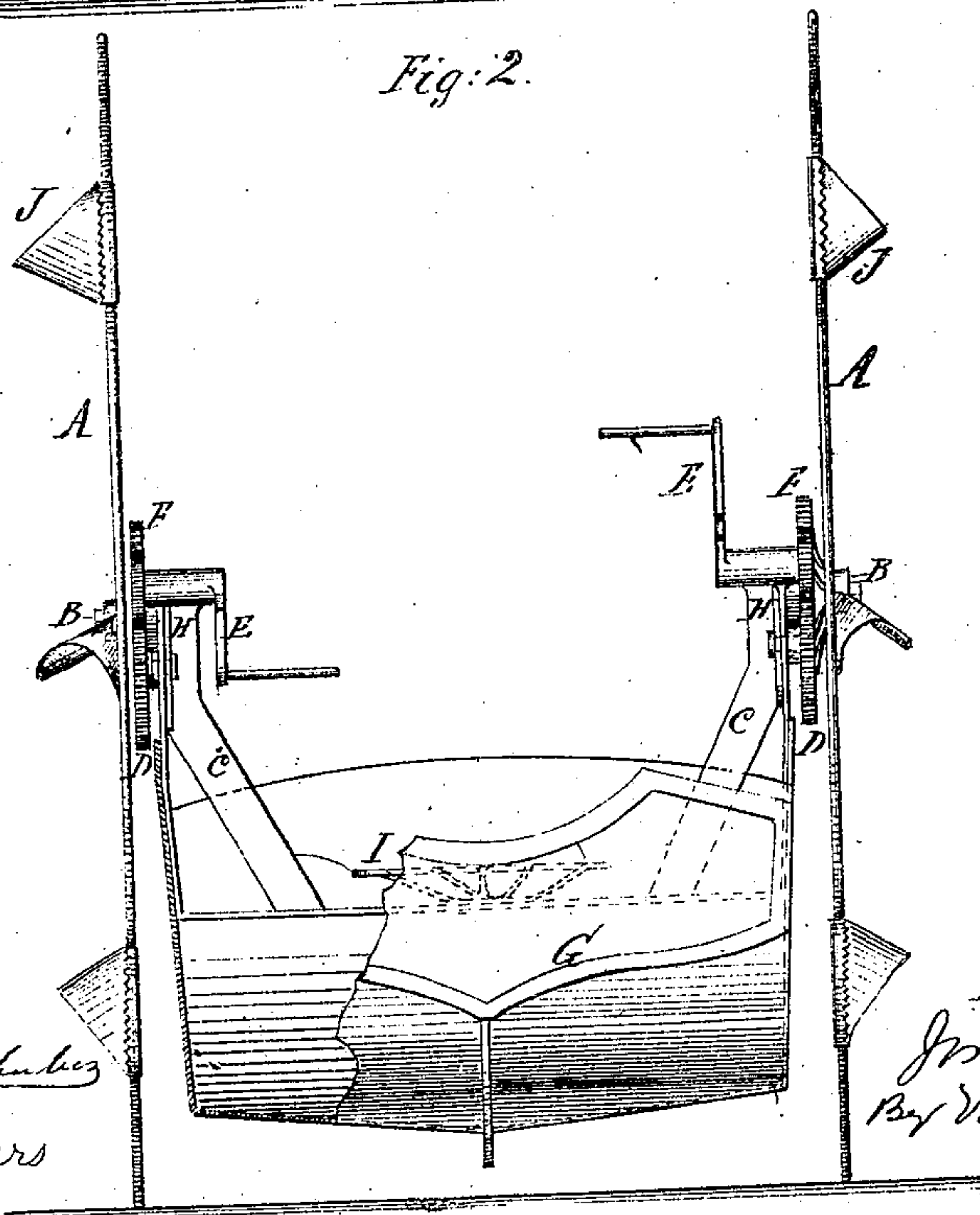
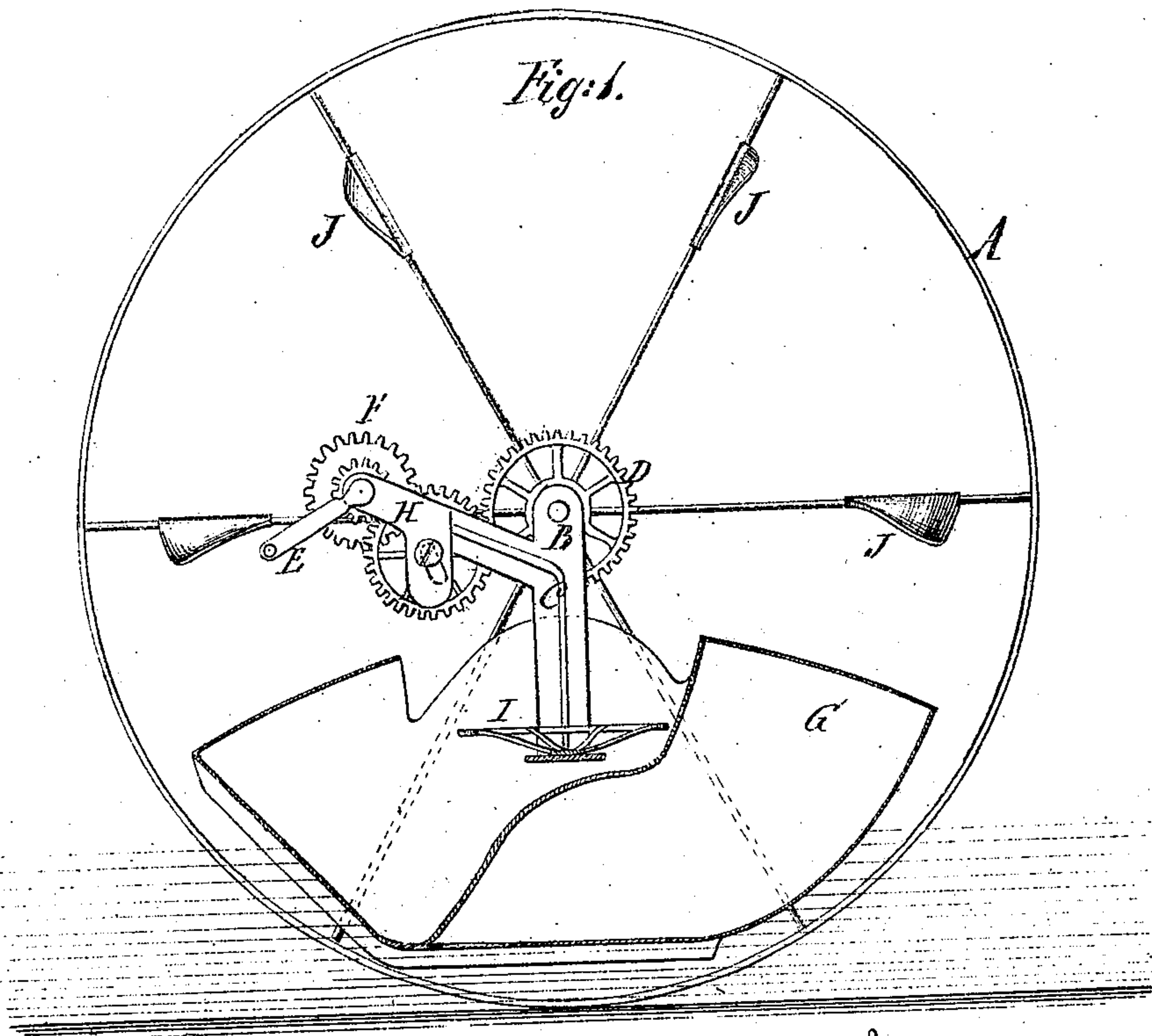


