No. 799,667. PATENTED SEPT. 19, 1905.

Z. PAYETTE.

WATER BICYCLE.

APPLICATION FILED AUG. 18, 1904.

Fig. 1.

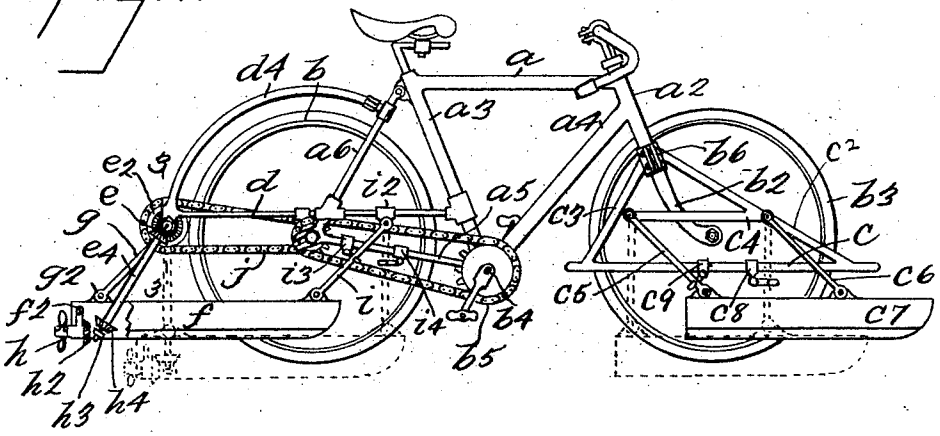


Fig. 2

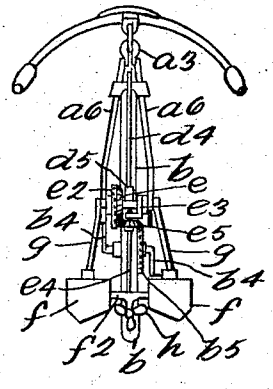
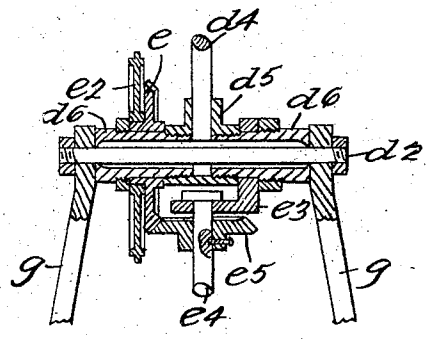


Fig. 3



WITNESSES

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WATER-BICYCLE.

No. 799,667. Specification of Letters Patent. Patented Sept. 19, 1905.

Application filed August 18, 1904. Serial No 221,189.

To all whom it may concern:

Be it known that I, ZOTIQUE PAYETTE, a citizen of the United States, residing at Attleboro, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Water-Bicycles, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to bicycles; and the object thereof is to provide a device of this class which can travel or move both on land and on water; and with this and other objects in view the invention consists in a device of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of my improved water-bicycle, part of the construction being broken away; Fig. 2, a rear end view thereof, and Fig. 3 a partial section on the line 3 3 of Fig. 1.

In the drawings forming part of this specification I have shown an ordinary bicyle having the usual main frame, comprising a top horizontal rod a, a front post-head a^2, a downwardly and forwardly inclined rod a^3, leading from the rear end of the rod a to the hub of the pedal-shaft, a downwardly and backwardly inclined rod a^4, leading from the post-head a^2 downwardly and backwardly to the support of the pedal-shaft, backwardly-directed side rods a^5, leading from the support of the pedal-shaft to the support of the axle of the drive-wheel b, and the rear fork or side rods a^6, which extend from the rear end of the rod a downwardly and backwardly to the support of the axle of the drive-wheel b. The usual front fork b^2, in which the guide-wheel b^3 is mounted, is also employed, together with the pedal-shaft b^4 and the drive-chain b^5, which connects the sprocket-wheel on the pedal-shaft with the corresponding sprocket-wheel on the axle of the drive-wheel b, and all these parts are of the usual or any preferred form or construction.

In the practice of my invention I connect with the opposite sides of the front fork b^2, as shown at b^6, a triangular float-carrying frame, comprising a horizontal bottom member c and front and back members c^2 and c^3, which extend from the front and back ends of the member c to the coupling member b^6, and the said triangular frame in the form of construction shown is provided with a supplemental horizontal brace member c^4, at the ends of which are pivoted links c^5 and c^6, and pivotally suspended, by means of the links c^5 and c^6 at each side of the guide-wheel b^3, is a boat-shaped float c^7. The horizontal bottom member c of the float-carrying frames at the opposite sides of the guide-wheel b^3 is provided with two hooks or similar fastening devices c^8 and c^9, and when it is desired for the bicycle to travel on land the floats c^7 are swung forwardly and raised into the position shown in Fig. 1, where they are held by the hooks c^9, which engage the links c^5 and c^6, and when it is desired for the said bicycle to travel on or in water the floats c^7 are swung downwardly into the position shown in dotted lines in Fig. 1, where they are held by the hooks c^8, which engage the links c^6.

