

No. 648,855.

Patented May 1, 1900.

L. DAY.
WATER VELOCIPEDE.

(Application filed Jan. 18, 1900.)

(No Model.)

Fig. 1.

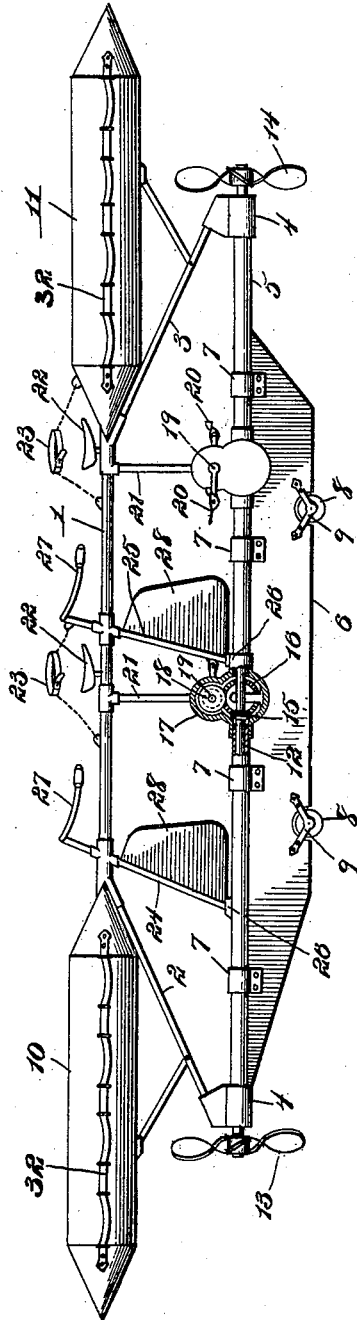
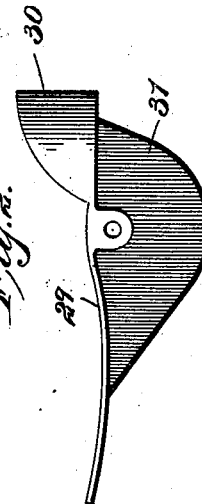


Fig. 2.



WITNESSES

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LAWRENCE DAY, OF BOSTON, MASSACHUSETTS.

WATER-VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 648,855, dated May 1, 1900.

Application filed January 13, 1900. Serial No. 1,332. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE DAY, a citizen of the United States, residing at Boston, (Charlestown,) in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Water-Velocipedes, of which the following is a specification.

My invention relates to velocipedes of the class adapted for use upon water; and its object is to provide a vehicle of this character capable of sustaining itself in operative position in the water and of being easily propelled and guided.

The construction and novel features of the invention will be fully described hereinafter and defined in the appended claims, in connection with the accompanying drawings, which form a part of this specification.

In the drawings, Figure 1 is a side elevation, partly in section, of a machine embodying the invention; and Fig. 2 is an enlarged detail side elevation of one of the pedals of the machine.

The frame of the vehicle consists of a horizontal top bar 1 and downwardly-inclined end bars 2 and 3, to the lower ends of which are secured bracket-bearings 4 to support a hollow rod or sleeve 5.

6 designates a keel suspended below the sleeve 5 by straps or hangers 7 and recessed at its lower edge to receive rollers 8, supported by angle-brackets 9, secured to the keel.

10 and 11 designate hollow casings projecting from the opposite ends of the top bar 1 of the frame and constituting air-chambers to impart bouyancy to the machine and permit it to float upon the water.

Within the sleeve 5 is supported a revolvable shaft 12, the ends of which project beyond the ends of the sleeve and carry propellers 13 and 14. This shaft 12 is also provided with vertically-disposed bevel gear-pinions 15, meshing with bevel-gears 16, supported upon axle-supports within casings 17, secured to the sleeve 5, adapted to be driven by bevel gear-wheels 18, also supported within the casings 17 upon crank-shafts 19, carrying pedals 20. The casings 17 are braced to the top bar 1 by vertical braces 21.

The seats 22 are secured to the top bar 1, and secured to the machine adjacent to each of said seats by chains is a belt 23 for securing the rider upon the seat.

24 and 25 designate the steering-posts, ex-

tending through the top bar 1 and supported in suitable bearings 26, projecting from the sleeve 5. The posts 24 and 25 are provided with handle-bars 27 and with rudders 28, projecting rearwardly from the posts, as shown.

The pedals employed with the machine each consists of a plate 29, conforming to the shape of the foot and having a heel-flange or counter 30. From the under surface of the plate 29 depends a central web 31, serving as a keel for the pedal.

The machine is adapted to be submerged with only the air-chambers or floats 10 and 11 resting upon the surface of the water, and the operation of the mechanism will be obvious from the drawings in connection with the foregoing description.

The steering of the vehicle is readily accomplished by means of the rudders 28, and the gearing being inclosed within the casings 17 is protected from contact with the water. If desired, the floats may be provided with straps 32, serving as handholds.

I claim—

1. In a water-velocipede, the combination with a frame, and floats secured thereto, of a sleeve secured to the frame; a keel suspended from said sleeve; a shaft supported revolvably in said sleeve; propellers on said shaft; driving-gearing for the shaft; and means for steering the vehicle.

2. In a water-velocipede, the combination with a frame, and floats secured thereto; of a sleeve secured to the frame; a keel suspended from said sleeve; a shaft supported revolvably in said sleeve; propellers on said shaft; incased gearing for driving said shaft; steering-posts; handle-bars; and webs or rudders secured to said steering-posts.

3. In a water-velocipede, the combination with a frame, of floats projecting from the ends of the frame; a sleeve or hollow rod secured to the frame; a keel suspended from said sleeve; a revolvable shaft supported in said sleeve; propellers at the ends of said shaft; incased gearing for revolving said shaft; means for steering the machine, and belts for supporting the rider.

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

LAWRENCE DAY.

Witnesses:

E. A. DARLING,
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