



UNITED STATES PATENT OFFICE.

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AMUSEMENT DEVICE.

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Specification of Letters Patent.

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To all whom it may concern:

citizen of the United States of America, residing at Brooklyn, in the county of Kings

- and State of New York, have invented certain new and useful Improvements in Amusement Devices, of which the following is a specification.
- This invention relates to an amusement 10 device of the serial type, wherein a passenger-carrying car, constructed to simulate an aeroplane, is adapted for travel on a cable. having its respective ends anchored in car-
- rier blocks, adapted for adjustment on 15 tracks fixed on relatively remote derricks, the relative adjustment of the carrier blocks providing desirable incline in the cable from one derrick to the other, to cause the car to travel lengthwise the cable by gravity.
- The invention provides a traveler adapted 20for running connection with the cable, and provided with means whereby the speed of the traveler on the cable may be manually controlled; the aeroplane car proper being
- 25 movably supported from the traveler and adapted to be turned at will in order to travel in a forward direction from the respective derricks in succession, the car being provided with means whereby it may be
- 30 locked against turning movement relative to the traveler at will.
 - The invention is illustrated in the accompanying drawings, in which:
- Fig. 1 is a perspective view showing the 35 improved amusement apparatus in the preferred form of details.
 - Fig. 2 is an enlarged side elevation showing the traveler and aeroplane car supported thereby.
 - Fig. 3 is a plan view of the traveler.
 - Fig. 4 is a section on line 4—4 of Fig. 3.

Fig. 5 is an elevational detail, showing particularly the means for permitting re-versal of the aeroplane car and the means

45 for locking it in either position relative to the traveler.

The improved amusement apparatus, which is designed more particularly for amusement parks, seaside resorts, and the

50 like, comprises spaced derricks 1, the upright frame portions 2 of which are designed to reach a considerable elevation. Of course it will be understood that these derricks in their entirety are constructed of such ma-

sure their absolute stability in use under any Be it known that I, FRANK CHAPMAN, a and all possible strains to which they may be subjected. The upright frame portions include spaced parallel bars 3, preferably inclined as shown, on the inner surfaces of 60 which are arranged tracks 4. Carrier blocks 5 are adapted to travel lengthwise the tracks 4, operating cables 6 being connected to the carrier blocks and extending in both directions therefrom to and around idlers 7 and 65 then appropriately wound on a power operated drum 8, in the manual control of which the carrier blocks may be obviously placed at any desired height from the surface on which the derricks are resting. A 70 supporting cable 9 is anchored at its respective ends in the respective carrier blocks 5, the connection of the cable ends and blocks being such as to insure and maintain such connection under any and all strains to 75 which the supporting cable may be subjected. It will be apparent from the structure so far described that by proper adjustment of the carrier blocks in their respective derricks, the supporting cable may be inclined from 80 one derrick to the other, with the inclination in either direction, and the degree of such inclination anything desired within range of the derrick heights.

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A traveler 10 is designed for travel length- 85 wise the supporting cable and comprises a substantial elongated box-like casing 11 in which are mounted a series of transverse shafts or axles 12. Centrally secured on the respective axles 12 are grooved rollers 13 90 adapted to rest upon the supporting cable 9 in the movement of the traveler, cooperating idlers 14 being rotatably supported immediately below the cable rollers 13 to prevent the cable leaving said cable rollers. Secured 95 upon each end of each axle 12, beyond the cable rollers 13 is a grooved braking roller 15, there being thus presented a longitudinal series of braking rollers on each side of the traveler. Centrally of the traveler on each 100 side thereof are independently mounted brake drums 16, preferably in the form of peripherally channeled rollers, as shown. The braking rollers 15 are channeled to present flat braking surfaces 17, and brake 105 bands 18 are secured to the respective ends of the casing on each side and pass alternately beneath and over the successive braking rollers 15 and are terminally secured to 55 terial and so braced and connected as to in- the braking drums 16. Each braking drum 110

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is thus connected with two oppositely extending brake bands, and these bands are preferably secured to diametrically opposite points of the drum. An operating bar 19 is 5 secured to each brake drum 16, and connectors 20 terminating in handles 21 depend from the operating bars to permit the operator to move the brake drums as desired, and thus through the frictional bearing of the 10 bands 18 on the braking rollers 15, control the speed of the traveler lengthwise the cable 9.

