No. 718,237. PATENTED JAN. 13, 1903.

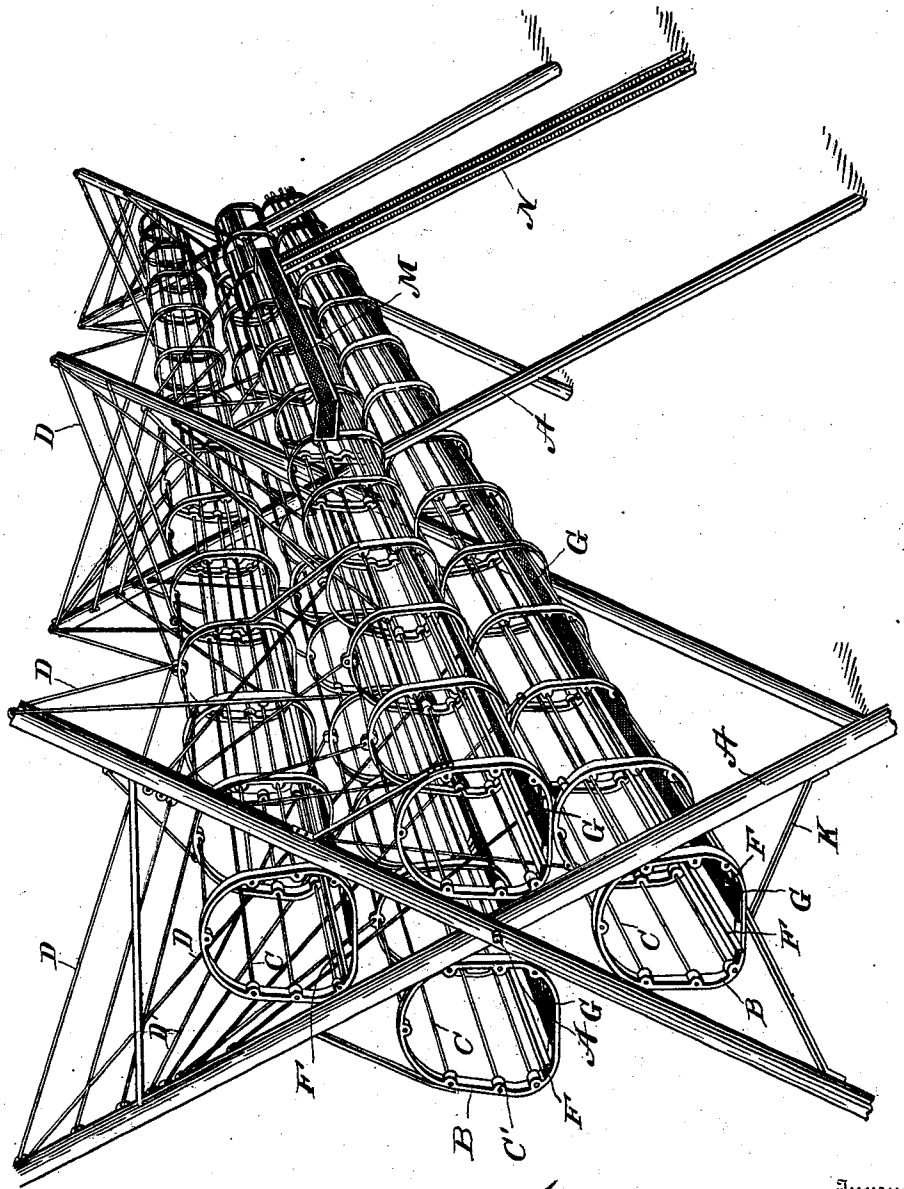
C. ZIMMERMAN.

ELEVATED RAILWAY STRUCTURE.

APPLICATION FILED OCT. 27, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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NO MODEL. 3 SHEETS—SHEET 2.