Connected with the opposite sides of the rear portion of the bicycle-frame are horizontal rods d, provided at the rear ends with bearings for a shaft d^2, this construction being clearly shown in Figs. 1 and 3, and a segmental rod d^4 is connected with the upper end of the rear fork a^6 or the side rods thereof, and the lower end of the rod d^4 is provided with a coupling-hub d^5, into the opposite ends of which are screwed supplemental hubs d^6, which form one single or continuous hub through which the shaft d^2 passes. On one of the supplemental hubs d^6 is mounted a beveled gear-wheel e, which carries a sprocket-wheel e^2, and on the other supplemental hub d^6 is mounted an angular arm e^3, which is adapted to turn on said supplemental hub. The angular arm e^3 carries a shaft e^4, which is adapted to turn therein and which is provided with a pinion or small beveled gear-wheel e^5, which meshes with the beveled gear-wheel e.

At the opposite sides of the drive-wheel b are placed boat-shaped floats f, which are connected at their rear ends by a cross-head f^2, and the floats f are supported at their rear ends by link members g, suspended from the axle d^2 and pivotally connected with the rear ends of said floats, as shown at g^2, and mounted in or suspended beneath the cross-head f is a propeller h, on the inner end of the shaft of which is a beveled gear-wheel h^2. The shaft e^4 passes through a pivoted support or bearing h^3 at its lower end and above

which said shaft is provided with a beveled gear-wheel h^4. The floats f are supported at their front ends by link members i at the opposite sides of the drive-wheel b, said link members being supported by or pivotally connected with the forward ends of the rods d, as shown at i^2, and connected with the bottom side rods a^5 of the bicycle-frame are hooks or similar devices i^3 and i^4, and when it is desired for the bicycle to travel on land the floats f are swung backwardly and upwardly into the position shown in full lines in Fig. 1, where they are held by the hooks i^3, which engage the link members i, and when it is desired for the bicycle to travel on or in water the floats f are swung down into the position shown in dotted lines in Fig. 1, where they are held by the hooks i^4, which engage the link members i.

The axle of the drive-wheel b is provided with a supplemental sprocket-wheel, and mounted thereon and on the sprocket-wheel e^2 is a drive-chain j, and it will be apparent that when the pedal-shaft b^4 is turned the sprocket-wheel e^2 will also be turned, together with the beveled gear e and the shaft e^4, provided with the beveled gear-wheel e^5. When the parts are in the position shown in full lines in Fig. 1, the gear-wheels h^2 and h^4 will not engage, and the propeller h will not be operated; but when the parts are in the position shown in dotted lines in Fig. 1 the said wheels will engage, and the propeller h will be operated.

It will be apparent that any suitable device may be provided for throwing the drive-chain j out of operation when the bicycle is traveling on land; but such devices may or may not be employed and are therefore not shown and described.

When the floats c^7 and f are in the position shown in dotted lines in Fig. 1, they operate to support the bicycle in water, and the propulsion or operation of the bicycle will be readily understood; but when the floats are in the position shown in full lines in Fig. 1 the wheels of the bicycle extend below the same, and the vehicle may travel in land, and the operation will be the same as that of other vehicles of this class.

The float attachments, together with the means for suspending the shaft d^2 and the parts connected therewith, may be connected with the main bicycle-frame in any desired manner, and these connections may be made so that said parts may be detached from the main bicycle-frame whenever desired in order that the vehicle may be operated freely on land without the attachments; but my invention is not limited to the exact means for making the said connection.

My invention is not limited to the exact detail herein shown and described, and various changes therein and modifications thereof may be made without departing from the spirit of my invention or sacrificing its advantages.

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

1. A bicycle provided on the opposite sides of the guide-wheel and drive-wheel with floats which are adapted to be raised above and lowered beneath the bottom portions of said wheels, means for locking said floats in either of said positions, a propeller supported by the rear floats, and means for driving said propeller, substantially as shown and described.

2. A bicycle provided on the opposite sides of the guide-wheel and drive-wheel with floats which are adapted to move in a vertical plane, means for raising and locking said floats above the bottoms of said wheels, and devices for lowering and locking said floats below said wheels, the floats at the opposite sides of the drive-wheel being connected, a propeller supported by said last-named floats, and devices for driving said propeller when the floats are in their lowest position, substantially as shown and described.

3. A bicycle provided on the opposite sides of the guide-wheel and drive-wheel with floats which are adapted to move in a vertical plane, means for raising and locking said floats above the bottoms of said wheels, and devices for lowering and locking said floats below said wheels, the floats at the opposite sides of the drive-wheel being connected, a propeller supported by said last-named floats, and devices for driving said propeller when the floats are in their lowest position, said devices comprising a pedal-shaft in operative connection with the propeller, substantially as shown and described.

4. A bicycle, the frame of which is provided with means for supporting floats at the opposite sides of the guide or drive wheels, said floats being adapted to move in a vertical plane, means for locking said floats both in a raised and lowered position, the floats at the opposite sides of the drive-wheel being also connected, a propeller supported by the floats at the opposite sides of the drive-wheel, and devices for driving said propeller, said devices comprising a pedal-shaft in operative connection with the propeller, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 12th day of August, 1904.

ZOTIQUE PAYETTE.

Witnesses:
SIMON ARMSTRONG,
MEDARD DUSSCAUTT.