

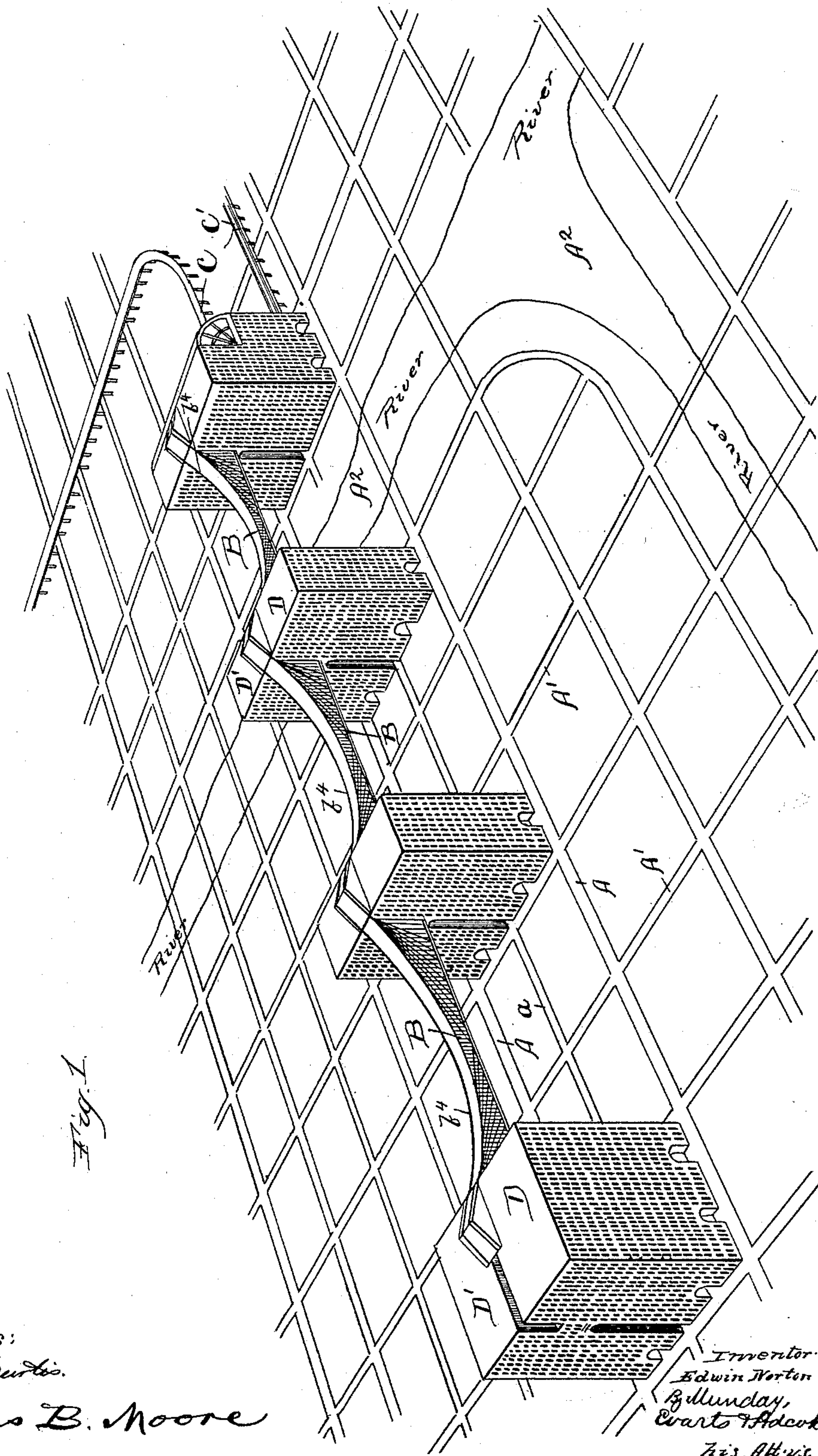
(No Model.)

2 Sheets—Sheet 1.

E. NORTON.  
ELEVATED RAILWAY SYSTEM.

No. 485,708.

Patented Nov. 8, 1892.



Witnesses:  
Lew. C. Curtis.  
Lycurgus B. Moore

Inventor  
Edwin Norton  
By Lundy,  
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His Att'ys.

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Fig. 2.

