

(No Model.)

C. W. HORTON.
WATER MOTOR.

No. 595,246

Patented Dec. 7, 1897.

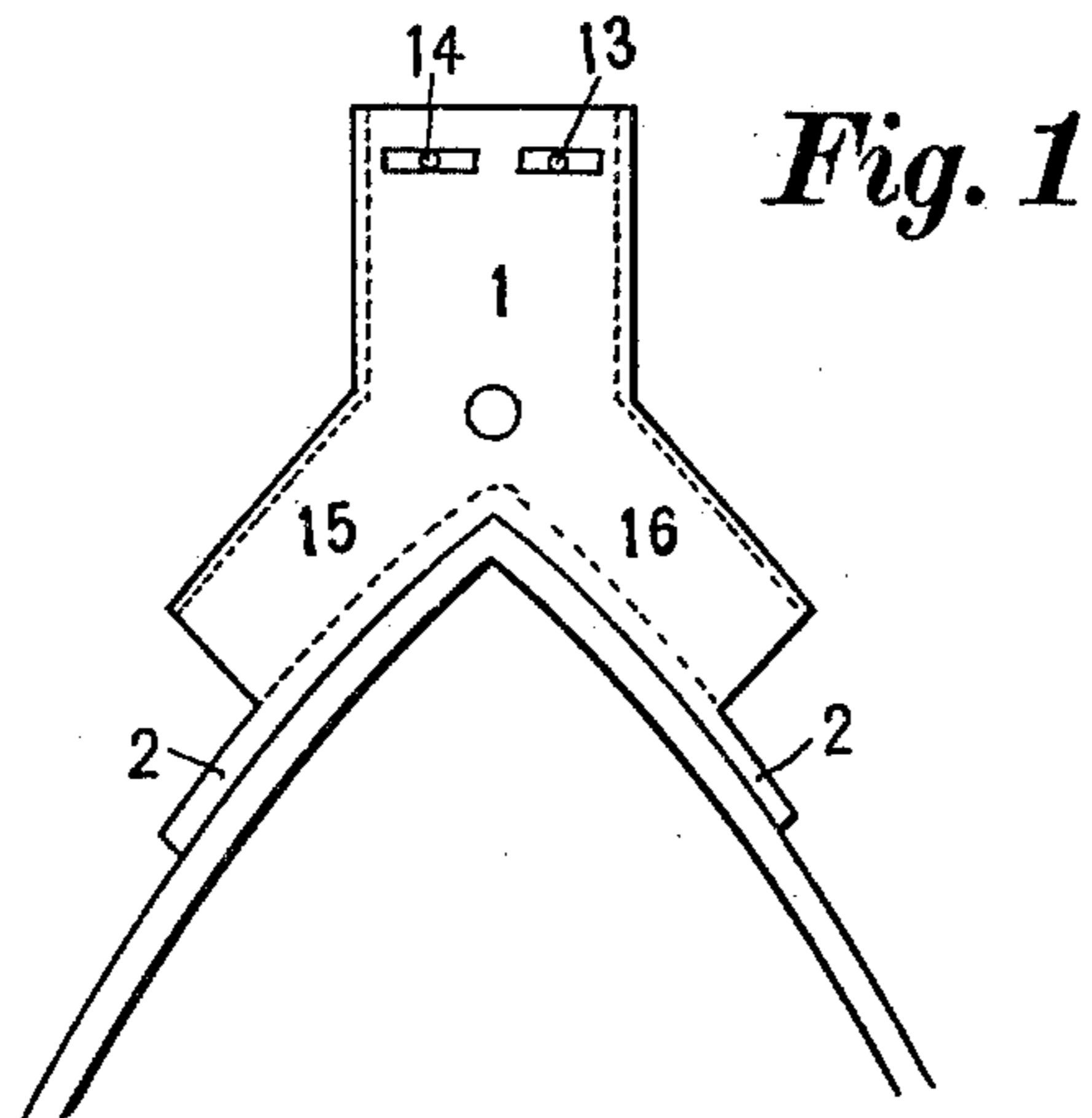


Fig. 1

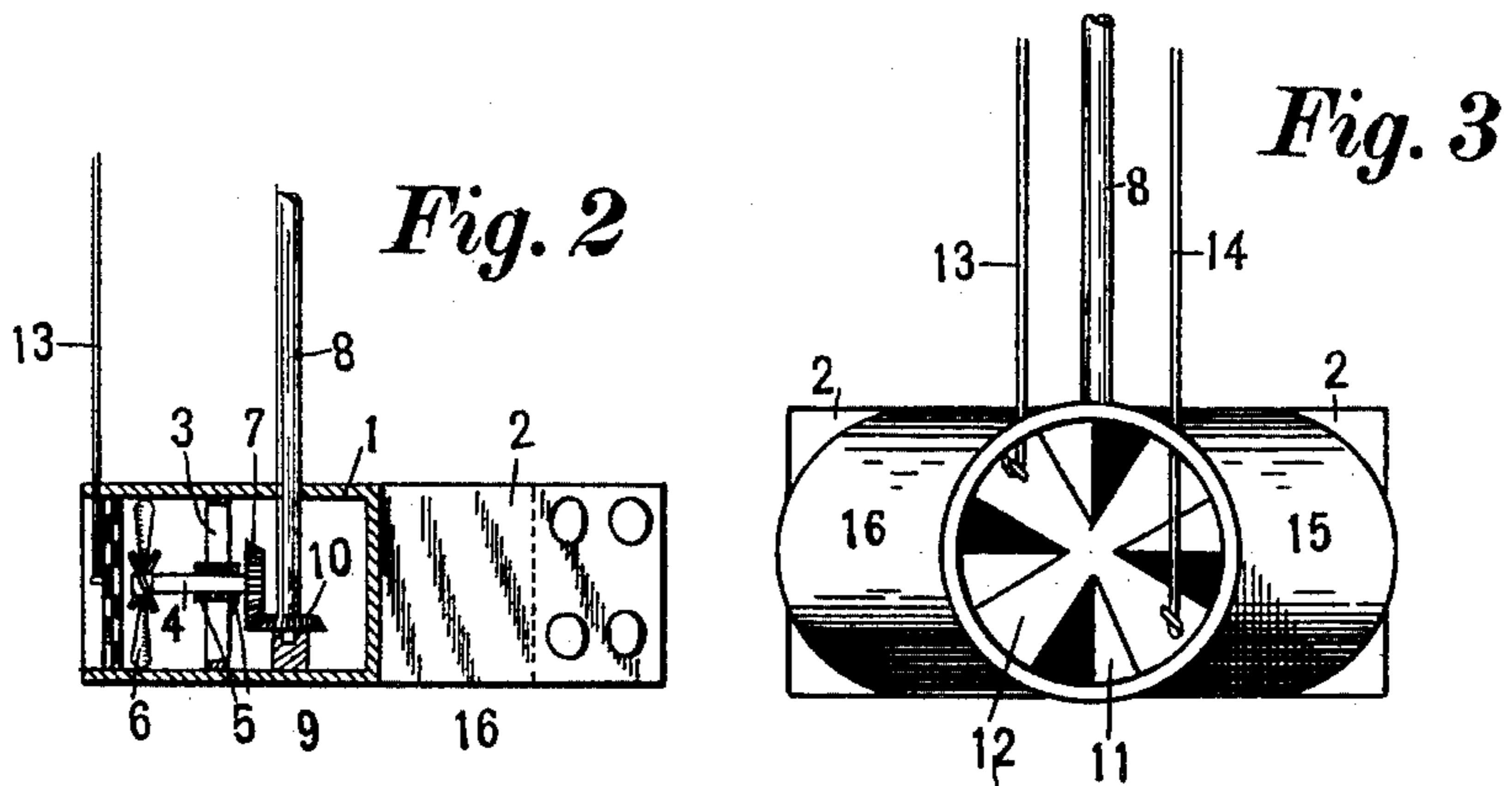


Fig. 2

Fig. 3

WITNESSES.

Frank Wheeler
J. P. ...

INVENTOR.

Chas. W. Horton,
By H. Roscoe Wheeler
Attorney

UNITED STATES PATENT OFFICE.

CHARLES W. HORTON, OF BLAKESLEE, OHIO.

WATER-MOTOR.

SPECIFICATION forming part of Letters Patent No. 595,246, dated December 7, 1897.

