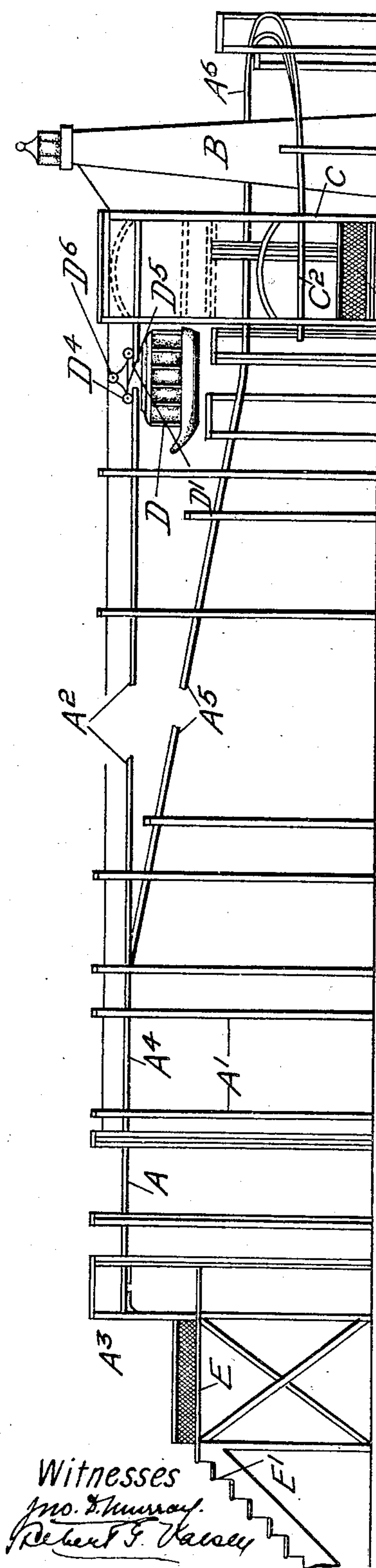


F. HOOKER.  
AERIAL RAILWAY.

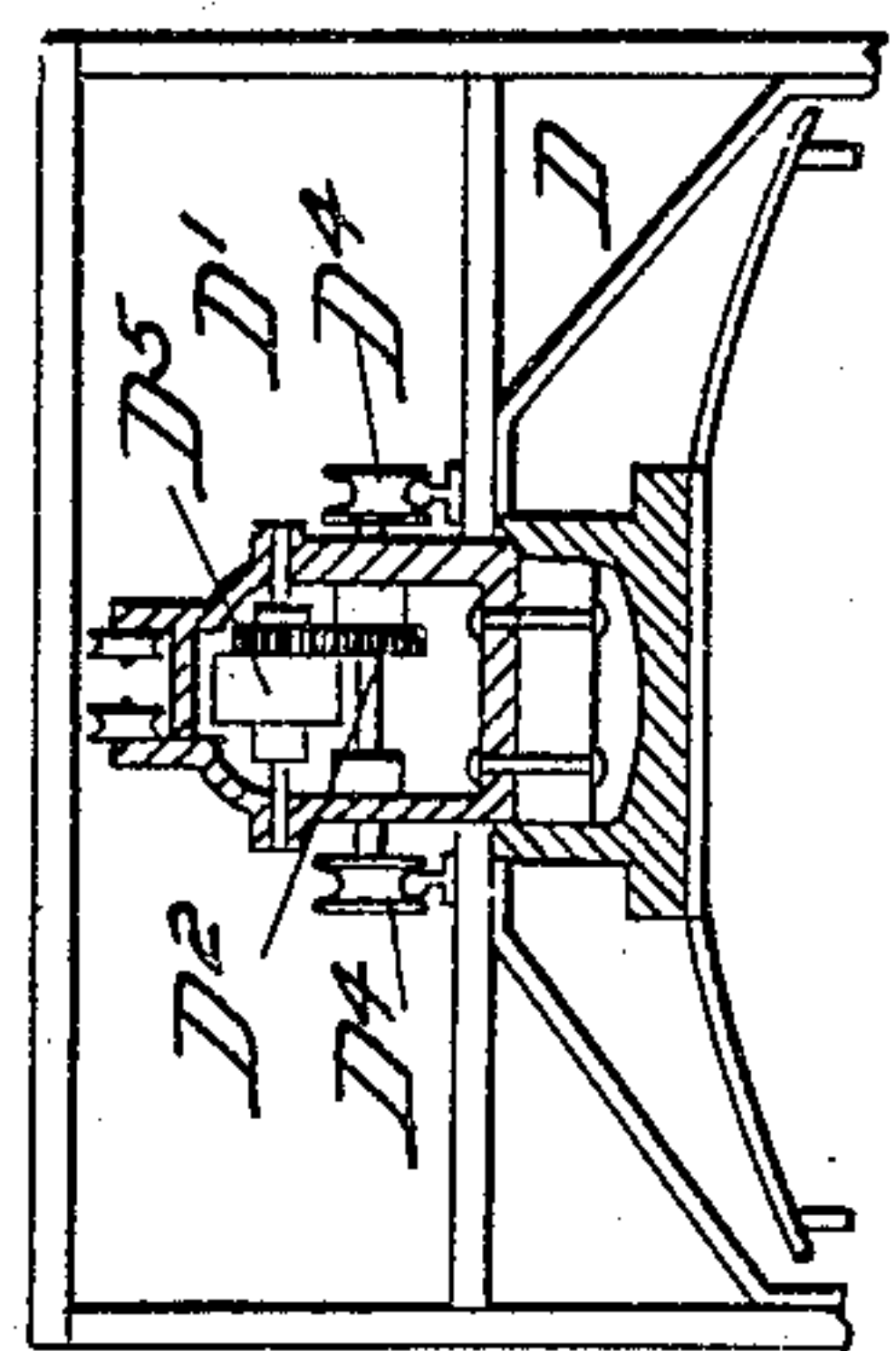
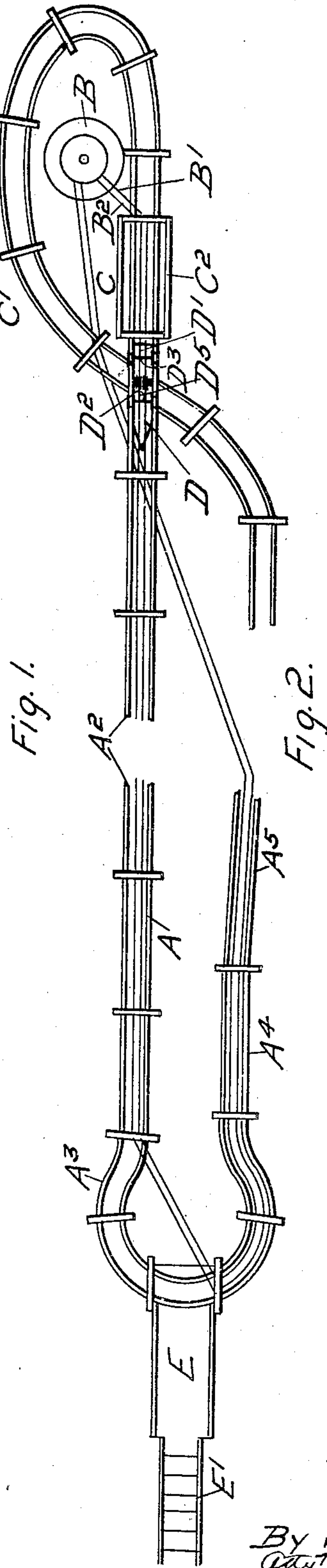
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898,739.

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Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANCIS HOOKER, OF TORONTO, ONTARIO, CANADA.

## AERIAL RAILWAY.

No. 898,739.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed September 16, 1907. Serial No. 393,173.

*To all whom it may concern:*

Be it known that I, FRANCIS HOOKER, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, machinist, have invented certain new and useful Improvements in Aerial Railways, of which the following is the specification.

My invention relates to improvements in aerial railways, and the object of the invention is to devise a railway of this class driven partly electrically and partly by gravity which will be a continuous railway and produce an exhilarating effect on the passengers and it consists essentially of an elevated trackway centrally supported on arms between vertical poles and formed in the shape of a double loop having a gap therein intermediately of its length and being bent downwardly at one end towards the gap, an elevator located in the gap provided with a suitable car in which are supported portions of the railway track designed to close the gap formed in the main portion of the track and upon the elevator being raised electric circuit wires supported on the poles and leading to a tower at one end of the track forming a station, a car provided with a rectangular frame secured upon the roof thereof, wheels secured on the axles journaled in the frame and designed to run on the trackway, a motor supported in the frame and connected by suitable gearing to one of the wheel axles and trolley wheels supported on standards so as to connect the motor with the electric circuit wires the parts being arranged and constructed in detail as hereinafter more particularly described by the following specification.

