(No Model.)

A. ANDERSON.

ELEVATED RAILWAY.

No. 470,534. Patented Mar. 8, 1892.

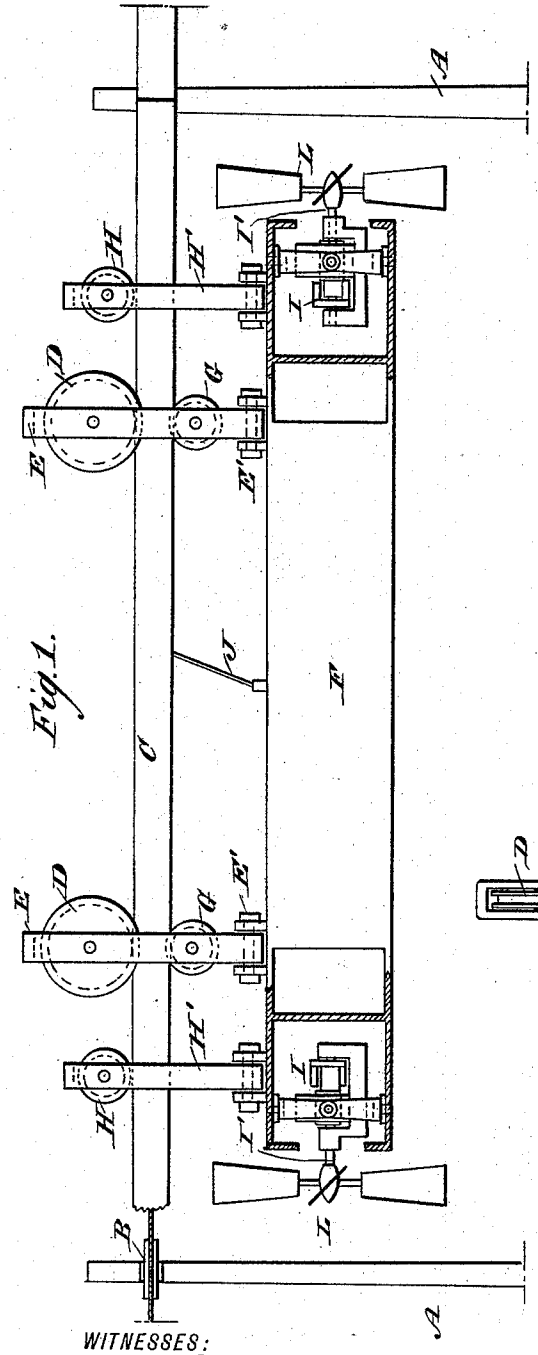

Fig. 1.

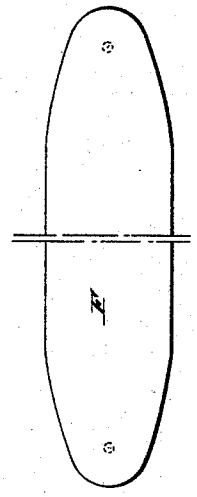

Fig. 3.

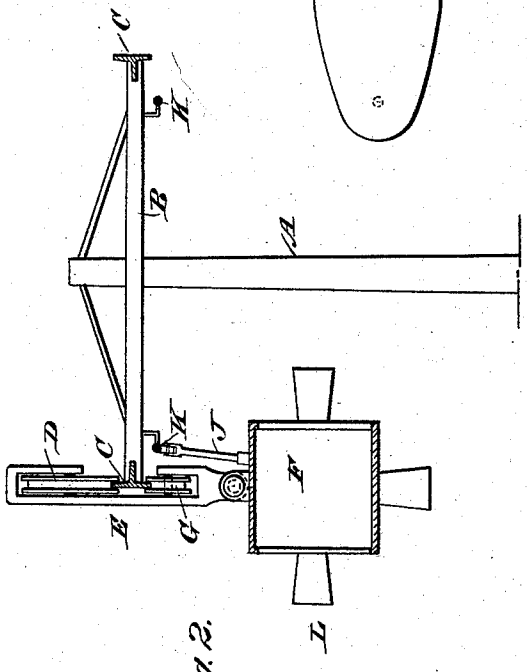

Fig. 2.

WITNESSES:

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ELEVATED RAILWAY.

SPECIFICATION forming part of Letters Patent No. 470,534, dated March 8, 1892.

Application filed July 31, 1891. Serial No. 401,249. (No model.)

To all whom it may concern:

Be it known that I, ANDERS ANDERSON, of Blossburg, Deer Lodge county, and State of Montana, have invented a new and Improved Elevated Railway, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved elevated railway which is simple and durable in construction, permits of conveniently regulating the speed of the car, and is arranged to reduce the friction to a minimum.

