

(No Model.)

2 Sheets—Sheet 1.

J. SMITH.
VESSEL AND PROPELLER THEREFOR.

No. 566,423.

Patented Aug. 25, 1896.

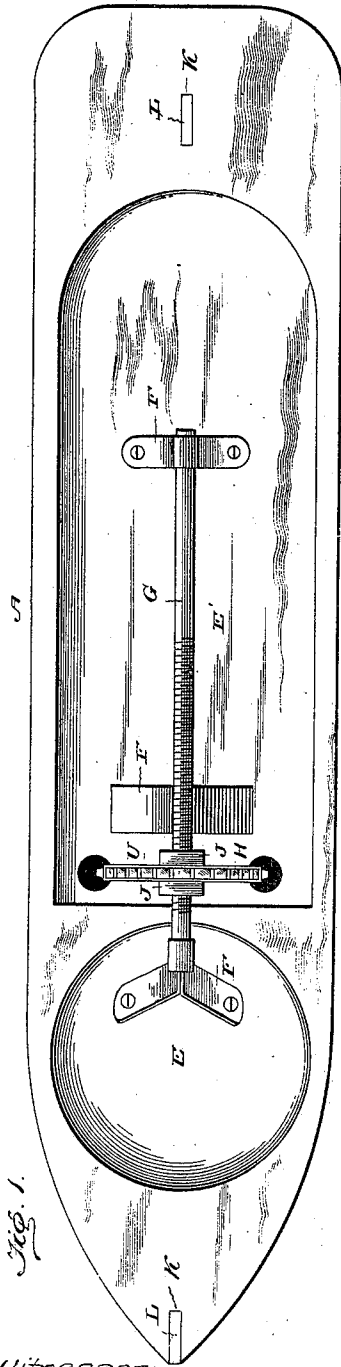


Fig. 1.

Witnesses:

Wm. C. Cushman
May Ed Moore

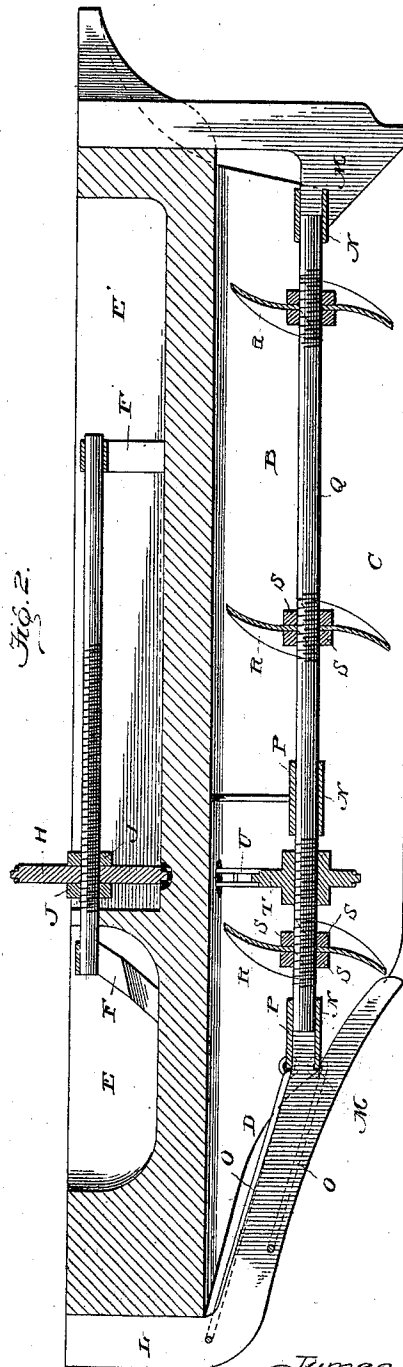


Fig. 2.

James Smith—
Inventor

By *Wm. C. Cushman*
Att'y.