Figure 1, is a side elevation of my aerial railway intermediately broken away and showing the car in position on the track. Fig. 2, is a plan view of Fig. 1. Fig. 3, is an enlarged cross section through the track showing the car in position thereon.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the track supported on posts  $A^1$  held together by cross pieces at the top and suitably braced together. The track A is formed by the horizontal portion  $A^2$ , the end loop  $A^3$ , the return horizontal and inclined portions  $A^4$  and  $A^5$  respectively terminating in an end loop  $A^6$  which curves beneath the horizontal portion  $A^2$  to the other side thereof and around to meet the horizontal portion  $A^2$  but to a point which is some distance be-

low such horizontal portion and a suitable distance from where the portion  $A^2$  commences thereby leaving a gap between the end of the loop and the end of the portion  $A^2$ .

B is a conning tower in which is located an electric station and from which extend the electric circuit wires  $B^1$  and  $B^2$ .

C is an elevator frame located in the gap formed between the end of the track  $A^2$  and the loop  $A^6$ .

$C^1$  is the elevator carriage.

$C^2$  is a portion of track secured within the carriage and designed when the elevator car is in the lower position to engage with the end of the loop  $A^6$  and when the elevator is in its upper position to engage with the end of the track  $A^2$ .

D is the car provided with a rectangular frame  $D^1$  secured to the roof thereof in which are journaled the axles  $D^2$  and  $D^3$  provided with car wheels  $D^4$  designed to bear upon the track  $A^5$ .

$D^5$  is a motor suitably supported and journaled in the frame  $D^1$  and  $D^6$  are trolley wheels supported on suitable standards electrically connected to the terminals of the motor.

E is a platform leading by a stairway  $E^1$  to the ground and designed to form a station where passengers may leave or board the car.

Having described the principal parts involved in my invention I will briefly describe the operation of the same.

For small systems such as would be used in amusement parks an operator would be stationed on the platform E and no conductor would then travel with the car. The wheels  $D^4$  of the car D are supported on the portion C of the track, the passenger car being thereby held in the elevator car which is in position shown in the drawing while the passengers board the car. The elevator car is then raised until the portion C of the rail contacts with the ends of the portion  $A^2$  of the track and the trolley wheels contact with the circuit wires  $B^1$  and  $B^2$ . The current then passes through the motor rotating the same and thereby rotating the driving axle  $D^2$ . The car then passes onto the portion  $A^2$  of the track and is electrically driven until it reaches the end loop  $A^3$  where the electric wires turn off diagonally across the loop. The wheels of the car striking the curve in the rail and the car is checked in its movement and is thereby brought to a stand-



stil opposite the platform E, the size of the loop and the curve thereof being proportioned to attain this result. The car is again given impetus by the hand of the operator  
5 until the trolley wheels engage with the circuit wires B' and B<sup>2</sup>; when the car passes over the portion A<sup>4</sup> until it reaches the inclined portion A<sup>5</sup> where the wires turn off and pass direct to the station B. The car  
10 then travels by means of gravity down the inclined portion and around the curve A<sup>6</sup> and again enters the elevator car which in the mean time has descended to its lower position.

15 From this description it will be seen that I have constructed a very simply operated form of aerial railway which will be suitable for parks and other amusement resorts.

What I claim as my invention, is:

20 1. An aerial railway comprising a divided looped track suitably supported on poles, the divided ends of which are separated in a vertical and horizontal direction, a car hung on the track, means for driving the car, a  
25 horizontal rail section upon which the car is hung and means for raising the section in a horizontal position from contact at one end

with the lower end of the divided loop into contact at the other end with the upper end of the divided loop as and for the purpose 30 specified.

2. An aerial railway comprising a divided looped track having a gap formed between the divided ends of the loop one being in proximity to the ground and the other at a 35 considerable elevation from the ground, poles supporting the track, a track section, a car designed to be supported on the said section and provided with a suitable motor, an electric circuit supported on the said poles, 40 trolley wheels supported on standards electrically connected to the terminals of the motor, an elevator designed to raise the track section in a horizontal position from contact with the end of the track in prox- 45 imity to the ground into contact with the elevated end of the track and also bring into contact the trolley wheels with circuit wires, as and for the purpose specified.

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Witnesses:

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