Application filed April 15, 1897. Serial No. 632,241. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HORTON, a citizen of the United States, residing at Blakeslee, in the county of Williams and State of Ohio, have invented certain new and useful Improvements in Water-Motors; and I do hereby 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, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to new and useful improvements in water-motors; and it consists in the construction and arrangement of parts, as hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide a motor capable of attachment with the bow of a boat below its water-line, said motor consisting of a propeller-wheel, shafts, and gears, which are adapted to be run by coming in contact with the water while the boat is under motion, means being also provided by which the amount of water admitted for operation upon the wheel may be regulated, thus affecting the speed and power of the motor, which object is attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the motor-case as it appears attached to the point of a boat-hull. Fig. 2 is a vertical longitudinal section through the motor. Fig. 3 is a front elevation showing particularly the means for regulating the flow of water to the operative parts.

Referring to the numerals of reference, 1 designates the motor-casing, which is substantially Y shape in plan, said casing having perforated wings 2 formed integral therewith, by means of which it may be secured to the boat-hull.

Extending across the interior of portion 1 of the casing from the top thereof to the bottom is a framework 3, in the center of which a suitable bearing-box is mounted, in which box a counter-shaft 4 is journaled, said shaft being provided with collars 5, secured thereto, one upon either side of said framework 3, which hold said shaft from longitudinal movement.

Mounted upon the outer end of shaft 4 is a propeller-wheel 6, and mounted upon the inner end thereof is a miter-gear 7, the diameter of said propeller being such that it will nearly fill the circular portion 1 of the casing.

8 indicates a vertical shaft, its lower end being reduced in diameter and adapted to rest in the upper end of a post 9, by which construction it is securely held in position. Mounted upon said shaft 8 in such position as to mesh with miter-gear 7 is a corresponding gear 10.

The front end of portion 1 of the casing is provided with a damper-like device or valve, one portion 11 of which is stationary, said stationary portion having a corresponding portion 12 pivoted centrally thereto. Secured at opposite sides of the movable member 12 are operating rods or cables 13 and 14, by the apparent operation of which the solid portions of the members 11 and 12 may be caused to register with one another and thus regulate the opening between said members.

It will now be seen that if the boat to which this motor is attached be put under headway and the rods 13 and 14 operated to open the entrance of the propeller-chamber water will pour therinto, and as it impinges upon the blades of the propeller-wheel said wheel will be rotated in a degree corresponding to the extent of the opening and the water admitted. It will also be seen that as the propeller 6 is rotated its rotary motion will be communicated to gear 7 through counter-shaft 4 and thence to shaft 8 through gear 10. Said shaft 8 is adapted to extend upward into the boat and the power therefrom to be utilized to drive ventilating-fans, operate air-pumps for fog-horns, or such other purposes as found desirable and of which the motor is capable. After the water has entered the propeller-chamber and passed to the operative parts it passes outward through the bifurcated portion or hollow wings 15 and 16, by which construction very little retardation of the boat's progress is incurred.

It will be seen that by the construction and arrangement of parts hereinbefore set forth a cheap, simple, and durable motor is provided and one which is capable of furnishing needed power at little or no expense, as the wear is very slight and the parts are not

such as would be liable to be easily disarranged.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a water-motor, the combination of the casing 1, having bifurcated hollow portions 15 and 16 formed integral therewith, perforated attaching-plates 2 forming a portion of said bifurcated portions, the framework 3 located in said casing, said framework having a counter-shaft 4 journaled therein, the propeller-wheel 6 at the forward end of said counter-shaft and the miter-gear at the rear end thereof, the post 9 rising from the bottom of the casing, the vertical shaft 8, the lower end of said shaft journaled in said post 9, and the miter-gear secured to said vertical shaft in such position as to normally mesh with gear 7, substantially as shown and described.

2. In a water-motor, the combination of the Y-shaped casing, the framework 3 therein, the counter-shaft journaled in said framework, a propeller-wheel at the forward end of said counter-shaft and the miter-gear at the rear, collars 5 secured to said shaft at the sides of said framework, the gear 10 and shaft 8 for transmitting power from said counter-shaft and propeller, and the damper-like valve in front of said propeller, said valve consisting of parts 11 and 12, and the cables 13 and 14 connected with the movable member of said valve, all substantially as shown and described for the purpose set forth.

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

CHARLES W. HORTON.

Witnesses:

L. S. KNIGHT,
W. C. HOWARD.