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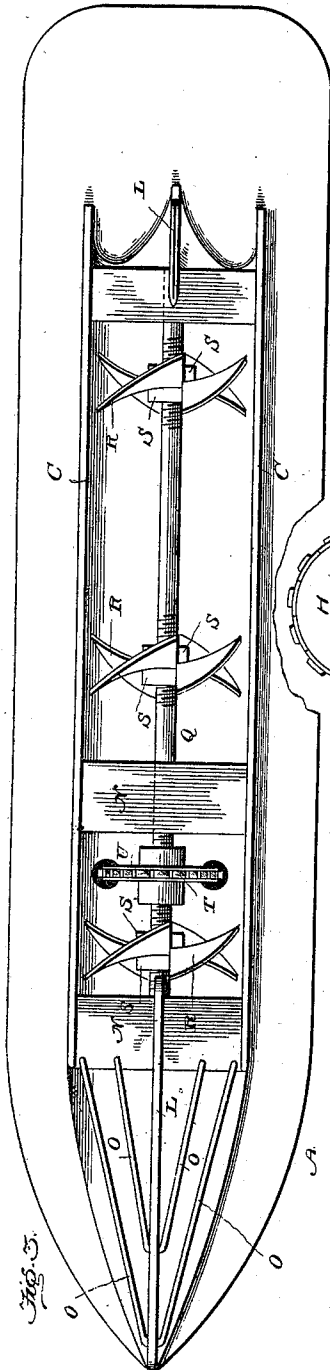


Fig. 3.

Witnesses:

Wm. C. Dashiell
May E. Brown

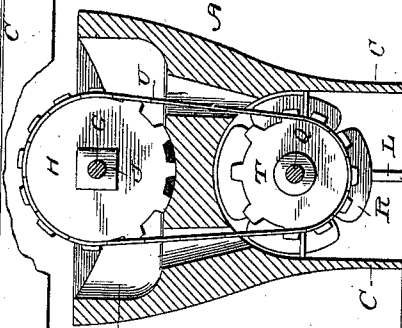


Fig. 4.

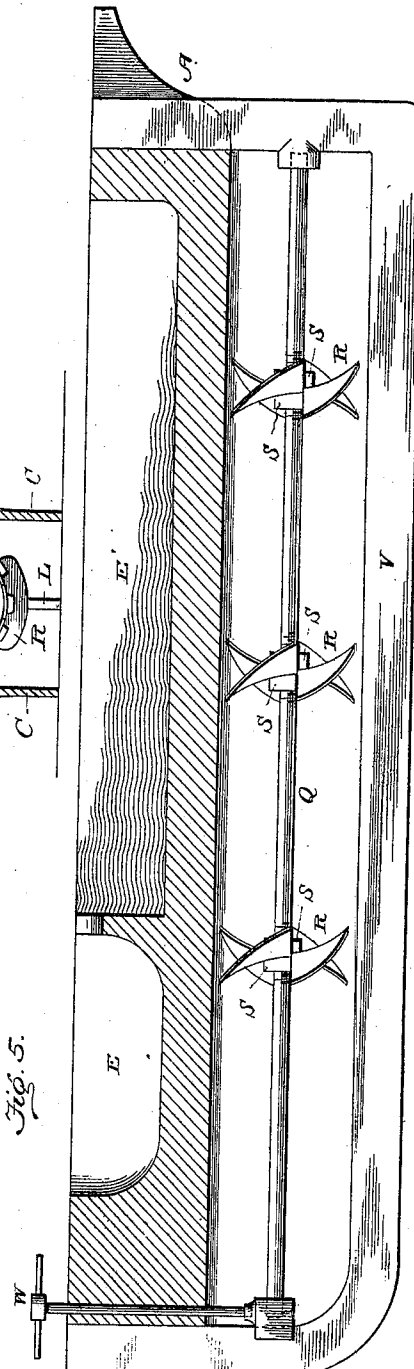


Fig. 5.

James Smith
Inventor
By J. M. Moore
Att'y

UNITED STATES PATENT OFFICE.

JAMES SMITH, OF BENTON, NEW YORK.

VESSEL AND PROPELLER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 566,423, dated August 25, 1896.

Application filed December 2, 1895. Serial No. 570,742. (No model.)