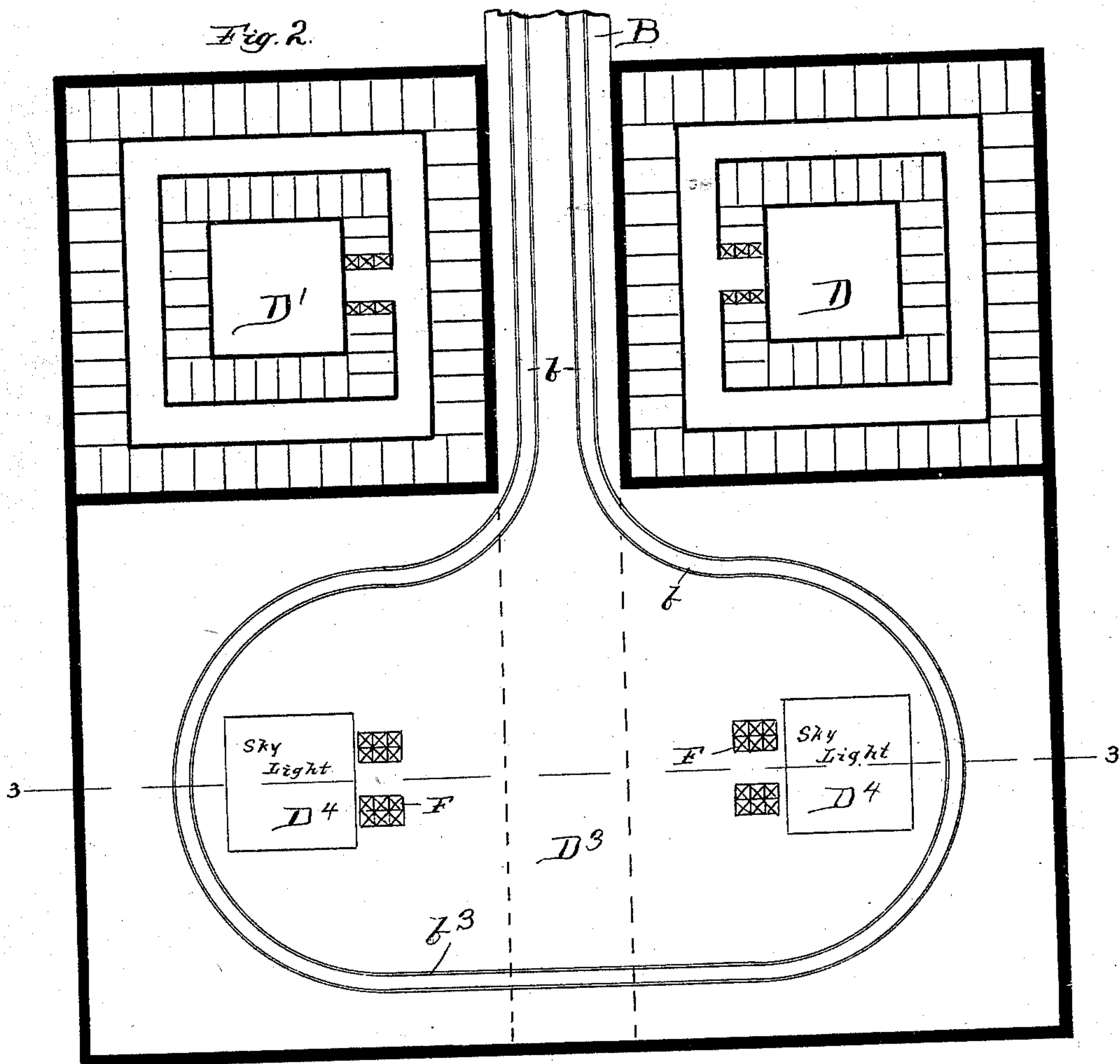
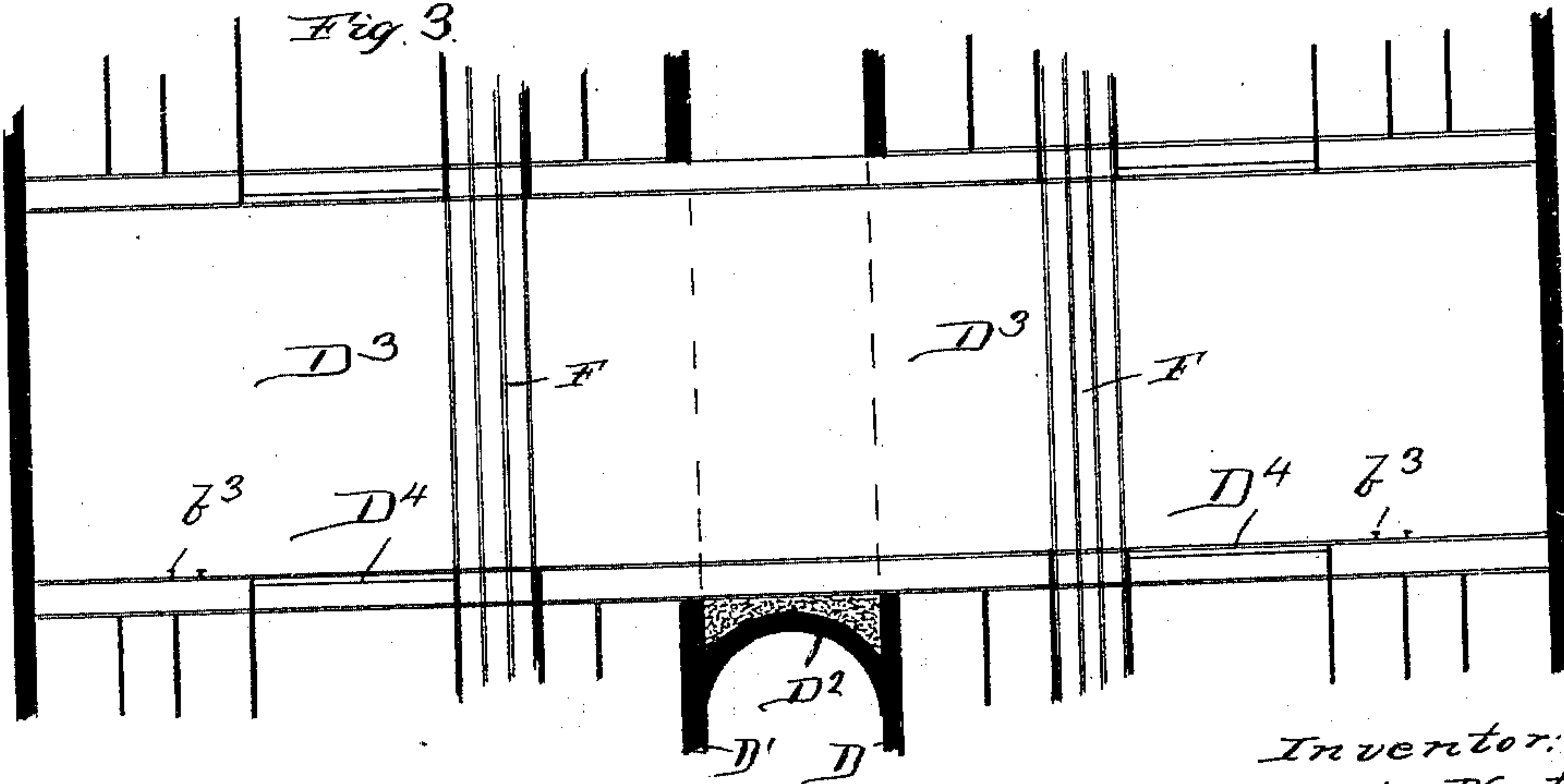