The passenger carrier or car is built to simulate as closely as possible an ordinary 15 aeroplane, indicated generally at 22. \mathbf{This} aeroplane may, aside from the details hereinafter described, be of any desired form or construction, so long as it will accommodate the desired number of passengers. It is 20 preferred of course that the passenger car so called have all the known features of the aeroplane, other than the engine and connected controls, it being contemplated that the usual planes will aid in supporting the 25 car in its travel and thus increase the simulation of aeroplane movement. If desired, and as preferred, a propeller 23 may be mounted for independent movement in the usual position on the aeroplane, which pro-30 peller will have movement imparted thereto in the travel of the car through the air.

For the purposes of the present invention, the aeroplane car, of whatever type or design constructed, is provided with an up-35 standing tubular stem 24, adapted to receive a supporting rod 25, the upper end of which rod extends above the tubular stem 24 and is movably connected at 26 to an appropriate hanger 27, depending from the traveler. 40 Thus the aeroplane is swingingly supported from the traveler to permit a more natural movement of the aeroplane car in transit. The lower end of the rod 25 is provided with a cross bar 28 and immediately above 45 said cross bar with a bearing member 29, preferably in the form of a ball bearing or the like with which the appropriately formed lower end of the tubular stem 24 cooperates. The cross bar 28, which is designed to under-50 lie and directly contact with a bearing portion 30, on the aeroplane car body, is formed at its ends with recesses 31 to receive lock-ing levers 32, pivotally supported on the aeroplane and moved into or withdrawn from locking cooperation with the recesses 55 31, by a rod 35 operated by a hand lever 36, the latter being adapted to be locked in either operative position at will. With the aeroplane locked to the bar 28, it is fixed with respect to the traveler so far as turning 60 is concerned, while with the levers 32 free of the recesses 31, the car body may be turned with respect to the traveler at will, as for example by a gear 37 secured upon a 65 stem 24, to be engaged by a pinion 38 oper-

ated by a hand wheel 39. The aeroplane car body may be thus changed in direction at will, so that such car may travel forward from the respective derricks in succession. As a margin of safety, it is preferred that 70 the tubular stem 24 be provided near the upper end with a freely rotatable collar 40, from which independent chains 41 extend loosely to the respective corners of the traveler 10. 75

The operation of the amusement apparatus will, it is believed, be fully apparent from the above description taken in connection with the drawing. Obviously, either derrick carrier block may be elevated with 80 respect to the other, giving the supporting cable an inclination from one derrick to the other. The aeroplane car, which has previously received its passengers before the carrier block at that particular derrick has been 85 elevated, will thus travel lengthwise the supporting cable, with a speed controlled by the braking mechanism of the traveler and at the will of the operator.

The aeroplane car may be readily reversed 90 as described for travel in the opposite direction, this travel requiring reversal of the relative positions of the carrier blocks.

It is of course contemplated that the derricks will be spaced a considerable distance 95 apart, and in this particular, no account need be taken of the intervening surface. For example, the supporting cable may pass over a body of water, between hills, or otherwise located to simulate regular aeroplane travel. 100 Claims:

1. An aerial amusement apparatus, comprising in combination spaced derricks, carrier blocks adapted for vertical adjustment on the derricks, a supporting cable ter- 105 minally connected to the carrier blocks, a traveler adapted for traveling cooperation with the cable, a rod depending from the traveler, an aeroplane car mounted for free rotary movement on the rod, and means for 110 locking said car with respect to the rod.

2. An aerial amusement apparatus, comprising in combination spaced derricks, carrier blocks adapted for vertical adjustment on the derricks, a supporting cable ter- 115 minally connected to the carrier blocks, a traveler adapted for traveling cooperation with the cable, a rod depending from the traveler, a supporting plate carried by the rod, an aeroplane car having a tubular stem 120 to rotatably engage said rod, means on said car to engage said plate for locking the car with respect to the rod.

3. An aerial amusement apparatus, comprising in combination spaced derricks, carrier blocks adapted for vertical adjustment on the derricks, a supporting cable terminally connected to the carrier blocks, a traveler having rollers to cooperate with the cable, manually operable braking mechanism 130 an aeroplane car having rotatable connection to control the movement of said rollers, an with the traveler.

4. An aerial amusement apparatus, com-5 prising in combination spaced derricks, carrier blocks adapted for vertical adjustment on the derricks, a supporting cable ter-minally connected to the carrier blocks, a traveler having rollers to cooperate with the

to control the movement of said rollers, and cable, manually operable braking mechanism 10 aeroplane car having rotatable connection with the traveler, and means whereby the car may be locked in desired traveling relation with the traveler. 15

In testimony whereof I affix my signature.

FRANK CHAPMAN.