

No. 879,389.

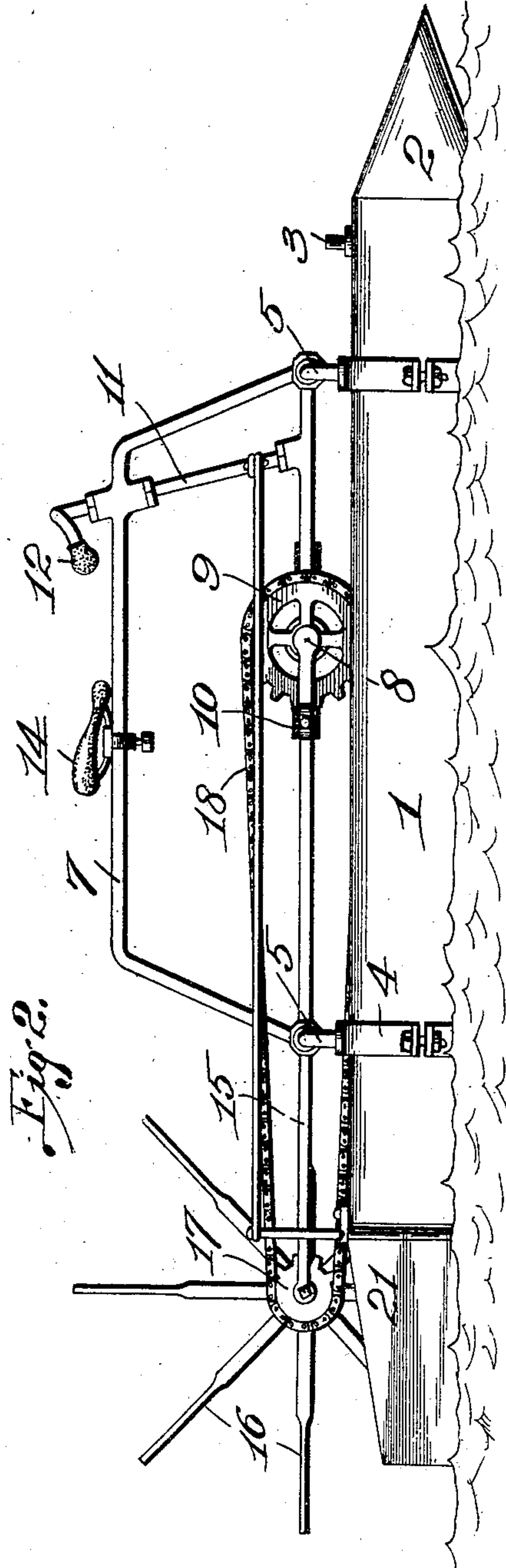
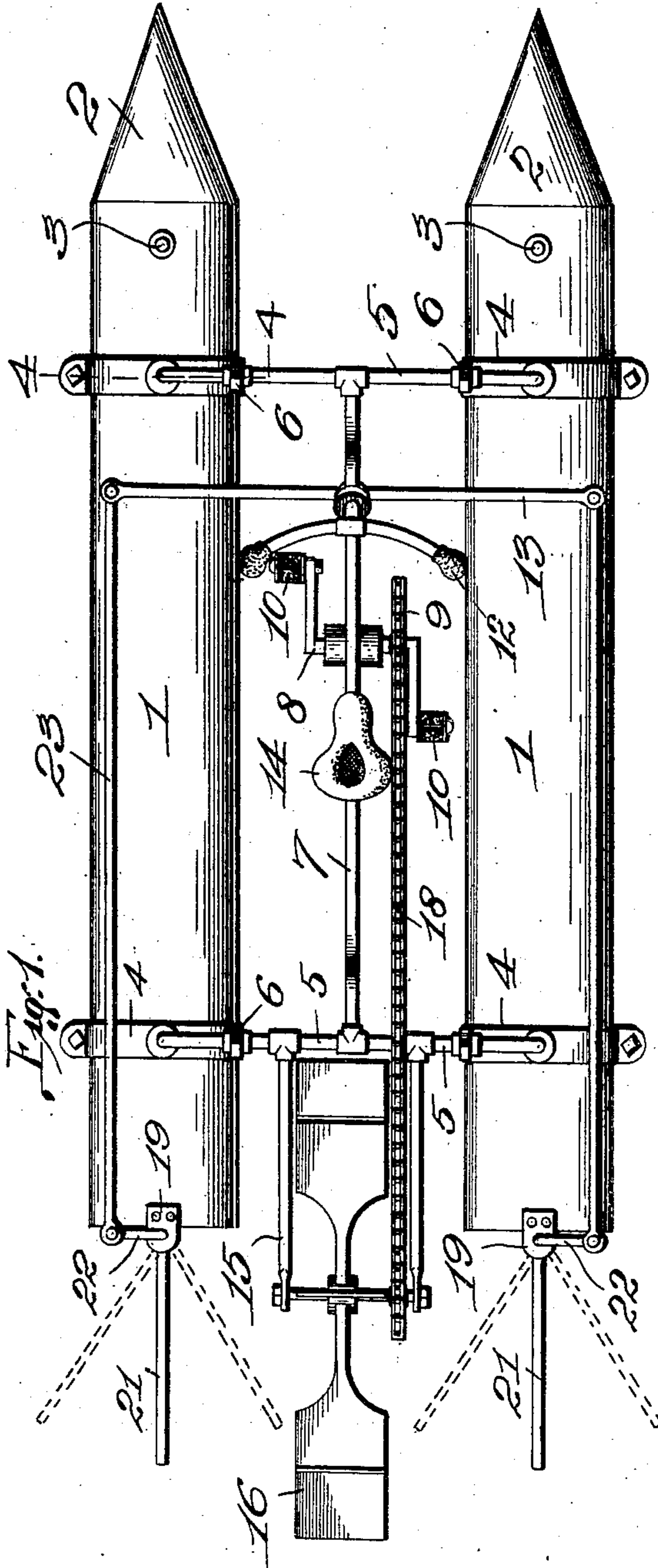
PATENTED FEB. 18, 1908.

