Aug. 26, 1924. 1,506,283

Q. BARTOLOMUCCI

HYDROCYCLE

Filed Aug. 6, 1923 2 Sheets-Sheet 1

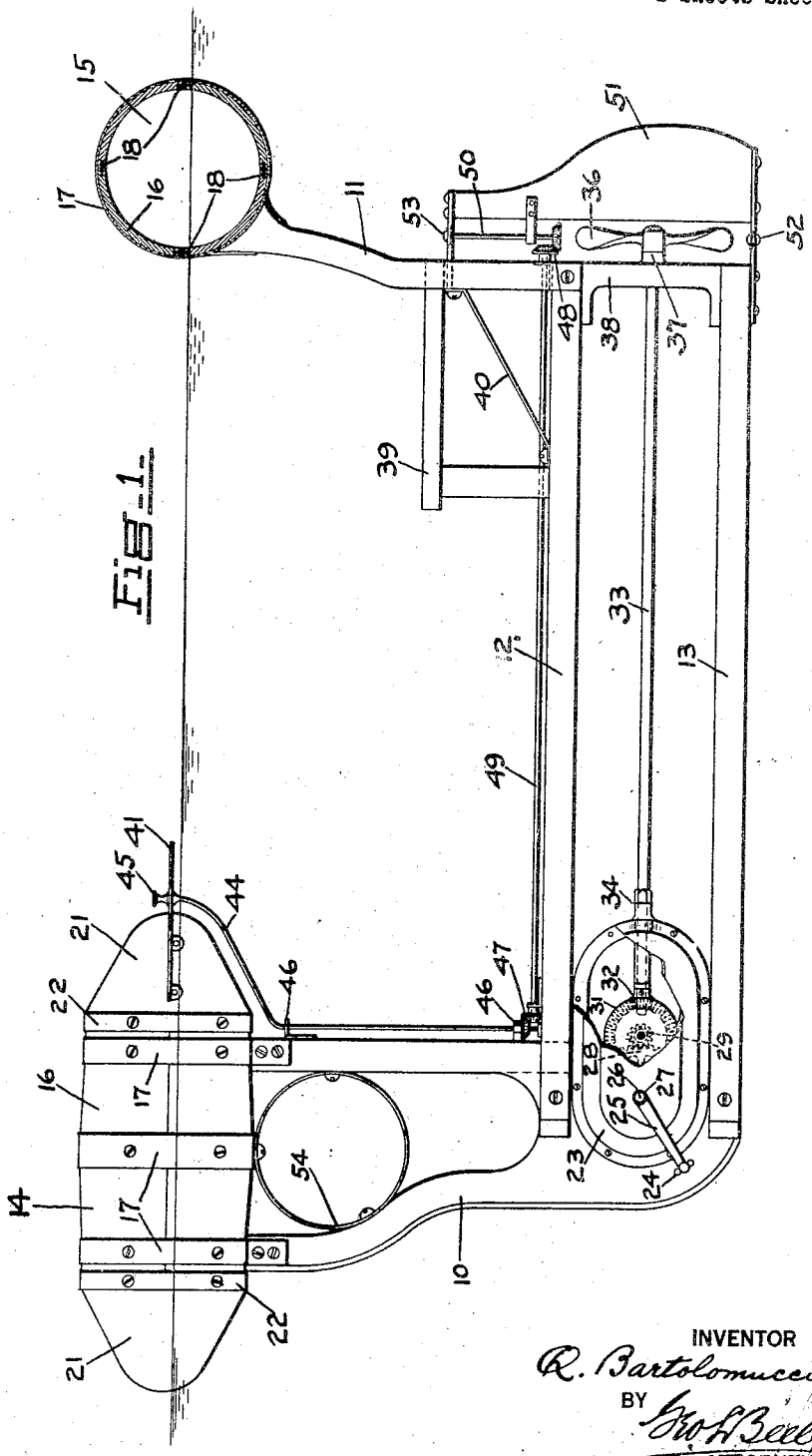


Fig-1-

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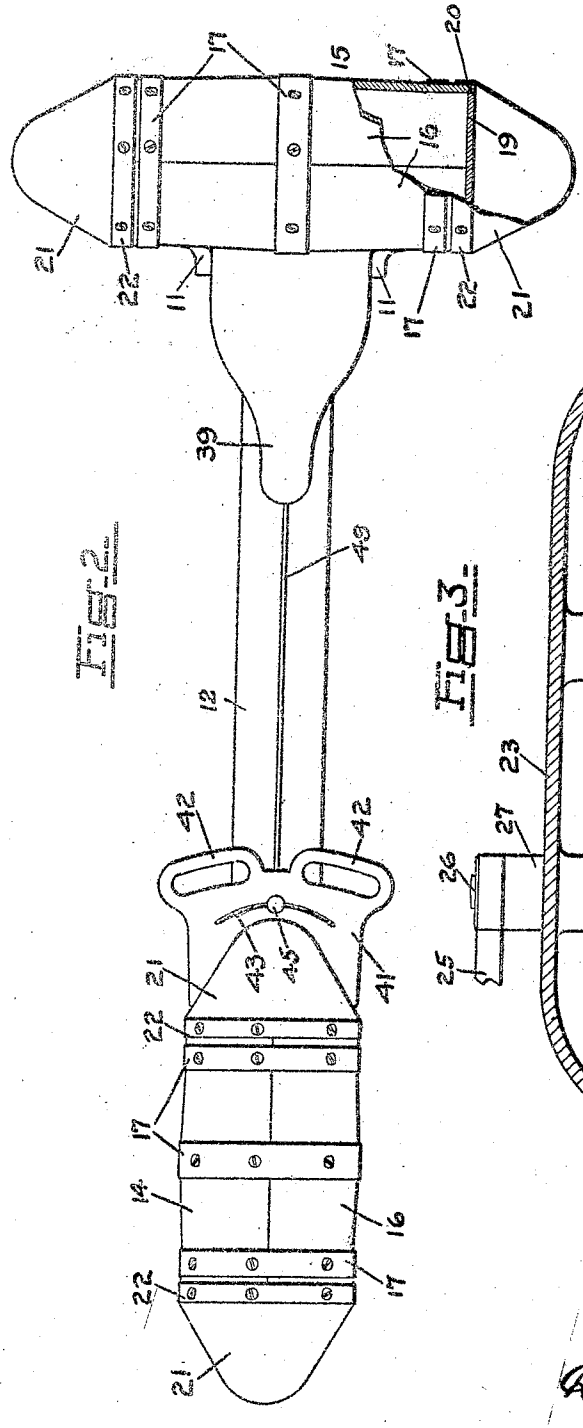