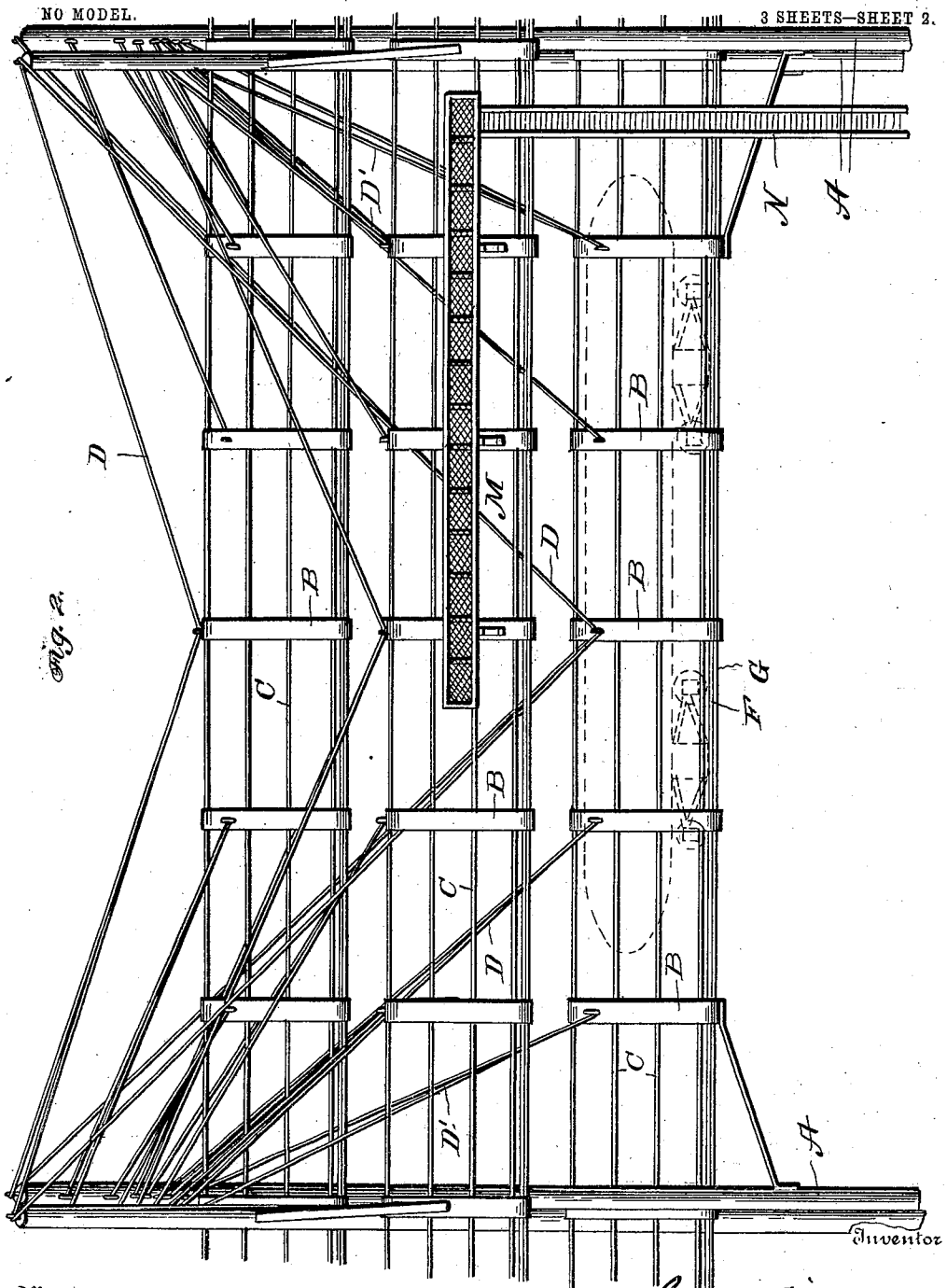


Fig. 2.

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NO MODEL. 3 SHEETS—SHEET 3.

Fig. 4.

