

(No Model.)

H. B. OGDEN.  
MARINE VELOCIPEDE.

No. 524,209.

Patented Aug. 7, 1894.

Fig. 1.

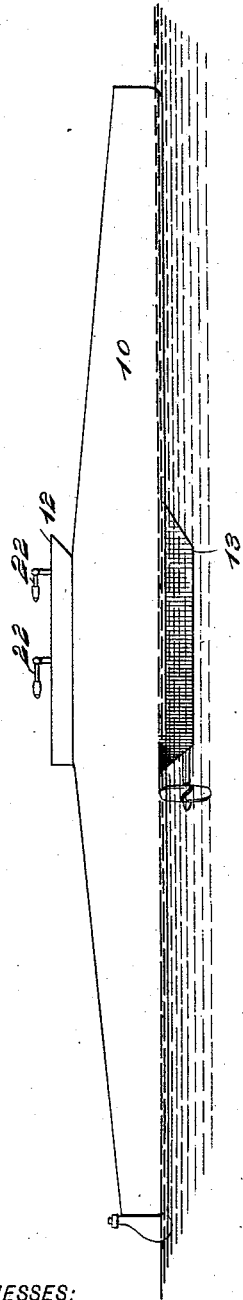


Fig. 2.

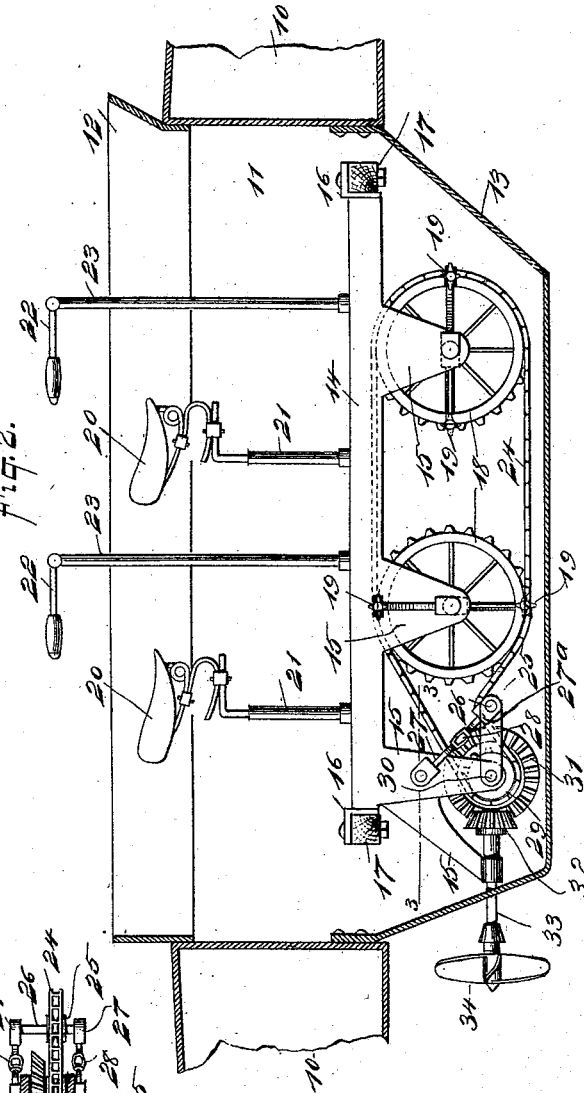
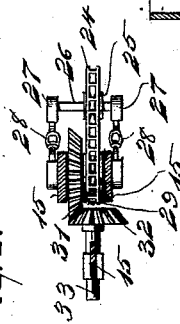


Fig. 3.



WITNESSES:

William Goebel.  
W. B. Hutchins.

INVENTOR

H. B. Ogden  
BY  
Munn & Co.  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HERMAN B. OGDEN, OF BROOKLYN, NEW YORK.

## MARINE VELOCIPED.

SPECIFICATION forming part of Letters Patent No. 524,209, dated August 7, 1894.

Application filed March 17, 1894. Serial No. 503,974. (No model.)

*To all whom it may concern:*

Be it known that I, HERMAN B. OGDEN, of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Boats and Propelling Mechanism Therefor, of which the following is a full, clear, and exact description.