To all whom it may concern:

Be it known that I, JAMES SMITH, a citizen of the United States, residing at Benton, (Dresden P. O.,) in the county of Yates and State of New York, have invented certain new and useful Improvements in Vessels and Propellers Therefor; 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.

My invention relates to improvements in vessels and propellers therefor; and the objects of my invention are, first, the provision of a vessel in which a great amount of speed may be attained and which will ride smoothly in the water; second, to provide a vessel with an adjustable propelling mechanism which can be changed when desired to attain the best results; third, to provide a vessel which can be constructed at a comparatively low figure and which will be thoroughly efficient and practical.

To attain the desired objects, the invention consists of a vessel embodying novel features of construction and combination of parts substantially as disclosed herein.

Figure 1 represents a perspective view of a vessel constructed in accordance with and embodying my invention. Fig. 2 represents a central longitudinal sectional view thereof. Fig. 3 represents a bottom plan view. Fig. 4 represents a transverse sectional view. Fig. 5 represents a vertical section of a modified construction of my invention.

Referring by letter to the drawings, the letter A designates the body or hull of my vessel, which is formed from end to end on the under side with the channel B, which is circular or curved in cross-section and provides the two parallel longitudinal keels C, and near the bow or forward portion of the hull at D the keel is cut away by reason of the narrowing of the hull and for a purpose which will appear. The hold of the hull in this instance is divided into two compartments E and E', and in said compartments are arranged bearings F for the driving mechanism, which in this instance consists of the longitudinal-disposed shaft G, carrying the gear or toothed wheel H, which is retained in place by means of nuts and threads J, and

this shaft is driven from the engine by any desired connections. By means of the nut-and-thread connection or securing devices the toothed wheel may be adjusted, if desired.

I would here state that while I show this peculiar propelling driving mechanism I wish it to be understood that I do not limit myself to the use of this exact construction, but may use any desired construction of propeller-operating mechanism without departing from the spirit or sacrificing any of the advantage of my invention.

Fitting in grooves K in the bow and stern of the hull are the front short runner or keel L and the rear runner or keel L', the inner ends of said short keels being formed with kerfs or notches M, which engage the front and rear cross-pieces N, which serve to hold said keel in a steady and rigid position.

To the front portion of the front runner or short keel are connected the guards O, which are also secured to the bow of the hull and to the front cross-piece at the cut-away portion of the hull, and the purpose of these guards is to prevent obstructions, such as logs, ice, or other foreign matter, from passing into the central channel of the hull.

To the upper faces of the cross-bars are secured bearings P, in which is mounted the propeller-shaft Q, and said propeller-shaft carries the propellers R, which may differ from fore to aft in pitch, speed, or size and which are secured adjustably to the propeller-shaft by means of the thread-and-nut connections S. On the propeller-shaft is also secured the gear or toothed wheel T, which is in line with the gear-wheel mounted in the hold, and motion is imparted to said wheels and to the propeller-shaft through the medium of said gear-wheels and the driving-chain U.

In the modified form of my invention I use a single longitudinally-disposed central runner or keel V, the ends of which receive or form bearings for the propeller-shaft, and the forward or aft end of said propeller-shaft is connected to an adjusting device, as W, which extends up above the hull of the vessel and the purpose of which is to permit an adjustment of said propeller-shaft.

When the vessel is in motion, the forward short keel cuts through the water and allows

it to pass into the central channel of the hull, and the propellers, being arranged under the entire length of the hull and being rapidly rotated, insure great speed, and also cause the
5 boat to move smoothly and steadily through the water.

I claim—

1. A vessel having the hull provided with a central longitudinal channel forming two
10 parallel side keels, cross-pieces mounted in said keels, a propelling mechanism bearing in said cross-pieces, and a front and rear short runner or keel connected to the cross-pieces and to the hull.

15 2. The herein-described vessel having the

central channel forming the parallel side keels, the central front and rear runners or short keels, the cross-pieces connected to the side keels and having central bearings, the propeller-shaft journaled in said bearings and
20 carrying the propellers, mechanism for driving the propellers and the guards secured to the front short keel and cross-piece.

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

JAMES SMITH.

Witnesses:

PERRY DEMISTON,
CLARENCE H. FERENBAUGH.