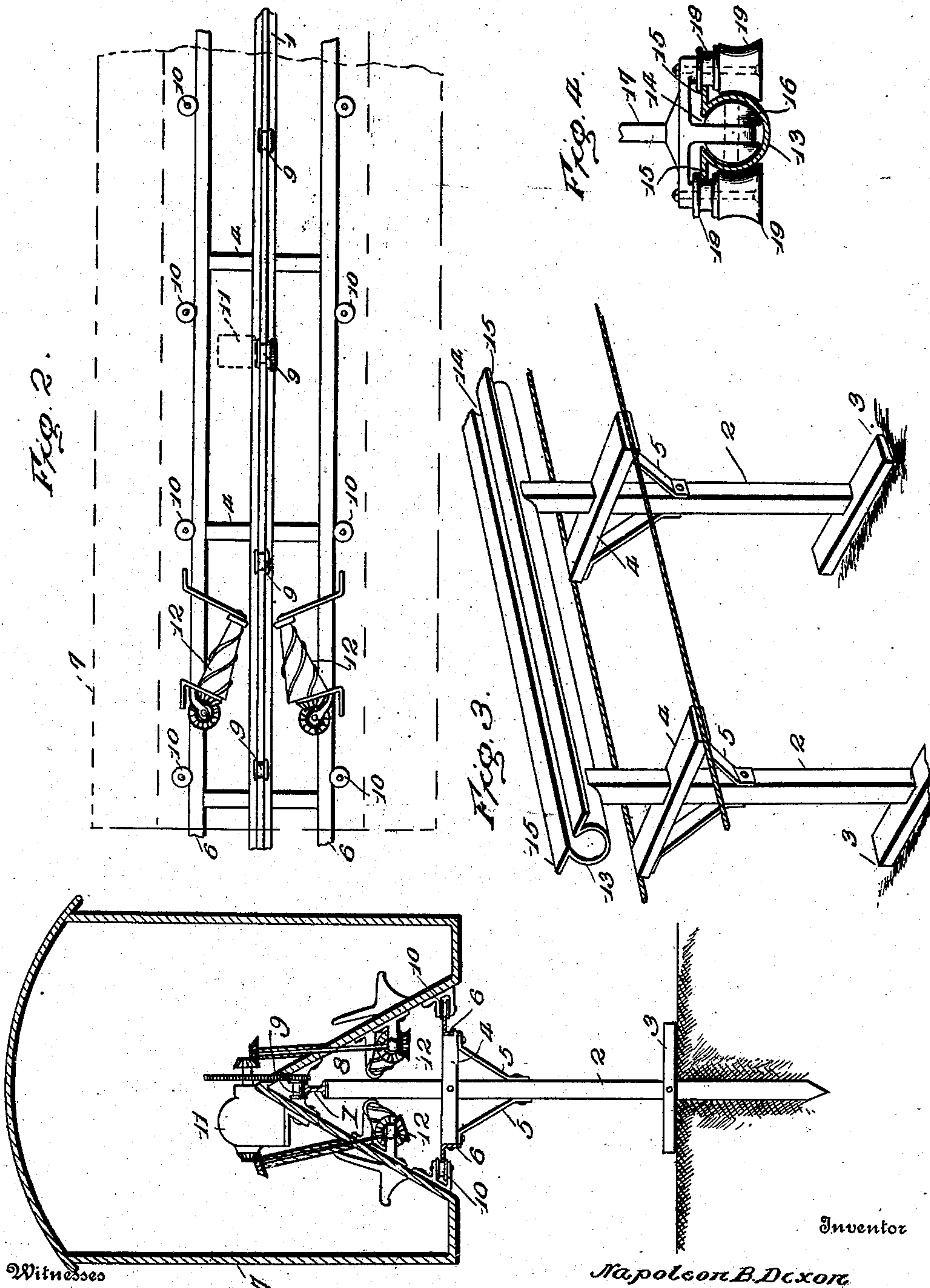


N. B. DIXON.
ELEVATED RAILWAY.
APPLICATION FILED NOV. 13, 1907.

900,269.

Patented Oct. 6, 1908.



Chas. C. Phillips
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Fig. 1.

By

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UNITED STATES PATENT OFFICE.

NAPOLEON B. DIXON, OF DIXIE, ALABAMA.

ELEVATED RAILWAY.

No. 900,269.

Specification, of Letters Patent.

Patented Oct. 6, 1908.

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To all whom it may concern:

Be it known that I, NAPOLEON B. DIXON, citizen of the United States, residing at Dixie, in the county of Escambia and State of Alabama, have invented certain new and useful Improvements in Elevated Railways, of which the following is a specification.

