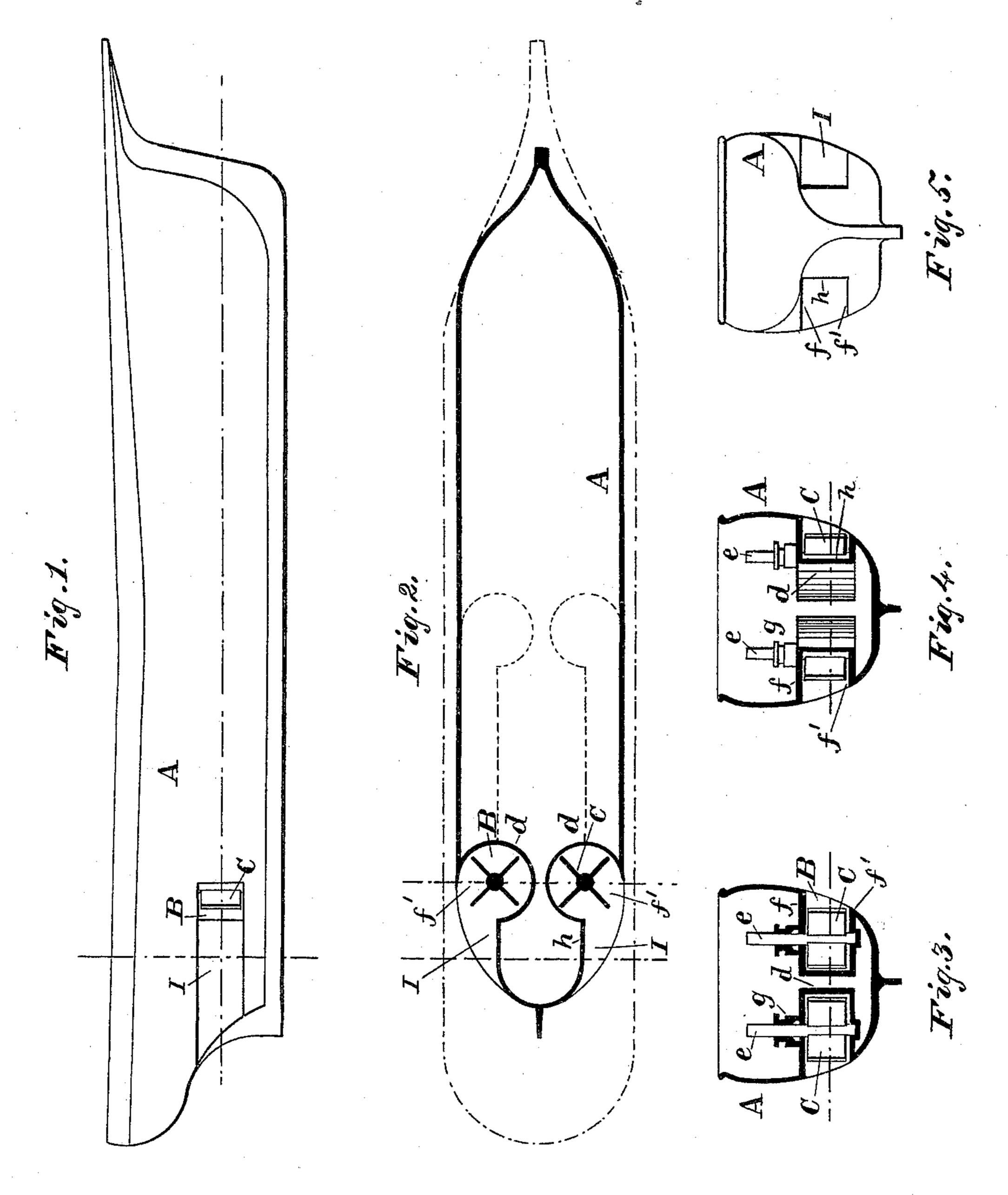
(No Model.)

J. KELLY.

PROPULSION OF SHIPS, &c.

No. 286,205.

Patented Oct. 9, 1883.



Witnesses: a. E. Eader John O. Morris. Inventor
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United States Patent Office.

JOHN KELLY, OF BALTIMORE, MARYLAND.

PROPULSION OF SHIPS, &c.

SPECIFICATION forming part of Letters Patent No. 286,205, dated October 9, 1883.

Application filed July 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, John Kelly, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain 5 new and useful Improvements in Boats, of which the following is a specification.

My invention relates to an improvement in boats, ships, or other vessels propelled by wheels driven by steam-power; and it consists in a certain construction, which will be described, and then indicated in the claim.

In the drawings hereto annexed, in which the invention is illustrated, Figure 1 is a side view of a vessel. Fig. 2 is a longitudinal horizontal section on the line shown in Fig. 1. Fig. 3 is a vertical cross-section on the line xx. Fig. 4 is a vertical cross-section on the line yy. Fig. 5 is an elevation of the stern or end view of the vessel, showing the wheels removed.

The letter A designates the hull of the vessel. In each side of the hull a recess, B, is formed for the occupancy of the wheels C, which turn in a horizontal plane. The vertical walls d of this recess are partly circular in shape, as shown in Fig. 2, so as to allow the paddles of the revolving wheel to fit reasonably close thereto. The vertical shaft e, on which each wheel is mounted, has bearing in the top and bottom casing, ff, of the recess.

30 A stuffing-box, q, about the shaft in the top

30 A stuffing-box, g, about the shaft in the top casing excludes the water. A vertical wall, h, extends from the wheel-recess to the stern. This wall is straight fore and aft and on a line with the vertical wheel-shaft. The horizontal top and bottom casing of the recess also extends to the stern, and these, with the straight wall h, form in the side of the hull a channel or passage, I, which extends from the wheel to the stern. This channel is the leading fea-

40 ture of my improvement, and serves for the clearance of the water on which the wheel has acted.

The drawings show the recesses and wheels

located not far from the stern. In this case the channels I are comparatively short; but 45 the recesses and wheels may be located at any point in the side of the hull, and the construction of the channel may vary from that described. Fig 2, therefore, indicates by broken lines that the wheels may be located amidships. The channel I is to be provided in any event, and should extend from the wheel-recess to the stern.

I am aware that wheels turning in a horizontal plane in recesses formed in the side of 55 the hull are not new; but the construction in the side of the hull of the channel or passage I, as shown, overcomes objections heretofore existing.

The wheels will be almost always or perhaps 60 constantly submerged, and the construction of the recess in front of the wheel, as shown, is such as to prevent drag as the vessel pushes forward. Any known means may be employed to revolve the wheels, and the same may be 65 supplied by any skilled mechanic. It is therefore deemed unnecessary to here show or describe such.

Having described my invention, I claim and desire to secure by Letters Patent of the United 70 States—

A boat, ship, or other vessel having a recess, B, in each side of the hull, a wheel, C, adapted to turn in a horizontal plane and occupying the recess, and a channel in the side of the 75 hull, composed of a horizontal top and bottom and a vertical wall, h, extending straight fore and aft, said channel extending from the wheel-recess to the stern, as shown and described.

In testimony whereof I affix my signature in 80 presence of two witnesses.

JOHN KELLY.

Witnesses:

JOHN T. MADDOX, JOHN E. MORRIS.