R. W. KREIS.

WATER VELOCIPED.

APPLICATION FILED MAY 14, 1907.

2 SHEETS—SHEET 1.



Attest.
E. M. Harrington
W. P. Smith

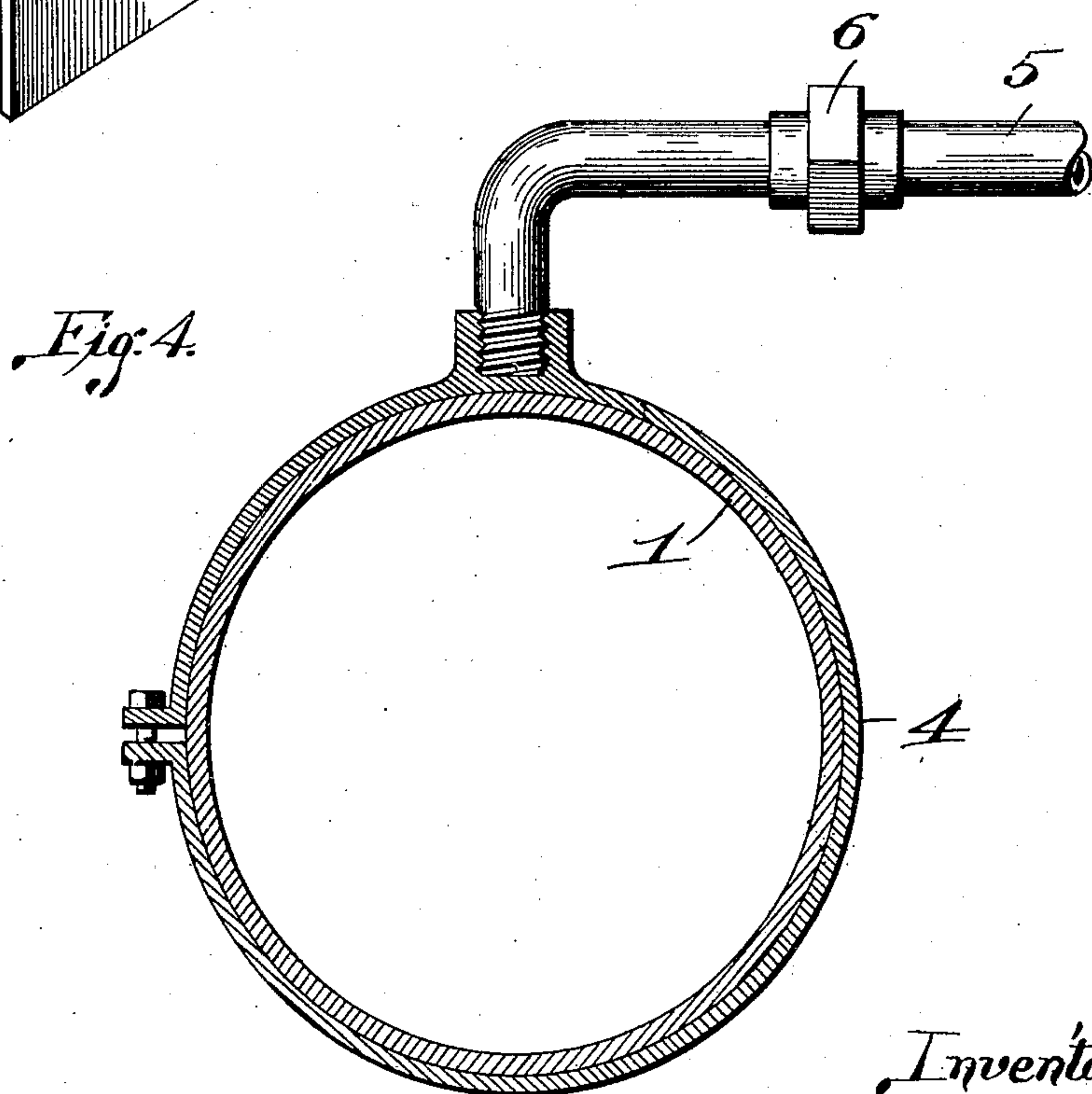
