

(No Model.)

2 Sheets—Sheet 1.

C. L. KNEPPER.
WATER BICYCLE.

No. 586,851.

Patented July 20, 1897.

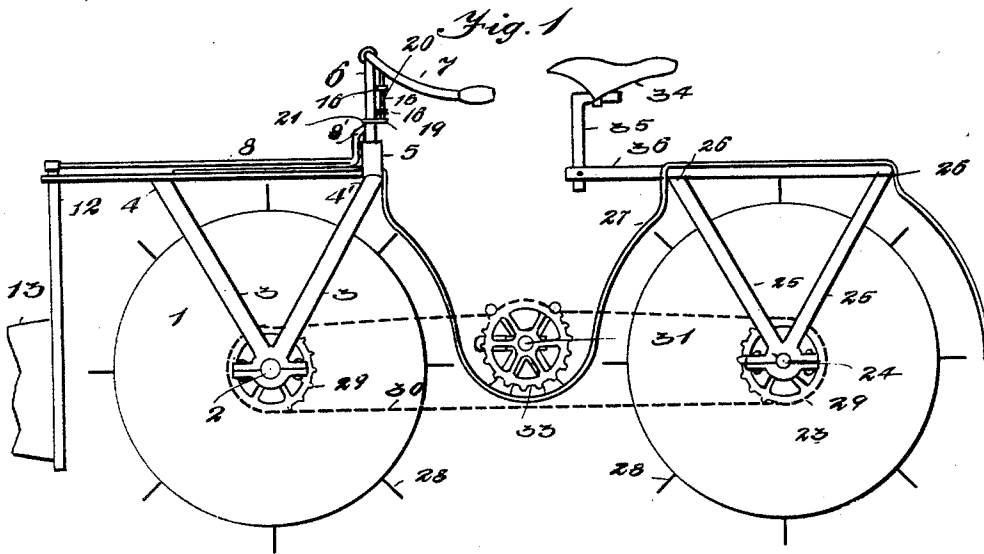
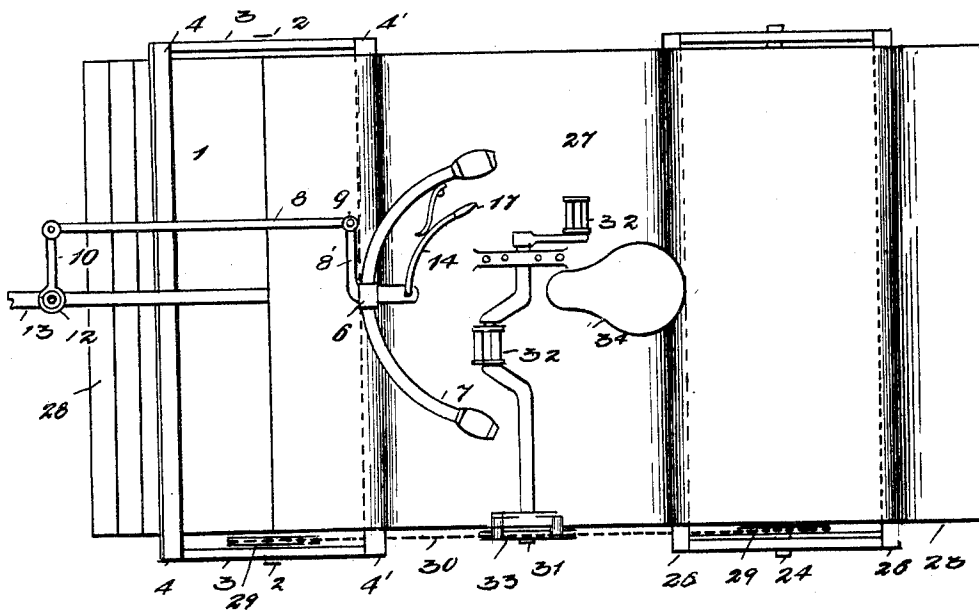


Fig. 2



Witnesses

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By H. B. Wilson,
Attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3

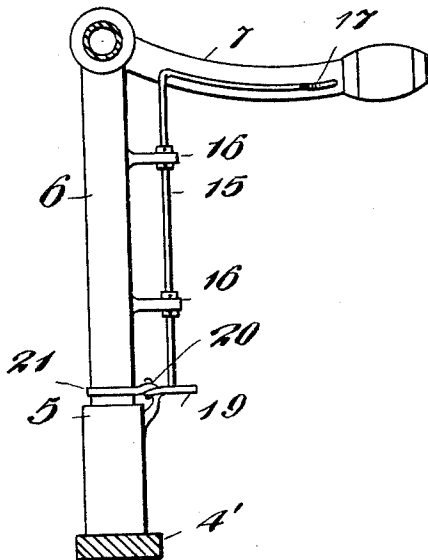


Fig. 4

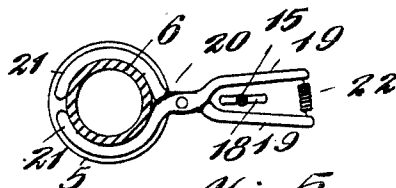


Fig. 5

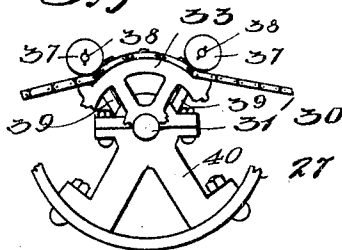
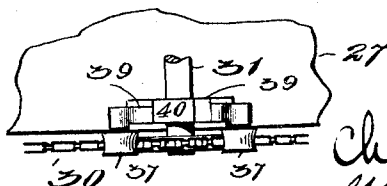


Fig. 6



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UNITED STATES PATENT OFFICE.

