

C. E. BEDIENT.
AMUSEMENT DEVICE.
APPLICATION FILED NOV. 20, 1911.

1,063,949.

Patented June 10, 1913.

2 SHEETS-SHEET 1.

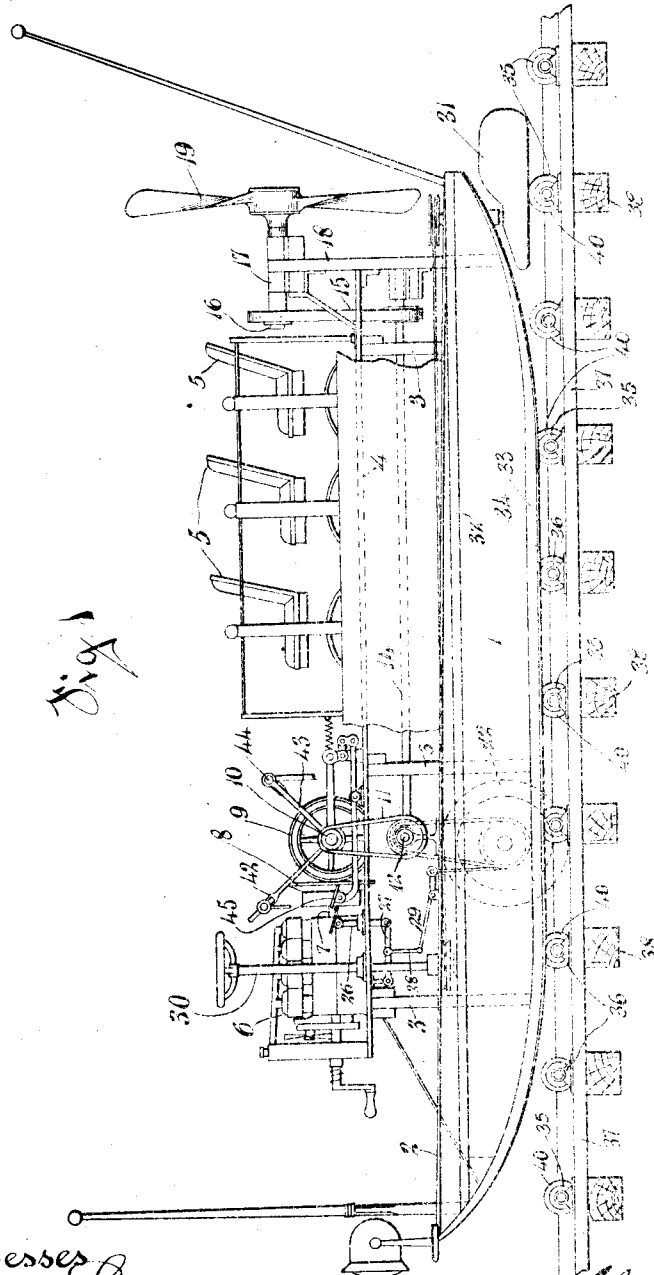


Fig. 1

Witnesses
Oliver Hamman
Wm H. Myers

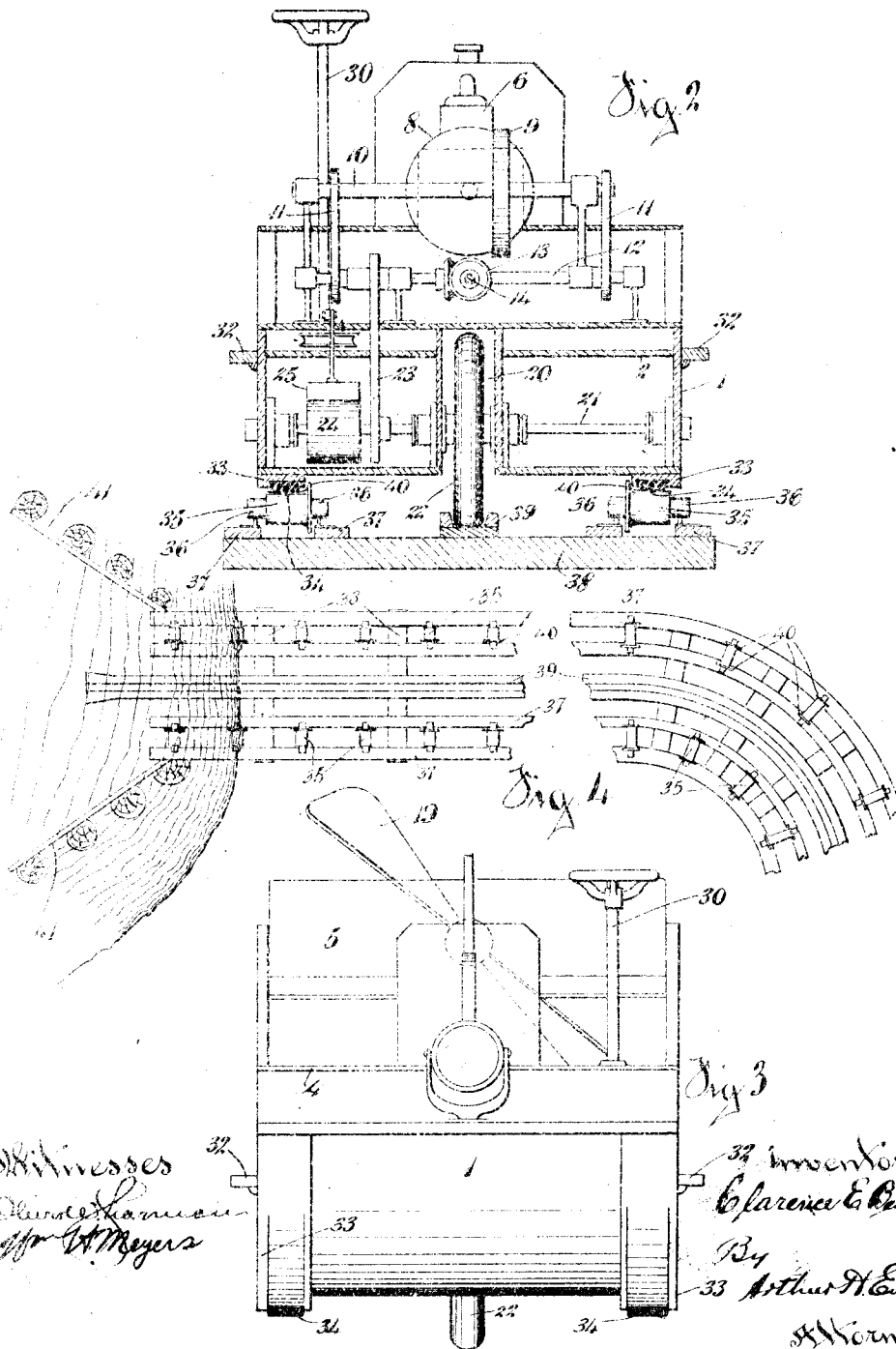
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C. E. BEDIENT.
AMUSEMENT DEVICE.
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

CLARENCE E. BEDIENT, OF PLEASANT RIDGE, OHIO.

AMUSEMENT DEVICE.

1,063,949.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed November 20, 1911. Serial No. 661,444.

To all whom it may concern:

Be it known that I, CLARENCE E. BEDIENT, a citizen of the United States, and a resident of Pleasant Ridge, county of Hamilton, and State of Ohio, have invented a new and useful Amusement Device, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a car or craft for amusement purposes in parks and outing resorts; and has for its object the provision of such a vehicle adapted for use on both land and water.

In the drawings: Figure 1 is a side elevation of my new craft, with part of the side broken away to disclose the power plant and transmission; Fig. 2 is a cross-section of said craft, taken through the axle of the traction wheel; Fig. 3 is a front elevation; Fig. 4 is a view of the slip to guide the craft from the water onto the rails.

The numeral 1 indicates the hull of my craft. This hull has straight, perpendicular sides, and the bottom is rounded up at the bow and stern, as shown in Fig. 1. The hull is completely covered by the deck 2. Supported on the stanchions 3 is a passenger deck 4, the rear portion of said passenger deck being provided with seats 5 for the carrying of passengers. On the front part of the passenger deck is the motor 6. I have shown my craft equipped with a four cylinder gasoline engine, but it is obvious that any other suitable power plant may be employed. The power