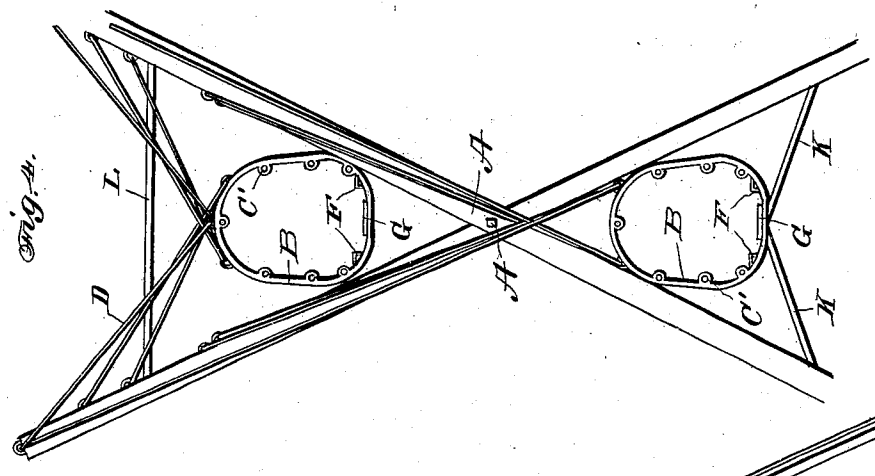
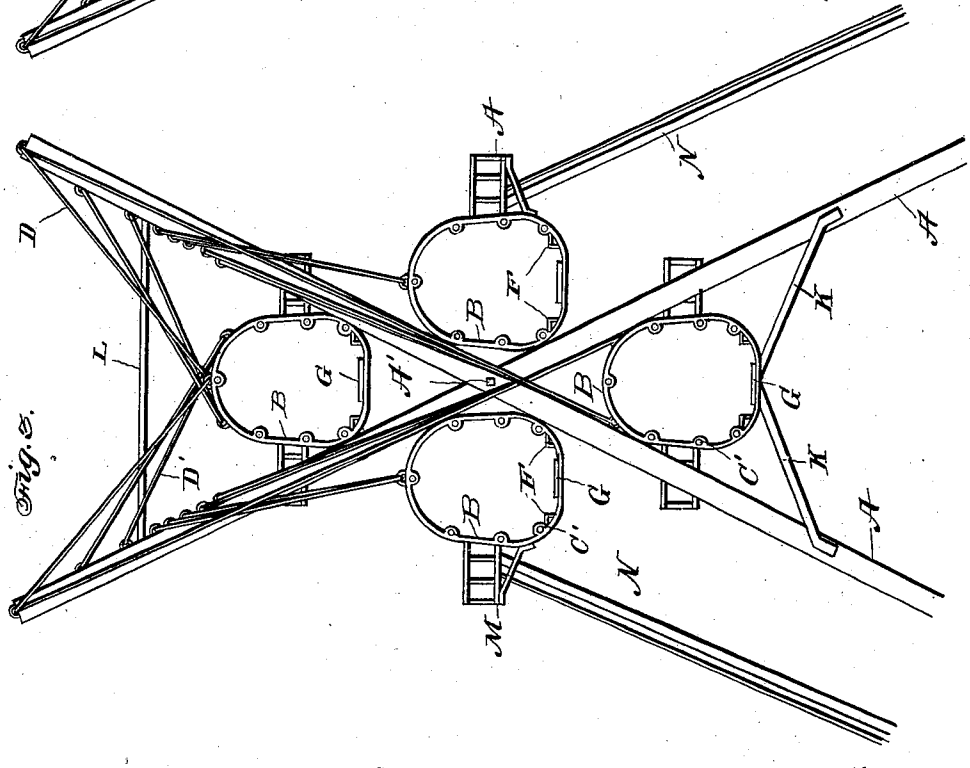


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

CASPER ZIMMERMAN, OF VIENNA, SOUTH DAKOTA.

