and a column having a shelf for supporting a longitudinal girder bearing all the aforementioned parts at its lower end.

6. A support for an elevated railroad or other structure, consisting of a longitudinal girder, brackets secured to and extending from said girder, cross-ties carrying both rails of the track and supported at the center by the longitudinal girder, I-beams resting upon said brackets for sustaining the cross-ties at or near the rails, a column having a shelf for supporting the longitudinal girder bearing all the aforementioned parts at its lower end, and brackets for upholding said I-beams and rails also at said column.

7. A support for an elevated railway or other structure, consisting of a single longitudinal girder midway between and beneath the tracks, cross-ties carrying both rails supported at the center by said girder, columns having pockets sustaining said longitudinal girder at its bottom at intervals, and brackets secured to and extending from said girder at intervals, and also at said columns for supporting the cross-ties at or near the rails.

In testimony whereof I have hereunto set my hand and seal, this 23d day of June, 1886, in the presence of the two subscribing witnesses.

HARRY I. LATIMER. [L. S.]

Witnesses:

LINCOLN MOSS,
JNO. M. VANCLIEF.