Fig. 3.



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# UNITED STATES PATENT OFFICE.

EDWIN NORTON, OF MAYWOOD, ILLINOIS.

## ELEVATED-RAILWAY SYSTEM.

SPECIFICATION forming part of Letters Patent No. 485,708, dated November 8, 1892.

Application filed February 29, 1892. Serial No. 423,135. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN NORTON, a citizen of the United States, residing at Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Elevated-Railway Systems or Structures, of which the following is a specification.

My invention relates to the construction of elevated railways.

The object of my invention is to provide an elevated-railway system or structure of a simple and economical construction by which navigable streams may be crossed without interfering with the use of the same for purposes of navigation, and whereby, also, the use of special posts or pillars for supporting the elevated road-bed may be entirely dispensed with and the damage to property and street obstruction incident thereto avoided.

To this end my invention consists in the combination, with an elevated road-bed, of a series of buildings adapted for offices, commercial purposes, or other uses, erected along the line of the road-bed, and from which the road-bed is suspended or supported, thus utilizing said buildings for the double purpose of supporting the elevated road-bed and for use as buildings. By this means I am enabled to conveniently and economically erect the elevated road-bed at such height from the ground that a navigable stream may be crossed thereby without interfering with navigation, and so that the elevated road-bed will not materially darken or obstruct any street which it may cross.