The invention consists of a suspended rail forming a single track, a car mounted to travel on the rail, and a propeller-wheel held on each end of the said car and adapted to be thrown into any desired position to regulate the speed of the car.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement with parts in section. Fig. 2 is a transverse section of the same, and Fig. 3 is an inverted plan view of the car-body.

The improved elevated railway is provided with a number of posts A, each provided with a cross-beam B, carrying on each outer end a rail C, preferably made in the shape of a T, as is plainly illustrated in Fig. 2. The rails C extend from one cross-beam to another, so as to form a continuous track of a single rail on each side of the post. On each of the rails C are mounted to travel grooved pulleys D, journaled in hangers E, pivotally connected at their lower ends at E′ with the top of a car F, of suitable size and construction, preferably pointed at the ends, as illustrated in Fig. 3. On each of the hangers E is also journaled a small pulley G, engaging the under side of the rail C to prevent the car from jumping the track.

A safety-pulley H is adapted to engage the rail C in case one of the pulleys D breaks. This pulley H is journaled in a hanger H′, pivotally connected with the end of the car.

In each end of the car F is located a motor I, of any approved construction, preferably a motor driven by electricity and connected by conductors J with a conducting-wire K, supported on the cross-beams B and connected with a suitable source of electricity, so as to supply the motors I with the necessary power for actuating the same. Each motor I is provided with a shaft I′, extending beyond the end of the car and carrying at the outer end a propeller-wheel L of any approved construction. The motor I is so arranged that its shaft I′ can be swung sidewise or up and down, as desired, proper universal bearings or joints being provided for this purpose.

When it is desired to propel the car forward, the motors are set in motion, so that the propeller-wheels L are rotated and thereby propel the car F forward, the car traveling by the pulleys D on the respective rail C.

In order to reduce the friction of the pulleys D on the rails C to a minimum, the front propeller-shaft is slightly raised, so that the revolving propeller causes a forward motion of the car, at the same time causing the front end of the car to move upward, so that the pulleys D are relieved of friction incident to the wheels traveling on the rails. In a like manner the shaft of the rear propeller-wheel is swung downward into an inclined position, so that the rear propeller-wheel has a like tendency to raise the rear end of the car to reduce the frictional contact between the rear pulley D and the rail.

It is to be understood that the fans or wings of the propeller-wheels are so attached to the shafts as to be adjustable in a manner well known, so that they may be set at any desired angle.

When it is desired to decrease the speed of the car, the operator adjusts the fans or wings of the propeller-wheels, so that they will encounter less air, thus reducing the efficiency of the propeller-wheels, and consequently reducing the velocity of the car, an increase of speed when desired being attained by a reverse adjustment of said fans or wings.

Instead of the motors I, suitable mechanism may be arranged in each end of the car for propelling the same forward by hand, it being understood that the hand mechanism serves to revolve the propeller-wheels in a manner similar to that in which they are re-

volved by the motors. The course of the car may be reversed by reversing the motion of the shafts I' and that of the propeller-wheels L.

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

1. In an elevated railway, the combination, with suspended rails forming a single track, of a car mounted to travel on the rail and propeller-wheels held on the ends of the said car and adapted to be rotated from within the car, substantially as shown and described.

2. In an elevated railway, the combination, with suspended rails forming a single track, of a car suspended from the said rail and adapted to be propelled forward and propeller-wheels held on the ends of the said car and adapted to be swung into any desired position, substantially as shown and described.

3. In an elevated railway, the combination, with a series of posts, cross-beams held on the said posts, and rails connecting the ends of the cross-beams with each other to form a single track on each side of the post, of pulleys mounted to travel on each track, hangers carrying the said pulleys, a car pivotally connected with the said hangers, and propeller-wheels mounted to turn in the ends of the said car and revolved from within the same, substantially as shown and described.

4. In an elevated railway, the combination, with a series of posts and cross-beams held on the said posts and rails connecting the ends of the cross-beams with each other to form a single track on each side of the post, of pulleys mounted to travel on each track, hangers carrying the said pulleys, a car pivotally connected with the said hangers, propeller-wheels mounted to turn in the ends of the said car and revolved from within the same, and small pulleys held on the said hangers and engaging the under side of the said rails, substantially as shown and described.

5. In an elevated railway, the combination, with rails forming a single track, of pulleys mounted to travel on the said track, hangers carrying the said pulleys, a car pivotally connected with the said hangers, a second set of hangers pivotally connected with the said car, and safety-pulleys held on the said second set of hangers and arranged above the single track, substantially as shown and described.

6. In an elevated railway, the combination, with a series of posts, cross-beams held on the said posts, and rails connecting the said beams with each other to form a single track on each side of the post, of a car provided with pulleys mounted to travel on the said track, a motor located in each end of the said car, a propeller-wheel adapted to be actuated from the motor, and a conducting-wire held on the said cross-beams and adapted to be connected with the said motors to supply the latter with electricity, substantially as shown and described.

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Witnesses:
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