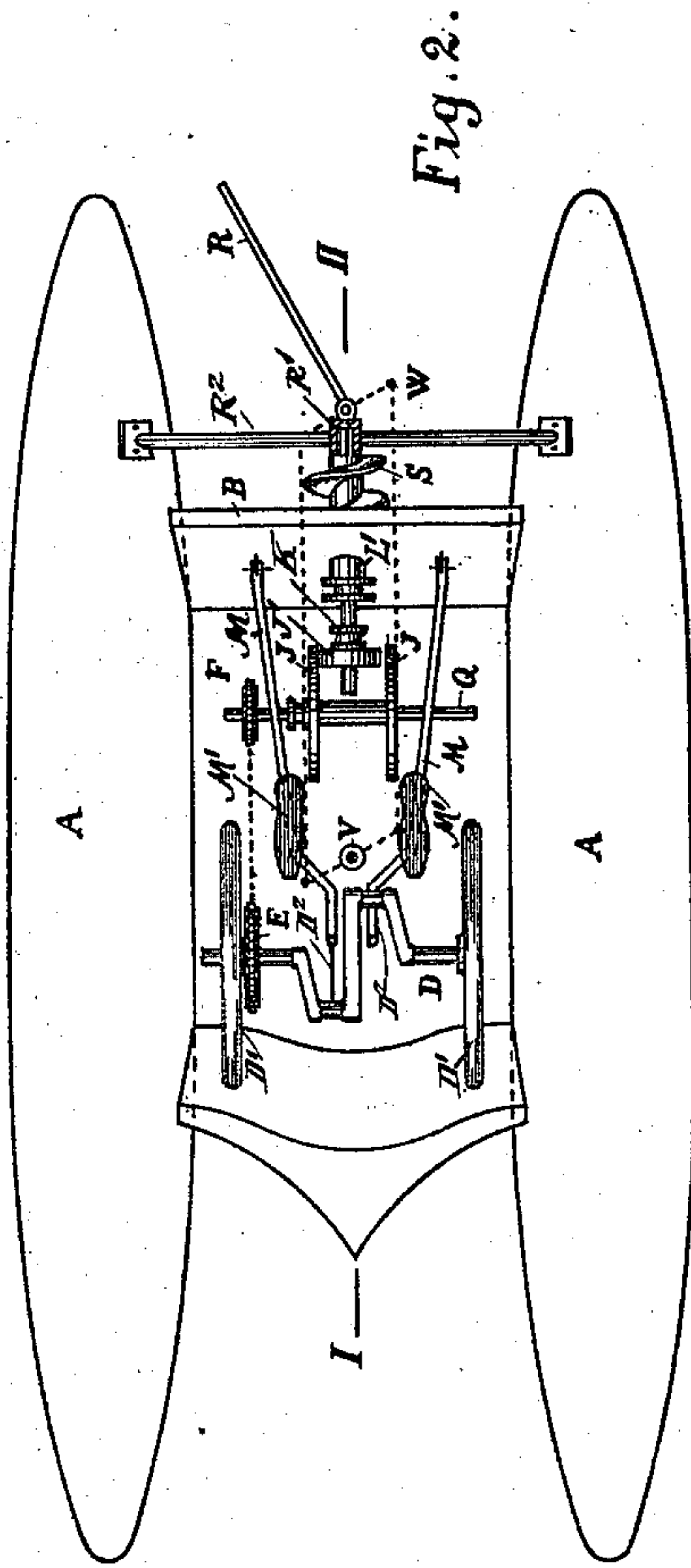
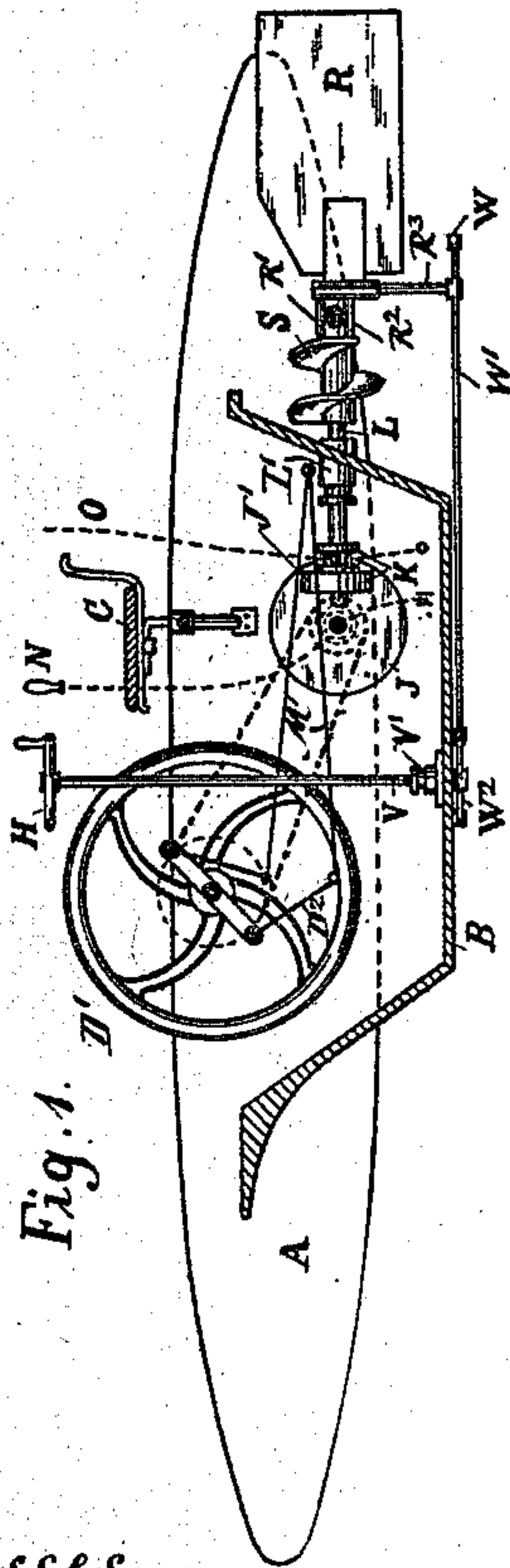