J. Beck,

Buoyant Propeller.

No. 100,356.

Patented Mar. 1. 1870.



Witnesses.

G. F. Kastenhuber

L. Wahlers

Inventor.

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By Van Santvoord & Hauff

his Atty.

United States Patent Office.

JOSEPH BECK, OF MORRISANIA, NEW YORK.

Letters Patent No. 100,356, dated March 1, 1870; antedated February 26, 1870.

IMPROVEMENT IN VELOCIPEDES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH BECK, of Morrisania, in the county of Westchester, and State of New York, have invented a new and useful Improvement in Velocipedes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 is a central section of my improved velocipede.

Figure 2 is an end view, part of the boat being shown in section.

My invention consists in certain improvements in velocipedes for land or water conveyance, as will be hereinafter more fully described.

The letter A designates the two wheels, whose axles, B B, are independent of each other, so that each wheel can be turned independently of the other, and, if desired, one can be turned whilst the other is kept stationary.

Upon the inner end of each axle is mounted a gear-wheel, D, which is driven by the intermediate gear-wheel E, mounted adjustably in the frame C of the apparatus, the wheel E being driven by a pinion, F, on whose axle is placed the crank to which the power is applied for moving the velocipede, whether on land or water.

This arrangement of gear-wheels is the same for each wheel.

I do not restrict myself to this arrangement of gear-wheels, nor to the arrangement of cranks I have here shown for propelling the velocipede, as any suitable arrangement can be used and the power may be applied by means of treadles instead of cranks.

Between the wheels A A, upon or from their axles B B, I suspend a boat, G, of any desired or suitable shape, as shown in the drawing, the means of suspension used by me in this example being a frame, C, which extends across the space between the wheels and receives in its sides the inner ends of the axles B B of the wheels.

The sides of the frame C are also used to support the intermediate gear-wheels E E and pinions F F, the same being extended forward of the axles B B, as shown in the sectional view, fig. 1, at H.

The frame C, and its extensions H, are ribbed or flanged to impart stiffness thereto.

The rider's seat I is placed in the boat G, connected with the frame C, or directly mounted thereon, so that the frame C will receive the strain arising from the propulsion of the apparatus.

The outside faces of the wheels A A are provided with vanes or buckets J, by whose impact with the water the apparatus will be moved through that element when the velocipede is to cross streams or to be used as a boat. These vanes or buckets consist in this example of triangular pieces of flexible material, one of whose edges is fastened around a spoke near the rim of the wheel by a metallic clasp; while the outer edge is bound with a metallic clasp or other rigid material so as to keep the vane distended at right angles to the plane of the wheel.

Each spoke of each wheel is provided with such a vane or bucket, but, if desired, there may be more than one vane on each spoke.

The vanes or buckets can, if desired, be so constructed and arranged as to collapse when the wheels are turned in a backward direction and to open or expand when they are turned in a forward direction, and they may be held close up to the spokes, when not in use, by means of sliding rings.

I hang the boat at such an elevation that it will not touch the ground or be in the way of any prominence in a highway when the velocipede is used on land.

The invention enables one to cross streams and lakes with the same apparatus that is used for a journey by land.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. In a water velocipede, the combination with the suspended body G and wheels A of the adjustable wheels E E, as arranged with wheels D D and pinions F and frame C H, substantially as and for the purpose described.

2. In a velocipede such as described, the flexible vanes or paddles constructed and operated as set forth and adapted to be folded on the spokes when not in use, substantially as and for the purpose specified.

JOSEPH BECK.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.