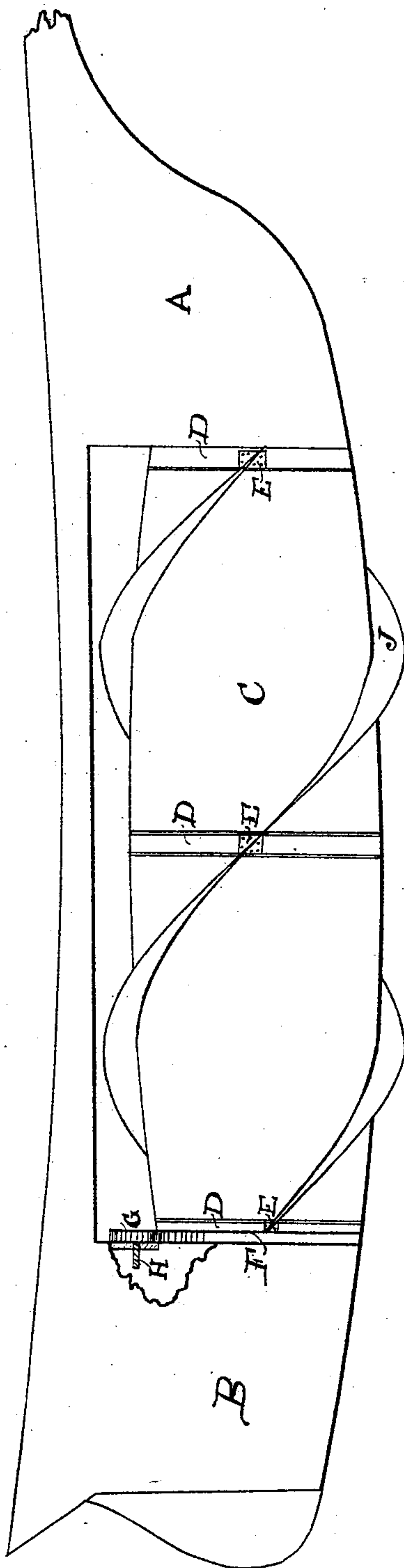


(No Model.)

A. H. CARPENTER.
MARINE PROPELLER.

No. 516,261.

Patented Mar. 13, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

AMOS H. CARPENTER, OF STOCKTON, CALIFORNIA.

MARINE PROPELLER.

SPECIFICATION forming part of Letters Patent No. 516,261, dated March 13, 1894.

Application filed April 5, 1893. Serial No. 469,187. (No model.)

To all whom it may concern:

Be it known that I, AMOS H. CARPENTER, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Marine Propellers; and I do 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 drawing, and to the letters of reference marked thereon, which forms a part of this specification.

The object of my invention is to provide a vessel a portion of the hull of which is composed of one or more buoyant water-tight cylinders, which are rigidly attached at each of their ends to the hull proper, such cylinders being provided on their periphery with two or more encircling collars to which are attached one or more exterior longitudinal spiral propeller blades. This I accomplish by the devices and combination of devices which will now be fully described in the specification and pointed out in the claims.

The figure is a side elevation and represents such parts of a vessel's hull as is necessary to illustrate my improvement.

Similar letters of reference indicate corresponding parts.

A represents the forward or bow portion of a vessel's hull, and B the rear or stern portion of the same. In an open space between the bow and stern and directly beneath the deck is located one or more buoyant water-tight cylinder compartments, C, which may be solid or hollow as is desired, and if hollow may be used as a means of communication between the bow and stern and for freight purposes.

On the periphery of the cylindrical compartment C, one or more collars D are flexibly attached or loosely mounted at suitable intervals. One or more exterior longitudinal spiral propeller blades J, are rigidly attached to the outside of each of these collars D, by means of plates E.

F, is a cogwheel rigidly attached to one of the end collars which cogwheel engages with

a pinion G, which is mounted on a suitable shaft H, which extends into the interior of the stern portion of the hull and connects with the motive power which may be of any desired style.

The collar bearings may be provided with ball bearing or other antifriction device as may be desired. Power being communicated to the pinion G, the propeller blades are rotated round the cylindrical portion of the hull by means of the connecting mechanism, thus causing the vessel to move. The collars D, are seated in grooves or guide-ways cut in the periphery of the cylinders for that purpose, thus lessening the resistance. They may, however, revolve upon the surface of the cylinders if desired. It will then be readily seen that by my invention, I provide a simple and compact propeller, which will greatly enhance the speed of the vessel and make a great saving of fuel.

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

1. A vessel's hull composed of the bow portion A, the stern portion B, a cylindrical water-tight compartment C, rigidly attached at its respective ends to the bow and stern portions and provided at its periphery with revolving collars, longitudinal spiral propeller flanges attached to such collars, and suitable machinery for operating such collars and attached flanges, all substantially as shown and described.

2. In a marine vessel, a hull which is composed in part of one or more water-tight cylindrical compartments, located and rigidly attached below the deck to the stern and bow portions of the hull, the combination with such cylinders of revolving collars having attached thereto longitudinal spiral propeller flanges, such collars being operated by a suitable driving mechanism, all substantially as shown and described.

3. In a marine vessel, the combination with the hull A, B, C, of the revolving collars D, the plates E, the exterior longitudinal spiral propeller flanges J, the cogwheel F, the pinion G, and the shaft H, provided with suit-

able driving machinery, all substantially as shown and described.

4. In a vessel, the combination with a hull comprising a fixed cylinder C; of collars
5 loosely mounted upon the fixed cylinder, longitudinal, spiral, propeller flanges fixedly connected to the collars and a suitable means for turning or revolving the collars, upon the cyl-

inder, substantially as and for the purpose set forth. 10

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

AMOS H. CARPENTER.

Witnesses:

JOSHUA B. WEBSTER,

JAMES T. SUMMERVILLE.