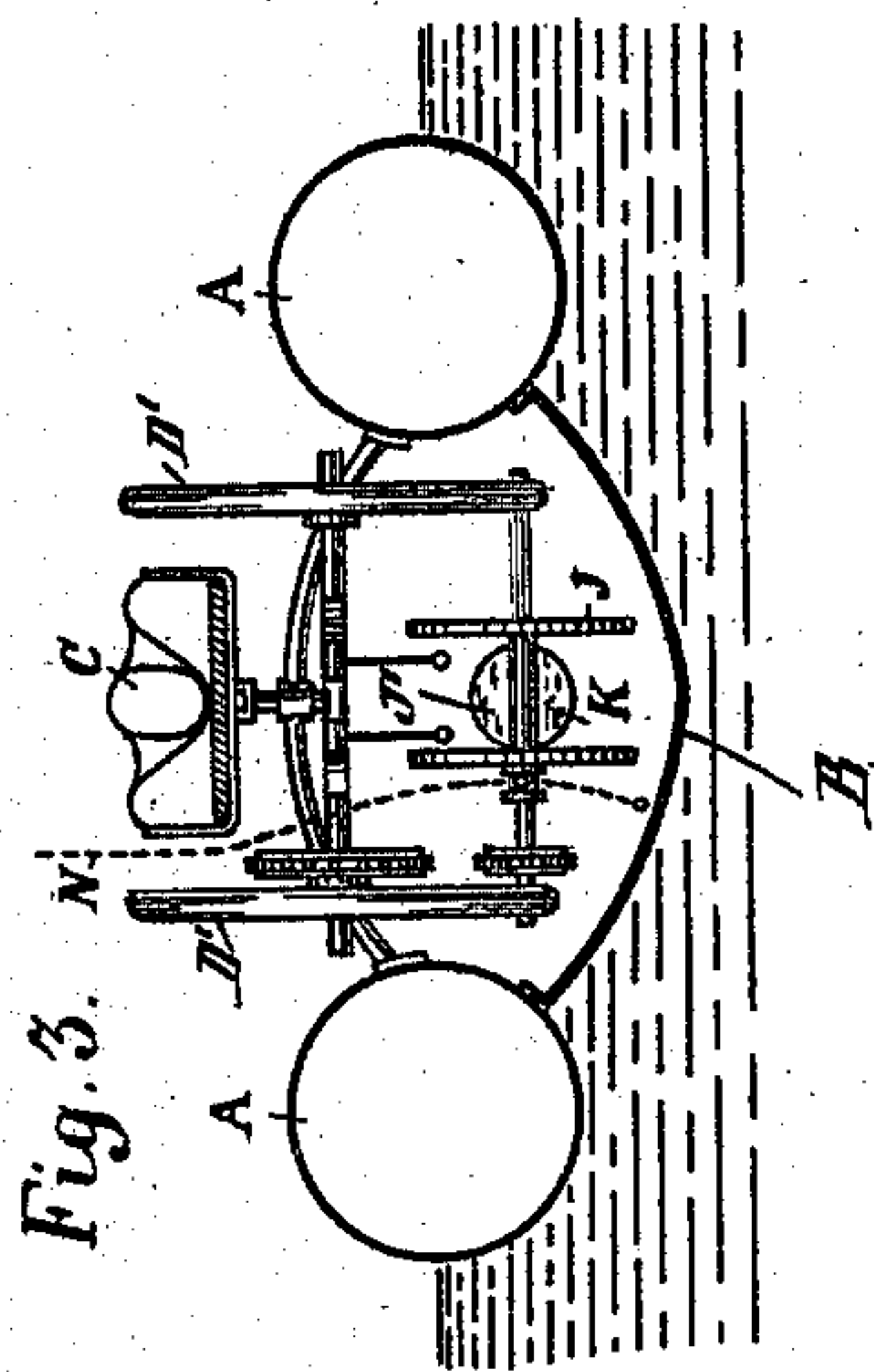