developed by said motor is transmitted from the crank shaft 7, by means of the disk 8, to the friction wheel 9 and the main shaft 10. From the main shaft it is transmitted by means of the chain and sprocket drives 11 to the counter shaft 12, and from the counter shaft by means of bevel gears 13 to the driving shaft 14; from the driving shaft, by a secondary sprocket and chain drive 15 to the propeller shaft 16, which is mounted in bearings 17 on a standard 18 at the stern. The propeller shaft carries an air propeller 19 of suitable diameter and pitch to propel the craft through the water at the speed developed by the motor 6.

In the longitudinal center of the hull, slightly forward of amidship, is a well 20. Journalled in the sides of this well, and also in the sides of the hull, is a shaft, or axle, 21 upon which a heavy, resilient tired

wheel 22 is mounted to turn in said well. Power is transmitted to this shaft from the counter shaft 12 by the chain and sprocket drive 23. On the shaft 21 is a drum 24, which, together with the band 25 serves as a brake for the wheel 22, the said brake being operated by the pedal 26, the arm 27, link 28 and lever 29. A steering column 30 is provided to operate the rudder 31.

Along the sides of the hull are fender strips 32 which protect the craft in making a landing and also serve to protect and guide it when coming into the slip leading from the water, preparatory to making a trip on land, as hereinafter set forth. On the bottom of the hull, along each side, is a strip of wood, or other suitable material, 33; mounted in each of these strips is a strip of heavy rubber 34 to form a bearing for the craft on the rollers 35, upon which the greater weight thereof rides when traveling on land. The weight is in part, however, supported, on land, by the wheel 22, upon which the craft rests primarily to give said wheel efficiency in propelling the same.