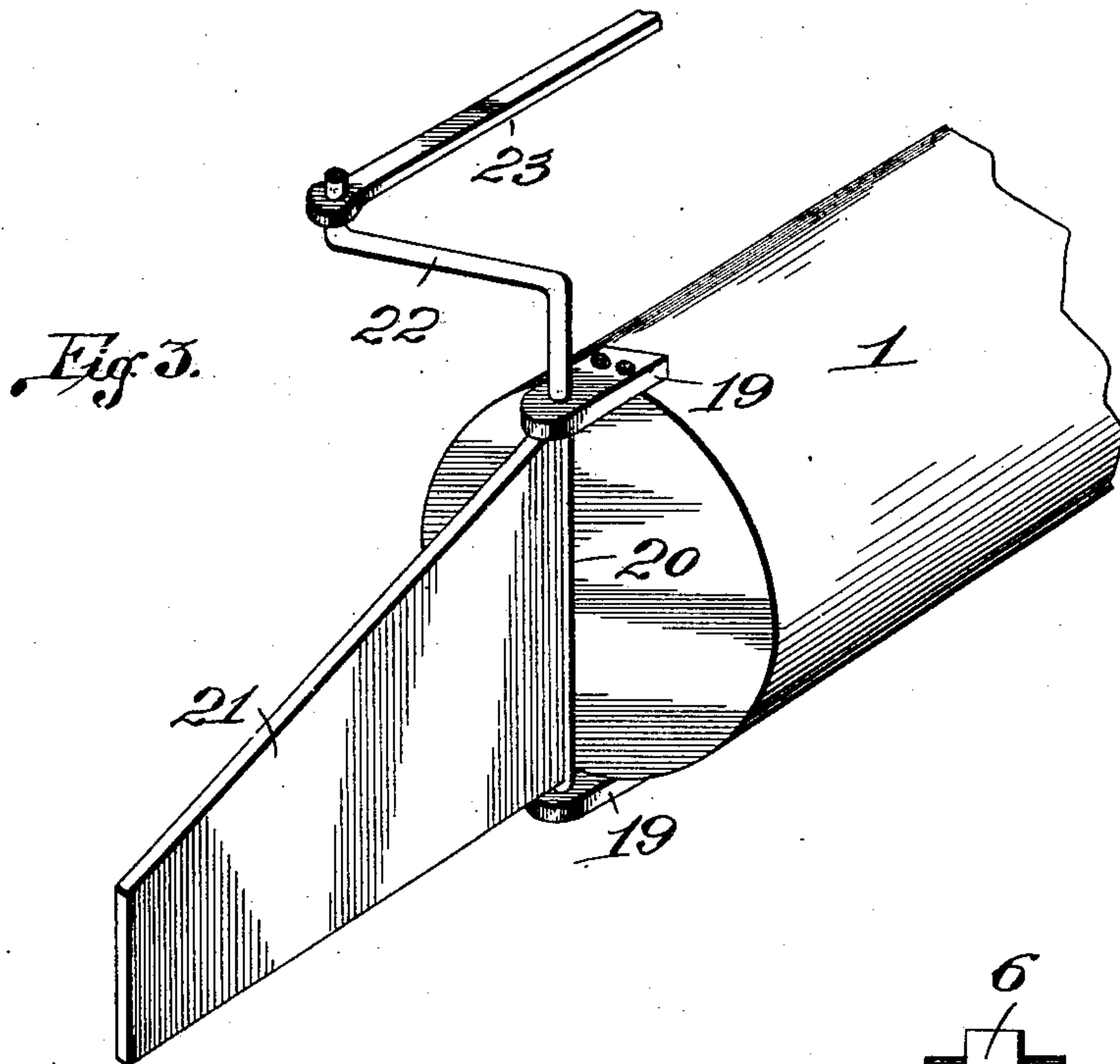
Inventor.
Robert W. Kreis.
by Higdon Longan ATTYS.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ROBERT W. KREIS, OF JENNINGS, MISSOURI.

