

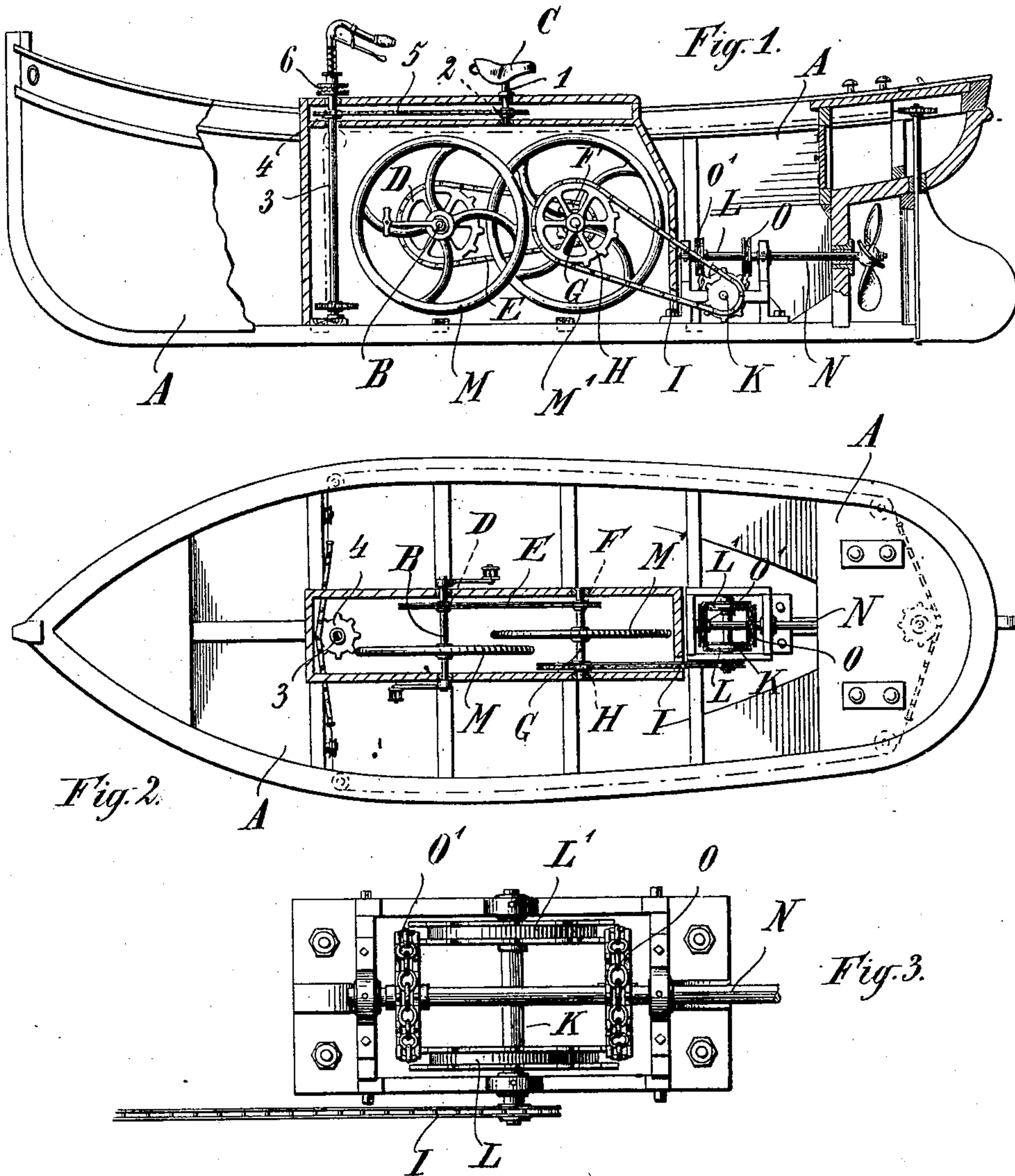
No. 636,412.

Patented Nov. 7, 1899.

A. MARX.
WATER BICYCLE.

(Application filed June 20, 1899.)

(No Model.)



Witnesses:
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by

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UNITED STATES PATENT OFFICE.

ANDREAS MARX, OF FÜRSTENBERG, GERMANY.

WATER-BICYCLE.

SPECIFICATION forming part of Letters Patent No. 636,412, dated November 7, 1899.

Application filed June 20, 1899. Serial No. 721,224. (No model.)

To all whom it may concern:

Be it known that I, ANDREAS MARX, a citizen of the Grand Duchy of Mecklenburg, and a resident of Fürstenberg, in the Grand Duchy of Mecklenburg, German Empire, have invented certain new and useful Improvements in Water-Bicycles and Steering Mechanism for Same, of which the following is a specification.

10 The object of the present invention is a water-bicycle provided with an arrangement to steer the same with the aid of the saddle; and it consists, essentially, in the improvements hereinafter described.

15 In the accompanying drawings, Figure 1 shows the arrangement in a longitudinal cut through the middle line of the boat. Fig. 2 is a plan of same. Fig. 3 shows the gearing by means of which the motion is transmitted to the propeller-shaft.

20 B is a crank-shaft resting in proper bearings in a boat A. It may be rotated by means of pedals fixed to the cranks by a person sitting on the saddle C. The axis bears a sprocket-wheel D, which transmits the motion by means of a chain E to a smaller sprocket-wheel F, fixed to a shaft G. On the same is provided a second sprocket-wheel H, which transfers the motion by means of a chain I and a smaller sprocket-wheel to an axis K, on which are provided two grooved pulleys L and L', one of which is fast and the other one loose.

30 In order to render the running of the machine smooth, and in order to evitate shocks, the axles B and G may be provided with fly-wheels M and M'.

40 N is the propeller-shaft, bearing two grooved pulleys O and O', one of which is fast and the other one loose on the shaft. A chain is slung around the pulleys L L' O O', thereby transmitting the motion of the pedals to the propeller-shaft.

In front of the saddle C there is arranged a vertical shaft ending in a handle-bar or a hand-wheel, which by means of chains or the like transmits its motion to the tiller of the rudder. The saddle is movable on its support and connected by proper means with the vertical axis of the handle-bar, so that the latter may be turned by means of a movement of the saddle, which is derived from the shifting of the center of gravity of the rider to one side or the other in rounding curves with the boat. The saddle-support 1 is for that purpose made rotatable. At its lower end it bears a sprocket-wheel 2. On the vertical axis 3, bearing at its end the handle-bar, is provided a second sprocket-wheel 4. A chain 5, passed around both, serves for transmitting the motion from the saddle to the axis.

60 In order to enable the rider to connect or disconnect at will the saddle with the axis 3, the sprocket-wheel 4 is not fixed to the axis 3, but moves freely on it. By means of any suitable coupling 6 the connection may be made between the two.

Having now particularly described my invention, what I claim is—

In a water-bicycle the combination with a propeller-shaft, a fast and a loose pulley thereon, a chain passed around said pulleys and around two other ones, one of which is fast and the other one loose on a second shaft, rectangular to the former one; said shaft being rotated from a crank-shaft by means of chains and sprocket-wheels; substantially as shown and described.

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

ANDREAS MARX.

Witnesses:

WOLDEMAR HAUPT,
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