No. 754,710. PATENTED MAR. 15, 1904.

M. P. SCHETZEL.

PROPELLING APPARATUS FOR VESSELS.

APPLICATION FILED JAN. 2, 1903.

NO MODEL.

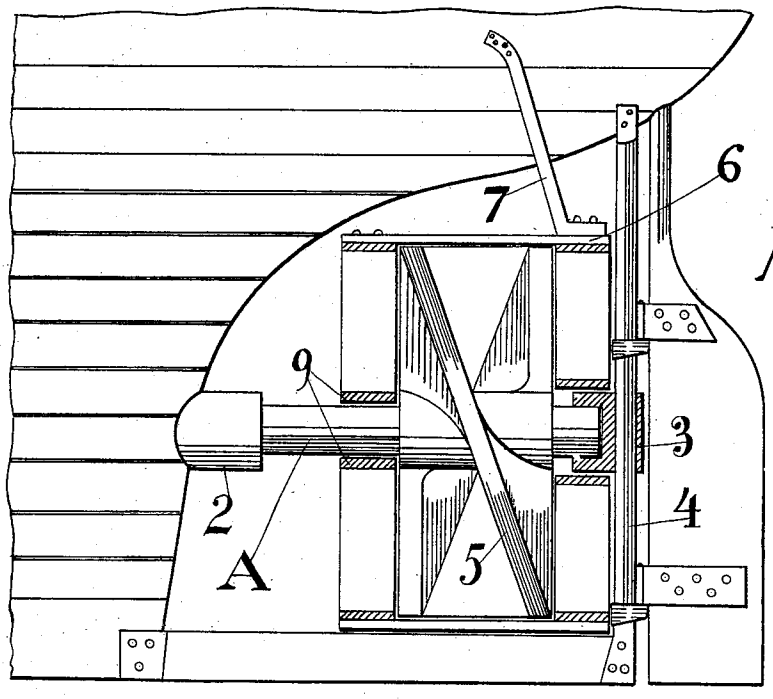


Fig. 1.

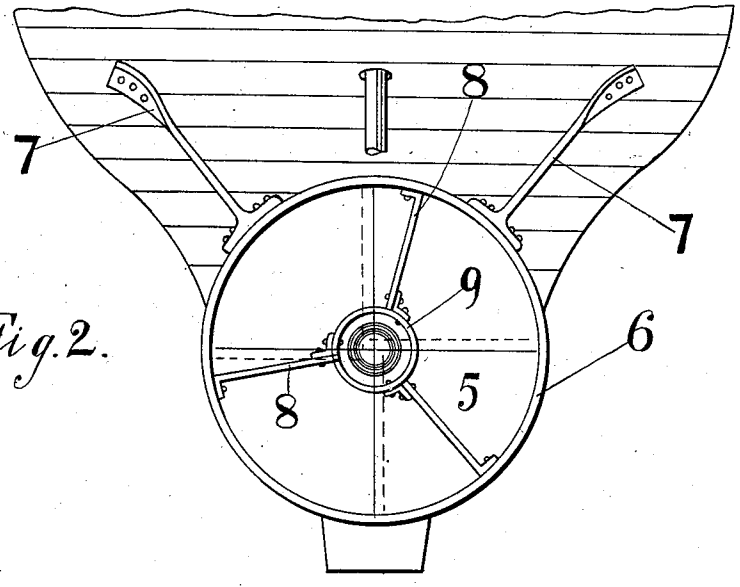


Fig. 2.

WITNESSES:

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No. 754,710. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

MARX PETER SCHETZEL, OF OAKLAND, CALIFORNIA.

PROPELLING APPARATUS FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 754,710, dated March 15, 1904.

Application filed January 2, 1903. Serial No. 137,483. (No model.)

To all whom it may concern:

Be it known that I, MARX PETER SCHETZEL, a citizen of the United States, residing at Oakland, county of Alameda, State of California, have invented an Improvement in Propelling Apparatus for Vessels; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an apparatus designed for the propulsion of vessels.

It consists, essentially, of a propeller formed with one or more blades secured to the propeller-shaft at either end of the vessel, a cylyndrical casing of greater diameter and length within which the propeller is revoluble, and a series of fixed cut-off blades located before and behind the propeller, whereby a rotary motion and churning of the water is prevented.

Referring to the accompanying drawings, Figure 1 is a side elevation showing the stern of the vessel in my device. Fig. 2 is a rear end view of the same.

A is a propeller-shaft passing out through the stuffing-box in the stern of the vessel in the usual manner, as shown at 2.

3 is a bearing for the outer end of the shaft, supported by a suitable post, as at 4, which also serves for the hanging and support of the rudder.

The propeller 5 is fixed upon the propeller-shaft and may be of any usual or desired number of blades and construction. Exterior to this propeller is a cylindrical casing 6, which is strongly supported from the vessel by braces, as at 7. This casing is of slightly larger interior diameter and also greater length than the propeller, so that the latter revolves easily without contact with the interior of the casing, which extends a short distance in front of and behind the propeller. Within this casing are fixed a plurality of thin plates 8 in planes which correspond with the direction of motion of the vessel, so that the edges of these plates will not materially obstruct the movement through the water. These plates extend radially from the interior of the casing toward the shaft, and their inner ends are preferably fixed to and supported by annular rings 9, having an interior diameter sufficiently greater than that of the propeller-shaft to be out of contact therewith. These plates may be fixed both in front of and behind the propeller, and the object is to act as guides, so that the action of the propeller will not create a rotary and churning motion of the water, the latter being prevented from acquiring this motion as it is drawn into the casing by the action of the propeller, and it is in the same manner delivered in a comparatively straight direction and without churning as it leaves the rear of the casing. By this means I am enabled to greatly improve the effective action of the propeller, first, by reason of the casing preventing the water from being thrown off by centrifugal action, and, secondly, by the plates which prevent the churning and rotary motion of the water.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of a propeller-shaft, a propeller fixed thereto, a vertical post in rear of the propeller and provided with a horizontal bearing for the rear end of the shaft, said post serving, also, for the hanging and support of the rudder, a cylinder and fixed braces extending therefrom, said cylinder projecting in front and rear of the propeller, rings surrounding the shaft proximate to each end of the propeller and having an interior diameter slightly in excess of that of the shaft, one of said rings inclosing the said horizontal bearing, and radial plates in front of and behind the propeller and connecting said rings and band.

In witness whereof I have hereunto set my hand.

MARX PETER SCHETZEL.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.