My invention further consists in combining with such elevated road-bed and its series of supporting-buildings an ordinarily-elevated railway-line or surface street-railway lines by means of vertically-running elevators located in said building-supports.

My invention also further consists in the novel devices and in the novel combinations and arrangements of devices herein shown and described.

In the accompanying drawings I have shown at Figure 1 a perspective view illustrating my elevated-railway system, and at Fig. 2 a horizontal section of one of the terminal building-supports, taken on the plane

of the road-bed, and at Fig. 3 a partial vertical section taken on line 3 3 of Fig. 2.

In the several figures of the drawings like letters of reference indicate like parts.

In the drawings, A A' represent the streets of a city, and *a* an alley extending between the two parallel streets A A' and along the line of which the elevated road-bed B extends across the river or navigable stream A<sup>2</sup>, where the elevated road-bed B connects with an ordinary elevated-railway line C or street-car or surface-railway line C'.

D D' are buildings, preferably ten to fifteen stories in height, erected at intervals along the line of the alley *a*, one on each side thereof, and which constitute the supports from or by which the elevated road-bed B is suspended or supported. Between each pair of elevated-road-bed-supporting buildings D D' is a connecting-arch D<sup>2</sup>. The road-bed-supporting buildings D D' may be of any suitable construction adapted to serve or perform the double purpose of adequately supporting the elevated road-bed and of being used like ordinary buildings for other purposes.

The elevated road-bed B is provided with two or more railway-tracks *b b*, connected together by a loop *b*<sup>3</sup> at the terminal building of the line. This loop *b*<sup>3</sup> is laid upon one of the floors of the building, which is also utilized as the waiting-room or landing-station, where the passengers may get on or off the cars. The portion of the terminal building occupied by this loop *b*<sup>3</sup> and waiting-room D<sup>3</sup> may preferably have no stories or floors above it and be roofed in with a curved skylight or glass roof, as indicated in the drawings. The loop *b*<sup>3</sup> and waiting-room D<sup>3</sup> are connected with the lower floor or floors of the building by a series of vertical elevators F F of any suitable and usual construction. The floor of this waiting-room may be in part formed of a skylight D<sup>4</sup>, covering a well or light-shaft.

In each building D D' the elevators F F constitute the means of communication between the elevated or super-elevated railway B and the ordinary elevated line C or surface line C'. The super-elevated road-bed B should be placed at an elevation of one hundred feet or more above the ground, so that vessels may pass under the same along the



river without obstruction. At intervals one or both the series of buildings D D' are provided with a waiting-room and vertical elevators communicating therewith to serve as stations along the line. The elevated road-bed B may be supported or suspended from its building-supports D D' in any suitable manner and may be of any suitable construction. The construction indicated in the drawings, and which I prefer to employ, comprises suspension-cables  $b^4 b^4$ , extending between the series of buildings. Any other well-known and suitable construction may be employed.

I claim—

15 1. The combination, with an elevated-railway road-bed B, having a railway-track, of two rows of buildings D and D', extending along the line of said road-bed, one row of buildings on each side thereof, the opposite building of the  
20 rows being connected together in pairs, said buildings being furnished with rooms and adapted for offices, commercial or other uses, and serving as supports from or by which said elevated road-bed is suspended or supported,  
25 whereby said road-bed may be erected at such height as to span navigable streams without interfering with the navigation thereof, substantially as specified.

30 2. The combination, with an elevated-railway road-bed B, of a series of buildings D D',

extending along the line of said road-bed, each pair of said buildings being connected together by arches  $D^2$ , said road-bed being supported or suspended from said buildings, substantially as specified.

35 3. The combination, with an elevated-railway road-bed B, of a series of buildings D D', extending along the line of said road-bed, each pair of said buildings being connected together by arches  $D^2$ , said road-bed being  
40 supported or suspended from said buildings, the terminal building of said series being provided with a loop  $b^3$  and waiting-room or floor  $D^3$ , substantially as specified.

45 4. The combination, with an elevated-railway road-bed B, of a series of buildings D D', extending along the line of said road-bed, each pair of said buildings being connected together by arches  $D^2$ , said road-bed being  
50 supported or suspended from said buildings, the terminal building of said series being provided with a loop  $b^3$  and waiting-room or floor  $D^3$ , and an elevator or elevators connecting said waiting-room with the lower floor or floors  
55 of said building, said loop  $b^3$  encircling said elevators, substantially as specified.

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Witnesses:

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