This invention relates to means for rapidly transporting merchandise or passengers between given points which are connected by an elevated track, said means consisting of a novel form of railway and a car of peculiar construction, said car being equipped with propellers to materially assist in the propulsion thereof.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a transverse section of an elevated railway and car embodying the invention. Fig. 2 is a top plan view of the parts shown in Fig. 1 showing the body of the car in dotted lines and the supporting and guide wheels and the propellers in full lines. Fig. 3 is a detail perspective view of a modified form of railway, the main rail being tubular or hollow and the guide rails consisting of cables. Fig. 4 is a transverse section of the modification shown in Fig. 3, showing the pulleys cooperating with the tubular rail.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The track will consist, essentially, of a single rail 1 which is elevated and which may be of any construction or cross sectional outline. A series of posts or uprights 2 are located along the prescribed route and support the rail 1 and adjunctive parts. The posts or uprights 2 are planted in the ground and are strengthened by means of foot pieces 3 which may be of any construction so as to provide an extended surface to sustain the posts in upright position and prevent sinking thereof. The posts or uprights 2 may be

located any distance apart according to the weight to be sustained and the nature of the rail supported thereby. Each post or upright is provided near its upper end with a cross arm 4 secured thereto in any substantial way and strengthened from below by means of braces 5. Guide rails 6 are attached to the outer ends of the cross arms 4 and may be of L-form in cross section or of any desired shape and construction.

The car 7 devised for traveling upon the track, is provided in its bottom or lower side with a longitudinal depression 8 of approximately V-form to receive the three rails 1 and 6, the main rail 1 being arranged to occupy the upper portion of the depression 8 and the guide rails 6 opposite side portions thereof. The supporting wheels 9 are located in the upper portion of the longitudinal depression 8 and are adapted to run upon the rail 1. Guide pulleys 10 are arranged at opposite sides of the depression 8 and engage with the guide rails 6 to steady the car and prevent swaying thereof. The guide pulleys 10 are grooved to receive the guide rails 6 so as to prevent possible displacement of the car should the same lurch or tend, from any cause, to move from the vertical.

Power is applied to one or more of the supporting wheels 9 for propelling the car, and said power may be derived from a suitable motor, which in the present instance is preferably of the electric type.

The motor 11 may be conveniently located and may derive current from any one of the three rails, preferably from the main rail 1, one of the guide rails 6 serving as a return. The provision of the longitudinal depression 8 in the bottom of the car brings the weight or center of gravity low down, with the result that a stable structure is provided, hence the necessity for a nicety of balancing the car is overcome. Two propellers 12 are arranged in the longitudinal depression 8, one upon each side of a medial line, said propellers being preferably of conical form and having spiral flights or blades. The propellers are arranged with their axes forwardly and upwardly converged with the result that the developed force resulting when said propellers are in motion, tends to both propel and to lift the car, hence the friction between the car and the supporting rails is materially reduced and the car enabled to travel rapidly. The pro-

pellers 12 are driven from the motor 11 by means of suitable intermediate connections.

In the modification shown in Figs. 3 and 4, the main rail 13 is tubular and is provided in its upper side with a longitudinal slot 14 and at each side of the slot with horizontal flanges 15. A spheroidal shaped pulley or wheel 16 is mounted to travel in the tubular or hollow rail 13 and is mounted in an arm 17 which has connection with the car and operates in the slot 14. Guide pulleys are arranged upon opposite sides of the tubular rail 13, each consisting of two members 18 and 19, the member 18 being grooved and embracing the outer edge portion of the flange 15, and the member 19 being grooved to embrace the convex side of the tubular rail 13. The tubular rail 13 is mounted upon the upper ends of the posts 2. Cables 20 secured to the ends of the cross arms 4 of the posts, perform the same function as the guide rail 6.

Having thus described the invention, what is claimed as new is:

25 1. In combination, a hollow rail having a longitudinal slot in its upper side, a pulley arranged to travel within said rail, and guide pulleys at opposite sides of the rail and cooperating with the said pulley to steady and prevent displacement of the part to which the several pulleys are attached.

2. In transporting means of the character specified, the combination of a main rail, oppositely disposed guide rails arranged in a lower plane than the main rail and equidistant from a line passed perpendicular through said main rail, a car having a longitudinal depression in its bottom to receive the main and guide rails provided with sup-

porting wheels and guide pulleys, and propellers located in said longitudinal depression upon opposite sides of a medial line and adapted to exert both a lifting and a pulling force.

3. In combination, a tubular rail of approximately circular outline in transverse section and having a longitudinal slot in its upper side and having horizontal flanges projected outward from the longitudinal edge portions of the rail bordering upon the slot, a pulley arranged to operate within the rail, and sets of guide pulleys at opposite sides of the rail, one pulley of each set being grooved and embracing the outer edge portion of the horizontal flange with which it cooperates, and the other guide pulley being grooved to conform to the outer side of the main portion of the rail.

4. In combination, a hollow rail of approximately circular outline in cross section and having a longitudinal slot in its upper side and outwardly extended flanges at opposite sides of the said slot, a bracket, a spheroidal shaped pulley mounted in said bracket and arranged within the rail, and sets of pulleys mounted upon said bracket and arranged at opposite sides of the rail, one pulley of each set being grooved to embrace the edge portion of the cooperating flange and the other pulley being grooved to embrace the side of the rail.

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

NAPOLEON B. DIXON. [L. S.]

Witnesses:

V. B. HILLYARD,
W. N. WOODSON.