ELEVATED-RAILWAY STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 718,237, dated January 13, 1903.

Application filed October 27, 1902. Serial No. 129,026. (No model.)

To all whom it may concern:

Be it known that I, CASPER ZIMMERMAN, a citizen of the United States, residing at Vienna, in the county of Clark and State of South Dakota, have invented certain new and useful Improvements in Elevated-Railway Structures; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in elevated-street-railway structures; and the object of the invention is to produce a structure for rapid transit which will be simple in construction, strong and durable, and compact in form, thus occupying a minimum space for a plurality of tracks, each track being supported by cables and depending from the cross-beams, which rest upon the ground and which are so braced as to produce a rigid superstructure and so constructed as to render accidents from collision quite impossible.

More specifically the invention consists in the provision of upright supporting-beams which are crosses and securely held together and having supporting cables or rods which are connected to the metallic yokes or rings within which the tracks are laid, said yokes being held together by means of parallel rods and reinforced where the yokes come in contact with the supporting-beams.

The invention relates, further, to various details of construction, which will be hereinafter fully described and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a perspective view of my railway system for elevated roads. Fig. 2 is a side elevation of a section of the road. Fig. 3 is an end elevation, and Fig. 4 is a slight modification showing but two ways for tracks.

Reference now being had to the details of the drawings by letter, A A designate the upright supporting-beams, which are crossed at any suitable locations and securely fastened together at their points of contact, as at A'. The lower ends of said beams may rest upon the ground or upon suitable foundations of a substantial character, or they may be anchored down, so as to hold same securely in position. In the drawings I have shown four tracks, one inclosure for each arranged adjacent to the angles formed by the crossing of the supporting-beams. Each inclosure for a railway-track consists of yokes of metal B, substantially circular in outline, and horizontally-disposed parallel rods C connect these yokes, the ends of said rods being held in eyes in the yokes, as at C'. Connecting the tops of the beams A with the upper portions of the yokes in the upper and lower trackway are the supporting-rods D D, while similar rods D' of different lengths connect the various yokes in the several trackways with the upright supporting-posts A along the sides of the latter, as shown plainly in Figs. 1 and 2 of the drawings. The lower portion of each yoke is flattened, and on these flattened portions the tracks F are laid, and between the rails a metallic netting G is laid for a walk. The yokes in the lowest trackway-inclosure where they appear adjacent to the supporting-posts are connected thereto by means of braces K, and suitable brace-rods L connect the upper ends of said beams at locations above their points of contact.

On the sides of the trackway-inclosures are platforms M, provided with suitable railings made of grating or other suitable material, and access is had to these platforms by means of steps N, Fig. 1 of the drawings.

From the foregoing it will be observed that in a railway system of the character described, and illustrated in the accompanying drawings, each trackway is by itself and in a separate inclosure, and by the peculiar arrangement of the several trackway-inclosures held in the various angles formed by the intersection of the supporting-beams the different ways are securely braced and the ways supported by the beams and brace-rods secured thereto.

In Fig. 4 I have shown a slight modification in which but two trackways are shown, it being the purpose of this invention to construct two or more ways, or one, if desired.

While I have shown and described a certain construction of elevated-railway system, still I do not limit myself to the details shown, but reserve the right to alter the construction in various ways without departing from the spirit of the invention.

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

An elevated-railway structure, consisting in combination with the cross-posts fastened together at their points of intersection, yokes secured to said posts, said yokes having integral lugs, each being apertured, horizontally-disposed rods held in parallel relation in said apertures, yokes intermediate the cross-posts and supported on said rods, oppositely-disposed guy-rods from the tops and along the circumference of the posts, connected to said yokes, the lower portions of said yokes being flattened, and angle-rails, the vertical portions of which rest on said flattened portions, and the horizontal portions of the angle portions resting upon the upwardly-curved portions of the yokes adjacent to their lower ends, as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

CASPER ZIMMERMAN.

Witnesses:
S. P. SEIERSON,
R. D. BAILEY.