WATER-VELOCIPEDE.

No. 879,389.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed May 14, 1907. Serial No. 373,686.

To all whom it may concern:

Be it known that I, ROBERT W. KREIS, a citizen of the United States, and resident of Jennings, St. Louis county, Missouri, have invented certain new and useful Improvements in Water-Velocipedes, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a water velocipede, and my object being to construct a simple, inexpensive pleasure device to be pedally operated and driven on the water.

A further object of my invention is to construct a water velocipede which is especially buoyant, capable of being steered in any direction, and which will rest in a comparatively steady position on the surface of the water.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of water velocipede of my improved construction; Fig. 2 is a side elevation of the velocipede; Fig. 3 is a perspective view of the rear end of one of the buoyant cylinders I make use of in carrying out my invention, and showing one of the rudders in position thereon; Fig. 4 is an enlarged transverse section taken approximately on the line 4—4 of Fig. 1.

In the construction of my improved velocipede, I make use of a pair of elongated hollow cylinders 1, constructed preferably of sheet metal, and the forward ends thereof being of conical form, as designated by 2, in order that said cylinders will travel forward with little resistance when driven by the propelling mechanism. These cylinders are provided with suitable inlet valves 3, by means of which air under pressure is pumped into the cylinders to increase their rigidity.

Passing around the cylinders 1, adjacent their ends, are sheet metal bands 4, and rigidly fixed to the tops thereof are the downwardly bent ends of a pair of transverse tubes 5, which unite said cylinders and hold the same parallel. Each of these tubes 5 is provided with a pair of unions 6, thus providing means for the insertion of long or short sections of tubing to vary the distance or space between the cylinders 1.

Rigidly fixed to the centers of the transversely arranged tubes 5 is a vertically disposed tubular frame 7, in the lower portion of which is arranged for rotation a crank shaft 8, on which is fixed a sprocket wheel 9, and said crank shaft being provided with a pair of pedals 10.

Arranged for operation in the forward portion of the frame 7 is a steering post 11, provided with a pair of handles 12 on its upper end, and fixed to the lower portion of said steering post is a pair of outwardly projecting arms 13.

Adjustably arranged on the upper portion of the frame 7, to the rear of the steering post 11, and above the crank shaft 8, is a seat 14.

Fixed to the rear one of the transverse tubes 5, and projecting rearwardly therefrom is a pair of arms 15, between the rear ends of which is arranged for rotation the shaft or hub of a paddle wheel 16. Fixed on the shaft or hub of this paddle wheel is a sprocket wheel 17, and passing around the same and the sprocket wheel 9 is a sprocket chain 18.

Fixed on the rear ends of the cylinders 1 are the vertically alined bearings 19, in each of which is arranged for rotation a vertically disposed shaft 20, and fixed thereon and projecting rearwardly from the rear portions of the cylinders 1 are vertically disposed rudders 21.

The upper end of each of the shafts 20 is bent outwardly, as designated by 22, and pivotally connected to the outer ends of these outwardly bent portions are the rear ends of rods 23, the forward ends of which are pivotally connected to the outer ends of the arms 13.

When my improved water velocipede is in use, the operator positioned on the seat 14 pedally operates the crank shaft 8, and the rotary motion thereof is imparted to the paddle wheel 16 by means of the sprocket chain 18, and the blades of said paddle wheel dipping into the water in succession drive the velocipede forward.

To steer the velocipede to one side or the other, the operator partially rotates the steering post 11 by means of the handle 12; and in so doing, shifts the positions of the arms 13; and, by means of the connecting rods 23, correspondingly shifts the positions of the rudders 21, and thus the velocipede is guided as desired.

Water velocipedes of my improved con-

struction are primarily intended for amusement purposes in small lakes and lagoons in parks, and the like, although they may be constructed on a large scale and advantageously used on rivers and large bodies of water.

The hollow cylinders 1 are perfectly air and water tight, thus providing the proper buoyancy for the velocipede, and giving the same the proper strength with minimum weight.

I claim:—

A water velocipede, comprising a pair of hollow cylinders, of the same diameter throughout their length and provided with pointed forward ends, a pair of bands encircling each cylinder adjacent its ends, a tubu-

lar frame having its lower ends detachably seated in the bands at the tops of the cylinders, the transverse members of which frame are separable to permit the insertion of extra frame members, a paddle wheel arranged for rotation between the rear ends of the cylinders, pedally operated means for driving said wheel, a rudder arranged at the rear of each cylinder, and means whereby the rudders are simultaneously shifted.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

ROBERT W. KREIS.

Witnesses:

M. P. SMITH,

E. L. WALLACE.