My invention relates to improvements in boats and in means for driving them, and the object of my invention is to produce a boat and driving mechanism of simple and comparatively cheap construction, which may be propelled by foot power after the manner in which a bicycle is driven, and which may be propelled easily and with great rapidity.

To these ends, my invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of my improved boat. Fig. 2 is an enlarged detail longitudinal midship section, showing the arrangement of the driving mechanism and the construction of the fin-keel; and Fig. 3 is a detail sectional plan, on the line 3—3 of Fig. 2, of a portion of the driving mechanism.

The boat 10, may be in the main of any usual construction, but it is preferably made somewhat long and with fine lines, as illustrated in Fig. 1, to enable it to ride easily in the water, and it has an open mid-ship section 11, which is separated preferably by bulkheads from the rest of the boat, although this does not affect the principle of the invention. Around the upper edge of the section 11 is a rail 12 to keep out the water, and below the section 11, and forming a continuation thereof, is a hollow fin-keel 13, which terminates in an edge in front and which forms a casing to contain the driving mechanism, the keel serving also to give the necessary stability to the boat and prevent it from rocking under the vibration of the driving mechanism.

In the section 11, and preferably at about the top of the keel 13, is hung a frame 14, which has at necessary points integral depending hangers 15 to support the driving

mechanism, and the frame has also at its ends, angle plates 16, which are adapted to be secured to the cross braces 17 or equivalent supports so as to hold the frame in its proper position. The frame carries a pair of sprocket wheels 18 arranged one ahead of the other, as the mechanism is adapted to be operated by two parties, but it will be understood that a greater or less number of sprocket wheels may be used if desired. These sprocket wheels 18 are provided with pedals 19, hung on cranks precisely as bicycle pedals are arranged, but the pedals are placed quartering, that is, the pedals of one wheel are at right angles to those of the other, so that one foot of an operator will always be applying power to a wheel and the operators will not be simultaneously pressing on pedals on the same side of the boat, and in this way excessive rocking is obviated.

Above the sprocket wheels 18 are saddles 20, which are like the ordinary bicycle saddles and which are supported on posts 21, which are secured to the frame 14, and saddles of any approved kind may be used. In front of the saddles are handle bars 22 to steady the riders, these being secured to posts 23, which extend upward from the frame 14. The sprocket wheels are provided with a common chain 24, which extends rearward in the fin-keel 13, and the lower strand or member of the chain extends over a plain wheel 25, which is used as a belt tightener and is hung on a journal 26, which is supported in hangers 27 and 27<sup>a</sup>, these being vertically adjustable by means of the couplings 28, of the usual screw kind, and by adjusting these couplings the tension of the sprocket chain may be regulated. The chain drives a sprocket wheel 29, which is secured to a shaft 30 journaled in a pair of the hangers 15, as shown in Fig. 3, and the shaft carries a bevel gear wheel 31, which meshes with a gear wheel 32 on the propeller shaft 33, this shaft extending rearward through the fin-keel 13, and carrying a propeller 34 which may be of any approved make.

It will be seen that the riders by turning the sprocket wheels 18, impart a rapid motion to the propeller shaft and propeller, so that the boat may be driven rapidly through the water. If desired, the boat may be adapted for a sin-

gle rider, in which case the forward sprocket wheel is dispensed with and the chain arranged so as to extend around the rear sprocket wheel only.

5 I have shown no steering gear, but it will be understood that any usual appliance for this purpose may be used.

Having thus described my invention, I claim as new and desire to secure by Letters  
10 Patent—

1. The combination, with the boat having the fin keel and the propeller shaft projecting through the rear end of the fin keel, of the frame extending longitudinally of the fin  
15 keel and provided with depending hangers, pedal operated driving mechanism secured to the hangers and geared to the propeller shaft, and a saddle and handle bars also supported on the frame, substantially as described.

2. The combination, with the boat having 20 the fin keel and the propeller shaft projecting rearward through the fin keel, of the frame extending longitudinally of the fin keel and provided with a series of depending hangers, one of which forms a support for the pro- 25 peller shaft, a gear wheel journaled on one of the hangers and geared to the propeller shaft, pedal operated wheels journaled on the other hangers, an operative driving connection between the pedal operated wheels and the gear 30 wheel, saddles supported on the frame, and handle bars supported on the frame near the saddles, substantially as described.

HERMAN B. OGDEN.

Witnesses:

WARREN B. HUTCHINSON,  
C. SEDGWICK.