CHARLES L. KNEPPER, OF TOCSIN, INDIANA.

WATER-BICYCLE.

SPECIFICATION forming part of Letters Patent No. 586,851, dated July 20, 1897.

Application filed December 10, 1896. Serial No. 615,178. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. KNEPPER, a citizen of the United States, residing at Tocsin, in the county of Wells and State of Indiana, have invented certain new and useful Improvements in Water-Bicycles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in water-bicycles; and the object is to provide a simple, convenient, and effective device of this kind.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is a side elevation of my improved water-bicycle. Fig. 2 is a top plan view of the same.

1 represents an air-tight sheet-metal cylinder provided with a longitudinal shaft 2, the outer ends of which are journaled in the brackets 3 3, connected at their upper ends by the transverse braces 4 4'.

5 represents a vertical post arising from the brace 4', and upon it is mounted a tube 6, on the upper end of which is mounted the usual handle-bar 7.

8 represents a horizontal connecting-rod pivoted at its rear end to a lateral arm 8' on the lower end of the tube 6, so as to be operated by the handle-bar, and its front end is pivoted to the outer end of an arm 10, secured to the upper end of a vertical steering-post 12. The lower end of this steering-post 12 is provided with a forwardly-projecting rudder 13, which is conveniently manipulated by the handle-bar, as above described.

14 is a lever mounted on a shaft 15, journaled in brackets 16 16, secured to the tube 6, its grip or handle 17 extending to within convenient reach of the right-hand grip of the handle-bar, and the lower end of the shaft 15 is provided with a short cross-bar 18, extending between the arms 19 19 of a clamp 20, the

semicircular jaws 21 21 of which embrace the steering-tube 6.

The arms 19 19 are connected by a stout spring 22, which serves to compress the jaws 21 21 on the tube 6 and hold it rigidly in position; but when the end of the lever 14 is pressed in toward the handle-bar the cross-bar 18 opens the arms 19 19 of the clamp 20 and releases the steering-tube, so that the rudder may be manipulated to direct the course of the craft. When the lever 14 is released, the spring 22 forces the jaws 21 21 together to clamp the steering-tube and hold the rudder in a fixed position.

23 represents an air-tight cylinder the shaft 24 of which is journaled in the brackets 25 25, which are connected at their upper ends by transverse braces 26 26, which are bolted to the frame 27, the forward end of which is connected in the usual manner to the front braces 4 4'. The cylinders 1 and 23 are provided with longitudinal fins or blades 28 and sprocket-wheels 29 29, which carry the sprocket-chain 30.

A crank-shaft 31 is mounted in a bracket 4, secured to the frame 27, and it is provided with the usual pedals 32 32 and a sprocket-wheel 33, which engages the sprocket-chain and serves to propel the craft.

34 represents the usual adjustable seat, mounted on the standard 35, secured to the forward end of the bracket 36, connected to the frame.

37 37 represent friction-rollers, mounted on studs 38 38, secured to vertical arms 39 39 on the bracket 40, and their office is to keep the upper line of the sprocket-chain in engagement with the sprocket-wheel 33.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

A water-bicycle comprising the frame 27, the brackets 25 depending therefrom, a for-

wardly-projecting horizontal bracket 36 secured to the rear portion of said frame, the standard 35 and seat 34 secured in said bracket 36, the air-tight cylinder 23 provided with the
5 blades 28 and shaft 24 journaled in the brackets 25, the sprocket-wheel 29 mounted on said shaft, in combination with the crank-shaft 31, the sprocket-wheel 33 and the friction-rollers 37, the depending brackets 3 3 secured
10 to the front end of the frame, the air-tight cylinder 1 provided with blades 28 mounted on the shaft 2 and journaled in said brackets 3 3, the sprocket-wheel 29 mounted on said shaft 2, the sprocket-chain 30 in operative en-
15 gagement with said sprocket-wheels on the

cylinders and crank-shaft, and the rudder 13 mounted in the forward end of the frame on the post 12, the lateral arm 8' secured to said post, the vertical post 5, the tube 6 mounted on said post and provided at its upper end 20 with the handle-bar 7, a lateral arm 8' fixed on said tube 6, and the connecting-rod 8 connecting the arms 8' and 10, substantially as shown and described.

In testimony whereof I hereunto affix my 25 signature in presence of two witnesses.

CHARLES L. KNEPPER.

Witnesses:

JOSEPH KNEPPER,
CHARLES E. SWAIM.