Fig. 2.

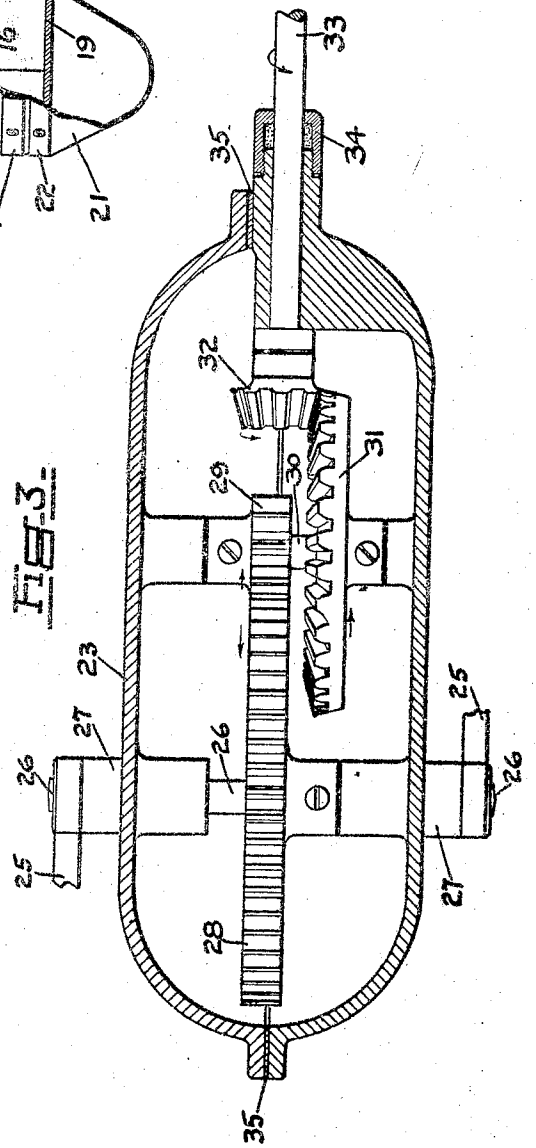


Fig. 3.

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UNITED STATES PATENT OFFICE.

QUIRINO BARTOLOMUCCI, OF NEW YORK, N. Y.

HYDROCYCLE.