(No Model.)

G. HEINZE.
WATER VELOCIPÈDE.

No. 413,719.

Patented Oct. 29, 1889.



Witnesses.

Charles
A. Melhuish

Inventor.

Georg Heinze

By his Attorney

J. A. Melhuish

UNITED STATES PATENT OFFICE.

GEORG HEINZE, OF KLOTZSCHE, NEAR DRESDEN, SAXONY, GERMANY.

WATER-VELOCIPED.

SPECIFICATION forming part of Letters Patent No. 413,719, dated October 29, 1889.

Application filed April 8, 1889. Serial No. 306,306. (No model.)

To all whom it may concern:

Be it known that I, GEORG HEINZE, a subject of the King of Saxony, residing at Klotzsche, near Dresden, in the Kingdom of Saxony, Empire of Germany, have invented a certain new and useful Improved Water-Velocipede; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to water-velocipedes, and the object thereof is to construct a suitable velocipede of this nature for sporting purposes, &c.

The improved construction is represented in the annexed sheet of drawings, in which—

Figure 1 is a vertical longitudinal central section, Fig. 2 a plan, and Fig. 3 a cross-section, of the water-velocipede hereinafter described, and of which the novel features are pointed out in the claim.

The boat or floating structure of the velocipede consists of the two lateral tapered cylinders A A, placed parallel with each other and connected by the shorter portion or dry-well B, sufficient to receive the seat and mechanism and sufficiently large to support passengers or luggage in addition to the operator. Behind the seat-space B are the screw-propeller S and the rudder R. The latter is hinged to a block R' on a cross-rod R², fixed to the floats A A, and its downwardly-projecting pintle R³ terminates in a cross-bar W, the ends of which are connected by rods W' W' to a similar cross-bar W² on the spindle V, which passes up into the space B through a stuffing-box V', and terminates above in a hand-wheel H or a tiller or other convenient steering device in convenient position in front of the operator seated on the seat C. The shaft L, carrying the screw-propeller S, of suitable form, is journaled in the aforesaid block R', and passes through a stuffing-box L' in the rear cross-wall of the space B, terminating in the part

J' of the frictional coupling, by which it is connected with the operating-gear. In the front part of the space B is journaled the crank-shaft D, having fly-wheels D', and the crank-wrists of which are connected by links D² to the ends of two pedal-levers M M, pivoted at a suitable position at their rear ends, and having the foot-rests M' M', respectively, so that the operator on seat C may alternately depress the said pedal-levers and cause the revolution of the shaft D. The latter carries also the chain-wheel E, connected by chain with the chain-wheel F on the shaft Q. On the shaft Q slides a sleeve carrying the friction-wheels J J, and adapted to be moved by the lever N in the known manner for bringing the one or other wheel J in contact with the wheel J' on the propeller-shaft, and consequently causing the revolution of the latter in the one or other direction and forward or backward propulsion of the velocipede. The wheel J' is made to slide upon the shaft L, and the collar K on the former engages the lever O, so that by corresponding movement of the lever O the radial distance of the wheel J' from the shaft Q may be enlarged or diminished, and the power and the speed of the vessel be consequently brought under greater command of the operator.

I claim—

In water-velocipedes, the combination of two lateral floats A A, a central connecting dry-well B, a rudder behind the rear of said dry-well, a cross-bar W below said rudder, a spindle V, passing through a stuffing-box in the floor of said dry-well, a cross-bar W² on the lower end thereof, and rods W', connecting said cross-bars W W², for the purpose set forth.

In witness whereof I have signed this specification in presence of two witnesses.

GEORG HEINZE.

Witnesses:

OTTO WOLFF,
PAUL DRUCKMÜLLER.