In water my craft is propelled by the air propeller 19 and guided by the rudder 31. On land a track of rails is provided upon which it rides, and by which its course is directed. This track is composed of three rails, the side rails being made up of a series of rollers 35, mounted at suitable distances in bearings 36 attached to stringers 37, the said stringers being fastened to ties 38. The middle rail 39 is made of wood, or any other suitable material, and is grooved, the wheel 22 running in the groove. One object of the grooved middle rail is to increase the tread, and thereby the efficiency of the traction of the wheel 22; a further object is to help direct the movement of the craft. The rollers 35 have wide flanges 40; these flanges keep the craft on the rails, and also assist in directing the course. Where the track is straight, each roller has but one such flange, and the rollers are mounted with the flanges toward the inside of the rails, but where there is a curve each of the rollers is provided with two flanges, as shown in Fig. 4, to insure the stability of the craft in rounding such curves. The track is built down into the water, the middle rail extending farther out, however, than the side rails. At the sides of the track, and extending into the water beyond the end thereof, are the guide walls 41; these walls flare outwardly at an easy angle to the rails, and form a

slip by which the floating craft is directed onto the rails, the wheel 22 first entering the groove of the middle rail, where it assumes the chief burden of propelling the craft, the propeller continuing to exercise some power, however, as hereinafter set forth. When the wheel has fully taken hold, the craft glides upon the rollers 35. The wheel 22 and the propeller 19 do not operate independently, but both run at all times while the craft is in progress. However, by means of the familiar change speed mechanism composed of the disk 8, friction wheel 9, lever 42, yoke 43 and bar 44, the operator can, by moving the wheel toward or away from the center of the disk, decrease or increase the speed of the propeller 19 and traction wheel 22. Thus, when the craft is on the water and a high speed of the propeller is required, the same may be obtained by moving the friction wheel away from the center of the disk; this will give the required speed to the propeller, the traction wheel running free at a correspondingly high speed. When, however, the wheel enters the grooved rail and assumes the chief burden of propulsion, and no such requirement for high speed exists, the speed of the wheel and propeller are both reduced to the desired rate. It will be understood, of course, that the propeller and traction wheel might be made to operate independently, but I prefer to have the propeller to operate at all times for the sake of the illusory effect, the impression being of a craft moved on land entirely by an air propeller, the traction wheel being concealed to the casual observer, in the well 20. The clutch, composed of the disk 8 and friction wheel 9, is operated by the pedal 45 and connections as shown in Fig. 1.

The operation of my new car or craft is as follows: The motor having been started in the usual manner, the friction wheel is moved toward the center of the disk, and the clutch thrown. This will start both air propeller and traction wheel at low speed; if the start is made on the water, as I prefer to do, beginning and ending each trip on water, the speed is increased to the requisite degree to render the air propeller effective; at the end of the water passage, the craft enters the slip, is guided onto the rails in the manner above set forth, and the traction wheel takes up the chief burden of propulsion, the speed having been previously reduced to the proper ratio. On land the vehicle will ride on the traction wheel and the rollers 35, the rubber strips 34 bearing on said rollers and giving, in connection with the resilient wheel, the desired spring. By the compression of the resilient

tire of the traction wheel, the wheel being of such size that the front of the hull must rest at all times, when on the rails, primarily thereon, compressing somewhat the tire thereof before the rubber strips rest, at the front, upon the rollers, a highly efficient friction is maintained in the grooved rail; and the placing of said wheel just forward of amidship in the longitudinal center of the car, the front being in part supported and balanced on said wheel and the rear being supported solely by the rubber strips on the rollers, will give an extremely smooth and gliding movement to the vehicle. During the progress along the rails, while the main burden of moving the vehicle will fall on the traction wheel, the turning of the propeller is continued, mainly for the optical effect, as above set forth, but also, to assist in some degree in the locomotion.

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

1. A device of the character specified comprising a track composed of rollers, a hull, said hull being adapted to navigate upon water and to travel upon said track, and an air propeller to propel said hull.

2. A device of the character specified comprising a track composed of rollers, a hull, said hull being adapted to navigate upon water and to travel upon said track, an air propeller to propel said hull when upon the water, and means to propel said hull on said track.

3. A device of the character specified comprising a track composed of rollers, a hull, said hull being adapted to navigate upon water and to travel upon said track, an air propeller to propel said hull when upon the water, a slip to guide said hull from the water onto said track, and means to propel said hull from the water onto said track.

4. A device of the character specified comprising a hull adapted to navigate upon water and to travel upon a track, a traction wheel mounted in said hull intermediate its two sides to propel said hull on said track, and means to support the sides of said hull.

5. A device of the character specified comprising a hull adapted to navigate upon water and to travel upon a track, a traction wheel mounted in said hull intermediate its two sides to propel said hull on said track, means to propel said hull when upon the water, and means to support the sides of said hull when on said track.

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Witnesses:

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