Application filed August 6, 1923. Serial No. 655,806.

To all whom it may concern:

Be it known that I, QUIRINO BARTOLOMUCCI, a citizen of Italy, residing at New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Hydrocycles, of which the following is a specification.

This invention relates to improvements in hydrocycles and among its objects are to provide a swimming device which will float and sustain the rider or operator and which can be easily propelled in the water.

The invention is illustrated in the following drawings in which like reference characters refer to like parts and in which:—

Figure 1 is a side elevation of the improved hydrocycle; Fig. 2 is a plan view of the hydrocycle, and Fig. 3 is a sectional plan view of the gears and casing.

Referring now more specifically to the drawings, the frame of the hydrocycle is made of suitable light material, such as wood and consists of the front upright 10, the rear upright 11, and the connecting members 12 and 13. Secured to the top of the front upright 10 and parallel to the axis of the hydrocycle is a float 14, and to the top of the uprights 11 is a float 15, which is shown as transverse to the axis of the hydrocycle. These floats are barrel shaped, having a slight bulge in the middle and are similarly constructed of a plurality of wooden staves 16, held together by hoops 17. These hoops serve also to secure the float in place. Each two adjacent staves are united in a water and air tight joint including a key strip 18 glued in place. The heads 19 are tongued around their edges to fit into a groove or rabbet 20 in the inside surface of the staves at their ends, the outside of the heads 19 coming flush with the ends of the staves. The heads of the floats are capped by cones 21 made of sheet metal having flanges 22, which act as additional hoops for the floats and are forced over the ends of the floats, making water and air tight joints, and held in place by screws. The floats serve as means to keep the hydrocycle and the operator sustained or afloat in the water at about the position indicated in Fig. 1.

Between the longitudinal connecting braces 12 and 13 is the gear case 23 set into and attached to the front upright 10. The pedals 24 are rotated by the feet of the operator, the motion being transmitted by means of the cranks 25 and the shaft 26 through the water and oil tight glands 27 to the large gear wheel 28. This in turn meshes with and turns the pinion 29 attached to the shaft 30. The bevel gear 31 also attached to the shaft 30 is thus caused to rotate and in turn rotates the bevel pinion 32 attached to the propeller shaft 33 which passes through the oil and water tight gland 34. The gear casing 23 is filled with oil or grease, and a gasket 35 prevents leakage thereof or admission of water where the two halves or parts of the casing are fastened together. The propeller shaft 33 runs between and is protected by the longitudinal braces 12 and 13, and to its rear end is attached a suitable propeller 36. The shaft rotates in a bearing 37 in the channel member 38 secured between the braces 12 and 13.

A seat 39 is attached to the uprights 11, and the braces 12 and the braces 40 strengthen the seat and the uprights 11. The front upright 10 is strengthened by a metal hoop 54.

A plate 41 is rigidly attached to the forward float and provides handles or grips 42 to enable the operator to steady himself and retain his position on the hydrocycle. In the plate 41 is an arc shaped slot 43 in which a steering lever or bell crank 44 operates. A knob 45 attached to the upper end of the steering lever provides a means for the operator to shift the lever from side to side as may be desired in steering the hydrocycle. The steering lever 44 is mounted in suitable bearings 46 and the motion thereof is transmitted by means of the bevel gears 47 and 48 and the shafts 49 and 50 to the rudder 51. The shaft 50 is attached rigidly to the rudder 51 and lies in the axis around which the rudder turns, the latter being pivoted at 52 and 53.

To use the hydrocycle the operator sits on the seat 39 with his feet on the pedals 24 and grasps the handles 42. In many forms of hydrocycles the seat is directly above the pedals and when this is the case and the body of the operator is partly submerged he is unable to exert his full strength against the pedals due to his loss of weight in the water. In this improved hydrocycle, however, it will be noted that the pedals are placed considerably forward of the seat so that the operator, bracing his back against the uprights 11, may push forward on the pedals, thereby

using his full strength and with minimum resistance to impede his progress through the water.

I claim:

A hydrocycle comprising a frame, a plurality of floats, a propelling mechanism on the lower portion of said frame, a slotted plate attached rigidly to the upper part of said frame, handles integral with the rear edge of said plate, a steering knob slidably mounted on said slotted plate, a steering lever adapted to be rotated by the movements of said knob, a rudder rotatably mounted on the rear lower portion of said frame, and means for transmitting the motion of said steering lever to said rudder.

In testimony whereof I affix my signature.

QUIRINO BARTOLOMUCCI.